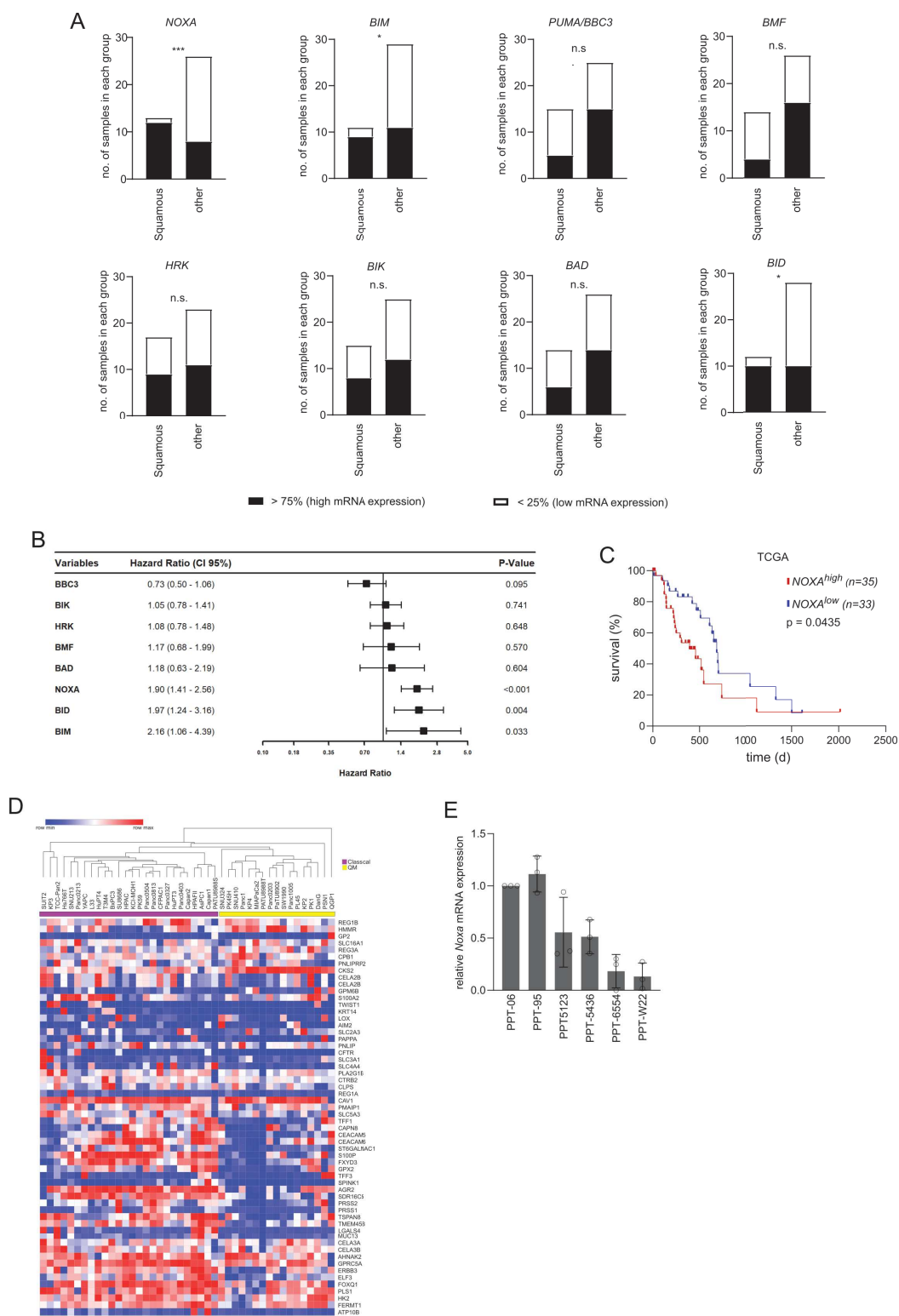
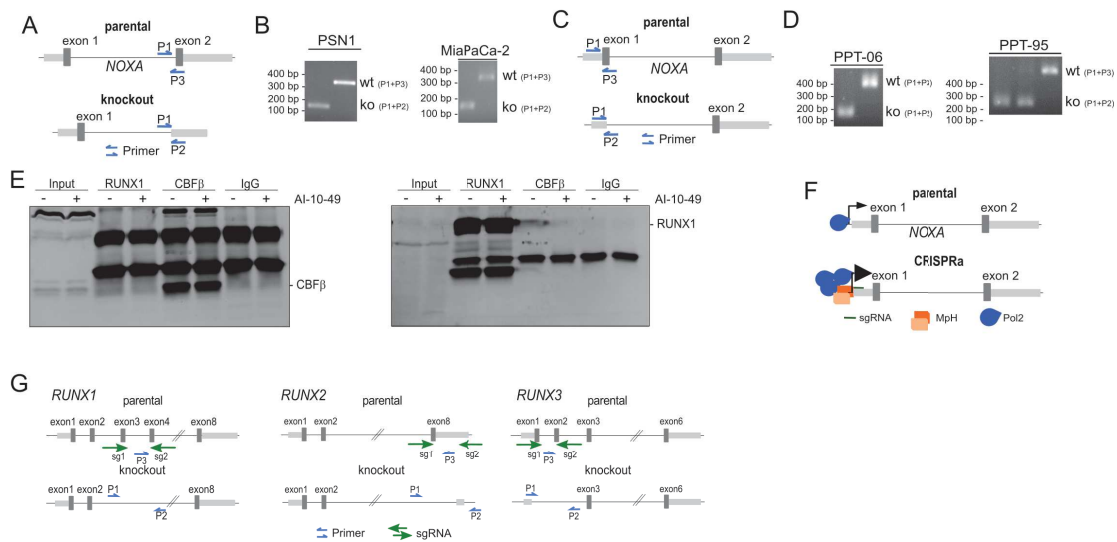


Supplementary Information



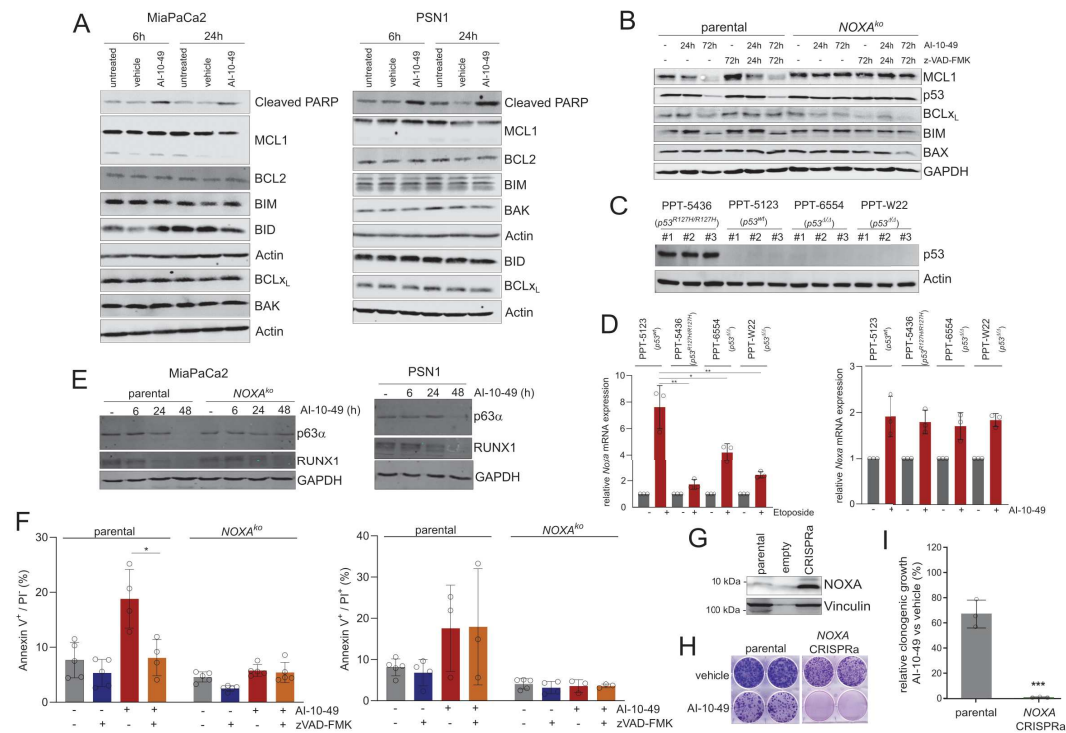
SFigure 1 Classical BH3 only mRNA expression and survival analysis in PDAC

A) mRNA expression of BH3-only differentially expressed in PDAC subtypes classified in squamous and other. Fisher's exact test, * $p < 0.01$, ** $p < 0.001$, *** $p < 0.0001$. **B**) Simple Cox Regression models were constructed using the expression of all "classical BH3 family members". Genes with p-values < 0.1 were used to construct a multiple Cox regression model. Out of all members, only *NOXA* significantly correlated with inferior survival (HR = 1.9, $p < 0.001$), while increasing expression of *BBC3/PUMA* was associated with higher overall survival ((HR = 0.73, $p = 0.095$)). **C**) Survival of PDAC patients with a low (lower quartile) and a high (upper quartile) *NOXA* mRNA expression derived from curated TCGA datasets of PDAC patients as described (13). Log rank test as indicated. **D**) Human PDAC cell line subtypes according to Collisson et al. (8). QM: quasi-mesenchymal.



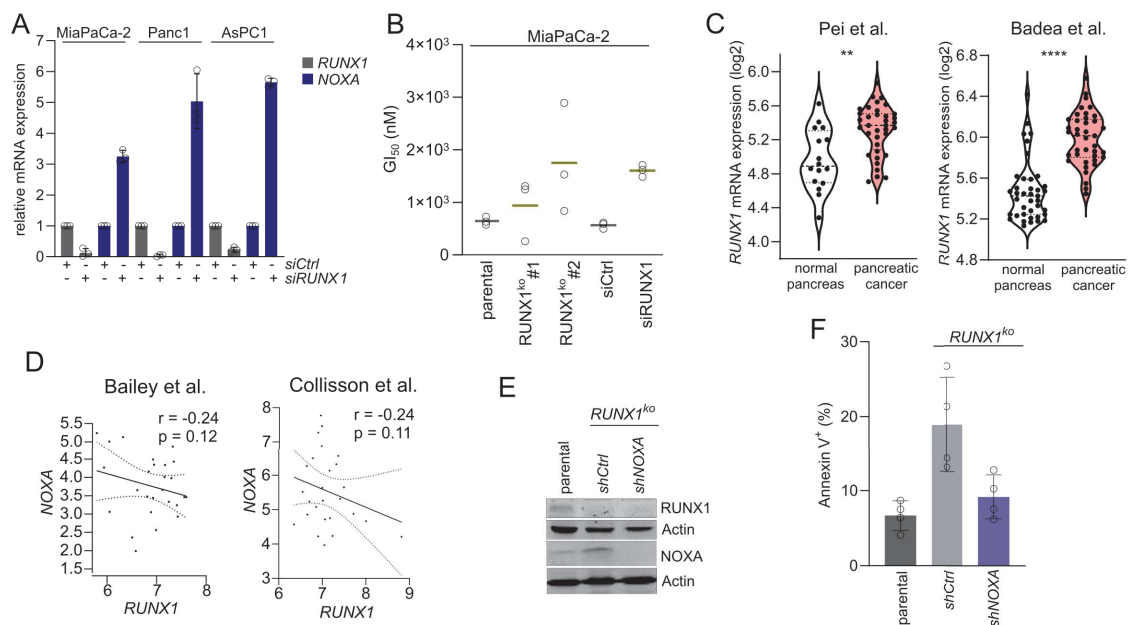
SFigure 2 CRISPR/Cas9 knockout and CRISPRa strategies and co-immunoprecipitation of RUNX1 and CBFβ in AI-10-49 treated MiaPaCa-2 cells

A) Scheme of the human *NOXA* gene (parental and knockout) with indicated primer binding sites. **B)** Genotyping PCR of indicated human PDAC cells to screen for a *NOXA* knockout. **C)** Scheme of the murine *NOXA* gene (parental and knockout) with indicated primer binding sites. **D)** Genotyping PCR of indicated murine PDAC cells to screen for a *NOXA* knockout. **E)** Co-immunoprecipitation of RUNX1 and CBFβ in MiaPaCa-2 cells. Cells were treated for 6h with 3μM of AI-10-49 or DMSO as vehicle control. Either a RUNX1 or a CBFβ antibody was used for the Co-IP as indicated. An IgG pulldown was used as negative control. **F)** Schematic representation of dCas9-VP64-MS2-HSF1 driven *NOXA* overexpression. One sgRNA drives dCas9 towards the *NOXA* promoter region to induce its expression. **G)** Schematic representation of RUNX gene family knockout. For RUNX1 knockout, 2 sgRNAs were designed to excise the gene region from exon 3 to exon 4. For RUNX2 knockout, 2 sgRNAs were designed to target excision of beginning of exon 8 until stop codon. For RUNX3 knockout, 2 sgRNAs target upstream exon 1 and end of exon 2.



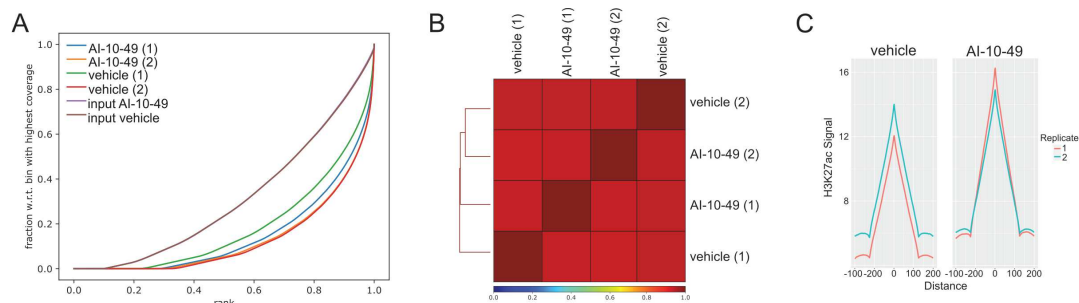
SFigure 3 RUNX1 inhibition by AI-10-49 induces NOXA associated apoptosis

A) Western blot analysis of indicated BCL2 family members and cleaved PARP upon 6h and 24h treatment with 3μM of AI-10-49 in MiaPaCa-2 and PSN1 cells. Actin served as loading control. **B)** Protein expression analysis of MCL1, p53, BCL-xL, BIM and BAX upon 24h and 72h treatment with 3μM of AI-10-49 and the pan-caspase inhibitor zVAD-FMK in parental and NOXA^{ko} MiaPaCa-2 cells. GAPDH served as loading control. **C)** p53 Western Blot of indicated murine PDAC cell lines to determine basal p53 expression of n=3 biological replicates. Actin served as loading control. **D)** Relative Noxa mRNA expression in murine PDAC cells harboring wild type p53 (PPT-5123), mutant p53 (PPT-5436) and deleted p53 (PPT-6554 and PPT-W22). Cells were treated for 6h with 12.5μg/ml Etoposide, 3μM AI-10-49 and DMSO as vehicle control. Actin served as housekeeping gene. **E)** Western blot of RUNX1 and p63α upon 6, 24 and 48h treatment with 3μM of AI-10-49 in parental and NOXA^{ko} MiaPaCa-2 cells and parental PSN1 cells. GAPDH served as loading control. **F)** AnnexinV/PI FACS of parental and NOXA^{ko} MiaPaCa-2 cells upon 24h treatment with 3μM AI-10-49 and 50μM zVAD-FMK. Upper panel: AnnexinV⁺/PI⁻ fraction. Lower panel: Annexin V⁺/PI⁺ fraction. **G)** Western blot of NOXA protein in MiaPaCa-2 cells. Vinculin served as loading control. **H)** Representative image of clonogenic assay in MiaPaCa-2 parental and NOXA-CRISPR-dCas9-VP64-MS2-HSF1-mediated activation (NOXA-CRISPRa). Cells were treated for 3 weeks with vehicle (DMSO) or 400 nM AI-10-49. n=4; all biological replicates were performed as technical triplicates. **I)** Quantification of clonogenic assay in parental and NOXA-CRISPRa. Each treatment was quantified and normalized against its DMSO control. Depicted is the number of colonies in % per treatment compared to vehicle. P value of ANOVA test ***p<0.001.



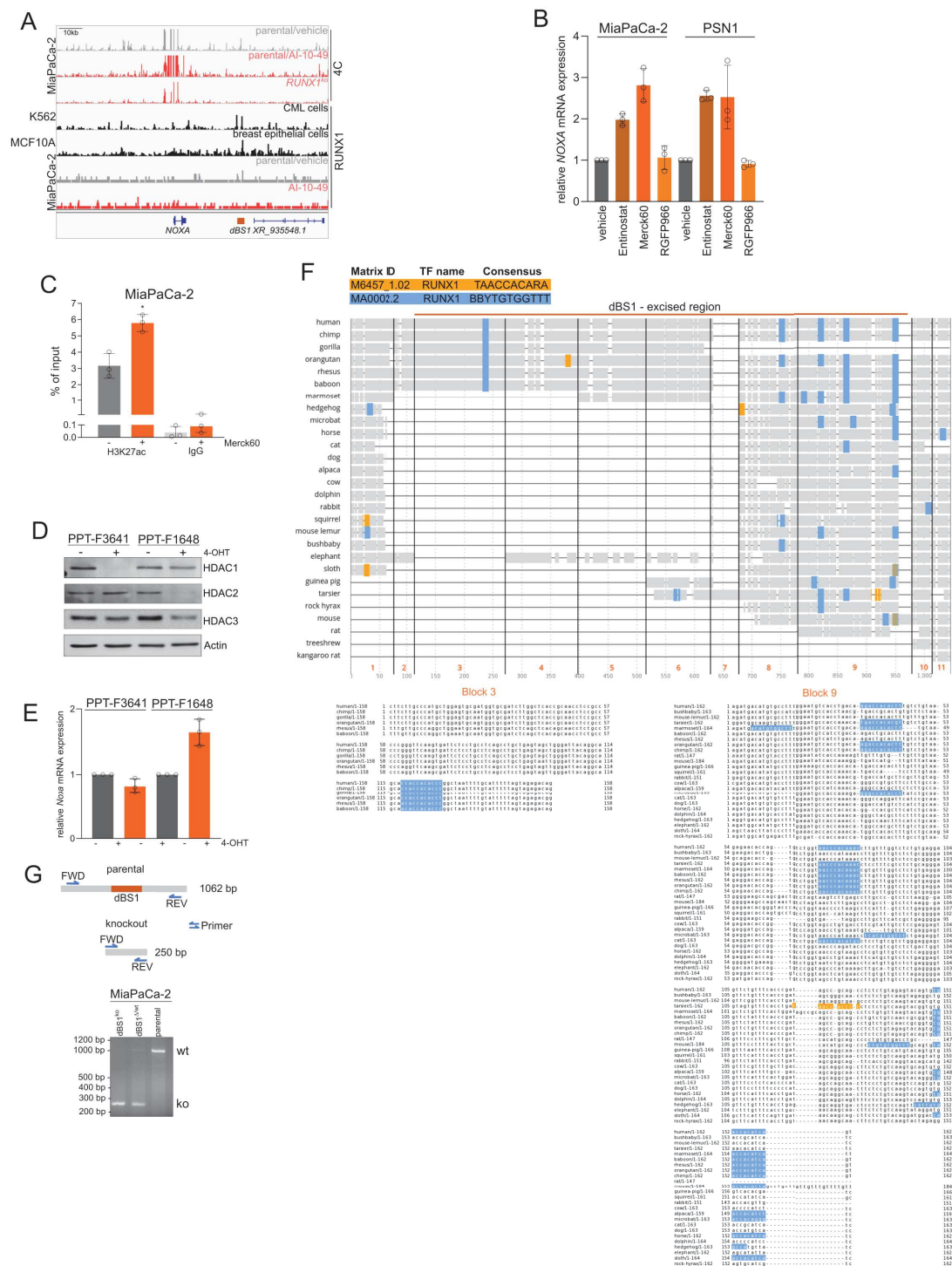
SFigure 4 *RUNX1* is upregulated in pancreatic cancer and suppresses apoptosis via *NOXA* repression

A) Relative *RUNX1* and *NOXA* expression in MiaPaCa-2, Panc-1 and AsPC1 cells upon treatment with a pool of specific siRNAs targeting *RUNX1*. Cells were treated for 72h with either scrambled siRNAs (Ctrl) or *RUNX1* specific siRNAs. Actin was used as housekeeping gene ($\Delta\Delta Ct$). **B)** GI₅₀ values generated in viability assays using CellTiterGlo in parental, RUNX1^{ko} and cells, determined 72h after AI-10-49 treatment. In addition cells were treated 48h with siRNA (Ctrl and *RUNX1*) and treated for additional 72 h with AI-10-49. **C)** *RUNX1* mRNA expression of patient samples from normal pancreas and pancreatic cancer GEO accession no. GSE15471, GSE16515 **D)** Pearson correlation (incl. linear regression with 95% confidence bands) of PDAC patient samples from the squamous subtype (6) and from microdissected PDAC patient samples (8). **E)** Western blot of *RUNX1* and *NOXA* in parental and *RUNX1*^{ko} MiaPaCa-2 cells. *RUNX1*^{ko} cells were stably transduced with either a control shRNA or a *NOXA* specific shRNA. Actin served as loading control. **F)** Annexin V FACS analysis of cells as indicated in E).



SFigure 5 Quality assessment of H3K27ac ChIP-seq.

A) Fingerprint plot of all replicates including the input controls. Samples with uniform distribution across the genome (e.g. input controls) should plot across the diagonal line, while samples with enrichment across small genomic regions show a steep rise towards the end of the plot. **B)** Correlation plot calculated using the Spearman coefficient quantified by the horizontal bar at the bottom of the plot. **C)** Average signal profile across peaks calculated with macs2 callpeak. The profile was generated with ChIPQC.



SFigure 6 *RUNX1 suppresses NOXA via the dBS1 downstream enhancer in PDAC cells*

A) Chromosome conformation capture (4C, spatial chromatin organisation) and ChIPseq analysis for RUNX1 in indicated cell lines. MiaPaCa-2 cells were treated with vehicle (DMSO)- or 3 μ M AI-10-49 for 6h. RUNX1 ChIPseq of MCF10A breast epithelial cells (GSE121370) and K562 CML cells (GSE96253) are displayed. The NOXA downstream binding site 1 (dBS1) is depicted. **B)** Relative NOXA mRNA expression in MiaPaCa-2 and PSN1 cells. Cells were treated with 4 μ M Entinostat, 10 μ M Merck60 and 10 μ M RGFP966 for 24h. Expression was determined by $\Delta\Delta$ Ct method. Actin served as housekeeping control. **C)** ChIP-qPCR analysis at the NOXA promoter for H3K27ac and IgG in DMSO- or Merck60 treated MiaPaCa-2 cells. **D)** Western Blot of HDAC1, HDAC2 and HDAC3 in murine PDAC cells harboring a dual recombination system. 600 nM 4-Hydroxytamoxifen (4-OHT) treatment induced CreERT2 shuttling and excision of either Hdac1 (PPT-F3641) or Hdac2 (PPT-F1648). Actin served as loading control. **E)** Relative Noxa mRNA expression in murine PPT-F3641 and PPT-F1648 cells. Cells were treated with 600nM 4-OHT for 48h. Actin served as housekeeping control. **F)** Sequence analysis using ConTra v3 to identify conserved RUNX1 consensus sequences (as indicated) in the dBS1 region. **G)** Upper Panel: Scheme of the human dBS1 region (parental and knockout) with indicated primer binding sites. Lower Panel: Genotyping PCR of MiaPaCa-2 cells to screen for a dBS1 knockout. wt: wildtype; ko: knockout.

STable 1 Mean fold change of drug hits from drug screening experiment

| Drug ID | murine (PPT-06, mean FC) | murine (PPT-95, mean FC) | human (MiaPaCa-2, mean FC) | human (PSN1, mean FC) |
|---------------------|--------------------------|--------------------------|----------------------------|-----------------------|
| 5-Iodotubercidi | 0.697551669 | 0.59652334 | 0.678069267 | 0.655648402 |
| Akti-1/2 | 0.77801657 | 0.818832421 | 0.808422673 | 0.678160989 |
| AI-10-49 | 0.58185133 | 0.752506022 | 0.724875128 | 0.442834224 |
| ARQ 621 | 0.810900662 | 0.662279674 | 0.532237786 | 0.495519685 |
| AZD3965 | 0.807975604 | 0.835695353 | 0.761566841 | 0.733637408 |
| Bardoxolone | 0.728814762 | 0.786719039 | 0.666158609 | 0.861120897 |
| BMH-21 | 0.775486807 | 0.821331487 | 0.753696424 | 0.854677692 |
| Cabazitaxel | 0.687954413 | 0.792304533 | 0.730559224 | 0.85795464 |
| Cobimetinib | 0.651555292 | 0.592536797 | 0.744323905 | 0.691249518 |
| Cyclocytidin | 0.637655849 | 0.611897605 | 0.746272004 | 0.635523283 |
| Cytarabine | 0.788802904 | 0.80747339 | 0.491273437 | 0.799297143 |
| Daunorubicin HCl | 0.71098004 | 0.680524788 | 0.559600586 | 0.564495144 |
| Docetaxel | 0.665931425 | 0.758405569 | 0.643824817 | 0.719812164 |
| Doxorubicin | 0.486583769 | 0.825792528 | 0.628431993 | 0.488826032 |
| Epirubicin | 0.8057112 | 0.818015821 | 0.61775799 | 0.749652071 |
| Epothilone A | 0.471022424 | 0.825242054 | 0.787457525 | 0.709082368 |
| EW-7197 | 0.839264927 | 0.856722262 | 0.446726179 | 0.628077498 |
| Gemcitabine HCl | 0.736133278 | 0.640284658 | 0.809560884 | 0.5754011 |
| Ispinesib | 0.735186603 | 0.742199154 | 0.590401371 | 0.847792622 |
| Ixazomib | 0.208819858 | 0.80509004 | 0.606506522 | 0.66825473 |
| JIB-04 | 0.544119798 | 0.556485693 | 0.535948491 | 0.800040317 |
| Lapatinib | 0.811521831 | 0.697928606 | 0.819202823 | 0.696137408 |
| LY2090314 | 0.727705801 | 0.674064583 | 0.334715693 | 0.741069826 |
| Mitomycin C | 0.6867993 | 0.767537757 | 0.791302374 | 0.790956516 |
| Mitoxantrone | 0.616337041 | 0.857718605 | 0.764589175 | 0.699412095 |
| NMS-P937 | 0.68066607 | 0.84515639 | 0.636383958 | 0.627655824 |
| Oprozomib | 0.387475507 | 0.853623273 | 0.472190883 | 0.715697982 |
| Patupilone | 0.632361091 | 0.834376038 | 0.601694425 | 0.691840201 |
| PD0325901 | 0.735345502 | 0.700588421 | 0.624679809 | 0.781275417 |
| Pemetrexed | 0.760058196 | 0.692145356 | 0.818978791 | 0.827165002 |
| PIK-75 HCl | 0.526790222 | 0.734813145 | 0.750960593 | 0.852069375 |
| Pyrimethamine | 0.790637045 | 0.663520844 | 0.805433769 | 0.804375305 |
| R03280 | 0.763873828 | 0.688214721 | 0.585461281 | 0.69316623 |
| Reversine | 0.678099891 | 0.673221738 | 0.627707044 | 0.480530187 |
| Rigosertib | 0.71560711 | 0.849478811 | 0.736286871 | 0.673294902 |
| S8140 | 0.50002162 | 0.583824874 | 0.550004965 | 0.39459134 |
| SCI 44 | 0.50593481 | 0.649366143 | 0.733196999 | 0.741808368 |
| Tanespimycin | 0.167635547 | 0.803288954 | 0.324399469 | 0.796975317 |
| Topotecan HCl | 0.732574738 | 0.814587675 | 0.548072215 | 0.702401576 |
| Trametinib | 0.792930882 | 0.434991924 | 0.668208268 | 0.587135133 |
| VER-50589 | 0.768950622 | 0.641514577 | 0.560220875 | 0.84829155 |
| Vinblastine sulfate | 0.662075051 | 0.693725966 | 0.638497336 | 0.458058616 |
| Vincristine sulfate | 0.631723409 | 0.724036904 | 0.66536624 | 0.64397415 |
| Vinorelbine | 0.799688702 | 0.837006588 | 0.81981898 | 0.748849828 |
| Volasertib | 0.746335002 | 0.712270911 | 0.809668699 | 0.713629308 |
| WZB117 | 0.818468907 | 0.644924572 | 0.733106087 | 0.774016361 |

STable 2 *SwissTargetPrediction of AI-10-49*

| Target | Common name | Uniprot ID | ChEMBL ID | Target Class | Probability* |
|--|-----------------------------------|------------------|---------------|-------------------------------------|--------------|
| Runt-related transcription factor 1/Core-binding factor subunit beta | CBFB | Q13951 | CHEMBL1615386 | Unclassified protein | 0.14368097 |
| Bombesin receptor subtype-3 | BRS3 | P32247 | CHEMBL4080 | Family A G protein-coupled receptor | 0 |
| Anandamide amidohydrolase | FAAH | O00519 | CHEMBL2243 | Enzyme | 0 |
| Serine/threonine-protein kinase PIM3 | PIM3 | Q86V86 | CHEMBL5407 | Kinase | 0 |
| Cannabinoid receptor 2 | CNR2 | P34972 | CHEMBL253 | Family A G protein-coupled receptor | 0 |
| Beta amyloid A4 protein | APP | P05067 | CHEMBL2487 | Membrane receptor | 0 |
| Cholesteryl ester transfer protein | CETP | P11597 | CHEMBL3572 | Other ion channel | 0 |
| Cathepsin S | CTSS | P25774 | CHEMBL2954 | Protease | 0 |
| Corticotropin releasing factor receptor 1 (by homology) | CRHR1 | P34998 | CHEMBL1800 | Family B G protein-coupled receptor | 0 |
| Cytochrome P450 2C9 | CYP2C9 | P11712 | CHEMBL3397 | Cytochrome P450 | 0 |
| Cytochrome P450 3A4 | CYP3A4 | P08684 | CHEMBL340 | Cytochrome P450 | 0 |
| PI3-kinase p110-delta subunit | PIK3CD | O00329 | CHEMBL3130 | Enzyme | 0 |
| PI3-kinase p110-beta subunit | PIK3CB | P42338 | CHEMBL3145 | Enzyme | 0 |
| PI3-kinase p110-gamma subunit | PIK3CG | P48736 | CHEMBL3267 | Enzyme | 0 |
| PI3-kinase p110-alpha subunit | PIK3CA | P42336 | CHEMBL4005 | Enzyme | 0 |
| Matrix metalloproteinase 9 | MMP9 | P14780 | CHEMBL321 | Protease | 0 |
| Matrix metalloproteinase 2 | MMP2 | P08253 | CHEMBL333 | Protease | 0 |
| Tyrosine-protein kinase receptor TYRO3 | TYRO3 | Q06418 | CHEMBL5314 | Kinase | 0 |
| Estradiol 17-beta-dehydrogenase 2 | HSD17B2 | P37059 | CHEMBL2789 | Enzyme | 0 |
| Estradiol 17-beta-dehydrogenase 1 | HSD17B1 | P14061 | CHEMBL3181 | Enzyme | 0 |
| Complement factor D | CFD | P00746 | CHEMBL2176771 | Protease | 0 |
| Nerve growth factor receptor Trk-A | NTRK1 | P04629 | CHEMBL2815 | Kinase | 0 |
| LXR-alpha | NR1H3 | Q13133 | CHEMBL2808 | Nuclear receptor | 0 |
| LXR-beta | NR1H2 | P55055 | CHEMBL4093 | Nuclear receptor | 0 |
| Transient receptor potential cation channel subfamily M member 8 | TRPM8 | Q7Z2W7 | CHEMBL1075319 | Voltage-gated ion channel | 0 |
| Vanilloid receptor | TRPV1 | Q8NER1 | CHEMBL4794 | Voltage-gated ion channel | 0 |
| Hepatic lipase | LIPC | P11150 | CHEMBL2127 | Enzyme | 0 |
| Endothelial lipase | LIPG | Q9Y5X9 | CHEMBL5080 | Hydrolase | 0 |
| Cathepsin K | CTSK | P43235 | CHEMBL268 | Protease | 0 |
| Cathepsin L | CTSL | P07711 | CHEMBL3837 | Protease | 0 |
| MAP kinase ERK2 | MAPK1 | P28482 | CHEMBL4040 | Kinase | 0 |
| Macrophage colony stimulating factor receptor | CSF1R | P07333 | CHEMBL1844 | Kinase | 0 |
| N-lysine methyltransferase SMYD2 | SMYD2 | Q9NRG4 | CHEMBL2169716 | Writer | 0 |
| Phosphodiesterase 2A | PDE2A | O00408 | CHEMBL2652 | Phosphodiesterase | 0 |
| Phosphodiesterase 10A | PDE10A | Q9Y233 | CHEMBL4409 | Phosphodiesterase | 0 |
| TAK1/TAB1 | TAB1 MAP3K7 | Q15750 O43318 | CHEMBL3038499 | Kinase | 0 |
| Sonic hedgehog protein (by homology) | SHH | Q15465 | CHEMBL5602 | Unclassified protein | 0 |
| Plasminogen | PLG | P00747 | CHEMBL1801 | Protease | 0 |
| Ribosomal protein S6 kinase 1 | RPS6KB1 | P23443 | CHEMBL4501 | Kinase | 0 |
| Cannabinoid receptor 1 | CNR1 | P21554 | CHEMBL218 | Family A G protein-coupled receptor | 0 |
| Trace amine-associated receptor 1 (by homology) | TAAR1 | Q96RJ0 | CHEMBL5857 | Family A G protein-coupled receptor | 0 |
| Matrix metalloproteinase 3 | MMP3 | P08254 | CHEMBL283 | Protease | 0 |
| Matrix metalloproteinase 1 | MMP1 | P03956 | CHEMBL332 | Protease | 0 |
| Matrix metalloproteinase 14 | MMP14 | P50281 | CHEMBL3869 | Protease | 0 |
| Matrix metalloproteinase 8 | MMP8 | P22894 | CHEMBL4588 | Protease | 0 |
| Serotonin 7 (5-HT7) receptor | HTR7 | P34969 | CHEMBL3155 | Family A G protein-coupled receptor | 0 |
| Serotonin 6 (5-HT6) receptor | HTR6 | P50406 | CHEMBL3371 | Family A G protein-coupled receptor | 0 |
| Hormone sensitive lipase | LIPE | Q05469 | CHEMBL3590 | Enzyme | 0 |
| Voltage-gated potassium channel | KQT; KCNQ2(Kv7.2)/KCNQ3(Kv7.3) | KCNQ3 KCNQ2 | O43525 O43526 | CHEMBL2221348 | 0 |

| | | | | | |
|---|---------------|------------------|---------------|-------------------------------------|---|
| Tyrosine-protein kinase JAK2 | JAK2 | O60674 | CHEMBL2971 | Kinase | 0 |
| Rho-associated protein kinase 2 | ROCK2 | O75116 | CHEMBL2973 | Kinase | 0 |
| Rho-associated protein kinase 1 | ROCK1 | Q13464 | CHEMBL3231 | Kinase | 0 |
| Dopamine D4 receptor | DRD4 | P21917 | CHEMBL219 | Family A G protein-coupled receptor | 0 |
| Vascular endothelial growth factor receptor 2 | KDR | P35968 | CHEMBL279 | Kinase | 0 |
| Serine/threonine-protein kinase Chk2 | CHEK2 | O96017 | CHEMBL2527 | Kinase | 0 |
| Poly [ADP-ribose] polymerase-1 | PARP1 | P09874 | CHEMBL3105 | Enzyme | 0 |
| Tankyrase-2 | TNKS2 | Q9H2K2 | CHEMBL6154 | Enzyme | 0 |
| Tankyrase-1 | TNKS | O95271 | CHEMBL6164 | Enzyme | 0 |
| Cyclin-dependent kinase 1 | CDK1 | P06493 | CHEMBL308 | Kinase | 0 |
| Phosphodiesterase 11A | PDE11A | Q9HCR9 | CHEMBL2717 | Phosphodiesterase | 0 |
| Phosphodiesterase 7A | PDE7A | Q13946 | CHEMBL3012 | Phosphodiesterase | 0 |
| Tyrosine-protein kinase receptor FLT3 | FLT3 | P36888 | CHEMBL1974 | Kinase | 0 |
| Poly [ADP-ribose] polymerase 2 | PARP2 | Q9UGN5 | CHEMBL5366 | Enzyme | 0 |
| Vascular endothelial growth factor receptor 1 | FLT1 | P17948 | CHEMBL1868 | Kinase | 0 |
| Fibroblast growth factor receptor 1 | FGFR1 | P11362 | CHEMBL3650 | Kinase | 0 |
| Acetylcholinesterase | ACHE | P22303 | CHEMBL220 | Hydrolase | 0 |
| HERG | KCNH2 | Q12809 | CHEMBL240 | Voltage-gated ion channel | 0 |
| Heparanase | HPSE | Q9Y251 | CHEMBL3921 | Enzyme | 0 |
| Beta secretase 2 | BACE2 | Q9Y5Z0 | CHEMBL2525 | Protease | 0 |
| Phosphodiesterase 5A | PDE5A | O76074 | CHEMBL1827 | Phosphodiesterase | 0 |
| Phosphodiesterase 4A | PDE4A | P27815 | CHEMBL254 | Phosphodiesterase | 0 |
| Stem cell growth factor receptor | KIT | P10721 | CHEMBL1936 | Kinase | 0 |
| Diacylglycerol O-acyltransferase 1 | DGAT1 | O75907 | CHEMBL6009 | Enzyme | 0 |
| Platelet-derived growth factor receptor beta | PDGFRB | P09619 | CHEMBL1913 | Kinase | 0 |
| Monoamine oxidase A | MAOA | P21397 | CHEMBL1951 | Oxidoreductase | 0 |
| Signal transducer and activator of transcription 3 | STAT3 | P40763 | CHEMBL4026 | Transcription factor | 0 |
| Histamine H3 receptor | HRH3 | Q9Y5N1 | CHEMBL264 | Family A G protein-coupled receptor | 0 |
| Platelet-derived growth factor receptor | PDGFRA PDGFRB | P16234 P09619 | CHEMBL2095189 | Kinase | 0 |
| Histamine H4 receptor | HRH4 | Q9H3N8 | CHEMBL3759 | Family A G protein-coupled receptor | 0 |
| Kinesin-1 heavy chain/ Tyrosine-protein kinase receptor RET | RET | P07949 Q05586 | CHEMBL2041 | Kinase | 0 |
| Glutamate NMDA receptor; GRIN1/GRIN2B | GRIN1 GRIN2B | Q13224 | CHEMBL1907603 | Ligand-gated ion channel | 0 |
| Tyrosine-protein kinase ITK/TSK | ITK | Q08881 | CHEMBL2959 | Kinase | 0 |
| Methionine aminopeptidase 2 | METAP2 | P50579 | CHEMBL3922 | Protease | 0 |
| Urokinase-type plasminogen activator | PLAU | P00749 | CHEMBL3286 | Protease | 0 |
| Cytochrome P450 11B1 | CYP11B1 | P15538 | CHEMBL1908 | Cytochrome P450 | 0 |
| Cytochrome P450 11B2 | CYP11B2 | P19099 | CHEMBL2722 | Cytochrome P450 | 0 |
| Bromodomain-containing protein 4 | BRD4 | O60885 | CHEMBL1163125 | Reader | 0 |
| Bromodomain-containing protein 2 | BRD2 | P25440 | CHEMBL1293289 | Reader | 0 |
| Bromodomain-containing protein 3 | BRD3 | Q15059 | CHEMBL1795186 | Reader | 0 |
| Beta-glucuronidase | GUSB | P08236 | CHEMBL2728 | Enzyme | 0 |
| Bradykinin B2 receptor | BDKRB2 | P30411 | CHEMBL3157 | Family A G protein-coupled receptor | 0 |
| Monoamine oxidase B | MAOB | P27338 | CHEMBL2039 | Oxidoreductase | 0 |
| Lysine-specific histone demethylase 1 | KDM1A | O60341 | CHEMBL6136 | Eraser | 0 |
| TGF-beta receptor type I | TGFBFR1 | P36897 | CHEMBL4439 | Kinase | 0 |
| Tyrosine-protein kinase FYN | FYN | P06241 | CHEMBL1841 | Kinase | 0 |
| Tyrosine-protein kinase LCK | LCK | P06239 | CHEMBL258 | Kinase | 0 |
| Epidermal growth factor receptor erbB1 | EGFR | P00533 | CHEMBL203 | Kinase | 0 |
| Glutamate [NMDA] receptor subunit epsilon 2 | GRIN2B | Q13224 | CHEMBL1904 | Ligand-gated ion channel | 0 |
| Acyl-CoA desaturase | SCD | O00767 | CHEMBL5555 | Enzyme | 0 |
| Dihydroorotate dehydrogenase | DHODH | Q02127 | CHEMBL1966 | Oxidoreductase | 0 |

STable 3 *Enriched gene sets of AI-10-49 versus vehicle control treated MiaPaCa-2 cells*

| pathway | pval | padj | log2err | ES | NES | size |
|--|-------------|-------------|-------------|--------------|--------------|------|
| HALLMARK_CHOLESTEROL_HOMEOSTASIS | 1.00E-10 | 8.33E-10 | NA | 0.692136685 | 2.667874548 | 67 |
| HALLMARK_E2F_TARGETS | 1.00E-10 | 8.33E-10 | NA | -0.627633161 | -3.00008787 | 199 |
| HALLMARK_G2M_CHECKPOINT | 1.00E-10 | 8.33E-10 | NA | -0.60532623 | -2.892255505 | 195 |
| HALLMARK_MTORC1_SIGNALING | 1.00E-10 | 8.33E-10 | NA | 0.60059431 | 2.729568977 | 190 |
| HALLMARK_TNFA_SIGNALING_VIA_NFKB | 1.00E-10 | 8.33E-10 | NA | 0.646623542 | 2.873224264 | 163 |
| HALLMARK_UNFOLDED_PROTEIN_RESPONSE | 1.00E-10 | 8.33E-10 | NA | 0.675118601 | 2.826077857 | 110 |
| HALLMARK_HYPOXIA | 1.06E-08 | 7.59E-08 | 0.747739663 | 0.497692694 | 2.21212427 | 159 |
| HALLMARK_P53_PATHWAY | 2.59E-07 | 1.62E-06 | 0.67496286 | 0.455638942 | 2.053589188 | 175 |
| HALLMARK_IL2_STAT5_SIGNALING | 1.70E-06 | 9.42E-06 | 0.643551836 | 0.473109325 | 2.064352441 | 141 |
| HALLMARK_APOPTOSIS | 5.37E-06 | 2.69E-05 | 0.610526878 | 0.475023586 | 2.048242386 | 131 |
| HALLMARK_UV_RESPONSE_DN | 6.49E-06 | 2.95E-05 | 0.610526878 | 0.47196423 | 2.005240963 | 119 |
| HALLMARK_SPERMATOGENESIS | 7.11E-06 | 2.96E-05 | 0.610526878 | -0.514527785 | -2.048191659 | 70 |
| HALLMARK_KRAS_SIGNALING_UP | 8.35E-06 | 3.21E-05 | 0.593325476 | 0.486731527 | 2.037470505 | 107 |
| HALLMARK_EPITHELIAL_MESENCHYMAL_TRANSITION | 1.23E-05 | 4.40E-05 | 0.593325476 | 0.466748979 | 1.993551031 | 123 |
| HALLMARK_INFLAMMATORY_RESPONSE | 2.15E-05 | 7.17E-05 | 0.575610261 | 0.480176723 | 1.985212597 | 98 |
| HALLMARK_MITOTIC_SPINDLE | 5.79E-05 | 0.000181071 | 0.557332239 | -0.360281401 | -1.725994021 | 192 |
| HALLMARK_ESTROGEN_RESPONSE_EARLY | 0.000109434 | 0.000321863 | 0.538434096 | 0.409298413 | 1.818687465 | 163 |
| HALLMARK_ALLOGRAFT_REJECTION | 0.000115891 | 0.000321921 | 0.538434096 | 0.467859491 | 1.912481931 | 95 |
| HALLMARK_XENOBIOTIC_METABOLISM | 0.000683441 | 0.00179853 | 0.477270815 | 0.401632684 | 1.736724797 | 135 |
| HALLMARK_COAGULATION | 0.001341461 | 0.003193956 | 0.455059867 | 0.45639605 | 1.756431331 | 71 |
| HALLMARK_HEME_METABOLISM | 0.00132201 | 0.003193956 | 0.455059867 | 0.380276454 | 1.675181338 | 152 |
| HALLMARK_TGF_BETA_SIGNALING | 0.001798962 | 0.004088549 | 0.455059867 | 0.513387003 | 1.846812481 | 50 |
| HALLMARK_COMPLEMENT | 0.003920265 | 0.008522316 | 0.407017919 | 0.371455147 | 1.58653757 | 123 |
| HALLMARK_MYOGENESIS | 0.004815225 | 0.010031719 | 0.407017919 | 0.382396003 | 1.605907095 | 111 |
| HALLMARK_ANDROGEN_RESPONSE | 0.005634352 | 0.011268703 | 0.407017919 | 0.417097775 | 1.671732549 | 87 |
| HALLMARK_ESTROGEN_RESPONSE_LATE | 0.009336284 | 0.017954393 | 0.380730401 | 0.347261041 | 1.533805595 | 153 |
| HALLMARK_WNT_BETA_CATENIN_SIGNALING | 0.019604727 | 0.036305051 | 0.352487858 | 0.4771805 | 1.60282067 | 38 |
| HALLMARK_UV_RESPONSE_UP | 0.023911573 | 0.042699237 | 0.352487858 | 0.346589049 | 1.497997233 | 130 |

STable 4 *Motif discovery in AI-10-49 versus vehicle treated cells using ATACseq and ChIPseq data*

| Query ID | Query Consensus | Subject Name | Source DB | Subject ID | Length | Orientation | Offset | Divergence | Overlap | Subject Consensus | Treatment |
|----------|-----------------|--------------|---------------------------|---------------------|--------|--------------------|--------|------------|---------|-----------------------------------|-----------|
| ATAC-seq | | | | | | | | | | | |
| family_1 | AAANCTCGCG | CDX2 | HOCOMO CO | CDX2_HUMAN.H10MO.C | 8 | reverse-complement | -4 | 0.633 | 4 | WTTTATRN | vehicle |
| family_1 | AAANCTCGCG | CDX1 | HOCOMO CO | CDX1_HUMAN.H10MO.C | 8 | reverse-complement | -4 | 0.864 | 4 | NTTTATGN | |
| family_2 | AACGNNNNNN | THAP1 | HOCOMO CO | THAP1_HUMAN.H10MO.D | 22 | as given | 5 | 0.525 | 5 | SGCCGCCA TCTTGNN NNGGGC | |
| family_2 | AACGNNNNNN | TBX15 | HOCOMO CO | TBX15_HUMAN.H10MO.D | 19 | as given | 4 | 0.637 | 6 | GGGGGGG GGNGGT GGNN | |
| family_2 | AACGNNNNNN | KLF16 | HOCOMO CO | KLF16_HUMAN.H10MO.D | 19 | reverse-complement | 5 | 0.642 | 5 | NGGGGYG GGNGGG GGGG | |
| family_2 | AACGNNNNNN | MAZ | HOCOMO CO | MAZ_HUMAN.H10MO.A | 22 | reverse-complement | 4 | 0.642 | 6 | GGCCGGG GSSGGGG GGGGGG G | |
| family_2 | AACGNNNNNN | THAP1 | HOCOMO CO | THAP1_HUMAN.H10MO.D | 22 | reverse-complement | 4 | 0.753 | 6 | SGCCGCCA TCTTGNN NNGGGC | |
| family_2 | AACGNNNNNN | HNF4A | JASPAR | MA0114.1 | 13 | as given | 5 | 0.762 | 5 | RGNCAAA GKYCA | |
| family_2 | AACGNNNNNN | TBX1 | HOCOMO CO | TBX1_HUMAN.H10MO.D | 20 | as given | 5 | 0.796 | 5 | GGNGGG NAGGGGTG GGNN | |
| family_2 | AACGNNNNNN | SRBP2 | HOCOMO CO | SRBP2_HUMAN.H10MO.B | 13 | as given | 5 | 0.808 | 5 | NNGTGGNG TGANN | |
| family_2 | AACGNNNNNN | TBX4 | HOCOMO CO | TBX4_HUMAN.H10MO.D | 20 | reverse-complement | 5 | 0.821 | 5 | NAGGTGTG ANAWNTNA CACN | |

| | | | | | | | | | | | |
|----------|-----------------|------------------|-----------|---------------------|----|--------------------|-----|-------|----|-------------------------|----------|
| family_2 | AACGNNNNNN | Sp100_secondary | UniPROBE | 49 | 15 | as given | 5 | 0.829 | 5 | NNCGTCGNNTAAWNN | |
| family_5 | AAAGCGGNNN | LEF1 | HOCOMO_CQ | LEF1_HUMAN.H10MO.C | 7 | reverse-complement | -3 | 0.383 | 4 | CTTTGAT | |
| family_6 | AACATGGCGG | RTAAACA | JASPAR | PF0036 | 7 | as given | -3 | 0.012 | 4 | GTAACACA | |
| family_6 | AACATGGCGG | TGTTTGY | JASPAR | PF0083 | 7 | reverse-complement | -3 | 0.012 | 4 | TGTTTGT | |
| family_6 | AACATGGCGG | FOXO3 | JASPAR | MA0157.1 | 8 | as given | -4 | 0.327 | 4 | TGTAAACA | |
| family_6 | AACATGGCGG | GCGSCMNTT | JASPAR | PF0164 | 10 | as given | 6 | 0.352 | 5 | GCGCCATT | |
| family_6 | AACATGGCGG | FOXD1 | JASPAR | MA0031.1 | 8 | as given | -3 | 0.859 | 5 | GTAACAW | |
| family_7 | AACTACAACCTCCAG | ACTAYRNNNCCCR | JASPAR | PF0004 | 13 | as given | 1 | 0.451 | 13 | ACTACAANTCCCA | |
| family_7 | AACTACAACCTCCAG | TCCCRNNRTGC | JASPAR | PF0039 | 11 | as given | 9 | 0.457 | 6 | TCCCAGCATGC | |
| family_7 | AACTACAACCTCCAG | YTCCCRNNAGGY | JASPAR | PF0114 | 12 | as given | 8 | 0.576 | 7 | CTCCCAGCAGGC | |
| family_7 | AACTACAACCTCCAG | CCCNNGGGAR | JASPAR | PF0130 | 10 | as given | 10 | 0.785 | 5 | CCCNNGGGAG | |
| family_7 | AACTACAACCTCCAG | CCCNNGGGAR | JASPAR | PF0130 | 10 | reverse-complement | 8 | 0.862 | 7 | CCCNNGGGAG | |
| family_8 | NAACCSNCNNN | ZN524 | HOCOMO_CQ | ZN524_HUMAN.H10MO.D | 18 | reverse-complement | -12 | 0.35 | 6 | GGGTNCNAGGGTTCGANG | |
| family_8 | NAACCSNCNNN | ZBT7B | HOCOMO_CQ | ZBT7B_HUMAN.H10MO.D | 21 | as given | -14 | 0.469 | 7 | NNCNGTTGCCATGGNRACNGS | |
| family_8 | NAACCSNCNNN | RFX2 | HOCOMO_CQ | RFX2_HUMAN.H10MO.C | 22 | as given | -16 | 0.497 | 6 | SNSSCSGTGCCATGGNRACNG | |
| family_8 | NAACCSNCNNN | MAZ | HOCOMO_CQ | MAZ_HUMAN.H10MO.A | 22 | reverse-complement | 3 | 0.52 | 8 | GGGCGGGGSSGGGGGGGGGGGGG | |
| family_8 | NAACCSNCNNN | Zfp105_secondary | UniPROBE | 37 | 17 | reverse-complement | -10 | 0.533 | 7 | NYGNTTCAATAANTYN | |
| family_8 | NAACCSNCNNN | Tal1::Gata1 | JASPAR | MA0140.1 | 18 | reverse-complement | -11 | 0.572 | 7 | NTGNNNNNNNAGATAAG | |
| family_8 | NAACCSNCNNN | THAP1 | HOCOMO_CQ | THAP1_HUMAN.H10MO.D | 22 | as given | 5 | 0.578 | 6 | SGCCGCCATCTTGGNNNNGGGC | |
| family_8 | NAACCSNCNNN | KLF16 | HOCOMO_CQ | KLF16_HUMAN.H10MO.D | 19 | reverse-complement | 3 | 0.592 | 8 | NGGGGYGGGNGGGGGGGGGG | |
| family_8 | NAACCSNCNNN | GATA1 | HOCOMO_CQ | GATA1_HUMAN.H10MO.A | 19 | reverse-complement | -12 | 0.592 | 7 | NTGNNNNNNNSAGATAAGR | |
| family_8 | NAACCSNCNNN | Tcf7_secondary | UniPROBE | 54 | 15 | as given | -8 | 0.599 | 7 | NNKTATTANAAANN | |
| family_1 | AATGGAATCRWM | SOX5 | HOCOMO_CQ | SOX5_HUMAN.H10MO.C | 8 | reverse-complement | -4 | 0.603 | 4 | NATTGTTN | AI-10-49 |
| family_1 | AATGGAATCRWM | SOX13 | HOCOMO_CQ | SOX13_HUMAN.H10MO.D | 8 | reverse-complement | -4 | 0.612 | 4 | NATTGTTN | |
| family_1 | AATGGAATCRWM | Pdx1 | JASPAR | MA0132.1 | 6 | as given | -2 | 0.622 | 4 | CTAATT | |
| family_1 | AATGGAATCRWM | SOX9 | JASPAR | MA0077.1 | 9 | as given | -4 | 0.637 | 5 | NAACAATRG | |
| family_1 | AATGGAATCRWM | GSX1 | HOCOMO_CQ | GSX1_HUMAN.H10MO.D | 15 | reverse-complement | 6 | 0.871 | 6 | TAATTAGNNNTTAAT | |
| H3K27ac | | | | | | | | | | | |
| family_1 | AAGCCNNN | WT1 | HOCOMO_CQ | WT1_HUMAN.H10MO.D | 13 | reverse-complement | 4 | 0.818 | 4 | GMGNGGGCGGGG | vehicle |
| family_1 | AAGCCNNN | TFAP2A | JASPAR | MA0003.1 | 9 | as given | 2 | 0.889 | 6 | GCCNNNRGS | |
| family_2 | AAAGCGN | E2F5 | HOCOMO_CQ | E2F5_HUMAN.H10MO.B | 10 | as given | -6 | 0.154 | 4 | NGCGCSAAN | |
| family_2 | AAAGCGN | E2F7 | HOCOMO_CQ | E2F7_HUMAN.H10MO.D | 13 | as given | -9 | 0.182 | 4 | WARGGCGCGAAAN | |
| family_2 | AAAGCGN | CPEB1 | HOCOMO_CQ | CPEB1_HUMAN.H10MO.D | 17 | reverse-complement | -13 | 0.29 | 4 | TTTTTATTNTTTTTTN | |
| family_2 | AAAGCGN | CDX2 | JASPAR | MA0465.1 | 11 | as given | -7 | 0.313 | 4 | NNGCCATAAAA | |
| family_2 | AAAGCGN | STTTCRNTT | JASPAR | PF0085 | 10 | reverse-complement | -6 | 0.633 | 4 | CTTTCANTT | |
| family_2 | AAAGCGN | EVX2 | HOCOMO_CQ | EVX2_HUMAN.H10MO.A | 12 | reverse-complement | -8 | 0.645 | 4 | TTTTATKGCNNN | |
| family_3 | NNAACCSNN | MAZ | HOCOMO_CQ | MAZ_HUMAN.H10MO.A | 22 | reverse-complement | 4 | 0.416 | 5 | GGGCGGGGSSGGGGGGGGGGGGG | |
| family_3 | NNAACCSNN | THAP1 | HOCOMO_CQ | THAP1_HUMAN.H10MO.D | 22 | as given | 4 | 0.557 | 5 | SGCCGCCATCTTGGNNNNGGGC | |
| family_3 | NNAACCSNN | ZBT7B | HOCOMO_CQ | ZBT7B_HUMAN.H10MO.D | 21 | as given | -13 | 0.598 | 8 | NNCNGTTGCCATGGNRACNGS | |
| family_3 | NNAACCSNN | RFX2 | HOCOMO_CQ | RFX2_HUMAN.H10MO.C | 22 | as given | -15 | 0.606 | 7 | SNSSCSGTGCCATGGNRACNG | |
| family_3 | NNAACCSNN | KLF16 | HOCOMO_CQ | KLF16_HUMAN.H10MO.D | 19 | reverse-complement | 4 | 0.625 | 5 | NGGGGYGGGNGGGGGGGGGG | |
| family_3 | NNAACCSNN | BRCA1 | JASPAR | MA0133.1 | 7 | as given | 0 | 0.627 | 7 | NCAACMC | |

| | | | | | | | | | | | |
|----------|-----------|-----------------------|-------------------------------|-------------------------|----|--------------------|-----|-------|---|------------------------------------|----------|
| family_3 | NNAACCSNN | RFX2 | JASPAR | MA0600.1 | 19 | reverse-complement | -14 | 0.677 | 5 | GTTNCCAT GGCAACNG NNN | |
| family_3 | NNAACCSNN | Asg1 | UniPROB E | 350 | 16 | reverse-complement | 4 | 0.697 | 5 | NCCGGNC NGTNC CG G | |
| family_3 | NNAACCSNN | Rfx1 | JASPAR | MA0509.1 | 14 | reverse-complement | -9 | 0.729 | 5 | GTYNCCAT GGCAAC | |
| family_3 | NNAACCSNN | ZN524 | HOCOMO CO | ZN524_HUMA N.H10MO.D | 18 | reverse-complement | -12 | 0.8 | 6 | GGGTNCNA GGGTTCGA GN | |
| family_1 | NAANSSGN | THAP1 | HOCOMO CO | THAP1_HUMA N.H10MO.D | 22 | as given | 3 | 0.463 | 5 | SGCCGCCA TCTTGGNN NNGGGC | AI-10-49 |
| family_1 | NAANSSGN | STAT4 | HOCOMO CO | STAT4_HUMA N.H10MO.D | 11 | as given | -7 | 0.539 | 4 | YTTCCCRG AAR | |
| family_1 | NAANSSGN | TBX1 | HOCOMO CO | TBX1_HUMAN .H10MO.D | 20 | as given | 4 | 0.541 | 4 | GGGNGGG NAGGGGTG GGNNN | |
| family_1 | NAANSSGN | E2F1 | HOCOMO CO | E2F1_HUMAN .H10MO.A | 14 | as given | -10 | 0.554 | 4 | NNNNGGC GGGAAAN | |
| family_1 | NAANSSGN | TBX15 | HOCOMO CO | TBX15_HUMA N.H10MO.D | 19 | as given | 4 | 0.557 | 4 | GGGGGGG GGNGGGT GGNN | |
| family_1 | NAANSSGN | ZBT7B | HOCOMO CO | ZBT7B_HUMA N.H10MO.D | 21 | as given | -14 | 0.573 | 7 | NNCNGTTG CCATGGNR ACNGS | |
| family_1 | NAANSSGN | ZN350 | HOCOMO CO | ZN350_HUMA N.H10MO.C | 24 | reverse-complement | 4 | 0.581 | 4 | ASGGGNNG CAGNNNTT TGTKGCCN | |
| family_1 | NAANSSGN | RFX2 | HOCOMO CO | RFX2_HUMAN .H10MO.C | 22 | as given | -16 | 0.604 | 6 | SNSSCSGT TGCCATGG NRACNG | |
| family_1 | NAANSSGN | MAZ | HOCOMO CO | MAZ_HUMAN. H10MO.A | 22 | reverse-complement | 4 | 0.624 | 4 | GGCGGGG GSSGGGG GGGGGGG G | |
| family_1 | NAANSSGN | BRCA1 | JASPAR | MA0133.1 | 7 | as given | -1 | 0.642 | 6 | NCAACMC | |
| family_1 | NAANSSGN | DDIT3 | HOCOMO CO | DDIT3_HUMA N.H10MO.C | 13 | as given | 4 | 0.658 | 4 | GGGGATTG CANNN | |
| family_1 | NAANSSGN | ETV1 | HOCOMO CO | ETV1_HUMAN .H10MO.B | 22 | as given | -13 | 0.674 | 8 | NNNGRCCG GAAGYRNN NNNNNS | |
| family_1 | NAANSSGN | Rfx1 | JASPAR | MA0509.1 | 14 | reverse-complement | -10 | 0.719 | 4 | GTYNCCAT GGCAAC | |
| family_1 | NAANSSGN | THAP1 | HOCOMO CO | THAP1_HUMA N.H10MO.D | 22 | reverse-complement | 3 | 0.72 | 5 | SGCCGCCA TCTTGGNN NNGGGC | |
| family_1 | NAANSSGN | RARB | HOCOMO CO | RARB_HUMA N.H10MO.D | 11 | as given | -7 | 0.733 | 4 | SAGGTGAN NRN | |
| family_1 | NAANSSGN | E2F6 | HOCOMO CO | E2F6_HUMAN .H10MO.C | 12 | as given | -7 | 0.755 | 5 | NNGGCGG GAAGN | |
| family_1 | NAANSSGN | E2F4 | HOCOMO CO | E2F4_HUMAN .H10MO.A | 14 | as given | -9 | 0.756 | 5 | NNKGGCG GGAAAN | |
| family_1 | NAANSSGN | RFX2 | HOCOMO CO | RFX2_HUMAN .H10MO.C | 22 | reverse-complement | 4 | 0.76 | 4 | SNSSCSGT TGCCATGG NRACNG | |
| family_1 | NAANSSGN | STAT1 | HOCOMO CO | STAT1_HUMA N.H10MO.S | 15 | reverse-complement | -9 | 0.764 | 6 | NNTTCCG GGAANN | |
| family_1 | NAANSSGN | ARI5B | HOCOMO CO | ARI5B_HUMA N.H10MO.C | 13 | reverse-complement | -8 | 0.773 | 5 | NNTTNGTA TTGN | |
| family_1 | NAANSSGN | BATF | HOCOMO CO | BATF_HUMAN .H10MO.A | 18 | reverse-complement | -13 | 0.773 | 5 | NNTYTNNN TATGACTC AN | |
| family_1 | NAANSSGN | TFDP1 | HOCOMO CO | TFDP1_HUMA N.H10MO.D | 22 | as given | -2 | 0.781 | 8 | NNGNSNNS NNNRGGG GCGGGAN | |
| family_1 | NAANSSGN | TYY1 | HOCOMO CO | TYY1_HUMAN .H10MO.A | 12 | reverse-complement | 4 | 0.784 | 4 | CAARATGG CGGC | |
| family_1 | NAANSSGN | Bcl6 | JASPAR | MA0463.1 | 14 | reverse-complement | -10 | 0.786 | 4 | NTTCCTRG AAAGCN | |
| family_1 | NAANSSGN | Klf4 | JASPAR | MA0039.1 | 10 | as given | -5 | 0.793 | 5 | WAARGRAA GG | |
| family_1 | NAANSSGN | Tcfap2e_sec ondary | UniPROB E | 28 | 14 | as given | -9 | 0.798 | 5 | NNCNRRAA AAAANN | |
| family_1 | NAANSSGN | IRF4 | HOCOMO CO | IRF4_HUMAN. H10MO.C | 16 | as given | -12 | 0.8 | 4 | RRRGRGGG AGTGARAS | |
| family_1 | NAANSSGN | Ndt80 | UniPROB E | 346 | 21 | as given | -12 | 0.803 | 8 | NNNNKGM CACAAAAN CSNN | |
| family_1 | NAANSSGN | ZIC2 | HOCOMO CO | ZIC2_HUMAN. H10MO.C | 9 | as given | 3 | 0.804 | 5 | NGGGTGGT N | |
| family_1 | NAANSSGN | TBP | JASPAR | MA0108.1 | 15 | as given | -6 | 0.812 | 8 | STATAAAA RNNNNNN | |
| family_1 | NAANSSGN | KLF16 | HOCOMO CO | KLF16_HUMA N.H10MO.D | 19 | reverse-complement | 3 | 0.814 | 5 | NGGGGYG GGGNGGG GGGGG | |
| family_1 | NAANSSGN | STAT1 | JASPAR | MA0137.2 | 15 | as given | -9 | 0.825 | 6 | CNTTCCN GGAANN | |
| family_1 | NAANSSGN | Glis2_sec ondary | UniPROB E | 24 | 14 | as given | -9 | 0.828 | 5 | NNTATTAN TAAANN | |
| family_1 | NAANSSGN | EVX2 | HOCOMO CO | EVX2_HUMAN .H10MO.A | 12 | reverse-complement | -8 | 0.83 | 4 | TTTTATKGC NNN | |
| family_1 | NAANSSGN | STAT3 | HOCOMO CO | STAT3_HUMA N.H10MO.A | 11 | reverse-complement | -7 | 0.835 | 4 | NTTCCCGG AAN | |
| family_1 | NAANSSGN | Cep3 | UniPROB E | 278 | 20 | reverse-complement | -11 | 0.85 | 8 | GNNSNCTT CGGAAANN TNNG | |
| family_1 | NAANSSGN | STAT3 | HOCOMO CO | STAT3_HUMA N.H10MO.A | 11 | as given | -7 | 0.851 | 4 | NTTCCCGG AAN | |

| | | | | | | | | | | |
|--------------|----------|-----------------|---------------------------|---------------------|----|--------------------|-----|-------|---|-------------------------------|
| family _1 | NAANSSGN | Nkx2-3_3435.1 | UniPROB E | 190 | 16 | reverse-complement | -12 | 0.852 | 4 | YYTTAAGT ACTTAANN |
| family _1 | NAANSSGN | NANOG | HOCOMO CQ | NANOG_HUMAN.H10MO.A | 17 | reverse-complement | -11 | 0.859 | 6 | NCTTTGTN ATGCAAAT N |
| family _1 | NAANSSGN | STAT4 | HOCOMO CQ | STAT4_HUMAN.H10MO.D | 11 | reverse-complement | -7 | 0.862 | 4 | YTTCCCRG AAR |
| family _1 | NAANSSGN | PBX3 | HOCOMO CQ | PBX3_HUMAN.H10MO.B | 14 | reverse-complement | -9 | 0.867 | 5 | NNYTGATT GGCNGN |
| family _1 | NAANSSGN | WT1 | HOCOMO CQ | WT1_HUMAN.H10MO.D | 13 | reverse-complement | 4 | 0.872 | 4 | GMGNGGG CGGGGG |
| family _1 | NAANSSGN | Sfp11_secondary | UniPROB E | 85 | 14 | as given | -9 | 0.875 | 5 | NNAWTTNN GGAACN |
| family _1 | NAANSSGN | Zfx | JASPAR | MA0146.1 | 14 | reverse-complement | -6 | 0.886 | 8 | NNNGCCNN GGCCTN |
| family _1 | NAANSSGN | SP4 | HOCOMO CQ | SP4_HUMAN.H10MO.D | 22 | as given | 4 | 0.894 | 4 | GGGGGCG GGGCCNG GSGGGGS |
| family _1 | NAANSSGN | ZFX | HOCOMO CQ | ZFX_HUMAN.H10MO.C | 19 | as given | 0 | 0.896 | 8 | NNGSGNNN CAGGCCNN GSC |

STable 5 PDO Gene Expression Matrix

| ID | B169 | B188 | B203 | B211 | B226 | B250 | B265 | B290 |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| A1BG | -1.94 | -1.94 | -1.93 | -1.91 | -1.88 | -1.93 | -1.91 | -1.96 |
| A1BG-AS1 | -1.55 | -1.54 | -1.53 | -1.55 | -1.45 | -1.53 | -1.55 | -1.57 |
| A1CF | 1.63 | 1.85 | 2.16 | 1.87 | 1.76 | 1.91 | 3.67 | 1.55 |
| A2M | -1.79 | -1.79 | -1.78 | -1.79 | -1.74 | -1.80 | -1.79 | -1.81 |
| A2M-AS1 | -1.64 | -1.69 | -1.68 | -1.64 | -1.66 | -1.68 | -1.70 | -1.66 |
| A2ML1 | 0.02 | 0.34 | 0.41 | 0.02 | 0.07 | 0.67 | 0.01 | 0.12 |
| A4GALT | 4.97 | 5.90 | 4.94 | 5.39 | 4.88 | 5.21 | 4.67 | 3.99 |
| A4GNT | -1.59 | -1.59 | -1.58 | -1.48 | -1.15 | -1.60 | -1.60 | -1.61 |
| AAAS | 5.64 | 5.41 | 5.35 | 5.24 | 5.50 | 5.96 | 5.34 | 5.72 |
| AACS | 5.51 | 6.57 | 6.31 | 6.46 | 5.85 | 5.21 | 6.28 | 5.32 |
| AADAC | 1.53 | 1.30 | 1.93 | 1.43 | 1.30 | 1.14 | 1.54 | 1.92 |
| AADACP1 | 1.01 | 1.76 | 1.05 | 1.67 | 0.66 | 0.58 | 0.67 | 0.75 |
| AADAT | 1.73 | 2.18 | 1.43 | 2.43 | 1.58 | 1.73 | 1.53 | 1.44 |
| AAGAB | 6.66 | 6.23 | 6.22 | 6.14 | 6.39 | 6.09 | 5.82 | 6.29 |
| AAK1 | 6.06 | 5.95 | 6.70 | 5.47 | 7.48 | 6.21 | 6.22 | 6.55 |
| AAMDC | 5.97 | 5.45 | 5.24 | 5.11 | 5.30 | 5.41 | 4.26 | 4.86 |
| AAMP | 8.16 | 7.33 | 7.51 | 7.60 | 7.84 | 8.18 | 7.30 | 8.15 |
| AAR2 | 5.28 | 5.22 | 5.21 | 4.58 | 5.02 | 5.03 | 4.55 | 5.13 |
| AARD | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AARS | 5.98 | 6.05 | 6.62 | 6.22 | 6.31 | 6.14 | 6.24 | 7.20 |
| AARS2 | 3.40 | 3.61 | 3.60 | 3.05 | 3.08 | 3.32 | 3.80 | 3.06 |
| AARSD1 | 1.00 | 1.24 | 1.20 | 1.35 | 1.16 | 1.21 | 1.16 | 1.31 |
| AASDH | 3.78 | 4.17 | 4.26 | 4.43 | 3.92 | 4.20 | 4.38 | 4.57 |
| AASDHPPT | 5.78 | 5.81 | 5.45 | 5.46 | 5.65 | 5.55 | 5.28 | 5.91 |
| AASS | 1.06 | 1.55 | 1.54 | 1.49 | 1.66 | 1.98 | 1.63 | 1.35 |
| AATBC | -1.49 | -1.48 | -1.48 | -1.49 | -1.43 | -1.33 | -1.50 | -1.51 |
| AATF | 6.54 | 5.97 | 6.42 | 5.97 | 6.48 | 6.37 | 5.62 | 6.14 |
| AATK | 2.93 | 3.18 | 2.30 | 3.26 | 2.26 | 2.16 | 3.07 | 2.57 |
| ABALON | 1.51 | 1.47 | 1.79 | 1.47 | 1.63 | 1.66 | 1.55 | 1.81 |
| ABAT | 1.75 | 2.17 | 2.06 | 2.25 | 1.86 | 2.05 | 2.18 | 2.14 |
| ABCA1 | 1.80 | 2.18 | 2.33 | 2.16 | 1.79 | 2.65 | 1.60 | 2.07 |
| ABCA10 | 2.01 | 1.58 | 1.65 | 1.73 | 1.48 | 1.68 | 1.51 | 2.17 |
| ABCA11P | 0.05 | -0.01 | -0.16 | 0.10 | -0.17 | 0.01 | -0.04 | -0.14 |
| ABCA12 | 1.79 | 3.89 | 2.25 | 3.43 | 1.36 | 1.67 | 1.35 | 2.41 |
| ABCA13 | -0.48 | -0.31 | -0.38 | -0.33 | -0.47 | -0.45 | -0.48 | -0.32 |
| ABCA17P | -1.66 | -1.65 | -1.65 | -1.61 | -1.58 | -1.67 | -1.66 | -1.49 |
| ABCA2 | 4.70 | 5.44 | 5.30 | 5.55 | 4.51 | 5.03 | 6.16 | 4.82 |
| ABCA3 | 3.46 | 3.85 | 3.89 | 4.56 | 4.07 | 3.28 | 4.57 | 2.67 |
| ABCA4 | -1.80 | -1.84 | -1.83 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 |
| ABCA5 | 3.16 | 3.47 | 4.14 | 3.81 | 3.68 | 3.58 | 4.56 | 2.95 |
| ABCA6 | -0.22 | -0.53 | -0.51 | -0.53 | -0.44 | -0.43 | -0.54 | -0.37 |
| ABCA7 | 5.46 | 4.23 | 5.12 | 4.23 | 4.15 | 5.40 | 5.02 | 4.23 |
| ABCA8 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| ABCA9 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| ABCA9-AS1 | -0.27 | -0.66 | -0.73 | -0.75 | -0.75 | -0.76 | -0.67 | -0.77 |
| ABCB1 | 2.43 | 2.26 | 2.26 | 2.25 | 2.22 | 2.10 | 3.68 | 2.04 |
| ABCB10 | 4.31 | 4.21 | 4.21 | 4.24 | 3.97 | 3.83 | 4.46 | 4.15 |
| ABCB11 | -0.36 | -0.19 | 0.07 | -0.29 | -0.35 | -0.20 | -0.29 | -0.25 |
| ABCB4 | -0.57 | -0.65 | -0.45 | -0.66 | -0.65 | -0.67 | -0.66 | 0.33 |
| ABCB5 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ABCB6 | -2.12 | -2.12 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| ABCB7 | 4.40 | 4.53 | 4.52 | 4.30 | 4.51 | 3.97 | 4.55 | 3.93 |
| ABCB8 | 4.32 | 4.83 | 4.43 | 4.64 | 4.31 | 4.47 | 4.74 | 4.48 |
| ABCB9 | 2.42 | 2.88 | 3.86 | 2.92 | 3.38 | 3.25 | 3.16 | 3.05 |
| ABCC1 | 5.15 | 5.24 | 5.88 | 5.37 | 4.59 | 5.16 | 5.37 | 5.59 |
| ABCC10 | 3.95 | 3.75 | 3.80 | 4.00 | 4.05 | 3.88 | 4.08 | 3.79 |
| ABCC11 | -1.42 | -1.41 | -1.40 | -1.42 | -1.41 | -1.34 | -1.30 | -1.38 |
| ABCC12 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| ABCC13 | -0.90 | -0.97 | -0.96 | -0.98 | -0.93 | -0.95 | -0.85 | -0.87 |
| ABCC2 | 3.15 | 2.98 | 2.43 | 2.99 | 2.32 | 2.33 | 3.06 | 2.35 |
| ABCC3 | 7.23 | 7.82 | 7.67 | 8.01 | 7.28 | 7.12 | 8.33 | 8.12 |
| ABCC4 | 2.90 | 3.58 | 3.85 | 2.80 | 3.46 | 3.03 | 4.50 | 3.05 |
| ABCC5 | 3.65 | 3.97 | 4.43 | 4.25 | 5.04 | 4.10 | 4.07 | 4.53 |
| ABCC5-AS1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 |
| ABCC6 | 2.25 | 2.14 | 1.82 | 2.53 | 1.79 | 1.81 | 2.65 | 2.17 |
| ABCC6P1 | 0.65 | 0.81 | 0.38 | 0.97 | 0.55 | 0.51 | 0.80 | 0.38 |
| ABCC6P2 | 1.24 | 0.70 | 0.64 | 1.35 | 0.70 | 0.75 | 0.79 | 1.00 |
| ABCC8 | -1.16 | -1.23 | -1.22 | -1.25 | -0.47 | -1.26 | -1.25 | -1.26 |
| ABCD1 | 3.30 | 2.98 | 4.07 | 2.57 | 3.24 | 3.91 | 3.07 | 3.61 |
| ABCD1P2 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 | -2.29 | -2.31 |
| ABCD3 | 5.95 | 6.66 | 6.51 | 6.27 | 5.97 | 6.09 | 7.02 | 5.80 |
| ABCD4 | 4.01 | 4.67 | 4.45 | 4.85 | 4.75 | 4.58 | 4.48 | 4.30 |
| ABCE1 | 5.74 | 6.58 | 6.05 | 6.35 | 5.43 | 6.24 | 6.46 | 6.55 |
| ABCF1 | 7.59 | 6.58 | 7.30 | 6.64 | 6.58 | 7.88 | 7.25 | 7.84 |
| ABCF3 | 4.77 | 4.99 | 4.74 | 5.01 | 4.57 | 4.74 | 4.89 | 5.07 |
| ABCG1 | 4.11 | 3.48 | 4.21 | 3.49 | 3.01 | 3.44 | 2.86 | 3.90 |
| ABCG2 | 3.42 | 2.51 | 2.75 | 2.67 | 3.03 | 2.85 | 2.45 | 2.99 |
| ABCG5 | -1.22 | -1.14 | -1.27 | -1.23 | -1.25 | -1.30 | -1.23 | -1.31 |
| ABCG8 | -1.41 | -1.40 | -1.39 | -1.41 | -1.40 | -1.42 | -1.29 | -1.32 |
| ABHD1 | 0.56 | 0.06 | 0.15 | 0.32 | 0.17 | 0.16 | 0.10 | 0.13 |
| ABHD10 | 4.60 | 3.99 | 4.98 | 3.74 | 4.45 | 4.66 | 4.81 | 4.93 |
| ABHD11 | 5.56 | 5.03 | 5.13 | 5.24 | 5.87 | 5.55 | 5.01 | 5.29 |
| ABHD11-AS1 | 2.22 | 2.23 | 2.12 | 2.49 | 2.98 | 2.44 | 2.06 | 3.12 |
| ABHD12 | 7.35 | 6.72 | 7.62 | 6.91 | 7.58 | 6.91 | 6.83 | 7.85 |
| ABHD12B | -0.21 | -0.29 | -0.27 | -0.30 | -0.20 | -0.31 | -0.21 | -0.33 |
| ABHD13 | 4.58 | 4.99 | 4.40 | 5.04 | 4.98 | 4.15 | 4.59 | 4.49 |
| ABHD14A | 4.73 | 4.33 | 3.73 | 4.70 | 4.86 | 3.94 | 3.50 | 3.90 |
| ABHD14A-ACY1 | 0.67 | 0.70 | 0.36 | 0.48 | 0.42 | 0.51 | 0.54 | 0.63 |
| ABHD14B | 6.80 | 6.08 | 5.61 | 6.18 | 6.92 | 6.06 | 5.82 | 5.57 |
| ABHD15 | 4.41 | 4.29 | 4.27 | 4.15 | 3.98 | 3.89 | 4.11 | 3.88 |
| ABHD15-AS1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ABHD16A | -1.26 | -1.38 | -1.43 | -1.45 | -1.41 | -1.46 | -1.46 | -1.42 |
| ABHD16B | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| ABHD17A | 5.30 | 4.83 | 5.38 | 4.80 | 5.55 | 5.43 | 5.05 | 5.44 |
| ABHD17AP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ABHD17AP3 | -1.59 | -1.59 | -1.58 | -1.60 | -1.59 | -1.60 | -1.55 | -1.56 |
| ABHD17AP4 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ABHD17B | 3.63 | 3.57 | 4.17 | 3.62 | 3.65 | 3.60 | 3.88 | 3.62 |
| ABHD17C | 6.68 | 6.74 | 6.97 | 7.19 | 7.48 | 6.40 | 6.79 | 7.54 |
| ABHD18 | 3.08 | 3.29 | 3.21 | 3.34 | 3.27 | 3.61 | 3.98 | 3.58 |
| ABHD2 | 6.51 | 7.87 | 8.51 | 8.12 | 7.73 | 6.81 | 8.01 | 8.63 |
| ABHD3 | 5.76 | 5.15 | 5.70 | 5.55 | 5.70 | 5.37 | 5.78 | 5.86 |
| ABHD4 | 4.56 | 5.02 | 4.53 | 4.91 | 4.78 | 5.05 | 4.70 | 5.23 |
| ABHD5 | 4.94 | 5.43 | 4.78 | 5.04 | 4.71 | 4.92 | 5.33 | 4.64 |
| ABHD6 | 4.08 | 4.80 | 4.34 | 4.90 | 4.43 | 4.03 | 3.95 | 3.06 |
| ABHD8 | 4.00 | 3.62 | 3.80 | 3.61 | 3.56 | 3.64 | 3.37 | 3.92 |
| ABI1 | 4.87 | 5.87 | 5.29 | 5.76 | 5.67 | 5.42 | 5.65 | 5.74 |
| ABI2 | 5.58 | 5.66 | 5.90 | 5.65 | 6.16 | 5.88 | 5.61 | 5.25 |
| ABI3BP | 1.42 | 1.36 | 2.83 | 1.77 | 1.45 | 1.40 | 2.34 | 2.04 |
| ABITRAM | 5.54 | 4.51 | 4.12 | 4.73 | 4.52 | 5.04 | 4.58 | 4.55 |
| ABITRAMP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ABL1 | 4.37 | 4.73 | 5.08 | 4.39 | 3.98 | 4.51 | 4.59 | 4.32 |
| ABL2 | 3.91 | 3.96 | 4.62 | 3.55 | 4.13 | 4.54 | 4.18 | 3.59 |
| ABLM1 | 6.91 | 7.31 | 6.40 | 7.32 | 6.06 | 6.43 | 7.34 | 6.54 |
| ABLM2 | 1.16 | 1.10 | 1.12 | 1.05 | 1.43 | 1.23 | 1.52 | 0.99 |
| ABLM3 | 3.22 | 4.10 | 5.30 | 3.67 | 3.76 | 4.19 | 3.32 | 5.01 |
| ABO | 5.51 | 6.48 | 4.57 | 7.38 | 6.77 | 5.73 | 4.85 | 5.52 |
| ABR | 4.40 | 4.57 | 5.22 | 4.47 | 4.89 | 4.74 | 5.09 | 5.01 |
| ABRACL | 7.15 | 7.54 | 6.73 | 7.50 | 7.43 | 7.61 | 6.91 | 7.09 |
| ABRAXAS1 | 3.11 | 3.70 | 3.14 | 3.45 | 3.37 | 3.52 | 3.61 | 3.14 |
| ABRAXAS2 | 5.15 | 4.72 | 4.18 | 4.45 | 4.63 | 4.35 | 4.23 | 4.43 |
| ABT1 | 5.94 | 5.90 | 5.31 | 5.91 | 5.50 | 6.35 | 5.33 | 6.53 |
| ABTB1 | 5.06 | 3.39 | 4.54 | 4.01 | 4.79 | 3.98 | 4.33 | 5.21 |
| ABTB2 | 3.43 | 3.50 | 4.66 | 3.93 | 3.98 | 3.75 | 3.03 | 3.28 |
| AC000032.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC000065.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| AC000065.2 | -0.71 | -0.39 | -0.69 | -0.63 | -0.66 | -0.68 | -0.44 | -0.66 |
| AC000068.1 | 0.18 | 0.21 | 0.08 | 0.37 | 0.04 | -0.06 | 0.02 | 0.10 |
| AC000068.2 | -0.82 | -0.74 | -0.79 | -0.69 | -0.85 | -0.77 | -0.75 | -0.79 |
| AC000068.3 | -0.81 | -0.94 | -1.01 | -0.95 | -0.95 | -0.96 | -1.03 | -0.98 |
| AC000081.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC000082.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC000089.1 | 0.79 | 0.64 | 0.54 | 0.60 | 0.58 | 0.54 | 0.54 | 0.42 |
| AC000123.2 | -0.22 | -0.21 | 0.25 | -0.15 | -0.21 | -0.11 | -0.30 | -0.04 |
| AC000123.3 | 0.67 | 0.68 | 0.70 | 1.04 | 0.81 | 0.77 | 1.23 | 0.83 |
| AC000403.1 | -2.04 | -2.04 | -2.01 | -1.99 | -2.04 | -2.05 | -2.05 | -2.03 |
| AC001226.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC001226.2 | -1.89 | -1.89 | -1.84 | -1.86 | -1.85 | -1.88 | -1.89 | -1.87 |
| AC002044.1 | -0.30 | -0.15 | -0.17 | -0.38 | -0.38 | -0.30 | -0.13 | -0.36 |
| AC002044.2 | -0.93 | -0.85 | -0.76 | -0.86 | -0.93 | -0.76 | -0.86 | -0.89 |
| AC002044.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC002056.1 | 0.74 | 0.33 | 0.26 | 0.31 | 0.60 | 0.55 | 0.30 | 0.49 |
| AC002059.1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |
| AC002066.1 | -0.81 | -0.80 | -0.79 | -0.82 | -0.88 | -0.84 | -0.89 | -0.91 |
| AC002069.1 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC002070.1 | -1.64 | -1.59 | -1.63 | -1.65 | -1.61 | -1.60 | -1.60 | -1.66 |
| AC002074.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC002075.2 | 4.26 | 4.03 | 3.37 | 4.39 | 4.48 | 3.80 | 3.43 | 3.93 |
| AC002076.1 | -1.69 | -1.68 | -1.68 | -1.69 | -1.69 | -1.63 | -1.65 | -1.66 |
| AC002076.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 |
| AC002094.2 | -1.55 | -1.40 | -1.53 | -1.55 | -1.44 | -1.53 | -1.55 | -1.57 |
| AC002094.4 | -2.25 | -2.25 | -2.25 | -2.23 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC002116.2 | 0.74 | 0.56 | 0.33 | 0.52 | 0.77 | 0.49 | 0.52 | 0.33 |
| AC002128.1 | -0.20 | -0.18 | -0.33 | -0.22 | -0.19 | -0.23 | -0.22 | -0.25 |
| AC002306.1 | -1.85 | -1.80 | -1.79 | -1.81 | -1.87 | -1.90 | -1.90 | -1.91 |
| AC002310.1 | 3.15 | 2.70 | 2.79 | 2.42 | 2.53 | 2.48 | 2.34 | 2.53 |
| AC002310.2 | -1.27 | -1.19 | -1.25 | -1.21 | -1.23 | -1.22 | -1.08 | -1.29 |
| AC002310.5 | -2.18 | -2.16 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC002347.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC002347.2 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.19 | -2.20 | -2.17 |
| AC002350.1 | -0.93 | -1.00 | -0.91 | -0.82 | -0.93 | -1.06 | -1.09 | -1.10 |
| AC002351.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC002366.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| AC002367.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC002377.1 | -0.44 | -0.13 | 0.17 | -0.15 | -0.21 | -0.16 | -0.44 | -0.12 |
| AC002378.1 | -1.42 | -1.41 | -1.40 | -1.42 | -1.32 | -1.32 | -1.36 | -1.33 |
| AC002381.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC002398.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AC002401.4 | 2.26 | 1.81 | 2.78 | 1.94 | 2.14 | 1.94 | 2.47 | 2.09 |
| AC002429.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC002451.1 | 1.52 | 0.76 | 1.05 | 0.88 | 1.03 | 0.63 | 0.80 | 0.80 |
| AC002451.2 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC002454.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.85 | -1.84 | -1.86 |
| AC002456.1 | -1.04 | -1.11 | -1.10 | -1.12 | -1.11 | -1.13 | -1.12 | -1.07 |
| AC002460.2 | -0.49 | -0.48 | -0.31 | -0.49 | -0.48 | -0.50 | 0.25 | -0.20 |
| AC002463.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC002467.1 | 2.51 | 2.62 | 2.52 | 2.59 | 2.76 | 2.59 | 2.65 | 2.57 |
| AC002470.1 | 1.32 | 0.90 | 0.99 | 1.21 | 0.85 | 1.00 | 0.85 | 0.59 |
| AC002472.2 | -2.24 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC002480.1 | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC002486.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC002504.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC002519.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| AC002525.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC002545.1 | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.95 | -1.91 | -1.96 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC002550.1 | -1.26 | -1.33 | -1.24 | -1.34 | -1.26 | -1.19 | -1.34 | -1.29 |
| AC002550.2 | -0.39 | -0.23 | -0.28 | -0.17 | -0.35 | -0.33 | -0.26 | -0.07 |
| AC002551.1 | -1.90 | -1.94 | -1.89 | -1.95 | -1.94 | -1.91 | -1.95 | -1.96 |
| AC002553.1 | -1.03 | -1.10 | -1.09 | -1.04 | -0.95 | -1.11 | -0.91 | -1.12 |
| AC002553.2 | -0.19 | -0.10 | -0.18 | -0.21 | -0.15 | -0.18 | 0.07 | -0.30 |
| AC002558.1 | -0.43 | -0.40 | -0.29 | -0.42 | -0.57 | -0.35 | -0.43 | -0.47 |
| AC002558.3 | 1.86 | 2.36 | 2.92 | 2.07 | 2.14 | 2.18 | 2.39 | 1.81 |
| AC003005.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC003043.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC003070.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC003070.2 | -0.65 | -1.24 | -1.23 | -1.25 | -1.17 | -1.19 | -1.25 | -1.26 |
| AC003071.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.30 | -2.30 |
| AC003072.1 | 0.58 | 0.59 | 0.78 | 0.64 | 0.80 | 0.99 | 0.97 | 0.71 |
| AC003086.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.13 |
| AC003092.1 | -1.84 | -1.84 | -1.74 | -1.84 | -1.84 | -1.83 | -1.80 | -1.86 |
| AC003093.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC003101.2 | -1.84 | -1.79 | -1.83 | -1.80 | -1.79 | -1.85 | -1.76 | -1.82 |
| AC003102.1 | 1.79 | 2.16 | 2.15 | 2.01 | 2.09 | 2.17 | 2.12 | 2.24 |
| AC003112.1 | -0.53 | -0.53 | -0.52 | -0.45 | -0.18 | -0.40 | -0.54 | 0.22 |
| AC003659.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC003665.1 | 2.95 | 3.56 | 3.75 | 3.50 | 3.04 | 3.19 | 3.24 | 2.78 |
| AC003681.1 | 0.49 | 0.51 | 0.29 | 0.33 | 0.32 | 0.44 | 0.25 | 0.54 |
| AC003685.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC003956.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC003965.1 | 0.45 | 0.04 | 0.31 | 0.29 | 0.16 | 0.09 | 0.32 | 0.13 |
| AC003965.2 | -2.20 | -2.20 | -2.19 | -2.15 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC003991.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.07 | -2.10 | -2.08 |
| AC004000.1 | -1.79 | -1.79 | -1.73 | -1.75 | -1.76 | -1.78 | -1.70 | -1.81 |
| AC004009.1 | 1.61 | 1.67 | 0.86 | 1.58 | 1.23 | 0.97 | 0.80 | 0.96 |
| AC004009.2 | -0.12 | 0.20 | -0.15 | 0.16 | -0.20 | -0.17 | -0.28 | -0.31 |
| AC004009.3 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.02 | -2.05 | -2.06 |
| AC004012.1 | -1.43 | -1.42 | -1.52 | -1.49 | -1.39 | -1.52 | -1.54 | -1.51 |
| AC004024.1 | -1.69 | -1.69 | -1.68 | -1.65 | -1.69 | -1.63 | -1.70 | -1.62 |
| AC004034.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC004057.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC004067.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC004069.1 | -0.06 | -0.05 | -0.34 | -0.14 | -0.31 | -0.08 | -0.29 | -0.20 |
| AC004076.2 | -0.92 | -0.91 | -0.55 | -0.84 | -0.91 | -0.86 | -0.59 | -0.81 |
| AC004080.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.73 | -1.85 | -1.84 | -1.86 |
| AC004080.2 | -2.18 | -2.20 | -2.17 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC004080.4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.21 | -2.22 |
| AC004083.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC004086.1 | 9.69 | 10.37 | 8.98 | 10.76 | 10.61 | 9.98 | 9.66 | 10.45 |
| AC004129.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC004130.1 | 4.55 | 3.72 | 3.52 | 3.99 | 4.17 | 3.51 | 2.82 | 3.67 |
| AC004148.2 | 4.59 | 3.18 | 3.50 | 3.32 | 3.54 | 4.36 | 3.94 | 4.43 |
| AC004151.1 | 3.03 | 3.03 | 2.20 | 2.59 | 2.72 | 2.78 | 2.25 | 2.59 |
| AC004156.1 | 6.59 | 6.30 | 6.67 | 6.44 | 7.09 | 6.76 | 6.69 | 7.13 |
| AC004156.2 | -2.07 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC004158.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC004160.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004221.1 | -0.65 | -0.84 | -0.83 | -0.85 | -0.70 | -0.86 | -0.85 | -0.68 |
| AC004223.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.93 | -1.94 |
| AC004223.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.17 |
| AC004223.4 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC004224.1 | -0.38 | -0.37 | -0.36 | -0.46 | -0.34 | -0.30 | -0.39 | -0.20 |
| AC004231.1 | -0.87 | -0.71 | -0.85 | -0.72 | -0.75 | -0.78 | -0.88 | -0.83 |
| AC004232.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC004232.2 | -1.59 | -1.58 | -1.63 | -1.64 | -1.64 | -1.65 | -1.65 | -1.56 |
| AC004233.1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC004233.2 | 3.48 | 2.67 | 3.08 | 2.59 | 2.42 | 3.96 | 3.55 | 2.67 |
| AC004233.3 | -1.21 | -1.34 | -1.19 | -1.35 | -1.34 | -1.26 | -1.29 | -1.37 |
| AC004241.1 | 2.27 | 1.61 | 1.59 | 1.96 | 1.54 | 1.97 | 1.49 | 1.61 |
| AC004241.2 | -1.57 | -1.74 | -1.73 | -1.75 | -1.74 | -1.70 | -1.69 | -1.77 |
| AC004241.3 | 1.50 | 1.38 | 1.66 | 1.53 | 1.59 | 1.59 | 1.29 | 1.58 |
| AC004241.5 | -2.28 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC004263.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AC004263.2 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC004264.1 | 2.68 | 3.72 | 2.97 | 3.39 | 3.58 | 3.86 | 3.15 | 2.39 |
| AC004381.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC004381.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC004383.1 | -1.94 | -1.90 | -1.93 | -1.95 | -1.94 | -1.93 | -1.95 | -1.96 |
| AC004386.1 | 2.65 | 2.16 | 1.62 | 2.16 | 1.98 | 2.14 | 1.90 | 1.86 |
| AC004449.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC004453.1 | 4.16 | 4.09 | 3.21 | 4.35 | 4.35 | 3.87 | 3.54 | 3.78 |
| AC004461.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.85 | -1.90 | -1.89 | -1.83 |
| AC004461.2 | -2.15 | -2.15 | -2.14 | -2.10 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC004466.1 | 0.81 | 0.46 | 0.74 | 0.64 | 0.92 | 0.89 | 0.77 | 0.70 |
| AC004466.2 | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC004471.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC004471.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC004475.1 | 4.16 | 4.68 | 4.44 | 4.60 | 4.63 | 4.62 | 4.23 | 4.36 |
| AC004477.1 | 1.46 | 1.18 | 1.11 | 1.14 | 1.43 | 1.27 | 1.41 | 1.03 |
| AC004477.2 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.83 | -1.76 | -1.78 |
| AC004477.3 | -1.29 | -1.22 | -1.27 | -1.29 | -1.22 | -1.24 | -1.11 | -1.25 |
| AC004490.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC004491.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.02 | -2.06 |
| AC004492.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.93 | -1.95 | -1.96 |
| AC004494.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC004522.2 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC004522.4 | -0.90 | -1.22 | -1.21 | -1.23 | -0.95 | -1.17 | -1.23 | -1.24 |
| AC004528.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004528.2 | -1.33 | -1.26 | -1.38 | -1.46 | -1.45 | -1.40 | -1.46 | -1.42 |
| AC004540.1 | 2.69 | 2.39 | 1.95 | 2.97 | 2.96 | 1.90 | 1.52 | 1.73 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC004540.2 | -0.16 | -0.51 | -0.72 | -0.40 | -0.47 | -0.68 | -0.67 | -0.58 |
| AC004542.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC004542.2 | -1.44 | -1.38 | -1.48 | -1.50 | -1.47 | -1.45 | -1.45 | -1.42 |
| AC004551.1 | 7.64 | 6.44 | 6.44 | 6.33 | 6.90 | 6.37 | 5.73 | 6.53 |
| AC004551.2 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC004552.1 | -0.85 | -1.06 | -1.04 | -0.99 | -0.98 | -0.86 | -1.00 | -0.91 |
| AC004584.1 | 0.07 | -0.04 | 0.22 | -0.14 | -0.16 | -0.08 | 0.05 | -0.12 |
| AC004584.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC004584.3 | -2.20 | -2.20 | -2.17 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC004585.1 | 1.71 | 1.41 | 1.34 | 1.30 | 1.10 | 1.85 | 1.28 | 1.29 |
| AC004590.1 | -1.00 | -0.91 | -1.05 | -1.00 | -1.06 | -0.95 | -1.07 | -0.76 |
| AC004593.1 | -2.10 | -2.15 | -2.14 | -2.12 | -2.12 | -2.15 | -2.15 | -2.16 |
| AC004593.2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -1.97 |
| AC004594.1 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC004596.1 | -1.49 | -1.49 | -1.48 | -1.44 | -1.43 | -1.47 | -1.44 | -1.51 |
| AC004623.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -2.00 | -2.01 |
| AC004672.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004678.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004687.1 | -1.74 | -1.74 | -1.73 | -1.69 | -1.74 | -1.67 | -1.69 | -1.77 |
| AC004692.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC004704.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC004706.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC004706.3 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC004707.1 | -2.04 | -2.04 | -2.04 | -2.01 | -2.03 | -2.04 | -2.05 | -2.06 |
| AC004765.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC004771.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC004771.3 | -0.96 | -1.03 | -0.94 | -1.04 | -0.92 | -1.04 | -0.97 | -0.93 |
| AC004771.4 | 0.60 | 0.10 | 0.19 | 0.20 | 0.09 | 0.23 | 0.01 | 0.10 |
| AC004771.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004777.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AC004784.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004797.1 | -1.99 | -1.99 | -1.98 | -1.93 | -1.97 | -2.00 | -2.00 | -2.01 |
| AC004801.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| AC004801.2 | -1.12 | -1.25 | -1.17 | -1.19 | -1.21 | -1.14 | -1.19 | -1.06 |
| AC004801.6 | -1.59 | -1.53 | -1.52 | -1.49 | -1.53 | -1.55 | -1.60 | -1.51 |
| AC004803.1 | 0.44 | 0.20 | 0.13 | 0.56 | 0.31 | 0.28 | 0.38 | 0.25 |
| AC004805.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC004808.2 | -1.74 | -1.74 | -1.73 | -1.69 | -1.71 | -1.75 | -1.75 | -1.66 |
| AC004812.2 | 2.74 | 2.60 | 2.54 | 2.91 | 2.48 | 2.26 | 2.55 | 2.58 |
| AC004816.1 | 3.42 | 3.54 | 3.59 | 3.54 | 4.04 | 4.34 | 3.62 | 3.72 |
| AC004816.2 | -0.78 | -0.94 | -1.07 | -1.09 | -1.01 | -0.97 | -1.03 | -1.05 |
| AC004817.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC004817.3 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -1.94 |
| AC004817.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004817.5 | -0.45 | -0.67 | -0.66 | -0.68 | -0.63 | -0.65 | -0.54 | -0.18 |
| AC004825.2 | -1.39 | -1.38 | -1.43 | -1.33 | -1.35 | -1.46 | -1.45 | -1.47 |
| AC004825.3 | -1.84 | -1.83 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.82 |
| AC004830.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC004832.4 | -1.96 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.93 | -2.01 |
| AC004832.5 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -1.97 |
| AC004832.6 | -1.99 | -1.99 | -1.95 | -2.00 | -1.99 | -2.00 | -1.96 | -2.01 |
| AC004834.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.18 | -2.20 | -2.19 |
| AC004835.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC004837.4 | -1.08 | -1.07 | -0.99 | -1.08 | -0.84 | -0.93 | -1.08 | -1.04 |
| AC004839.1 | -1.59 | -1.63 | -1.63 | -1.59 | -1.61 | -1.55 | -1.64 | -1.61 |
| AC004840.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC004846.1 | -1.28 | -1.27 | -1.19 | -1.28 | -1.27 | -1.26 | -1.28 | -1.30 |
| AC004846.2 | -0.93 | -0.92 | -0.83 | -0.67 | -0.88 | -0.86 | -0.66 | -0.94 |
| AC004854.2 | -1.14 | -1.20 | -1.19 | -0.97 | -1.14 | -1.16 | -1.15 | -1.07 |
| AC004862.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC004865.2 | -1.43 | -1.55 | -1.54 | -1.56 | -1.56 | -1.54 | -1.57 | -1.41 |
| AC004870.2 | 0.02 | -0.03 | -0.10 | -0.04 | -0.12 | 0.67 | -0.06 | 0.73 |
| AC004875.1 | -0.75 | -1.20 | -1.18 | -1.21 | -1.20 | -1.21 | -1.21 | -1.22 |
| AC004877.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC004877.2 | -0.99 | -0.98 | -0.89 | -0.99 | -0.98 | -1.08 | -0.85 | -1.08 |
| AC004882.3 | 0.70 | 0.64 | 0.74 | 0.81 | 0.90 | 0.71 | 0.80 | 0.81 |
| AC004884.1 | 0.22 | 0.65 | 0.17 | 0.28 | 0.52 | 0.42 | 0.41 | 0.24 |
| AC004884.2 | -1.50 | -1.45 | -1.54 | -1.56 | -1.53 | -1.54 | -1.56 | -1.39 |
| AC004889.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC004890.1 | 1.55 | 2.18 | 1.28 | 2.08 | 1.50 | 1.35 | 1.26 | 1.99 |
| AC004890.2 | -1.79 | -1.74 | -1.78 | -1.79 | -1.74 | -1.80 | -1.75 | -1.81 |
| AC004893.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 |
| AC004898.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC004908.2 | 0.06 | 0.01 | 0.20 | -0.16 | 0.03 | -0.11 | -0.24 | 0.17 |
| AC004908.3 | -1.94 | -1.94 | -1.86 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| AC004910.1 | -1.94 | -1.86 | -1.93 | -1.87 | -1.92 | -1.95 | -1.95 | -1.92 |
| AC004917.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC004918.1 | 0.26 | 0.27 | 0.62 | 0.45 | 0.23 | 0.33 | 0.32 | 0.48 |
| AC004918.4 | -0.78 | -0.70 | -0.60 | -0.70 | -0.78 | -0.75 | -0.51 | -0.59 |
| AC004921.1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| AC004922.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004923.1 | -0.98 | -1.12 | -1.11 | -1.05 | -1.12 | -1.10 | -1.00 | -1.14 |
| AC004923.4 | -1.85 | -1.89 | -1.88 | -1.89 | -1.83 | -1.86 | -1.85 | -1.91 |
| AC004925.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC004938.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC004938.2 | 0.21 | 0.01 | 0.15 | 0.00 | 0.09 | 0.01 | -0.09 | -0.11 |
| AC004943.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC004943.2 | 1.78 | 1.43 | 2.57 | 1.46 | 1.73 | 1.90 | 1.95 | 1.61 |
| AC004943.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC004947.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC004951.1 | 0.93 | 1.18 | 1.05 | 0.91 | 0.91 | 0.99 | 1.44 | 0.93 |
| AC004951.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004951.4 | -0.89 | -0.87 | -0.86 | -0.67 | -0.92 | -0.94 | -0.81 | -0.98 |
| AC004967.1 | 0.00 | -0.14 | -0.22 | -0.02 | 0.06 | -0.01 | 0.05 | -0.09 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC004967.2 | 0.42 | 0.58 | 0.50 | 0.72 | 0.59 | 0.42 | 0.41 | 0.61 |
| AC004974.1 | -1.55 | -1.60 | -1.59 | -1.61 | -1.52 | -1.61 | -1.61 | -1.53 |
| AC004975.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004980.1 | -0.15 | -0.06 | -0.13 | 0.00 | -0.06 | 0.01 | -0.01 | 0.04 |
| AC004980.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC004982.1 | -0.04 | -0.01 | -0.21 | 0.18 | -0.19 | -0.20 | -0.18 | -0.17 |
| AC004982.2 | 3.21 | 3.17 | 2.21 | 3.20 | 2.30 | 2.47 | 2.35 | 2.93 |
| AC004987.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC004988.1 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC004990.1 | 0.72 | 1.38 | 1.20 | 1.47 | 0.86 | 1.12 | 0.86 | 1.27 |
| AC005000.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.24 |
| AC005005.2 | -1.64 | -1.69 | -1.68 | -1.70 | -1.67 | -1.70 | -1.70 | -1.62 |
| AC005005.3 | -1.99 | -1.99 | -1.95 | -1.99 | -1.96 | -1.98 | -2.00 | -2.01 |
| AC005005.4 | 0.34 | 0.38 | 0.06 | 0.32 | 0.12 | 0.15 | 0.10 | 0.12 |
| AC005006.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005009.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC005013.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC005014.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC005019.1 | -0.90 | -0.65 | -0.88 | -0.75 | -0.81 | -0.70 | -0.70 | -0.92 |
| AC005021.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC005033.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005034.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC005034.5 | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC005034.6 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC005037.1 | -0.65 | -0.72 | -0.63 | -0.72 | -0.71 | -0.77 | -0.80 | -0.64 |
| AC005041.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC005041.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.08 |
| AC005041.4 | 0.37 | -0.10 | 0.13 | -0.11 | 0.01 | 0.14 | 0.11 | -0.14 |
| AC005041.5 | 1.36 | 1.12 | 1.32 | 1.28 | 1.43 | 1.20 | 1.13 | 1.28 |
| AC005042.1 | -1.35 | -1.40 | -1.45 | -1.41 | -1.46 | -1.47 | -1.35 | -1.48 |
| AC005046.1 | -1.64 | -1.64 | -1.63 | -1.60 | -1.64 | -1.60 | -1.55 | -1.52 |
| AC005052.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC005052.2 | -1.24 | -1.16 | -1.01 | -1.25 | -1.20 | -1.09 | -1.11 | -1.15 |
| AC005062.1 | 0.54 | 0.79 | 0.82 | 0.61 | 0.81 | 1.10 | 0.75 | 0.61 |
| AC005070.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.91 | -1.89 |
| AC005070.3 | -0.85 | -0.76 | -0.83 | -0.77 | -0.76 | -0.68 | -0.57 | -0.86 |
| AC005072.1 | -0.02 | -0.01 | -0.01 | 0.11 | 0.01 | 0.02 | 0.22 | -0.01 |
| AC005076.1 | 0.80 | 0.89 | 0.60 | 0.72 | 1.15 | 0.80 | 0.84 | 0.87 |
| AC005077.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC005077.4 | -0.85 | -0.84 | -0.83 | -0.78 | -0.76 | -0.85 | -0.59 | -0.66 |
| AC005081.1 | -0.63 | -0.85 | -0.76 | -0.41 | -0.81 | -0.76 | -0.86 | -0.75 |
| AC005082.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC005082.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.02 | -2.06 |
| AC005083.1 | 5.06 | 4.08 | 4.07 | 4.85 | 4.53 | 4.75 | 3.40 | 4.75 |
| AC005086.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005089.1 | 0.18 | 0.13 | 0.07 | 0.09 | 0.52 | -0.02 | 0.47 | -0.08 |
| AC005091.1 | -1.74 | -1.74 | -1.73 | -1.75 | -1.74 | -1.71 | -1.75 | -1.63 |
| AC005094.1 | -1.89 | -1.84 | -1.79 | -1.90 | -1.87 | -1.90 | -1.85 | -1.91 |
| AC005096.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AC005099.1 | -1.90 | -1.94 | -1.93 | -1.95 | -1.94 | -1.93 | -1.95 | -1.96 |
| AC005102.1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC005104.1 | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC005104.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC005154.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC005154.2 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.10 | -2.13 |
| AC005162.3 | -0.07 | -0.45 | -0.44 | -0.39 | -0.33 | -0.47 | -0.39 | -0.43 |
| AC005165.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC005165.2 | -0.08 | 0.01 | 0.02 | 0.21 | 0.14 | 0.19 | 0.06 | -0.05 |
| AC005183.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC005186.1 | -1.38 | -1.44 | -1.43 | -1.44 | -1.41 | -1.45 | -1.45 | -1.46 |
| AC005189.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.13 |
| AC005224.2 | -1.46 | -1.38 | -1.44 | -1.32 | -1.46 | -1.48 | -1.40 | -1.42 |
| AC005224.3 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC005225.2 | -1.43 | -1.54 | -1.53 | -1.49 | -1.45 | -1.53 | -1.55 | -1.51 |
| AC005225.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC005229.1 | -0.91 | -0.98 | -0.89 | -0.99 | -0.87 | -0.96 | -0.81 | -0.88 |
| AC005229.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC005229.4 | 1.85 | 1.56 | 1.61 | 1.73 | 2.04 | 1.33 | 1.55 | 1.86 |
| AC005237.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC005244.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.29 |
| AC005253.1 | 0.22 | 0.03 | 0.11 | 0.15 | 0.22 | 0.07 | 0.08 | 0.15 |
| AC005253.2 | -0.07 | 0.03 | 0.05 | 0.28 | 0.22 | 0.17 | 0.08 | -0.03 |
| AC005255.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005255.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.13 |
| AC005256.1 | 4.46 | 3.69 | 4.08 | 3.69 | 4.68 | 4.22 | 4.25 | 3.19 |
| AC005261.1 | 2.11 | 1.47 | 2.18 | 1.64 | 1.51 | 1.78 | 2.11 | 1.78 |
| AC005261.2 | 4.25 | 4.63 | 4.45 | 4.44 | 4.39 | 4.64 | 4.74 | 4.26 |
| AC005261.3 | -1.44 | -1.68 | -1.68 | -1.69 | -1.68 | -1.67 | -1.69 | -1.71 |
| AC005261.5 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005261.6 | -1.94 | -1.94 | -1.90 | -1.94 | -1.94 | -1.95 | -1.95 | -1.92 |
| AC005262.1 | -0.32 | -0.24 | -0.38 | -0.33 | -0.29 | -0.32 | -0.41 | -0.38 |
| AC005262.2 | -2.20 | -2.20 | -2.17 | -2.16 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC005277.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC005280.1 | -1.39 | -1.44 | -1.43 | -1.39 | -1.44 | -1.37 | -1.39 | -1.47 |
| AC005280.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC005280.3 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005288.1 | -0.46 | -0.37 | -0.52 | -0.39 | -0.33 | -0.45 | -0.55 | -0.38 |
| AC005300.1 | -2.15 | -2.14 | -2.14 | -2.10 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC005304.3 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC005306.1 | 0.61 | 0.62 | 1.19 | 0.89 | 0.88 | 0.96 | 0.94 | 0.93 |
| AC005324.3 | -1.89 | -1.84 | -1.84 | -1.90 | -1.89 | -1.88 | -1.90 | -1.91 |
| AC005324.5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| AC005329.1 | 0.60 | 0.47 | 0.82 | 0.60 | 0.62 | 0.56 | 0.65 | 0.40 |
| AC005329.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC005329.3 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.84 | -1.86 |
| AC005332.1 | -1.90 | -1.90 | -1.89 | -1.95 | -1.90 | -1.95 | -1.91 | -1.96 |
| AC005332.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC005332.3 | 0.46 | 0.44 | 0.63 | 0.59 | 0.43 | 0.44 | 0.39 | 0.46 |
| AC005332.4 | -1.34 | -1.40 | -1.39 | -1.42 | -1.33 | -1.35 | -1.42 | -1.44 |
| AC005332.5 | 1.01 | 1.22 | 1.16 | 0.93 | 1.02 | 1.11 | 0.98 | 1.42 |
| AC005332.6 | 2.90 | 3.08 | 2.96 | 3.35 | 2.89 | 3.43 | 2.70 | 3.19 |
| AC005332.7 | -1.89 | -1.85 | -1.88 | -1.85 | -1.89 | -1.90 | -1.90 | -1.91 |
| AC005336.1 | -0.01 | -0.15 | -0.04 | -0.16 | -0.04 | -0.16 | 0.06 | -0.05 |
| AC005336.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC005336.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 |
| AC005339.1 | -1.59 | -1.58 | -1.57 | -1.59 | -1.64 | -1.60 | -1.65 | -1.66 |
| AC005342.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005343.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC005343.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| AC005351.1 | -1.64 | -1.63 | -1.63 | -1.64 | -1.64 | -1.62 | -1.59 | -1.66 |
| AC005355.2 | -2.05 | -2.04 | -2.00 | -2.01 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC005363.2 | 1.02 | 0.29 | 0.49 | 0.35 | 0.41 | 0.39 | 0.19 | 0.29 |
| AC005392.2 | 0.05 | 0.25 | 0.08 | 0.22 | 0.15 | 0.15 | 0.05 | 0.01 |
| AC005393.1 | -2.01 | -2.04 | -2.01 | -2.05 | -2.04 | -2.00 | -2.02 | -2.06 |
| AC005400.1 | -1.69 | -1.69 | -1.68 | -1.54 | -1.66 | -1.70 | -1.64 | -1.71 |
| AC005410.1 | -1.60 | -1.59 | -1.58 | -1.49 | -1.51 | -1.58 | -1.44 | -1.52 |
| AC005410.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC005476.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 |
| AC005476.2 | 1.86 | 1.76 | 1.76 | 1.58 | 1.63 | 2.04 | 1.44 | 1.73 |
| AC005479.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005480.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AC005480.2 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC005481.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC005482.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC005487.1 | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC005495.1 | -2.05 | -2.01 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| AC005498.2 | -0.20 | -0.79 | -0.77 | -0.79 | -0.70 | -0.76 | -0.79 | -0.81 |
| AC005498.3 | -1.01 | -1.30 | -1.35 | -1.37 | -1.36 | -1.31 | -1.19 | -1.38 |
| AC005514.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005515.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC005520.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC005520.2 | 0.87 | 0.89 | 1.43 | 0.91 | 1.23 | 0.88 | 0.63 | 1.00 |
| AC005520.3 | -2.10 | -2.09 | -2.06 | -2.10 | -2.06 | -2.10 | -2.10 | -2.08 |
| AC005520.5 | -0.87 | -1.01 | -0.85 | -0.94 | -0.86 | -0.93 | -0.88 | -0.97 |
| AC005521.1 | 0.08 | 0.34 | 0.10 | 0.22 | 0.33 | 0.27 | 0.00 | 0.15 |
| AC005523.1 | -1.74 | -1.64 | -1.68 | -1.74 | -1.71 | -1.73 | -1.70 | -1.76 |
| AC005523.2 | 2.55 | 2.08 | 2.07 | 2.48 | 2.35 | 2.54 | 2.19 | 2.28 |
| AC005531.1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| AC005532.1 | 1.33 | 1.83 | 1.22 | 1.91 | 1.19 | 1.41 | 1.31 | 2.32 |
| AC005534.1 | -1.55 | -1.55 | -1.48 | -1.55 | -1.49 | -1.40 | -1.56 | -1.57 |
| AC005534.2 | -1.79 | -1.74 | -1.78 | -1.79 | -1.79 | -1.75 | -1.79 | -1.81 |
| AC005537.1 | -1.31 | -1.30 | -1.29 | -1.31 | -0.62 | -1.32 | -1.32 | -1.33 |
| AC005540.1 | -1.69 | -1.64 | -1.73 | -1.74 | -1.74 | -1.66 | -1.74 | -1.76 |
| AC005546.1 | -1.18 | -1.17 | -1.01 | -1.19 | -1.14 | -1.16 | -0.97 | -1.20 |
| AC005550.2 | 0.84 | 0.95 | 0.85 | 1.12 | 0.56 | 0.63 | 0.61 | 1.68 |
| AC005562.1 | -1.48 | -1.59 | -1.58 | -1.60 | -1.53 | -1.60 | -1.60 | -1.56 |
| AC005578.1 | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.95 | -1.91 | -1.96 |
| AC005586.2 | -1.79 | -1.78 | -1.78 | -1.79 | -1.70 | -1.75 | -1.79 | -1.76 |
| AC005587.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC005592.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC005593.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.05 | -2.03 |
| AC005594.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005606.1 | -1.39 | -1.45 | -1.25 | -1.33 | -1.42 | -1.46 | -1.46 | -1.47 |
| AC005606.2 | -1.07 | -1.27 | -1.26 | -1.21 | -1.27 | -1.25 | -1.28 | -1.23 |
| AC005609.4 | -2.10 | -2.09 | -2.09 | -2.02 | -2.09 | -2.10 | -2.10 | -2.08 |
| AC005614.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.13 | -2.16 |
| AC005618.1 | -1.65 | -1.79 | -1.64 | -1.79 | -1.79 | -1.78 | -1.79 | -1.81 |
| AC005618.4 | -1.08 | -1.08 | -0.79 | -1.08 | -1.00 | -0.93 | -1.09 | -1.04 |
| AC005622.1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.00 | -2.04 | -2.05 | -2.03 |
| AC005632.2 | 0.85 | 1.03 | 1.18 | 1.18 | 1.09 | 1.09 | 1.15 | 1.06 |
| AC005632.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC005670.1 | -1.49 | -1.42 | -1.47 | -1.54 | -1.51 | -1.55 | -1.55 | -1.56 |
| AC005670.3 | 3.76 | 3.51 | 4.19 | 2.85 | 3.59 | 3.20 | 3.66 | 2.87 |
| AC005674.2 | -1.34 | -1.26 | -1.32 | -1.34 | -1.33 | -1.32 | -1.16 | -1.36 |
| AC005695.3 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC005696.1 | -1.49 | -1.58 | -1.68 | -1.64 | -1.69 | -1.65 | -1.69 | -1.71 |
| AC005696.2 | -1.79 | -1.78 | -1.78 | -1.79 | -1.79 | -1.78 | -1.75 | -1.81 |
| AC005696.4 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.85 | -1.84 | -1.86 |
| AC005697.2 | -1.89 | -1.85 | -1.88 | -1.85 | -1.89 | -1.90 | -1.90 | -1.91 |
| AC005699.1 | -0.47 | -0.47 | -0.28 | -0.41 | -0.43 | -0.45 | -0.41 | -0.38 |
| AC005702.2 | -1.13 | -1.19 | -1.04 | -1.20 | -1.12 | -1.09 | -1.07 | -1.22 |
| AC005722.3 | 0.21 | 0.07 | 0.18 | 0.13 | 0.14 | 0.04 | 0.20 | 0.52 |
| AC005725.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC005726.1 | 0.72 | 0.76 | 0.71 | 0.50 | 0.45 | 0.59 | 0.55 | 0.51 |
| AC005726.3 | 1.45 | 1.15 | 1.45 | 0.96 | 1.02 | 1.40 | 1.38 | 1.51 |
| AC005726.4 | 0.45 | 0.48 | 0.55 | 0.52 | 0.55 | 0.56 | 0.44 | 0.74 |
| AC005726.5 | 6.25 | 4.51 | 5.22 | 4.82 | 5.15 | 5.42 | 4.42 | 6.17 |
| AC005730.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.12 | -2.16 |
| AC005730.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC005736.1 | -2.01 | -2.04 | -2.01 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| AC005740.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AC005740.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC005740.5 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.90 | -1.94 |
| AC005747.1 | -0.65 | -0.47 | -0.54 | -0.57 | -0.47 | -0.51 | -0.65 | -0.67 |
| AC005753.1 | -2.09 | -2.07 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.10 |
| AC005753.3 | -0.91 | -0.90 | -0.74 | -0.91 | -0.90 | -0.75 | -0.71 | -0.75 |
| AC005757.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC005759.2 | -1.05 | -1.11 | -1.17 | -1.12 | -1.01 | -1.20 | -1.20 | -1.15 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC005775.1 | -1.04 | -1.17 | -1.01 | -1.18 | -1.14 | -1.12 | -1.19 | -1.20 |
| AC005776.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005785.1 | -0.12 | -0.03 | -0.17 | 0.01 | -0.04 | -0.14 | -0.20 | -0.11 |
| AC005785.2 | -0.84 | -0.84 | -0.83 | -0.78 | -0.81 | -0.93 | -0.65 | -0.94 |
| AC005786.1 | -1.25 | -1.24 | -1.30 | -1.19 | -1.28 | -1.33 | -1.32 | -1.22 |
| AC005786.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| AC005786.3 | -1.04 | -0.96 | -1.10 | -1.12 | -0.96 | -1.03 | -1.06 | -1.07 |
| AC005790.1 | 0.63 | 0.10 | 0.27 | 0.08 | 0.18 | 0.18 | 0.24 | 0.06 |
| AC005796.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.16 | -2.21 |
| AC005821.2 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC005822.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -2.00 | -2.00 | -1.91 |
| AC005828.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC005828.6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC005829.1 | -0.41 | -0.40 | -0.47 | -0.43 | -0.40 | -0.44 | -0.57 | -0.40 |
| AC005831.1 | 0.06 | 0.53 | 0.21 | 0.20 | 0.03 | -0.02 | -0.08 | -0.05 |
| AC005833.1 | -1.73 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.91 |
| AC005837.1 | 0.91 | 0.44 | 0.67 | 0.71 | 0.56 | 0.58 | 0.57 | 0.51 |
| AC005838.2 | -0.32 | -0.31 | -0.15 | -0.05 | -0.24 | -0.19 | -0.18 | -0.17 |
| AC005839.1 | 0.56 | 0.41 | 1.38 | 0.80 | 0.49 | 0.82 | 0.69 | 0.42 |
| AC005840.1 | 8.13 | 7.47 | 7.83 | 7.73 | 7.12 | 6.82 | 7.17 | 7.88 |
| AC005840.2 | 0.40 | 0.56 | 0.34 | 0.52 | 0.58 | 0.48 | 0.44 | 0.44 |
| AC005840.3 | -0.85 | -0.98 | -1.04 | -1.07 | -0.95 | -1.00 | -0.93 | -1.02 |
| AC005840.4 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC005840.5 | -0.91 | -1.06 | -0.82 | -0.92 | -1.06 | -1.07 | -1.00 | -1.08 |
| AC005841.1 | 0.31 | 0.26 | 0.25 | 0.30 | 0.18 | 0.10 | 0.29 | 0.22 |
| AC005856.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC005865.1 | -2.23 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC005865.2 | -0.32 | -0.49 | -0.54 | -0.58 | -0.56 | -0.29 | -0.65 | -0.67 |
| AC005865.3 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -1.99 | -1.97 |
| AC005899.1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AC005899.3 | -2.04 | -2.01 | -2.01 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC005899.5 | -0.83 | -0.83 | -0.58 | -0.84 | -0.76 | -0.89 | -0.85 | -0.81 |
| AC005899.6 | -0.78 | -0.77 | -0.43 | -0.77 | -0.77 | -0.67 | -0.52 | -0.75 |
| AC005899.7 | -1.64 | -1.68 | -1.63 | -1.69 | -1.66 | -1.67 | -1.64 | -1.66 |
| AC005899.8 | -1.79 | -1.78 | -1.78 | -1.75 | -1.76 | -1.75 | -1.67 | -1.76 |
| AC005906.1 | -2.04 | -2.01 | -2.04 | -2.05 | -2.04 | -1.99 | -2.05 | -2.06 |
| AC005908.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC005911.1 | -0.46 | -0.65 | -0.55 | -0.40 | -0.65 | -0.60 | -0.53 | -0.68 |
| AC005912.1 | 4.38 | 4.22 | 3.31 | 4.66 | 5.26 | 4.26 | 3.56 | 4.54 |
| AC005914.1 | -0.47 | -0.27 | -0.44 | -0.55 | -0.47 | -0.21 | -0.55 | -0.39 |
| AC005920.1 | -0.45 | -0.72 | -0.71 | -0.58 | -0.58 | -0.61 | -0.60 | -0.74 |
| AC005920.3 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC005921.2 | 2.39 | 2.10 | 1.79 | 1.97 | 2.16 | 2.35 | 1.90 | 2.01 |
| AC005921.3 | -1.00 | -1.06 | -1.05 | -1.15 | -1.10 | -1.05 | -1.15 | -1.16 |
| AC005943.2 | -1.69 | -1.63 | -1.57 | -1.54 | -1.63 | -1.65 | -1.70 | -1.71 |
| AC005944.1 | 2.21 | 2.22 | 2.33 | 1.97 | 2.14 | 2.36 | 2.41 | 2.24 |
| AC005954.1 | 3.40 | 2.86 | 3.05 | 2.97 | 3.75 | 3.51 | 3.26 | 3.56 |
| AC005954.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC005962.1 | -1.47 | -1.41 | -1.46 | -1.42 | -1.47 | -1.43 | -1.42 | -1.44 |
| AC005962.2 | -0.01 | -0.26 | -0.15 | -0.19 | -0.07 | -0.13 | -0.06 | -0.11 |
| AC005972.3 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC005993.1 | -1.19 | -1.37 | -1.36 | -1.38 | -1.38 | -1.39 | -1.39 | -1.40 |
| AC006001.2 | 0.29 | 0.51 | 0.30 | 0.28 | 0.26 | 0.35 | 0.40 | 0.33 |
| AC006001.3 | 5.34 | 4.91 | 4.68 | 4.91 | 4.86 | 5.05 | 4.84 | 4.94 |
| AC006003.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC006004.1 | -0.03 | 0.40 | 0.09 | 0.10 | 0.13 | 0.26 | -0.11 | -0.14 |
| AC006008.1 | -1.06 | -0.90 | -0.96 | -0.99 | -1.06 | -0.94 | -1.07 | -1.02 |
| AC006011.2 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.91 | -1.91 | -1.92 |
| AC006017.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.13 | -2.16 |
| AC006026.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC006027.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.06 | -2.09 | -2.10 | -2.11 |
| AC006028.1 | -1.75 | -1.75 | -1.74 | -1.61 | -1.72 | -1.76 | -1.76 | -1.64 |
| AC006030.1 | -1.21 | -1.27 | -1.26 | -1.21 | -1.17 | -1.05 | -1.15 | -1.24 |
| AC006033.1 | -1.84 | -1.80 | -1.83 | -1.84 | -1.80 | -1.83 | -1.80 | -1.74 |
| AC006042.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC006042.3 | -0.41 | -0.40 | -0.32 | -0.36 | -0.40 | -0.40 | -0.23 | -0.51 |
| AC006042.4 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC006058.1 | -2.10 | -1.97 | -2.09 | -2.01 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC006058.3 | -1.51 | -1.38 | -1.49 | -1.45 | -1.14 | -1.52 | -1.45 | -1.47 |
| AC006059.1 | -1.14 | -1.13 | -1.12 | -1.14 | -1.09 | -1.16 | -1.22 | -1.17 |
| AC006059.2 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC006064.2 | -0.14 | -0.47 | -0.46 | -0.41 | -0.51 | -0.53 | -0.42 | -0.46 |
| AC006064.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC006064.4 | 5.41 | 5.44 | 5.78 | 5.51 | 5.39 | 5.10 | 5.82 | 5.18 |
| AC006077.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC006077.2 | 1.30 | 1.35 | 1.10 | 1.42 | 1.46 | 1.45 | 1.38 | 1.13 |
| AC006111.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC006111.2 | -1.64 | -1.63 | -1.57 | -1.64 | -1.61 | -1.60 | -1.64 | -1.66 |
| AC006112.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC006115.2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -1.96 | -2.01 |
| AC006116.11 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC006116.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC006116.7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC006116.8 | -1.42 | -1.64 | -1.57 | -1.64 | -1.61 | -1.65 | -1.59 | -1.66 |
| AC006122.1 | 0.25 | 0.10 | 0.21 | 0.48 | 0.25 | 0.42 | 0.08 | 0.47 |
| AC006128.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC006141.1 | 1.69 | 2.12 | 2.34 | 1.90 | 1.73 | 1.84 | 2.07 | 1.59 |
| AC006146.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC006148.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AC006157.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC006160.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| AC006197.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC006210.2 | -1.28 | -1.34 | -1.26 | -1.35 | -1.28 | -1.26 | -1.35 | -1.31 |
| AC006213.1 | 0.23 | 0.08 | 0.28 | 0.21 | 0.20 | 0.35 | 0.14 | 0.17 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC006213.2 | 0.18 | 0.12 | 0.14 | 0.02 | 0.03 | 0.27 | 0.35 | 0.18 |
| AC006213.3 | -1.05 | -1.11 | -1.10 | -1.12 | -1.11 | -1.00 | -1.12 | -1.02 |
| AC006213.4 | -0.30 | -0.59 | -0.48 | -0.51 | -0.59 | -0.37 | -0.20 | -0.61 |
| AC006213.5 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC006213.6 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC006213.7 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC006230.1 | 4.51 | 3.42 | 4.16 | 3.61 | 3.26 | 3.52 | 3.91 | 3.84 |
| AC006237.1 | 1.06 | 0.94 | 0.98 | 0.98 | 1.11 | 0.90 | 0.83 | 1.40 |
| AC006238.1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.79 | -1.85 | -1.80 | -1.82 |
| AC006252.1 | 0.38 | -0.26 | -0.25 | -0.28 | -0.15 | -0.15 | -0.36 | -0.37 |
| AC006254.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC006262.1 | 0.02 | -0.03 | -0.10 | -0.13 | -0.03 | 0.20 | 0.02 | -0.15 |
| AC006262.2 | -0.52 | -0.59 | -0.66 | -0.61 | -0.68 | -0.41 | -0.61 | -0.70 |
| AC006262.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AC006262.4 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC006273.1 | -0.58 | -0.72 | -0.79 | -0.81 | -0.72 | -0.78 | -0.81 | -0.71 |
| AC006296.3 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC006299.1 | -1.09 | -1.08 | -1.07 | -1.02 | -0.94 | -0.99 | -0.96 | -1.04 |
| AC006329.1 | 3.28 | 4.05 | 3.08 | 4.70 | 3.86 | 3.09 | 3.05 | 2.22 |
| AC006330.1 | -0.02 | 0.07 | 0.33 | 0.32 | 0.10 | 0.19 | 0.31 | 0.07 |
| AC006333.2 | 3.53 | 3.34 | 2.74 | 3.49 | 3.50 | 3.27 | 2.91 | 3.32 |
| AC006357.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC006369.1 | -0.72 | -0.71 | -0.77 | -0.59 | -0.79 | -0.57 | -0.79 | -0.75 |
| AC006378.2 | -1.59 | -1.64 | -1.52 | -1.64 | -1.61 | -1.60 | -1.54 | -1.56 |
| AC006427.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC006435.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 | -2.31 | -2.31 |
| AC006441.3 | 0.97 | 1.04 | 1.04 | 0.81 | 1.01 | 1.09 | 1.08 | 1.09 |
| AC006445.1 | -1.20 | -1.13 | -1.25 | -1.27 | -1.19 | -1.35 | -1.34 | -1.36 |
| AC006445.2 | -1.14 | -1.14 | -1.12 | -1.08 | -0.99 | -1.09 | -1.15 | -1.05 |
| AC006449.2 | 1.09 | 0.46 | 0.60 | 0.36 | 0.42 | 0.45 | 0.36 | 0.38 |
| AC006449.3 | -1.22 | -1.14 | -1.20 | -1.16 | -1.08 | -1.20 | -1.16 | -1.24 |
| AC006449.5 | -0.11 | -0.36 | -0.33 | -0.38 | -0.36 | -0.35 | -0.38 | -0.19 |
| AC006449.6 | 3.64 | 2.83 | 2.83 | 3.08 | 3.17 | 2.69 | 2.51 | 2.77 |
| AC006449.7 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC006453.2 | 0.67 | 0.27 | 0.65 | 0.54 | 0.42 | 0.66 | 0.46 | 0.46 |
| AC006460.1 | 0.89 | 0.03 | 0.04 | 0.02 | 0.20 | 0.04 | 0.10 | -0.01 |
| AC006460.2 | 0.84 | 0.44 | 0.37 | 0.86 | 0.59 | 0.52 | 0.33 | 1.44 |
| AC006461.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AC006480.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC006480.2 | 0.84 | 0.64 | 0.98 | 1.01 | 0.70 | 0.93 | 1.19 | 0.79 |
| AC006483.1 | 0.23 | 0.53 | 0.25 | 0.35 | 0.63 | 0.56 | 0.43 | 0.52 |
| AC006483.2 | -1.80 | -1.80 | -1.79 | -1.76 | -1.77 | -1.79 | -1.80 | -1.65 |
| AC006486.2 | 0.84 | 0.49 | 0.92 | 0.75 | 0.86 | 0.89 | 0.62 | 0.78 |
| AC006504.1 | -1.79 | -1.78 | -1.78 | -1.79 | -1.76 | -1.75 | -1.75 | -1.76 |
| AC006504.3 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AC006504.5 | 4.25 | 2.78 | 3.62 | 2.48 | 3.44 | 4.12 | 3.37 | 3.25 |
| AC006504.7 | 0.77 | 0.49 | 0.66 | 0.54 | 0.65 | 0.69 | 0.98 | 0.91 |
| AC006509.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC006511.2 | -1.15 | -1.07 | -1.21 | -1.23 | -0.80 | -1.24 | -1.23 | -1.25 |
| AC006511.3 | 2.31 | 2.31 | 2.27 | 2.48 | 2.91 | 2.38 | 2.62 | 2.54 |
| AC006512.1 | -1.94 | -1.94 | -1.90 | -1.91 | -1.94 | -1.95 | -1.94 | -1.85 |
| AC006517.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC006518.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC006518.2 | -1.31 | -1.24 | -1.23 | -1.25 | -1.28 | -1.29 | -1.25 | -1.28 |
| AC006525.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC006530.1 | -2.18 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC006538.1 | 5.16 | 4.83 | 5.92 | 5.30 | 5.26 | 5.39 | 5.50 | 4.71 |
| AC006538.2 | -1.03 | -0.95 | -1.01 | -0.96 | -0.99 | -0.97 | -0.96 | -0.93 |
| AC006539.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC006547.1 | -1.84 | -1.80 | -1.79 | -1.84 | -1.84 | -1.81 | -1.80 | -1.82 |
| AC006547.2 | -2.15 | -2.11 | -2.14 | -2.15 | -2.13 | -2.16 | -2.16 | -2.17 |
| AC006547.3 | -0.67 | -0.66 | -0.65 | -0.39 | -0.51 | -0.51 | -0.60 | -0.52 |
| AC006557.5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.18 | -2.21 |
| AC006566.1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.74 | -1.75 | -1.65 | -1.71 |
| AC006600.2 | -1.69 | -1.58 | -1.68 | -1.48 | -1.69 | -1.65 | -1.70 | -1.71 |
| AC006927.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC006942.1 | -0.36 | -0.65 | -0.56 | -0.50 | -0.46 | -0.56 | -0.58 | -0.61 |
| AC006947.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC006960.3 | -1.99 | -1.96 | -1.98 | -1.99 | -1.97 | -1.98 | -2.00 | -1.97 |
| AC006965.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC006970.1 | -1.92 | -1.99 | -1.98 | -2.00 | -1.97 | -2.00 | -2.00 | -2.01 |
| AC006970.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.95 | -1.96 |
| AC006971.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC006978.1 | 1.69 | 1.99 | 2.37 | 1.95 | 1.72 | 1.86 | 2.42 | 1.66 |
| AC006994.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC006994.2 | -1.94 | -1.90 | -1.93 | -1.94 | -1.94 | -1.90 | -1.91 | -1.92 |
| AC007000.1 | -1.90 | -1.90 | -1.89 | -1.94 | -1.90 | -1.93 | -1.95 | -1.96 |
| AC007000.3 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -1.95 | -1.93 | -2.01 |
| AC007014.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| AC007014.2 | -0.91 | -0.99 | -0.97 | -0.91 | -0.99 | -0.79 | -0.92 | -1.01 |
| AC007016.1 | -1.91 | -1.90 | -1.93 | -1.94 | -1.94 | -1.95 | -1.91 | -1.92 |
| AC007029.1 | -0.93 | -1.12 | -0.95 | -1.12 | -1.04 | -1.10 | -1.13 | -1.14 |
| AC007032.1 | -0.09 | -0.09 | -0.15 | -0.18 | -0.22 | -0.13 | -0.24 | -0.11 |
| AC007036.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC007036.2 | -1.22 | -1.22 | -1.13 | -1.08 | -1.11 | -1.17 | -1.09 | -1.18 |
| AC007038.1 | -0.37 | -0.28 | -0.09 | -0.15 | -0.36 | -0.19 | -0.03 | -0.16 |
| AC007038.2 | 0.85 | 0.82 | 0.79 | 0.78 | 0.63 | 0.63 | 0.83 | 0.82 |
| AC007040.2 | -1.65 | -1.74 | -1.68 | -1.75 | -1.69 | -1.73 | -1.75 | -1.67 |
| AC007041.1 | -1.98 | -2.01 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.00 |
| AC007066.1 | -1.18 | -1.17 | -1.09 | -1.18 | -1.06 | -1.12 | -1.12 | -1.03 |
| AC007066.2 | -0.02 | -0.05 | 0.01 | -0.23 | -0.10 | -0.05 | -0.01 | -0.13 |
| AC007066.3 | -0.86 | -1.19 | -1.17 | -1.20 | -1.19 | -1.08 | -1.20 | -1.15 |
| AC007098.1 | 2.85 | 3.20 | 2.82 | 2.85 | 2.89 | 2.74 | 3.21 | 2.64 |
| AC007098.2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC007099.1 | -1.20 | -1.05 | -1.18 | -1.13 | -1.20 | -1.01 | -1.21 | -1.22 |
| AC007106.1 | -2.10 | -2.07 | -2.06 | -2.07 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC007114.1 | 2.98 | 3.03 | 3.29 | 3.28 | 3.92 | 2.79 | 3.35 | 2.67 |
| AC007114.2 | 0.04 | -0.11 | 0.17 | 0.46 | 0.09 | -0.06 | 0.16 | 0.20 |
| AC007130.1 | 2.45 | 3.39 | 2.59 | 3.50 | 4.43 | 3.56 | 2.06 | 2.84 |
| AC007160.1 | 1.28 | 1.51 | 1.44 | 1.87 | 1.91 | 1.83 | 1.49 | 1.61 |
| AC007161.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| AC007163.1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC007182.1 | -1.96 | -1.99 | -1.95 | -2.00 | -1.99 | -1.98 | -1.93 | -2.01 |
| AC007182.2 | 1.67 | 1.49 | 1.48 | 1.09 | 1.63 | 1.48 | 1.23 | 1.74 |
| AC007191.1 | 0.87 | 0.89 | 1.04 | 0.98 | 0.96 | 0.95 | 1.02 | 1.17 |
| AC007192.2 | -1.54 | -1.60 | -1.53 | -1.61 | -1.57 | -1.58 | -1.55 | -1.52 |
| AC007193.1 | -2.15 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC007193.3 | -0.75 | -0.90 | -0.80 | -0.62 | -0.78 | -0.80 | -0.83 | -0.85 |
| AC007215.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.13 |
| AC007216.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC007216.3 | 0.40 | 0.33 | 0.67 | 0.58 | 0.29 | 0.52 | 0.74 | 0.54 |
| AC007216.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC007218.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC007224.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| AC007225.1 | -1.89 | -1.89 | -1.88 | -1.86 | -1.83 | -1.88 | -1.89 | -1.91 |
| AC007229.1 | 0.10 | -0.17 | -0.40 | -0.42 | -0.30 | -0.26 | -0.29 | -0.15 |
| AC007238.1 | 1.37 | 1.27 | 1.57 | 1.08 | 1.40 | 1.26 | 1.20 | 1.57 |
| AC007240.1 | -1.22 | -1.34 | -1.33 | -1.35 | -1.31 | -1.32 | -1.29 | -1.21 |
| AC007250.1 | -1.17 | -1.23 | -1.22 | -1.31 | -1.16 | -1.25 | -1.24 | -1.16 |
| AC007255.1 | 1.25 | 1.32 | 1.15 | 1.10 | 1.20 | 1.32 | 1.34 | 1.58 |
| AC007256.1 | -1.49 | -1.49 | -1.48 | -1.44 | -1.49 | -1.53 | -1.56 | -1.57 |
| AC007262.2 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC007272.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC007277.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC007279.1 | -1.23 | -1.29 | -1.28 | -1.06 | -1.16 | -1.19 | -1.30 | -1.26 |
| AC007279.2 | -1.59 | -1.63 | -1.63 | -1.69 | -1.64 | -1.67 | -1.69 | -1.71 |
| AC007283.2 | -1.80 | -1.84 | -1.83 | -1.80 | -1.84 | -1.81 | -1.80 | -1.78 |
| AC007285.1 | -1.39 | -1.45 | -1.44 | -1.39 | -1.42 | -1.34 | -1.46 | -1.36 |
| AC007292.1 | -1.42 | -1.41 | -1.46 | -1.42 | -1.47 | -1.43 | -1.48 | -1.34 |
| AC007292.2 | -0.92 | -0.83 | -0.75 | -0.79 | -0.91 | -0.83 | -0.85 | -0.87 |
| AC007308.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC007314.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC007318.1 | 0.06 | 0.15 | 0.18 | 0.19 | 0.31 | 0.15 | 0.33 | 0.21 |
| AC007318.2 | -0.85 | -0.92 | -0.74 | -1.01 | -0.96 | -0.94 | -1.01 | -0.74 |
| AC007319.1 | -0.33 | -0.40 | -0.24 | -0.40 | -0.40 | -0.14 | -0.34 | 0.30 |
| AC007336.1 | -1.03 | -0.86 | -0.85 | -0.82 | -1.02 | -0.69 | -0.88 | -1.04 |
| AC007342.1 | -0.43 | -0.42 | -0.12 | -0.44 | -0.39 | -0.52 | -0.12 | -0.47 |
| AC007342.3 | -2.24 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC007342.4 | -0.34 | -0.62 | -0.60 | -0.62 | -0.31 | -0.34 | -0.55 | -0.42 |
| AC007342.5 | 1.40 | 0.97 | 1.05 | 0.87 | 1.28 | 1.64 | 1.07 | 1.04 |
| AC007342.6 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| AC007342.7 | -1.79 | -1.79 | -1.73 | -1.70 | -1.79 | -1.80 | -1.79 | -1.81 |
| AC007342.9 | -0.30 | -0.45 | -0.19 | -0.45 | -0.18 | -0.04 | -0.46 | -0.35 |
| AC007346.2 | -2.30 | -2.28 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC007364.1 | 0.88 | 0.63 | 0.57 | 0.95 | 0.82 | 0.62 | 0.92 | 0.61 |
| AC007365.1 | -0.93 | -0.99 | -0.98 | -1.00 | -0.99 | -1.05 | -1.08 | -1.09 |
| AC007365.2 | -2.05 | -2.04 | -2.04 | -2.05 | -2.00 | -2.06 | -2.01 | -2.07 |
| AC007368.1 | -0.42 | -0.41 | -0.40 | -0.42 | 0.12 | -0.39 | -0.35 | -0.44 |
| AC007370.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC007370.2 | -2.15 | -2.15 | -2.11 | -2.12 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC007378.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.16 | -2.21 |
| AC007383.1 | -1.42 | -1.36 | -1.41 | -1.37 | -1.42 | -1.32 | -1.37 | -1.30 |
| AC007383.2 | 0.81 | 0.65 | 0.43 | 0.67 | 0.88 | 0.68 | 0.59 | 1.07 |
| AC007383.3 | -0.98 | -0.96 | -1.10 | -1.04 | -1.11 | -1.06 | -0.98 | -0.96 |
| AC007384.1 | -1.99 | -1.99 | -1.98 | -1.93 | -1.97 | -2.00 | -2.00 | -2.01 |
| AC007386.1 | -1.99 | -1.92 | -1.98 | -2.00 | -1.97 | -1.97 | -2.00 | -2.01 |
| AC007389.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.85 | -1.90 | -1.86 | -1.83 |
| AC007389.2 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.10 | -2.10 | -2.08 |
| AC007389.3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC007389.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC007389.5 | -1.44 | -1.44 | -1.43 | -1.45 | -1.15 | -1.36 | -1.39 | -1.47 |
| AC007390.2 | 1.54 | 1.34 | 1.33 | 1.35 | 1.22 | 1.20 | 1.53 | 1.23 |
| AC007391.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC007391.3 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC007394.1 | -1.89 | -1.84 | -1.79 | -1.90 | -1.89 | -1.90 | -1.85 | -1.91 |
| AC007405.1 | 0.76 | 0.67 | 0.59 | 0.34 | 0.43 | 0.50 | 0.49 | 0.60 |
| AC007405.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC007405.3 | 3.73 | 2.69 | 2.53 | 2.65 | 3.06 | 2.41 | 2.91 | 2.32 |
| AC007406.5 | 1.31 | 1.63 | 1.43 | 1.60 | 1.28 | 1.40 | 1.80 | 1.61 |
| AC007422.2 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC007423.1 | 0.81 | 0.83 | 0.95 | 1.06 | 0.88 | 0.86 | 1.93 | 0.74 |
| AC007424.1 | -2.15 | -2.12 | -2.14 | -2.08 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC007431.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC007435.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC007448.1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.87 | -1.86 | -1.86 | -1.91 |
| AC007448.3 | 0.06 | -0.29 | -0.18 | -0.15 | -0.13 | -0.23 | -0.22 | -0.26 |
| AC007448.4 | -1.49 | -1.59 | -1.58 | -1.60 | -1.59 | -1.58 | -1.60 | -1.52 |
| AC007450.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC007458.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC007485.1 | -1.64 | -1.52 | -1.63 | -1.64 | -1.64 | -1.65 | -1.54 | -1.66 |
| AC007485.2 | 1.18 | 1.20 | 0.97 | 1.22 | 1.08 | 0.90 | 1.02 | 0.76 |
| AC007494.2 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC007496.3 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC007497.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC007528.1 | -0.38 | -0.85 | -0.83 | -0.85 | -0.65 | -0.86 | -0.78 | -0.87 |
| AC007529.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC007529.2 | -1.60 | -1.59 | -1.58 | -1.60 | -1.45 | -1.58 | -1.43 | -1.52 |
| AC007537.1 | -0.26 | -0.17 | -0.15 | -0.05 | 0.16 | -0.07 | -0.12 | 0.17 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC007541.1 | -0.66 | -0.58 | -0.48 | -0.59 | -0.54 | -0.60 | -0.59 | -0.31 |
| AC007546.1 | -1.79 | -1.79 | -1.73 | -1.79 | -1.79 | -1.80 | -1.66 | -1.81 |
| AC007546.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC007552.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AC007552.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC007556.1 | -1.99 | -1.96 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC007559.1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.90 | -1.90 | -1.87 |
| AC007563.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC007566.1 | 0.84 | 1.17 | 1.06 | 1.06 | 1.33 | 1.23 | 1.63 | 1.43 |
| AC007570.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC007595.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC007598.3 | -2.15 | -2.15 | -2.12 | -2.12 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC007599.2 | -1.59 | -1.53 | -1.58 | -1.43 | -1.53 | -1.58 | -1.49 | -1.56 |
| AC007608.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| AC007608.4 | -0.10 | -0.17 | -0.16 | -0.10 | -0.17 | -0.08 | 0.39 | -0.21 |
| AC007610.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.26 |
| AC007610.4 | -1.59 | -1.58 | -1.57 | -1.54 | -1.56 | -1.57 | -1.49 | -1.61 |
| AC007611.1 | -1.20 | -1.25 | -1.31 | -1.26 | -1.25 | -1.34 | -1.27 | -1.24 |
| AC007613.1 | -0.81 | -0.95 | -0.86 | -0.82 | -0.84 | -0.93 | -0.82 | -0.75 |
| AC007614.1 | -1.70 | -1.74 | -1.73 | -1.79 | -1.79 | -1.80 | -1.80 | -1.81 |
| AC007618.1 | -1.49 | -1.54 | -1.53 | -1.55 | -1.43 | -1.52 | -1.55 | -1.51 |
| AC007619.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC007620.2 | -1.33 | -1.39 | -1.32 | -1.34 | -1.40 | -1.32 | -1.34 | -1.36 |
| AC007620.3 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC007622.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC007622.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC007637.1 | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -1.98 | -2.00 | -1.97 |
| AC007639.1 | -2.20 | -2.20 | -2.17 | -2.18 | -2.18 | -2.19 | -2.20 | -2.21 |
| AC007655.2 | -1.30 | -1.23 | -1.29 | -1.24 | -1.09 | -1.25 | -1.31 | -1.32 |
| AC007663.2 | -1.90 | -1.94 | -1.93 | -1.83 | -1.88 | -1.95 | -1.95 | -1.96 |
| AC007663.3 | -1.48 | -1.58 | -1.57 | -1.59 | -1.56 | -1.57 | -1.54 | -1.61 |
| AC007663.4 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 |
| AC007666.1 | -1.74 | -1.74 | -1.68 | -1.74 | -1.74 | -1.68 | -1.74 | -1.76 |
| AC007673.1 | -1.84 | -1.79 | -1.83 | -1.84 | -1.84 | -1.83 | -1.85 | -1.86 |
| AC007679.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC007681.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AC007683.1 | 1.22 | 1.06 | 0.99 | 0.96 | 0.94 | 1.00 | 1.08 | 0.93 |
| AC007684.1 | -1.45 | -1.45 | -1.44 | -1.40 | -1.42 | -1.35 | -1.40 | -1.42 |
| AC007685.1 | -1.26 | -1.25 | -1.31 | -1.33 | -1.16 | -1.27 | -1.33 | -1.23 |
| AC007686.1 | 2.23 | 2.19 | 1.83 | 2.19 | 2.51 | 2.12 | 1.99 | 2.01 |
| AC007686.3 | -0.45 | -0.45 | -0.51 | -0.54 | -0.42 | -0.45 | -0.34 | -0.41 |
| AC007686.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC007687.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC007688.1 | 2.61 | 2.52 | 2.43 | 2.56 | 2.19 | 2.54 | 2.20 | 2.24 |
| AC007690.1 | -1.64 | -1.63 | -1.68 | -1.64 | -1.69 | -1.73 | -1.75 | -1.76 |
| AC007695.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC007728.2 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC007738.1 | -1.05 | -0.90 | -1.03 | -1.06 | -1.05 | -0.90 | -0.99 | -0.90 |
| AC007743.1 | -0.35 | -0.26 | -0.50 | -0.44 | -0.51 | -0.49 | -0.52 | -0.54 |
| AC007773.1 | 0.89 | 0.42 | 0.37 | 0.53 | 0.46 | 0.33 | 0.32 | 0.22 |
| AC007785.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC007785.3 | -1.80 | -1.79 | -1.83 | -1.84 | -1.84 | -1.83 | -1.85 | -1.82 |
| AC007786.1 | -1.64 | -1.58 | -1.51 | -1.59 | -1.52 | -1.65 | -1.59 | -1.66 |
| AC007786.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC007792.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 |
| AC007823.1 | -1.44 | -1.44 | -1.37 | -1.51 | -1.47 | -1.46 | -1.45 | -1.47 |
| AC007834.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 |
| AC007842.1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| AC007849.1 | -1.96 | -1.96 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC007878.1 | -0.53 | -0.44 | -0.34 | -0.19 | -0.44 | -0.47 | -0.09 | -0.49 |
| AC007879.3 | -0.70 | -1.00 | -0.98 | -0.92 | -0.84 | -0.90 | -0.93 | -0.83 |
| AC007880.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC007881.3 | 0.40 | 0.13 | 0.15 | 0.11 | 0.38 | 0.12 | 0.10 | 0.30 |
| AC007881.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC007899.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC007906.1 | -1.54 | -1.48 | -1.52 | -1.54 | -1.56 | -1.57 | -1.43 | -1.61 |
| AC007906.2 | 3.08 | 3.27 | 2.84 | 3.70 | 3.17 | 2.05 | 2.37 | 1.97 |
| AC007919.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC007920.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC007922.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC007938.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC007938.2 | -1.75 | -1.78 | -1.78 | -1.75 | -1.78 | -1.78 | -1.75 | -1.76 |
| AC007938.3 | -2.10 | -2.07 | -2.09 | -2.04 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC007950.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 | -1.85 | -1.84 | -1.74 |
| AC007953.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC007969.1 | 5.33 | 5.58 | 5.50 | 5.69 | 6.73 | 6.26 | 5.51 | 5.54 |
| AC007969.2 | -2.12 | -2.15 | -2.14 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 |
| AC007991.2 | -1.44 | -1.43 | -1.42 | -1.50 | -1.49 | -1.51 | -1.50 | -1.52 |
| AC007993.3 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC007996.1 | 2.41 | 2.73 | 3.00 | 1.98 | 2.17 | 2.17 | 2.73 | 2.11 |
| AC007998.5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC008011.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC008013.1 | -0.81 | -0.88 | -0.94 | -0.90 | -0.77 | -0.97 | -0.89 | -0.86 |
| AC008014.1 | 2.67 | 2.54 | 2.37 | 2.59 | 2.94 | 2.99 | 2.33 | 2.67 |
| AC008015.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC008026.1 | 0.01 | 0.08 | -0.13 | 0.00 | -0.10 | -0.02 | 0.05 | 0.36 |
| AC008026.2 | 2.41 | 2.41 | 2.03 | 2.54 | 2.73 | 1.99 | 2.12 | 2.23 |
| AC008026.3 | -0.07 | -0.29 | 0.09 | 0.10 | -0.25 | -0.27 | -0.09 | -0.20 |
| AC008033.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| AC008035.1 | 2.67 | 2.49 | 2.43 | 2.69 | 2.75 | 2.63 | 2.08 | 2.19 |
| AC008038.1 | 3.80 | 4.20 | 3.58 | 4.30 | 4.69 | 4.16 | 3.84 | 4.19 |
| AC008050.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC008060.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC008063.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC008063.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC008065.1 | 1.23 | 0.90 | 0.95 | 1.16 | 0.77 | 1.31 | 0.79 | 0.94 |
| AC008066.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC008073.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008074.2 | -0.94 | -1.01 | -0.99 | -0.94 | -0.86 | -0.95 | -0.95 | -0.85 |
| AC008079.1 | -0.60 | -0.68 | -0.67 | -0.39 | -0.64 | -0.70 | -0.69 | -0.64 |
| AC008083.1 | -0.75 | -0.67 | -0.74 | -0.68 | -0.75 | -0.37 | -0.76 | -0.27 |
| AC008083.2 | -1.20 | -1.26 | -1.24 | -1.20 | -1.22 | -1.12 | -1.27 | -1.07 |
| AC008083.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC008105.1 | 0.02 | 0.17 | 0.14 | 0.13 | 0.60 | 0.36 | 0.08 | 0.08 |
| AC008105.2 | 1.77 | 2.34 | 2.34 | 2.12 | 2.36 | 2.50 | 1.81 | 2.63 |
| AC008105.3 | -0.80 | -1.01 | -1.00 | -1.02 | -0.83 | -0.73 | -1.02 | -0.92 |
| AC008114.1 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.24 | -2.22 | -2.27 |
| AC008115.1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -1.96 | -1.97 |
| AC008115.3 | -0.21 | -0.34 | -0.12 | -0.27 | -0.26 | -0.26 | -0.09 | -0.25 |
| AC008115.4 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC008119.1 | -1.64 | -1.63 | -1.68 | -1.69 | -1.66 | -1.65 | -1.69 | -1.66 |
| AC008121.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC008124.1 | 4.22 | 4.57 | 4.18 | 4.52 | 4.11 | 4.28 | 3.84 | 4.16 |
| AC008127.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC008147.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008147.2 | 1.74 | 1.83 | 2.09 | 1.94 | 1.60 | 1.82 | 2.29 | 1.52 |
| AC008147.3 | 0.15 | 0.32 | 0.44 | 0.60 | 0.28 | 0.30 | 0.43 | 0.18 |
| AC008147.4 | -1.50 | -1.44 | -1.48 | -1.33 | -1.49 | -1.42 | -1.50 | -1.47 |
| AC008149.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC008149.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.16 |
| AC008170.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008243.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC008264.1 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC008264.2 | -0.99 | -0.91 | -1.05 | -1.01 | -1.07 | -1.08 | -0.87 | -0.97 |
| AC008267.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC008267.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008267.5 | 4.35 | 2.98 | 3.31 | 3.24 | 4.45 | 3.15 | 2.90 | 2.89 |
| AC008267.8 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.06 |
| AC008268.1 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| AC008269.1 | -0.03 | 0.36 | 0.42 | 0.35 | 0.06 | 0.23 | 0.10 | -0.06 |
| AC008273.1 | -2.04 | -2.01 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| AC008277.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008280.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC008280.3 | -0.82 | -0.89 | -0.96 | -0.83 | -0.97 | -0.98 | -0.83 | -0.99 |
| AC008378.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC008379.1 | -0.72 | -0.64 | -0.70 | -0.65 | -0.60 | -0.56 | -0.59 | -0.43 |
| AC008391.1 | -2.04 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC008393.1 | 1.36 | 1.00 | 0.87 | 1.29 | 1.54 | 1.07 | 1.27 | 0.96 |
| AC008395.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC008397.1 | 4.44 | 5.66 | 5.27 | 5.37 | 5.90 | 4.24 | 4.64 | 5.13 |
| AC008397.2 | -0.45 | -0.36 | -0.01 | -0.45 | -0.21 | -0.43 | -0.46 | -0.47 |
| AC008403.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| AC008403.3 | -0.33 | -0.67 | -0.41 | -0.68 | -0.38 | -0.49 | -0.68 | -0.63 |
| AC008403.4 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 | -1.81 | -1.85 | -1.86 |
| AC008427.1 | -1.59 | -1.53 | -1.52 | -1.54 | -1.56 | -1.60 | -1.60 | -1.56 |
| AC008429.1 | -1.49 | -1.42 | -1.47 | -1.55 | -1.48 | -1.56 | -1.55 | -1.51 |
| AC008429.2 | -0.22 | 0.01 | -0.36 | -0.16 | -0.32 | -0.12 | -0.38 | -0.33 |
| AC008429.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC008434.1 | -1.18 | -1.17 | -1.16 | -1.12 | -1.21 | -1.23 | -1.19 | -1.21 |
| AC008438.1 | -1.69 | -1.73 | -1.73 | -1.74 | -1.73 | -1.68 | -1.70 | -1.76 |
| AC008440.2 | 0.00 | 0.02 | 0.04 | 0.17 | 0.00 | 0.07 | -0.16 | -0.18 |
| AC008443.1 | 3.55 | 3.43 | 3.23 | 3.12 | 4.03 | 3.42 | 3.20 | 3.33 |
| AC008443.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC008443.5 | 3.66 | 2.90 | 3.79 | 2.47 | 3.80 | 2.79 | 2.63 | 2.68 |
| AC008443.6 | -0.96 | -0.95 | -0.86 | -0.97 | -0.92 | -1.05 | -1.04 | -0.78 |
| AC008443.8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC008443.9 | -2.36 | -2.36 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC008446.1 | -1.75 | -1.74 | -1.78 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 |
| AC008467.1 | -2.04 | -1.95 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC008481.1 | -1.74 | -1.74 | -1.73 | -1.69 | -1.69 | -1.75 | -1.74 | -1.71 |
| AC008481.2 | -1.23 | -1.22 | -1.28 | -1.10 | -1.22 | -1.27 | -1.30 | -1.20 |
| AC008489.1 | -1.79 | -1.78 | -1.78 | -1.75 | -1.72 | -1.78 | -1.79 | -1.72 |
| AC008494.1 | -1.39 | -1.44 | -1.43 | -1.39 | -1.42 | -1.32 | -1.40 | -1.47 |
| AC008494.3 | -1.59 | -1.59 | -1.52 | -1.54 | -1.56 | -1.55 | -1.60 | -1.56 |
| AC008496.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC008498.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC008498.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008507.1 | -1.59 | -1.48 | -1.58 | -1.60 | -1.59 | -1.58 | -1.60 | -1.62 |
| AC008507.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC008514.1 | -2.25 | -2.25 | -2.20 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC008521.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.89 | -1.90 |
| AC008522.1 | -1.80 | -1.84 | -1.83 | -1.80 | -1.84 | -1.79 | -1.84 | -1.78 |
| AC008526.1 | -1.79 | -1.79 | -1.78 | -1.75 | -1.79 | -1.73 | -1.79 | -1.76 |
| AC008532.1 | -1.39 | -1.45 | -1.38 | -1.46 | -1.39 | -1.41 | -1.46 | -1.47 |
| AC008533.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| AC008537.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008537.3 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.89 | -1.79 |
| AC008537.4 | -0.57 | -0.78 | -0.84 | -0.79 | -0.78 | -0.84 | -0.79 | -0.76 |
| AC008543.1 | -1.79 | -1.79 | -1.73 | -1.79 | -1.79 | -1.78 | -1.66 | -1.81 |
| AC008543.3 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| AC008549.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC008551.1 | -1.80 | -1.84 | -1.79 | -1.84 | -1.84 | -1.85 | -1.85 | -1.86 |
| AC008554.1 | 1.95 | 1.61 | 2.96 | 1.70 | 1.72 | 1.52 | 2.55 | 1.39 |
| AC008555.4 | -1.74 | -1.69 | -1.73 | -1.74 | -1.69 | -1.70 | -1.70 | -1.67 |
| AC008555.7 | 0.58 | 0.69 | 0.58 | 0.59 | 0.75 | 0.69 | 0.52 | 0.46 |
| AC008556.1 | 1.55 | 0.42 | 0.43 | 0.47 | 0.52 | 0.34 | 0.38 | 0.27 |
| AC008567.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| AC008568.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC008569.1 | -1.41 | -1.40 | -1.33 | -1.41 | -1.28 | -1.39 | -1.41 | -1.37 |
| AC008569.2 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.83 | -1.84 | -1.86 |
| AC008592.3 | -0.99 | -0.83 | -0.89 | -0.73 | -0.84 | -0.90 | -0.99 | -1.00 |
| AC008608.2 | 3.09 | 2.65 | 2.75 | 3.20 | 2.64 | 2.80 | 2.48 | 1.85 |
| AC008609.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| AC008610.1 | 0.07 | -0.08 | 0.25 | 0.06 | 0.33 | 0.13 | -0.02 | -0.12 |
| AC008619.1 | -2.30 | -2.30 | -2.24 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC008622.2 | 0.28 | 0.38 | 0.57 | 0.56 | 0.48 | 0.33 | 0.28 | 0.52 |
| AC008629.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC008649.1 | 0.84 | 0.00 | -0.06 | 0.06 | -0.16 | -0.10 | -0.09 | -0.20 |
| AC008649.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC008655.1 | 0.29 | 0.45 | 0.70 | 0.42 | 0.39 | 0.25 | 0.34 | 0.26 |
| AC008655.2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -2.00 | -1.97 |
| AC008676.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC008677.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC008677.2 | 0.24 | 0.16 | 0.26 | 0.50 | 0.54 | 0.37 | 0.41 | 0.35 |
| AC008686.1 | -0.13 | -0.04 | -0.27 | -0.14 | -0.13 | -0.20 | -0.02 | -0.19 |
| AC008687.4 | -1.84 | -1.80 | -1.83 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 |
| AC008691.1 | -1.40 | -1.45 | -1.44 | -1.46 | -1.45 | -1.47 | -1.41 | -1.37 |
| AC008703.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.90 | -1.91 | -1.96 |
| AC008725.1 | -1.42 | -1.42 | -1.33 | -1.29 | -1.42 | -1.40 | -1.43 | -1.21 |
| AC008731.1 | -1.75 | -1.79 | -1.78 | -1.79 | -1.77 | -1.78 | -1.80 | -1.68 |
| AC008734.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008735.1 | -1.28 | -1.20 | -1.12 | -1.28 | -1.20 | -1.10 | -1.09 | -1.30 |
| AC008735.2 | -1.64 | -1.63 | -1.62 | -1.59 | -1.61 | -1.57 | -1.59 | -1.61 |
| AC008735.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC008735.4 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC008735.5 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC008736.1 | -2.04 | -2.04 | -2.04 | -2.01 | -2.04 | -2.04 | -2.02 | -2.06 |
| AC008736.2 | 1.07 | 0.98 | 0.86 | 1.12 | 1.14 | 1.01 | 0.71 | 1.31 |
| AC008738.2 | -1.22 | -1.40 | -1.33 | -1.29 | -1.37 | -1.39 | -1.42 | -1.43 |
| AC008738.3 | -1.59 | -1.64 | -1.63 | -1.59 | -1.56 | -1.65 | -1.65 | -1.61 |
| AC008738.5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC008738.6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008747.1 | -0.74 | -0.88 | -0.86 | -0.81 | -0.72 | -0.82 | -0.89 | -0.90 |
| AC008750.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC008750.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC008750.4 | 0.98 | 0.86 | 0.83 | 0.88 | 1.12 | 0.94 | 0.82 | 0.80 |
| AC008750.5 | -0.82 | -0.89 | -0.80 | -0.82 | -0.85 | -0.80 | -0.77 | -0.85 |
| AC008750.7 | -0.56 | -0.63 | -0.70 | -0.72 | -0.71 | -0.62 | -0.72 | -0.73 |
| AC008751.3 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC008752.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.15 | -2.20 | -2.20 | -2.21 |
| AC008752.3 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.21 | -2.20 | -2.21 |
| AC008753.1 | 0.50 | 0.32 | 0.17 | 0.37 | 0.85 | 0.31 | 0.14 | 0.36 |
| AC008755.1 | 4.44 | 4.62 | 4.65 | 4.75 | 4.80 | 4.70 | 4.82 | 4.35 |
| AC008758.2 | -2.31 | -2.30 | -2.26 | -2.31 | -2.30 | -2.31 | -2.31 | -2.32 |
| AC008758.4 | -0.97 | -1.04 | -0.95 | -0.97 | -0.92 | -0.86 | -0.74 | -1.06 |
| AC008758.6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC008760.1 | -0.57 | -0.57 | -0.64 | -0.58 | -0.42 | -0.59 | -0.59 | -0.50 |
| AC008760.2 | 0.21 | -0.53 | -0.52 | -0.54 | -0.53 | -0.47 | -0.47 | -0.44 |
| AC008761.1 | -1.94 | -1.94 | -1.89 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| AC008763.2 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC008764.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008764.10 | -0.21 | 0.03 | 0.05 | -0.02 | -0.16 | 0.00 | -0.01 | -0.18 |
| AC008764.3 | -1.13 | -1.20 | -1.11 | -1.21 | -1.06 | -1.15 | -1.21 | -1.16 |
| AC008764.6 | 0.09 | 0.40 | 0.37 | 0.43 | 0.40 | 0.36 | 0.23 | 0.18 |
| AC008764.7 | -0.68 | -0.67 | -0.42 | -0.61 | -0.64 | -0.70 | -0.42 | -0.77 |
| AC008764.8 | 0.29 | 0.30 | 0.57 | 0.35 | 0.39 | 0.32 | 0.42 | 0.28 |
| AC008764.9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008770.3 | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 | -2.00 | -1.96 | -1.97 |
| AC008771.1 | 4.59 | 6.04 | 5.46 | 6.09 | 5.52 | 5.21 | 5.13 | 5.49 |
| AC008780.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008781.1 | -0.58 | -0.79 | -0.69 | -0.73 | -0.68 | -0.81 | -0.80 | -0.75 |
| AC008781.2 | -2.30 | -2.30 | -2.28 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC008798.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC008799.1 | -1.94 | -1.94 | -1.89 | -1.91 | -1.94 | -1.95 | -1.95 | -1.96 |
| AC008802.1 | -0.47 | -0.24 | -0.20 | -0.27 | -0.39 | -0.29 | -0.40 | -0.32 |
| AC008806.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008813.1 | -0.40 | -0.40 | -0.37 | -0.34 | -0.25 | -0.30 | -0.42 | -0.29 |
| AC008817.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC008840.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| AC008850.1 | 0.68 | 1.01 | 0.94 | 1.17 | 0.80 | 0.57 | 0.59 | 0.92 |
| AC008870.2 | -0.75 | -0.66 | -0.56 | -0.68 | -0.82 | -0.64 | -0.76 | -0.78 |
| AC008870.3 | 0.78 | 0.81 | 0.80 | 0.94 | 0.76 | 0.70 | 1.15 | 0.86 |
| AC008870.5 | -2.07 | -2.06 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC008873.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -1.96 | -2.01 |
| AC008875.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC008875.2 | -1.96 | -1.95 | -1.84 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC008875.3 | 2.57 | 4.02 | 4.33 | 3.58 | 2.66 | 3.92 | 2.58 | 4.37 |
| AC008878.4 | -2.07 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.11 |
| AC008883.3 | -1.09 | -1.09 | -1.08 | -0.82 | -1.01 | -1.10 | -0.90 | -1.05 |
| AC008894.2 | 1.24 | 1.32 | 1.39 | 1.30 | 1.43 | 1.48 | 1.35 | 1.35 |
| AC008894.3 | -0.96 | -1.04 | -0.94 | -1.05 | -0.84 | -0.98 | -1.06 | -1.00 |
| AC008895.1 | 0.79 | 0.82 | 0.87 | 0.63 | 0.63 | 0.69 | 1.15 | 0.52 |
| AC008897.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC008897.2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 | -2.25 | -2.26 |
| AC008897.3 | -0.16 | 0.01 | 0.05 | -0.09 | 0.09 | -0.17 | 0.44 | 0.00 |
| AC008906.1 | 0.50 | 0.65 | 0.94 | 0.63 | 0.63 | 0.70 | 0.87 | 0.44 |
| AC008906.2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC008914.1 | -1.99 | -1.99 | -1.95 | -2.00 | -1.99 | -2.00 | -2.00 | -1.94 |
| AC008915.1 | -1.80 | -1.84 | -1.83 | -1.80 | -1.82 | -1.80 | -1.85 | -1.86 |
| AC008915.2 | 2.31 | 2.61 | 1.91 | 2.53 | 2.55 | 2.14 | 1.96 | 1.98 |
| AC008937.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC008937.3 | -2.31 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.32 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC008945.1 | -2.10 | -2.09 | -2.03 | -2.10 | -2.09 | -2.06 | -2.10 | -2.11 |
| AC008946.1 | 2.65 | 1.42 | 1.75 | 1.35 | 1.61 | 1.38 | 1.28 | 1.67 |
| AC008953.1 | -1.70 | -1.79 | -1.78 | -1.79 | -1.72 | -1.78 | -1.75 | -1.81 |
| AC008957.3 | -2.10 | -2.07 | -2.06 | -2.04 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC008966.1 | 1.77 | 2.15 | 1.71 | 2.40 | 2.11 | 1.86 | 1.91 | 1.70 |
| AC008966.2 | -1.99 | -1.99 | -1.92 | -1.99 | -1.99 | -2.00 | -1.96 | -2.01 |
| AC008966.3 | -2.20 | -2.17 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC008969.1 | 1.81 | 1.78 | 2.37 | 1.36 | 1.39 | 1.64 | 1.97 | 1.39 |
| AC008972.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC008972.2 | -1.32 | -1.32 | -1.31 | -1.26 | -1.22 | -1.16 | -1.33 | -1.29 |
| AC008982.2 | 1.84 | 2.07 | 2.12 | 2.47 | 2.28 | 2.29 | 2.15 | 1.91 |
| AC008985.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC009005.1 | 2.63 | 2.35 | 2.29 | 2.75 | 3.11 | 2.86 | 1.95 | 2.69 |
| AC009019.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC009022.1 | 0.31 | 0.33 | 0.44 | 0.30 | 0.51 | 0.38 | 0.80 | 0.39 |
| AC009027.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC009032.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.82 | -1.91 |
| AC009034.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC009041.1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.92 | -2.00 | -1.96 | -2.01 |
| AC009041.2 | 2.51 | 1.96 | 1.61 | 2.56 | 2.25 | 1.63 | 1.86 | 1.41 |
| AC009041.4 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.89 | -1.95 | -1.96 |
| AC009053.1 | -1.17 | -1.23 | -1.08 | -1.17 | -1.20 | -1.18 | -1.25 | -1.09 |
| AC009053.3 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC009054.1 | -0.91 | -0.97 | -0.96 | -0.92 | -0.94 | -1.03 | -0.88 | -1.01 |
| AC009054.2 | -0.10 | -0.23 | -0.23 | -0.40 | -0.17 | -0.30 | -0.40 | -0.42 |
| AC009060.1 | -1.69 | -1.64 | -1.68 | -1.70 | -1.67 | -1.68 | -1.70 | -1.62 |
| AC009061.1 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC009061.2 | 1.43 | 1.67 | 1.98 | 1.92 | 1.67 | 1.41 | 1.90 | 1.75 |
| AC009065.1 | -1.99 | -1.96 | -1.95 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC009065.2 | 3.39 | 3.45 | 2.34 | 3.62 | 2.89 | 3.21 | 2.10 | 2.73 |
| AC009065.4 | 1.72 | 1.34 | 1.50 | 1.60 | 1.45 | 1.48 | 1.40 | 1.46 |
| AC009065.5 | -2.20 | -2.20 | -2.19 | -2.14 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC009065.7 | -1.42 | -1.41 | -1.40 | -1.42 | -1.32 | -1.34 | -1.42 | -1.28 |
| AC009065.8 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC009070.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009075.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC009078.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC009078.3 | 1.57 | 1.53 | 1.98 | 1.35 | 1.39 | 1.51 | 1.85 | 1.42 |
| AC009084.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC009084.3 | 0.07 | 0.00 | 0.19 | 0.06 | 0.03 | 0.08 | 0.31 | 0.02 |
| AC009086.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AC009087.1 | -2.20 | -2.20 | -2.19 | -2.13 | -2.20 | -2.21 | -2.21 | -2.22 |
| AC009088.1 | -1.59 | -1.53 | -1.58 | -1.54 | -1.59 | -1.58 | -1.49 | -1.56 |
| AC009088.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC009088.3 | 3.22 | 3.19 | 3.19 | 3.56 | 3.27 | 2.95 | 3.00 | 3.35 |
| AC009088.4 | -1.09 | -1.08 | -1.15 | -1.17 | -1.09 | -1.11 | -1.10 | -1.12 |
| AC009090.1 | -0.69 | -0.74 | -0.57 | -0.61 | -0.82 | -0.70 | -0.51 | -0.84 |
| AC009090.3 | -1.54 | -1.47 | -1.40 | -1.48 | -1.54 | -1.55 | -1.55 | -1.56 |
| AC009090.4 | -2.01 | -2.01 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC009090.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC009090.6 | -1.89 | -1.89 | -1.88 | -1.89 | -1.83 | -1.90 | -1.90 | -1.87 |
| AC009093.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC009093.3 | -2.02 | -2.01 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.06 |
| AC009093.4 | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC009094.1 | -2.01 | -2.01 | -2.04 | -2.02 | -2.04 | -2.05 | -2.02 | -2.06 |
| AC009097.1 | -2.20 | -2.13 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC009097.2 | -0.82 | -1.02 | -1.01 | -1.03 | -0.84 | -0.94 | -0.96 | -0.98 |
| AC009097.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC009097.4 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC009107.2 | 2.65 | 2.13 | 1.96 | 2.69 | 2.65 | 2.31 | 2.35 | 2.72 |
| AC009108.1 | -2.15 | -2.09 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.13 |
| AC009108.3 | -1.54 | -1.58 | -1.57 | -1.49 | -1.58 | -1.57 | -1.54 | -1.35 |
| AC009108.5 | -2.10 | -2.09 | -2.03 | -2.07 | -2.08 | -2.09 | -2.10 | -2.11 |
| AC009113.1 | 1.29 | 0.98 | 0.96 | 0.81 | 0.90 | 0.71 | 0.66 | 0.61 |
| AC009117.1 | -2.12 | -2.15 | -2.14 | -2.12 | -2.13 | -2.14 | -2.15 | -2.16 |
| AC009118.2 | 1.52 | 1.10 | 1.27 | 1.23 | 0.97 | 1.15 | 0.83 | 0.71 |
| AC009118.3 | 0.00 | -0.07 | 0.01 | 0.34 | 0.01 | -0.07 | 0.27 | -0.12 |
| AC009119.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -1.91 |
| AC009119.2 | -2.18 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC009120.1 | -0.45 | -0.44 | -0.43 | -0.46 | -0.41 | -0.40 | -0.13 | -0.48 |
| AC009120.2 | 2.48 | 2.53 | 2.91 | 2.33 | 2.50 | 2.21 | 2.62 | 2.21 |
| AC009120.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| AC009120.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC009120.5 | -0.80 | -0.92 | -0.98 | -0.93 | -0.96 | -0.91 | -1.01 | -1.02 |
| AC009121.2 | -1.02 | -1.24 | -1.23 | -1.19 | -1.18 | -1.11 | -1.19 | -1.27 |
| AC009126.1 | 0.57 | 0.36 | 0.38 | 0.48 | 0.66 | 0.29 | 0.40 | 0.36 |
| AC009127.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AC009127.2 | -1.74 | -1.69 | -1.68 | -1.74 | -1.69 | -1.73 | -1.75 | -1.76 |
| AC009133.1 | 4.06 | 4.12 | 3.85 | 4.08 | 4.17 | 3.85 | 3.98 | 3.56 |
| AC009133.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| AC009133.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC009133.4 | -0.27 | -0.25 | -0.28 | -0.49 | -0.28 | -0.43 | -0.19 | -0.52 |
| AC009137.2 | -1.80 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.95 | -1.96 |
| AC009139.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC009145.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC009145.4 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.91 | -1.96 |
| AC009148.1 | -0.50 | -0.65 | -0.56 | -0.38 | -0.53 | -0.54 | -0.59 | -0.61 |
| AC009154.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC009163.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC009163.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC009163.5 | -1.84 | -1.84 | -1.79 | -1.84 | -1.82 | -1.85 | -1.76 | -1.86 |
| AC009163.6 | -0.33 | -0.46 | -0.45 | -0.40 | -0.35 | -0.52 | -0.55 | -0.34 |
| AC009171.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC009171.2 | -0.07 | -0.42 | -0.41 | -0.42 | -0.37 | -0.30 | -0.43 | -0.21 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC009220.1 | 1.01 | 1.23 | 1.30 | 1.29 | 1.33 | 1.09 | 1.26 | 1.22 |
| AC009220.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 |
| AC009226.1 | -1.84 | -1.79 | -1.83 | -1.80 | -1.84 | -1.85 | -1.80 | -1.82 |
| AC009227.1 | -2.36 | -2.36 | -2.33 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009228.1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |
| AC009236.1 | -0.41 | -0.48 | -0.45 | -0.22 | -0.37 | -0.35 | -0.57 | -0.46 |
| AC009237.14 | 3.21 | 2.17 | 3.02 | 2.16 | 3.53 | 2.50 | 2.40 | 2.85 |
| AC009237.15 | -1.64 | -1.68 | -1.63 | -1.69 | -1.66 | -1.62 | -1.64 | -1.66 |
| AC009237.3 | 1.24 | 1.11 | 1.61 | 1.20 | 1.50 | 1.11 | 1.32 | 1.11 |
| AC009242.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.02 | -2.03 |
| AC009244.1 | -2.01 | -2.01 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| AC009244.2 | 1.28 | 0.97 | 0.85 | 1.22 | 0.73 | 0.72 | 0.78 | 0.78 |
| AC009245.1 | 0.51 | 0.79 | 0.39 | 0.81 | 0.56 | 0.45 | 0.55 | 0.72 |
| AC009262.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC009268.2 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 | -1.90 | -1.89 | -1.87 |
| AC009269.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009269.4 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC009269.5 | -1.74 | -1.74 | -1.63 | -1.74 | -1.74 | -1.70 | -1.70 | -1.76 |
| AC009275.1 | 3.65 | 3.43 | 3.50 | 3.68 | 4.59 | 3.16 | 2.78 | 3.24 |
| AC009283.1 | 0.71 | 0.45 | 0.59 | 0.75 | 0.59 | 0.65 | 0.56 | 0.75 |
| AC009292.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC009296.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AC009299.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009299.3 | -1.41 | -1.40 | -1.33 | -1.35 | -1.37 | -1.31 | -1.42 | -1.23 |
| AC009302.1 | -0.50 | -0.48 | -0.46 | -0.57 | -0.48 | -0.41 | -0.31 | -0.43 |
| AC009303.4 | 0.84 | 0.89 | 0.62 | 1.02 | 0.90 | 0.55 | 0.82 | 0.58 |
| AC009309.1 | 1.29 | 1.20 | 0.88 | 1.15 | 1.12 | 0.93 | 0.83 | 0.76 |
| AC009313.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC009313.2 | -0.46 | -0.81 | -0.79 | -0.81 | -0.76 | -0.78 | -0.82 | -0.83 |
| AC009314.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009315.1 | -0.80 | -0.99 | -0.98 | -0.93 | -0.99 | -1.01 | -0.93 | -1.01 |
| AC009318.1 | -1.00 | -0.99 | -1.05 | -1.07 | -1.07 | -0.99 | -0.94 | -1.03 |
| AC009318.2 | -1.17 | -1.09 | -1.08 | -1.05 | -1.10 | -1.12 | -1.11 | -1.19 |
| AC009318.3 | -0.93 | -0.76 | -0.83 | -0.86 | -0.85 | -0.87 | -0.73 | -0.94 |
| AC009318.4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.19 |
| AC009362.1 | 1.06 | 1.56 | 1.40 | 1.60 | 1.66 | 1.44 | 1.25 | 1.46 |
| AC009403.1 | 2.99 | 2.91 | 2.56 | 3.23 | 3.28 | 2.60 | 2.54 | 2.78 |
| AC009403.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC009404.1 | 0.86 | 0.95 | 1.63 | 1.31 | 0.99 | 0.96 | 1.43 | 1.16 |
| AC009407.1 | -1.43 | -1.42 | -1.41 | -1.25 | -1.42 | -1.44 | -1.37 | -1.46 |
| AC009411.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009413.1 | 0.11 | 0.04 | -0.02 | -0.05 | 0.26 | -0.06 | -0.13 | 0.13 |
| AC009414.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.96 | -2.00 | -2.00 | -2.01 |
| AC009435.1 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC009464.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC009474.2 | -1.84 | -1.79 | -1.83 | -1.84 | -1.84 | -1.85 | -1.71 | -1.86 |
| AC009480.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| AC009486.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC009486.2 | -2.18 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC009487.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.78 | -1.85 | -1.84 | -1.77 |
| AC009495.1 | -2.15 | -2.15 | -2.11 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| AC009495.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009495.3 | -0.85 | -0.84 | -0.91 | -0.86 | -0.73 | -0.90 | -0.74 | -0.94 |
| AC009498.1 | -1.46 | -1.46 | -1.45 | -1.40 | -1.46 | -1.47 | -1.47 | -1.48 |
| AC009501.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC009501.3 | -1.14 | -1.20 | -1.25 | -1.28 | -1.27 | -1.28 | -1.21 | -1.13 |
| AC009502.1 | -1.41 | -1.34 | -1.27 | -1.41 | -1.31 | -1.30 | -1.41 | -1.43 |
| AC009502.2 | -1.49 | -1.37 | -1.42 | -1.32 | -1.43 | -1.36 | -1.44 | -1.46 |
| AC009506.1 | 1.35 | 1.67 | 1.58 | 1.45 | 1.86 | 1.53 | 1.31 | 1.79 |
| AC009509.1 | -1.07 | -1.21 | -1.20 | -1.01 | -1.17 | -1.23 | -1.22 | -1.24 |
| AC009509.4 | -1.90 | -1.86 | -1.93 | -1.95 | -1.94 | -1.93 | -1.95 | -1.96 |
| AC009511.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009511.2 | -1.91 | -1.90 | -1.93 | -1.87 | -1.94 | -1.95 | -1.95 | -1.96 |
| AC009517.1 | -1.74 | -1.69 | -1.63 | -1.74 | -1.69 | -1.75 | -1.70 | -1.62 |
| AC009522.1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.74 | -1.75 | -1.80 | -1.81 |
| AC009533.1 | -1.10 | -1.37 | -1.22 | -1.38 | -1.33 | -1.35 | -1.25 | -1.34 |
| AC009549.1 | -1.80 | -1.79 | -1.73 | -1.80 | -1.76 | -1.67 | -1.80 | -1.76 |
| AC009554.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009554.2 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009560.1 | -1.84 | -1.79 | -1.83 | -1.80 | -1.82 | -1.83 | -1.85 | -1.86 |
| AC009570.1 | -0.32 | -0.54 | -0.45 | -0.33 | -0.38 | -0.42 | -0.48 | -0.40 |
| AC009630.1 | 1.19 | 1.10 | 1.06 | 0.99 | 1.22 | 1.10 | 0.91 | 1.44 |
| AC009630.2 | -1.43 | -1.42 | -1.47 | -1.37 | -1.48 | -1.47 | -1.49 | -1.32 |
| AC009630.3 | -2.15 | -2.15 | -2.11 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| AC009630.4 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC009652.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009686.2 | -1.74 | -1.69 | -1.73 | -1.74 | -1.71 | -1.70 | -1.65 | -1.76 |
| AC009690.2 | -1.31 | -1.37 | -1.36 | -1.32 | -1.34 | -1.39 | -1.32 | -1.24 |
| AC009704.2 | -1.64 | -1.59 | -1.58 | -1.64 | -1.64 | -1.60 | -1.60 | -1.61 |
| AC009704.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009716.2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -1.96 | -2.01 |
| AC009743.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009754.1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.10 | -2.04 | -2.11 |
| AC009754.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC009779.2 | 3.70 | 3.07 | 3.18 | 3.26 | 2.81 | 3.39 | 2.77 | 3.03 |
| AC009779.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC009779.4 | 0.54 | 0.30 | 0.54 | 0.48 | 0.48 | 0.61 | 0.35 | 0.46 |
| AC009802.1 | -1.69 | -1.63 | -1.63 | -1.59 | -1.66 | -1.67 | -1.69 | -1.71 |
| AC009812.1 | -0.43 | -0.42 | -0.41 | -0.51 | -0.18 | -0.20 | -0.37 | -0.35 |
| AC009812.2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| AC009812.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC009812.4 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.05 | -2.05 | -2.03 |
| AC009831.1 | -0.94 | -1.01 | -1.00 | -0.94 | -0.97 | -0.78 | -1.03 | -1.04 |
| AC009831.3 | -1.69 | -1.63 | -1.68 | -1.69 | -1.61 | -1.67 | -1.69 | -1.71 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC009878.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC009879.4 | -1.90 | -1.90 | -1.93 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| AC009902.2 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 | -1.82 | -1.90 | -1.91 |
| AC009902.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 |
| AC009908.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC009927.1 | -1.96 | -1.95 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC009948.1 | -1.24 | -1.15 | -1.14 | -1.16 | -1.07 | -1.18 | -1.09 | -1.19 |
| AC009948.2 | -1.33 | -1.26 | -1.31 | -1.27 | -1.32 | -1.28 | -1.08 | -1.35 |
| AC009948.3 | -1.19 | -1.11 | -1.17 | -1.12 | -1.15 | -1.11 | -1.13 | -1.15 |
| AC009948.4 | -0.12 | 0.27 | 0.30 | 0.55 | -0.12 | -0.03 | 0.09 | -0.09 |
| AC009950.1 | -0.17 | -0.50 | -0.57 | -0.59 | -0.59 | -0.60 | -0.52 | -0.28 |
| AC009955.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC009955.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AC009955.4 | -1.15 | -1.20 | -1.19 | -1.28 | -1.05 | -1.29 | -1.29 | -1.30 |
| AC009961.1 | 0.77 | 0.95 | 0.81 | 1.07 | 0.79 | 0.83 | 1.13 | 1.05 |
| AC009961.2 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC009961.3 | -1.64 | -1.59 | -1.63 | -1.65 | -1.61 | -1.65 | -1.60 | -1.57 |
| AC009961.4 | -1.84 | -1.84 | -1.83 | -1.76 | -1.84 | -1.81 | -1.84 | -1.85 |
| AC009962.1 | -0.51 | -0.27 | -0.32 | -0.18 | -0.43 | -0.43 | -0.38 | -0.47 |
| AC009963.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009974.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC009975.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC009975.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC009977.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC009996.1 | 0.07 | 0.01 | 0.28 | 0.14 | 0.11 | 0.39 | 0.31 | 0.24 |
| AC009997.1 | -1.33 | -1.32 | -1.24 | -1.27 | -1.22 | -1.28 | -1.34 | -1.35 |
| AC010092.1 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC010095.1 | -0.44 | -0.58 | -0.65 | -0.59 | -0.39 | -0.57 | -0.52 | -0.56 |
| AC010096.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC010099.1 | -0.12 | 0.07 | -0.34 | -0.16 | -0.11 | -0.23 | -0.36 | -0.25 |
| AC010132.3 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.11 |
| AC010132.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC010136.1 | 0.00 | -0.07 | 0.30 | -0.17 | -0.08 | -0.14 | -0.10 | -0.20 |
| AC010148.1 | -1.23 | -1.29 | -1.21 | -1.30 | -1.29 | -1.27 | -1.30 | -1.02 |
| AC010168.2 | 2.30 | 2.51 | 2.99 | 2.36 | 2.18 | 1.78 | 2.59 | 2.36 |
| AC010173.1 | -0.97 | -1.04 | -0.95 | -0.98 | -1.01 | -0.81 | -1.05 | -0.89 |
| AC010186.1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC010186.2 | -1.91 | -1.94 | -1.90 | -1.94 | -1.94 | -1.95 | -1.94 | -1.92 |
| AC010186.3 | -0.28 | -0.12 | 0.07 | -0.20 | -0.24 | -0.04 | -0.22 | -0.02 |
| AC010198.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC010198.2 | 2.22 | 3.82 | 3.08 | 4.30 | 3.12 | 2.41 | 3.50 | 3.73 |
| AC010200.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| AC010201.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC010201.2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.24 | -2.26 |
| AC010201.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC010203.1 | -1.09 | -1.01 | -1.00 | -1.02 | -1.05 | -1.07 | -0.97 | -1.11 |
| AC010205.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC010207.1 | -1.67 | -1.71 | -1.70 | -1.72 | -1.71 | -1.70 | -1.72 | -1.48 |
| AC010210.1 | 0.58 | 0.10 | 0.38 | 0.16 | 0.58 | 0.18 | 0.29 | 0.35 |
| AC010226.1 | -0.64 | -0.70 | -0.52 | -0.71 | -0.56 | -0.73 | -0.79 | -0.63 |
| AC010240.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC010240.3 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC010245.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.91 | -1.96 |
| AC010245.2 | -0.58 | -0.58 | -0.32 | -0.58 | -0.58 | -0.42 | -0.19 | -0.60 |
| AC010255.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 |
| AC010260.1 | -2.20 | -2.20 | -2.17 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC010261.1 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC010271.2 | -1.60 | -1.65 | -1.64 | -1.60 | -1.59 | -1.66 | -1.66 | -1.67 |
| AC010273.1 | -1.94 | -1.94 | -1.86 | -1.94 | -1.90 | -1.95 | -1.94 | -1.89 |
| AC010273.2 | -1.28 | -1.28 | -1.33 | -1.29 | -1.34 | -1.36 | -1.10 | -1.37 |
| AC010300.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC010301.1 | -0.89 | -0.73 | -0.88 | -0.83 | -0.78 | -0.78 | -0.83 | -0.71 |
| AC010306.1 | -1.99 | -1.96 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -1.97 |
| AC010307.4 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC010319.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC010319.3 | -2.15 | -2.15 | -2.11 | -2.15 | -2.12 | -2.14 | -2.15 | -2.16 |
| AC010319.4 | -1.99 | -1.99 | -1.98 | -1.96 | -1.94 | -1.97 | -2.00 | -1.97 |
| AC010323.2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.95 | -2.00 | -2.00 | -2.01 |
| AC010325.1 | -1.18 | -1.18 | -1.16 | -1.19 | -1.04 | -1.19 | -1.05 | -1.14 |
| AC010325.2 | -1.18 | -1.24 | -1.23 | -0.89 | -1.17 | -1.26 | -1.32 | -1.33 |
| AC010326.1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.87 | -1.88 | -1.90 | -1.91 |
| AC010326.3 | -1.33 | -1.26 | -1.38 | -1.40 | -1.33 | -1.41 | -1.34 | -1.42 |
| AC010326.4 | 2.18 | 1.54 | 1.89 | 1.82 | 1.75 | 1.90 | 1.97 | 2.18 |
| AC010327.1 | 3.42 | 3.90 | 4.34 | 3.66 | 4.51 | 3.25 | 4.74 | 4.49 |
| AC010327.3 | -1.79 | -1.84 | -1.83 | -1.85 | -1.79 | -1.83 | -1.85 | -1.87 |
| AC010327.4 | -2.10 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC010327.5 | -0.85 | -1.22 | -1.21 | -1.03 | -1.12 | -1.24 | -1.10 | -1.25 |
| AC010327.7 | -1.48 | -1.58 | -1.57 | -1.54 | -1.53 | -1.52 | -1.54 | -1.61 |
| AC010327.8 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC010328.2 | -1.89 | -1.89 | -1.88 | -1.82 | -1.89 | -1.88 | -1.89 | -1.87 |
| AC010329.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC010331.1 | 0.90 | 0.31 | 0.67 | 0.52 | 0.50 | 0.43 | 0.58 | 0.56 |
| AC010335.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AC010335.3 | -2.15 | -2.12 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC010336.1 | -0.07 | 0.02 | 0.06 | 0.15 | -0.10 | -0.07 | 0.17 | -0.08 |
| AC010336.2 | -1.94 | -1.94 | -1.93 | -1.95 | -1.88 | -1.93 | -1.95 | -1.96 |
| AC010336.4 | -1.33 | -1.13 | -1.25 | -1.34 | -1.33 | -1.25 | -1.34 | -1.24 |
| AC010336.5 | -1.79 | -1.78 | -1.78 | -1.71 | -1.76 | -1.80 | -1.79 | -1.81 |
| AC010336.6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC010336.7 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC010336.8 | -0.48 | -0.55 | -0.47 | -0.64 | -0.42 | -0.45 | -0.57 | -0.59 |
| AC010342.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC010343.1 | 2.49 | 2.59 | 2.28 | 2.54 | 3.26 | 2.97 | 2.52 | 2.72 |
| AC010359.1 | -0.43 | -0.56 | -0.54 | -0.50 | -0.49 | -0.50 | -0.58 | -0.66 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC010359.2 | 1.22 | 1.35 | 1.46 | 1.46 | 1.35 | 1.44 | 1.65 | 1.10 |
| AC010368.1 | -2.16 | -2.20 | -2.19 | -2.21 | -2.20 | -2.21 | -2.21 | -2.22 |
| AC010378.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC010378.2 | -1.03 | -0.88 | -1.15 | -0.79 | -1.09 | -1.18 | -1.17 | -1.12 |
| AC010401.1 | -2.07 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC010422.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AC010422.2 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC010422.8 | -1.70 | -1.69 | -1.68 | -1.65 | -1.67 | -1.68 | -1.65 | -1.67 |
| AC010435.1 | -1.59 | -1.52 | -1.39 | -1.53 | -1.59 | -1.61 | -1.41 | -1.62 |
| AC010442.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC010457.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC010460.3 | -1.69 | -1.69 | -1.68 | -1.69 | -1.69 | -1.70 | -1.64 | -1.71 |
| AC010463.3 | -1.75 | -1.78 | -1.74 | -1.79 | -1.79 | -1.75 | -1.75 | -1.76 |
| AC010468.1 | 0.35 | 0.02 | 0.03 | 0.42 | 0.20 | 0.28 | 0.34 | 0.17 |
| AC010469.1 | -1.65 | -1.64 | -1.63 | -1.49 | -1.62 | -1.63 | -1.60 | -1.57 |
| AC010469.2 | -1.54 | -1.43 | -1.47 | -1.55 | -1.51 | -1.44 | -1.55 | -1.46 |
| AC010476.1 | -1.25 | -1.24 | -1.30 | -1.19 | -1.25 | -1.30 | -1.32 | -1.17 |
| AC010476.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.22 | -2.26 |
| AC010478.1 | -1.27 | -1.38 | -1.37 | -1.27 | -1.38 | -1.34 | -1.17 | -1.21 |
| AC010487.1 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC010487.2 | -1.19 | -1.31 | -1.30 | -1.32 | -1.28 | -1.15 | -1.32 | -1.34 |
| AC010491.1 | 0.14 | -0.13 | 0.03 | 0.14 | 0.10 | 0.02 | 0.13 | 0.16 |
| AC010501.1 | -1.46 | -1.51 | -1.50 | -1.52 | -1.42 | -1.52 | -1.52 | -1.53 |
| AC010503.4 | 4.00 | 4.64 | 4.18 | 4.57 | 4.09 | 3.71 | 4.93 | 3.54 |
| AC010504.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AC010519.1 | 0.23 | 0.33 | 0.39 | 0.36 | 0.39 | 0.48 | 0.70 | 0.24 |
| AC010524.1 | -1.55 | -1.64 | -1.58 | -1.65 | -1.64 | -1.63 | -1.60 | -1.57 |
| AC010525.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.07 | -2.11 |
| AC010530.1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -2.00 | -1.93 | -2.01 |
| AC010531.3 | -1.27 | -1.26 | -1.18 | -1.27 | -1.16 | -1.25 | -1.21 | -1.29 |
| AC010531.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC010531.6 | 3.91 | 2.42 | 2.99 | 2.46 | 3.19 | 2.65 | 2.61 | 2.21 |
| AC010531.7 | -1.98 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC010533.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC010536.1 | -1.60 | -1.59 | -1.54 | -1.60 | -1.57 | -1.56 | -1.60 | -1.48 |
| AC010536.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC010538.1 | -0.63 | -0.47 | -0.60 | -0.64 | -0.73 | -0.67 | -0.77 | -0.79 |
| AC010542.2 | 1.08 | 0.69 | 0.65 | 0.78 | 0.65 | 0.80 | 0.58 | 0.79 |
| AC010542.4 | 0.32 | 0.06 | 0.17 | 0.32 | 0.09 | 0.25 | 0.18 | 0.07 |
| AC010542.5 | 0.14 | 0.21 | 0.18 | 0.20 | 0.24 | 0.22 | 0.05 | 0.16 |
| AC010547.1 | -1.74 | -1.79 | -1.69 | -1.79 | -1.76 | -1.78 | -1.80 | -1.81 |
| AC010547.2 | -1.94 | -1.94 | -1.93 | -1.95 | -1.92 | -1.95 | -1.95 | -1.96 |
| AC010547.3 | -1.84 | -1.83 | -1.83 | -1.84 | -1.84 | -1.85 | -1.80 | -1.85 |
| AC010547.4 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC010547.6 | -2.36 | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC010595.1 | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC010605.1 | 4.14 | 2.97 | 2.04 | 2.98 | 2.06 | 3.07 | 2.12 | 2.06 |
| AC010615.1 | 0.56 | 0.34 | 0.54 | 0.40 | 0.38 | 0.50 | 0.53 | 0.36 |
| AC010615.2 | -0.45 | -0.35 | 0.78 | -0.46 | -0.45 | -0.47 | -0.29 | -0.41 |
| AC010616.1 | -1.29 | -1.35 | -1.27 | -1.23 | -1.29 | -1.31 | -1.24 | -1.32 |
| AC010618.1 | 6.08 | 7.12 | 6.55 | 7.09 | 7.51 | 7.36 | 6.72 | 7.19 |
| AC010618.2 | -1.14 | -1.13 | -1.12 | -1.14 | -0.96 | -1.15 | -1.14 | -1.06 |
| AC010618.3 | -2.20 | -2.20 | -2.17 | -2.18 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC010618.4 | 1.63 | 1.50 | 1.37 | 1.57 | 1.85 | 1.85 | 1.62 | 1.63 |
| AC010623.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -2.00 | -1.96 | -2.01 |
| AC010624.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC010624.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| AC010624.5 | 3.26 | 3.23 | 3.82 | 3.34 | 3.46 | 3.93 | 2.94 | 3.10 |
| AC010627.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC010631.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC010632.1 | -1.98 | -2.04 | -2.00 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC010632.2 | -0.87 | -1.02 | -0.86 | -0.82 | -1.02 | -0.90 | -0.77 | -1.04 |
| AC010636.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC010642.2 | 6.05 | 5.11 | 4.88 | 5.01 | 6.27 | 5.59 | 5.04 | 4.97 |
| AC010643.1 | -0.83 | -0.74 | -0.21 | -0.76 | -0.15 | -0.80 | -0.68 | -0.85 |
| AC010649.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC010653.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC010653.2 | -2.15 | -2.15 | -2.11 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AC010653.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC010654.1 | -0.98 | -1.13 | -1.12 | -1.07 | -1.09 | -1.05 | -1.15 | -1.09 |
| AC010655.2 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.06 | -2.10 | -2.10 |
| AC010677.1 | -0.48 | -0.40 | -0.61 | -0.56 | -0.38 | -0.57 | -0.56 | -0.65 |
| AC010680.2 | -1.39 | -1.17 | -1.30 | -1.33 | -1.39 | -1.41 | -1.19 | -1.30 |
| AC010680.3 | -1.09 | -0.92 | -0.90 | -0.93 | -1.00 | -1.10 | -0.86 | -1.10 |
| AC010680.4 | -1.94 | -1.86 | -1.90 | -1.94 | -1.92 | -1.89 | -1.95 | -1.96 |
| AC010680.5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC010683.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.83 | -1.88 | -1.86 | -1.87 |
| AC010719.1 | -1.55 | -1.54 | -1.42 | -1.49 | -1.46 | -1.56 | -1.55 | -1.57 |
| AC010733.1 | -0.24 | -0.27 | -0.33 | -0.29 | -0.21 | -0.31 | -0.25 | -0.30 |
| AC010735.1 | -1.51 | -1.50 | -1.55 | -1.56 | -1.56 | -1.26 | -1.57 | -1.58 |
| AC010735.2 | 1.13 | 0.65 | 0.88 | 0.54 | 0.69 | 1.99 | 0.61 | 0.49 |
| AC010738.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC010745.1 | -1.84 | -1.79 | -1.83 | -1.80 | -1.84 | -1.85 | -1.84 | -1.86 |
| AC010761.1 | 2.54 | 2.64 | 2.71 | 2.60 | 2.67 | 2.51 | 2.65 | 2.39 |
| AC010761.2 | 0.69 | 1.01 | 0.94 | 0.98 | 1.21 | 1.07 | 0.96 | 0.77 |
| AC010761.3 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AC010761.4 | -2.10 | -2.07 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.11 |
| AC010761.6 | -0.11 | 0.05 | 0.10 | 0.02 | -0.10 | 0.07 | 0.16 | 0.20 |
| AC010761.7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC010768.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.00 |
| AC010789.1 | 0.41 | 0.20 | 0.03 | 0.00 | 0.01 | -0.01 | 0.08 | 0.04 |
| AC010789.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.06 | -2.10 | -2.11 |
| AC010809.1 | -2.20 | -2.20 | -2.19 | -2.21 | -2.20 | -2.21 | -2.21 | -2.22 |
| AC010809.2 | -1.22 | -1.28 | -1.20 | -1.22 | -1.28 | -1.29 | -1.16 | -1.30 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC010809.3 | -2.20 | -2.20 | -2.19 | -2.16 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC010834.2 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.80 | -1.89 | -1.91 |
| AC010834.3 | -1.84 | -1.84 | -1.78 | -1.84 | -1.77 | -1.85 | -1.85 | -1.86 |
| AC010864.1 | -0.14 | -0.33 | -0.08 | -0.22 | -0.45 | -0.40 | -0.35 | -0.29 |
| AC010883.1 | 1.19 | 0.64 | 0.85 | 0.68 | 1.30 | 0.77 | 0.69 | 0.75 |
| AC010883.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC010883.3 | 1.36 | 1.25 | 1.14 | 1.32 | 1.43 | 1.24 | 1.36 | 1.23 |
| AC010884.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC010889.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC010894.1 | -1.96 | -1.99 | -1.95 | -1.99 | -1.97 | -1.98 | -2.00 | -2.01 |
| AC010894.2 | 1.85 | 1.16 | 1.12 | 1.42 | 1.77 | 1.27 | 1.11 | 1.28 |
| AC010896.1 | -1.00 | -1.00 | -0.91 | -0.87 | -1.04 | -1.06 | -1.09 | -0.98 |
| AC010913.1 | 3.37 | 2.48 | 2.66 | 2.45 | 3.54 | 2.42 | 2.48 | 2.10 |
| AC010931.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC010967.1 | -1.69 | -1.69 | -1.68 | -1.69 | -1.69 | -1.48 | -1.69 | -1.71 |
| AC010969.1 | -0.45 | -0.81 | -0.79 | -0.74 | -0.81 | -0.78 | -0.82 | -0.83 |
| AC010969.2 | 1.89 | 2.15 | 2.18 | 2.13 | 1.88 | 2.17 | 2.06 | 2.01 |
| AC010969.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC010970.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC010973.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC010973.2 | -0.59 | -0.66 | -0.39 | -0.32 | -0.58 | -0.58 | -0.60 | -0.50 |
| AC010974.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC010976.1 | -1.79 | -1.74 | -1.78 | -1.75 | -1.74 | -1.78 | -1.79 | -1.76 |
| AC010978.1 | -1.34 | -1.45 | -1.44 | -1.46 | -1.46 | -1.44 | -1.41 | -1.43 |
| AC010980.1 | -1.96 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -1.97 | -2.00 |
| AC010996.1 | 0.37 | 0.00 | 0.11 | 0.19 | 0.11 | 0.06 | 0.11 | -0.12 |
| AC010997.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC010997.4 | -1.11 | -1.16 | -1.22 | -1.24 | -1.20 | -1.25 | -1.18 | -1.14 |
| AC010997.5 | 0.21 | 0.08 | -0.06 | 0.20 | 0.05 | -0.02 | 0.13 | 0.01 |
| AC010997.6 | -0.45 | -0.44 | -0.43 | -0.45 | -0.40 | -0.46 | -0.12 | -0.34 |
| AC010998.2 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC010998.3 | -2.20 | -2.20 | -2.19 | -2.16 | -2.19 | -2.20 | -2.20 | -2.19 |
| AC010999.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC010999.2 | -0.81 | -0.87 | -0.94 | -0.83 | -0.80 | -0.93 | -0.88 | -0.74 |
| AC011005.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC011005.4 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011008.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC011008.2 | -1.99 | -1.96 | -1.95 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC011029.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011092.3 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011120.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011139.1 | 1.92 | 1.88 | 2.05 | 1.90 | 1.92 | 1.83 | 3.64 | 1.73 |
| AC011195.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC011239.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC011242.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011270.1 | -2.20 | -2.17 | -2.17 | -2.20 | -2.20 | -2.21 | -2.20 | -2.21 |
| AC011287.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.83 | -1.80 | -1.86 |
| AC011287.2 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC011290.1 | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC011290.2 | -1.75 | -1.79 | -1.78 | -1.79 | -1.76 | -1.80 | -1.79 | -1.76 |
| AC011294.1 | -1.23 | -1.16 | -1.14 | -1.23 | -1.16 | -1.09 | -1.24 | -1.14 |
| AC011297.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC011298.1 | -1.61 | -1.61 | -1.65 | -1.67 | -1.58 | -1.59 | -1.62 | -1.68 |
| AC011317.1 | -1.64 | -1.69 | -1.68 | -1.74 | -1.71 | -1.70 | -1.75 | -1.76 |
| AC011322.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.30 | -2.30 |
| AC011330.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.17 |
| AC011337.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -1.96 | -2.01 |
| AC011346.1 | -0.49 | -0.49 | -0.30 | -0.49 | -0.41 | -0.39 | -0.29 | -0.35 |
| AC011363.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC011365.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC011365.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.37 |
| AC011374.2 | -0.16 | -0.07 | -0.06 | -0.08 | 0.01 | 0.14 | -0.03 | 0.21 |
| AC011379.1 | 1.82 | 1.64 | 2.24 | 1.86 | 1.84 | 1.60 | 2.86 | 1.66 |
| AC011379.2 | -0.25 | -0.54 | -0.45 | -0.54 | -0.46 | -0.52 | -0.48 | -0.50 |
| AC011388.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011389.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.68 | -1.85 | -1.85 | -1.86 |
| AC011405.1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 | -1.79 | -1.84 | -1.82 |
| AC011411.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC011416.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.28 | -2.31 |
| AC011416.3 | -1.02 | -0.94 | -1.00 | -0.82 | -0.87 | -0.93 | -1.02 | -0.92 |
| AC011416.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| AC011444.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.06 | -2.07 | -2.11 |
| AC011444.4 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.19 | -2.18 | -2.21 |
| AC011445.2 | 3.03 | 1.65 | 1.44 | 1.52 | 1.66 | 1.72 | 1.58 | 1.52 |
| AC011446.1 | -1.01 | -0.78 | -0.99 | -0.95 | -1.01 | -0.95 | -1.02 | -0.97 |
| AC011446.2 | 1.25 | 1.38 | 1.35 | 1.26 | 1.40 | 1.33 | 1.25 | 1.38 |
| AC011446.3 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| AC011447.3 | 1.81 | 0.98 | 2.76 | 1.03 | 1.03 | 1.01 | 1.79 | 0.96 |
| AC011447.6 | -1.30 | -1.48 | -1.23 | -1.49 | -1.48 | -1.50 | -1.37 | -1.51 |
| AC011447.7 | -0.63 | -0.70 | -0.02 | -0.71 | -0.71 | -0.72 | -0.43 | -0.73 |
| AC011450.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011451.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC011451.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011451.3 | -1.64 | -1.69 | -1.68 | -1.65 | -1.66 | -1.70 | -1.70 | -1.71 |
| AC011455.6 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC011461.1 | -1.59 | -1.48 | -1.58 | -1.60 | -1.59 | -1.58 | -1.49 | -1.61 |
| AC011462.4 | -1.48 | -1.54 | -1.41 | -1.49 | -1.51 | -1.47 | -1.43 | -1.51 |
| AC011462.5 | -0.02 | 0.07 | -0.08 | -0.02 | 0.14 | 0.06 | -0.11 | -0.07 |
| AC011466.1 | -0.65 | -0.92 | -0.83 | -0.93 | -0.88 | -0.84 | -0.86 | -0.77 |
| AC011466.4 | -1.00 | -1.14 | -1.13 | -1.15 | -1.07 | -1.03 | -1.02 | -1.05 |
| AC011468.1 | 0.01 | 0.28 | 0.44 | -0.07 | -0.02 | 0.09 | 0.00 | 0.30 |
| AC011468.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC011468.5 | 0.41 | 0.17 | 0.28 | 0.29 | 0.27 | 0.13 | 0.14 | 0.22 |
| AC011471.2 | -1.53 | -1.58 | -1.52 | -1.43 | -1.59 | -1.49 | -1.54 | -1.61 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC011472.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011472.2 | 0.04 | 0.27 | 0.06 | 0.29 | 0.31 | 0.26 | 0.25 | 0.48 |
| AC011472.3 | 2.19 | 2.14 | 1.97 | 2.75 | 2.35 | 1.81 | 2.15 | 2.48 |
| AC011472.4 | -1.82 | -1.89 | -1.88 | -1.89 | -1.89 | -1.86 | -1.89 | -1.87 |
| AC011473.2 | 3.18 | 3.23 | 3.45 | 3.11 | 3.58 | 3.22 | 3.71 | 2.89 |
| AC011473.3 | -2.10 | -2.10 | -2.05 | -2.10 | -2.10 | -2.11 | -2.10 | -2.11 |
| AC011475.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011476.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC011476.3 | -1.74 | -1.73 | -1.73 | -1.74 | -1.73 | -1.68 | -1.74 | -1.76 |
| AC011477.1 | 0.16 | 0.33 | 0.02 | 0.33 | 0.05 | 0.36 | 0.21 | 0.25 |
| AC011477.2 | -0.95 | -1.02 | -0.86 | -0.96 | -1.02 | -0.90 | -0.96 | -1.04 |
| AC011477.3 | -2.36 | -2.34 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011477.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC011479.2 | -1.59 | -1.53 | -1.58 | -1.54 | -1.59 | -1.60 | -1.49 | -1.61 |
| AC011479.4 | 3.54 | 3.62 | 3.72 | 3.69 | 3.88 | 3.65 | 3.70 | 3.91 |
| AC011481.1 | -1.59 | -1.64 | -1.57 | -1.64 | -1.58 | -1.62 | -1.59 | -1.61 |
| AC011481.2 | -2.20 | -2.15 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC011483.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC011483.2 | 0.52 | 0.16 | 0.59 | 0.37 | 0.31 | 0.53 | 0.22 | 0.11 |
| AC011483.3 | -2.20 | -2.18 | -2.17 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC011484.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC011491.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011492.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC011495.1 | 0.31 | 0.46 | 0.36 | 0.52 | 0.70 | 0.44 | 0.44 | 0.37 |
| AC011495.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| AC011497.2 | -0.03 | -0.11 | -0.09 | 0.03 | -0.03 | 0.07 | 0.09 | 0.09 |
| AC011498.1 | -1.54 | -1.59 | -1.53 | -1.60 | -1.56 | -1.47 | -1.60 | -1.56 |
| AC011498.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.22 | -2.26 |
| AC011498.4 | -1.74 | -1.69 | -1.73 | -1.74 | -1.69 | -1.73 | -1.70 | -1.71 |
| AC011498.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011498.6 | -1.16 | -1.21 | -1.27 | -1.29 | -1.22 | -1.14 | -1.29 | -1.14 |
| AC011498.7 | 1.31 | 1.63 | 2.06 | 1.63 | 1.36 | 1.33 | 2.01 | 1.34 |
| AC011503.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC011503.2 | -0.96 | -0.96 | -0.86 | -0.89 | -0.92 | -0.97 | -0.75 | -0.92 |
| AC011503.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.05 |
| AC011506.1 | -0.62 | -0.80 | -0.87 | -0.76 | -0.81 | -0.80 | -0.82 | -0.73 |
| AC011509.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC011509.3 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AC011511.1 | -1.65 | -1.64 | -1.68 | -1.65 | -1.69 | -1.61 | -1.70 | -1.71 |
| AC011511.2 | -1.80 | -1.84 | -1.83 | -1.80 | -1.79 | -1.83 | -1.80 | -1.86 |
| AC011511.3 | -0.51 | -0.14 | -0.40 | -0.32 | -0.46 | -0.36 | -0.44 | -0.30 |
| AC011511.5 | -1.33 | -1.26 | -1.25 | -1.27 | -1.26 | -1.26 | -1.27 | -1.29 |
| AC011523.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC011558.1 | 1.38 | 1.14 | 0.78 | 1.03 | 1.07 | 1.23 | 0.95 | 1.13 |
| AC011586.1 | -2.36 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011586.2 | -2.01 | -2.04 | -1.97 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 |
| AC011603.2 | 3.60 | 3.71 | 3.49 | 3.16 | 3.24 | 3.49 | 3.14 | 3.24 |
| AC011604.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC011611.2 | -0.84 | -0.84 | -0.68 | -0.78 | -0.72 | -0.72 | -0.85 | -0.74 |
| AC011611.3 | 1.22 | 1.26 | 1.18 | 0.81 | 1.13 | 1.01 | 0.93 | 0.91 |
| AC011611.4 | 0.95 | 1.23 | 1.13 | 0.94 | 1.25 | 1.05 | 0.93 | 1.24 |
| AC011611.5 | -0.44 | -0.36 | -0.50 | -0.26 | -0.44 | -0.33 | -0.52 | -0.32 |
| AC011676.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC011676.2 | -2.30 | -2.27 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC011676.5 | -0.53 | -0.29 | -0.51 | -0.31 | -0.37 | -0.40 | -0.20 | -0.48 |
| AC011700.1 | -0.58 | -0.58 | -0.56 | -0.58 | -0.18 | -0.49 | -0.31 | -0.54 |
| AC011726.2 | -2.30 | -2.30 | -2.27 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC011731.1 | -1.13 | -1.13 | -1.04 | -1.01 | -1.02 | -0.98 | -1.07 | -0.86 |
| AC011742.2 | -1.91 | -1.90 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.92 |
| AC011752.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.29 |
| AC011753.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC011753.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.87 | -1.96 |
| AC011753.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011773.3 | -1.85 | -1.89 | -1.83 | -1.90 | -1.89 | -1.83 | -1.90 | -1.92 |
| AC011773.4 | -1.31 | -1.36 | -1.35 | -1.37 | -1.30 | -1.26 | -1.38 | -1.39 |
| AC011815.1 | 0.14 | 0.07 | 0.26 | 0.06 | 0.30 | 0.34 | 0.39 | 0.03 |
| AC011815.2 | -1.00 | -1.14 | -1.05 | -1.15 | -1.21 | -1.13 | -1.22 | -1.01 |
| AC011816.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC011825.1 | -1.12 | -1.18 | -1.17 | -0.86 | -0.96 | -1.16 | -1.12 | -1.09 |
| AC011825.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC011825.4 | -0.94 | -0.94 | -0.84 | -0.95 | -0.90 | -0.82 | -0.69 | -0.84 |
| AC011840.1 | -1.66 | -1.65 | -0.57 | -1.66 | -1.65 | -1.67 | -1.67 | -1.69 |
| AC011890.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC011891.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC011897.1 | -2.10 | -2.09 | -2.09 | -2.05 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC011912.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC011921.1 | 0.65 | 0.92 | 0.52 | 0.63 | 1.00 | 0.73 | 0.82 | 0.68 |
| AC011921.3 | -1.40 | -1.45 | -1.50 | -1.46 | -1.51 | -1.44 | -1.52 | -1.48 |
| AC011933.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC011933.2 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC011933.3 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| AC011939.1 | -0.07 | -0.14 | -0.06 | -0.08 | -0.10 | -0.13 | 0.10 | -0.13 |
| AC011939.2 | 0.55 | 0.93 | 0.88 | 0.90 | 0.57 | 0.60 | 1.07 | 0.60 |
| AC011939.3 | -2.05 | -2.04 | -2.00 | -2.05 | -2.03 | -2.05 | -1.98 | -2.06 |
| AC011944.1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC011978.2 | 0.50 | 0.54 | 0.65 | 0.49 | 0.45 | 0.44 | 0.43 | 0.80 |
| AC011979.1 | 0.89 | 1.12 | 0.87 | 1.17 | 1.61 | 0.91 | 1.00 | 0.98 |
| AC011997.1 | -1.74 | -1.69 | -1.73 | -1.74 | -1.74 | -1.68 | -1.70 | -1.63 |
| AC011998.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC012020.1 | -0.80 | -0.72 | -0.63 | -0.73 | -0.75 | -0.82 | -0.88 | -0.89 |
| AC012038.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC012063.1 | 1.30 | 1.00 | 1.05 | 1.05 | 0.97 | 0.92 | 1.30 | 1.00 |
| AC012065.2 | -1.45 | -1.50 | -1.49 | -1.45 | -1.39 | -1.46 | -1.51 | -1.43 |
| AC012065.3 | -1.91 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.95 | -1.88 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC012065.4 | -1.89 | -1.81 | -1.88 | -1.89 | -1.89 | -1.86 | -1.85 | -1.91 |
| AC012065.5 | -1.06 | -0.98 | -1.04 | -0.99 | -0.91 | -1.04 | -0.94 | -1.08 |
| AC012066.1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.74 | -1.78 | -1.70 | -1.81 |
| AC012073.1 | 1.17 | 1.14 | 1.36 | 1.09 | 1.10 | 1.24 | 1.09 | 1.20 |
| AC012074.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AC012076.1 | -1.21 | -1.20 | -1.19 | -1.15 | -1.14 | -1.12 | -1.22 | -1.11 |
| AC012085.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC012087.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 | -1.81 | -1.85 | -1.86 |
| AC012100.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC012100.3 | -1.94 | -1.86 | -1.93 | -1.95 | -1.94 | -1.95 | -1.91 | -1.96 |
| AC012103.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC012146.1 | 2.83 | 2.59 | 3.10 | 2.75 | 3.88 | 2.59 | 3.08 | 2.92 |
| AC012146.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| AC012158.1 | 0.89 | 0.93 | 0.65 | 0.88 | 0.99 | 0.97 | 0.81 | 0.73 |
| AC012170.1 | -1.69 | -1.69 | -1.68 | -1.70 | -1.69 | -1.66 | -1.70 | -1.62 |
| AC012170.2 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC012170.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC012173.1 | -1.54 | -1.59 | -1.53 | -1.49 | -1.59 | -1.50 | -1.60 | -1.51 |
| AC012178.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC012181.1 | -1.34 | -1.33 | -1.19 | -1.21 | -1.27 | -1.29 | -1.28 | -1.36 |
| AC012181.2 | -2.15 | -2.15 | -2.12 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| AC012184.1 | -1.55 | -1.59 | -1.58 | -1.39 | -1.51 | -1.61 | -1.60 | -1.62 |
| AC012184.3 | 0.93 | 0.44 | 0.71 | 0.34 | 0.51 | 0.49 | 0.49 | 0.43 |
| AC012184.4 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC012186.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| AC012186.3 | -2.29 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC012213.2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC012213.3 | -1.94 | -1.94 | -1.90 | -1.94 | -1.94 | -1.93 | -1.94 | -1.96 |
| AC012213.4 | -1.21 | -1.43 | -1.48 | -1.50 | -1.43 | -1.48 | -1.51 | -1.52 |
| AC012236.1 | 4.23 | 2.26 | 2.69 | 2.38 | 4.34 | 2.33 | 2.81 | 2.98 |
| AC012254.3 | -1.69 | -1.68 | -1.68 | -1.69 | -1.66 | -1.70 | -1.69 | -1.71 |
| AC012291.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| AC012291.2 | -0.75 | -0.75 | -0.67 | -0.69 | -0.79 | -0.77 | -0.51 | -0.79 |
| AC012306.2 | 0.14 | 0.00 | 0.01 | 0.11 | 0.12 | 0.07 | 0.06 | -0.05 |
| AC012306.3 | -1.41 | -1.27 | -1.39 | -1.41 | -1.40 | -1.39 | -1.28 | -1.31 |
| AC012313.1 | 1.23 | 0.93 | 1.11 | 1.22 | 1.17 | 0.97 | 1.09 | 1.00 |
| AC012313.3 | -1.94 | -1.94 | -1.89 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |
| AC012313.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC012313.5 | -1.06 | -1.05 | -1.04 | -1.06 | -1.05 | -1.03 | -0.99 | -1.07 |
| AC012313.6 | -1.94 | -1.94 | -1.93 | -1.95 | -1.92 | -1.95 | -1.95 | -1.96 |
| AC012313.8 | -1.89 | -1.89 | -1.88 | -1.85 | -1.89 | -1.88 | -1.86 | -1.87 |
| AC012313.9 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.05 |
| AC012317.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.02 | -2.03 |
| AC012349.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC012354.2 | 3.13 | 2.92 | 2.52 | 3.19 | 3.07 | 3.00 | 2.83 | 3.04 |
| AC012354.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.06 |
| AC012358.1 | -1.84 | -1.75 | -1.83 | -1.80 | -1.82 | -1.83 | -1.71 | -1.86 |
| AC012358.2 | -1.60 | -1.65 | -1.64 | -1.56 | -1.62 | -1.66 | -1.66 | -1.62 |
| AC012358.3 | -0.02 | -0.09 | -0.14 | -0.26 | 0.02 | -0.20 | -0.04 | 0.11 |
| AC012360.1 | -1.49 | -1.54 | -1.53 | -1.55 | -1.48 | -1.52 | -1.55 | -1.56 |
| AC012360.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.77 | -1.85 | -1.85 | -1.86 |
| AC012360.3 | 1.80 | 1.60 | 1.57 | 1.89 | 1.76 | 1.67 | 1.82 | 1.64 |
| AC012363.1 | -1.60 | -1.74 | -1.73 | -1.69 | -1.74 | -1.75 | -1.74 | -1.71 |
| AC012368.1 | -0.52 | -0.63 | -0.44 | -0.72 | -0.47 | -0.63 | -0.73 | -0.68 |
| AC012368.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC012370.1 | 0.04 | 0.21 | 0.07 | 0.19 | 0.34 | 0.06 | 0.30 | -0.06 |
| AC012377.1 | -1.46 | -1.51 | -1.50 | -1.46 | -1.51 | -1.53 | -1.47 | -1.48 |
| AC012378.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC012378.2 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC012409.1 | -1.37 | -1.54 | -1.53 | -1.54 | -1.54 | -1.44 | -1.55 | -1.51 |
| AC012409.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| AC012409.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC012435.1 | -1.10 | -1.09 | -1.08 | -1.03 | -1.09 | -0.99 | -1.17 | -1.08 |
| AC012435.2 | -1.89 | -1.89 | -1.88 | -1.81 | -1.87 | -1.90 | -1.90 | -1.91 |
| AC012442.1 | -1.85 | -1.81 | -1.88 | -1.89 | -1.87 | -1.90 | -1.89 | -1.83 |
| AC012443.2 | -1.74 | -1.69 | -1.73 | -1.74 | -1.69 | -1.72 | -1.70 | -1.76 |
| AC012447.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC012459.1 | -0.14 | -0.17 | -0.32 | -0.42 | -0.22 | -0.29 | -0.27 | -0.27 |
| AC012464.2 | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.93 | -1.91 | -1.92 |
| AC012467.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC012467.2 | 1.13 | 1.26 | 0.70 | 1.18 | 0.91 | 0.99 | 0.93 | 0.84 |
| AC012485.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC012485.2 | 0.01 | -0.06 | -0.13 | 0.17 | -0.06 | -0.16 | 0.18 | -0.12 |
| AC012485.3 | -1.39 | -1.32 | -1.37 | -1.26 | -1.39 | -1.34 | -1.40 | -1.41 |
| AC012493.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC012498.1 | -2.04 | -2.01 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.03 |
| AC012500.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC012501.2 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC012510.1 | 0.77 | 1.07 | 0.74 | 0.77 | 0.76 | 1.13 | 0.75 | 1.13 |
| AC012511.1 | -2.10 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 | -2.10 | -2.03 |
| AC012512.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AC012513.3 | -0.11 | 0.20 | 0.22 | 0.08 | -0.02 | -0.08 | -0.04 | -0.07 |
| AC012519.1 | -2.10 | -2.07 | -2.09 | -2.07 | -2.08 | -2.10 | -2.10 | -2.08 |
| AC012531.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AC012555.1 | -1.54 | -1.64 | -1.63 | -1.64 | -1.64 | -1.57 | -1.65 | -1.61 |
| AC012557.1 | -2.15 | -2.12 | -2.11 | -2.12 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC012557.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC012569.1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.91 | -1.96 |
| AC012574.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC012588.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC012603.1 | -1.79 | -1.74 | -1.78 | -1.75 | -1.76 | -1.75 | -1.79 | -1.81 |
| AC012613.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC012615.1 | 1.87 | 1.67 | 2.05 | 1.84 | 1.84 | 1.86 | 1.94 | 2.08 |
| AC012615.2 | -1.45 | -1.32 | -1.38 | -1.40 | -1.39 | -1.41 | -1.46 | -1.47 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC012615.3 | -1.81 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.90 | -1.91 |
| AC012615.6 | -2.30 | -2.30 | -2.30 | -2.28 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC012618.1 | 3.14 | 3.84 | 2.76 | 3.65 | 4.38 | 3.46 | 3.20 | 3.26 |
| AC012618.2 | -1.49 | -1.48 | -1.53 | -1.38 | -1.51 | -1.50 | -1.55 | -1.56 |
| AC012618.3 | -1.64 | -1.58 | -1.57 | -1.64 | -1.64 | -1.65 | -1.54 | -1.66 |
| AC012625.1 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.12 | -2.15 | -2.16 |
| AC012629.2 | -1.59 | -1.64 | -1.68 | -1.69 | -1.66 | -1.70 | -1.65 | -1.61 |
| AC012636.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.21 | -2.18 | -2.21 |
| AC012640.1 | -1.74 | -1.74 | -1.68 | -1.74 | -1.74 | -1.70 | -1.74 | -1.76 |
| AC012640.2 | 1.65 | 1.64 | 1.20 | 1.91 | 1.74 | 1.33 | 1.20 | 1.06 |
| AC012640.3 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC012640.4 | 2.11 | 2.36 | 2.17 | 2.27 | 1.87 | 2.01 | 2.03 | 2.05 |
| AC012645.1 | 0.21 | 0.02 | -0.04 | 0.25 | 0.08 | 0.06 | -0.09 | 0.00 |
| AC012645.2 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC012645.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 |
| AC012651.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC012653.2 | 2.01 | 1.40 | 1.46 | 1.37 | 1.24 | 1.25 | 2.00 | 1.13 |
| AC012671.1 | 1.32 | 1.16 | 1.10 | 1.19 | 1.36 | 1.41 | 1.05 | 1.14 |
| AC012673.1 | -1.79 | -1.79 | -1.78 | -1.75 | -1.72 | -1.78 | -1.79 | -1.81 |
| AC012676.1 | -1.15 | -1.14 | -1.13 | -1.23 | -1.22 | -1.23 | -1.23 | -1.24 |
| AC012676.3 | -1.39 | -1.38 | -1.43 | -1.34 | -1.42 | -1.43 | -1.46 | -1.47 |
| AC012676.4 | -1.80 | -1.71 | -1.83 | -1.76 | -1.84 | -1.85 | -1.84 | -1.82 |
| AC012676.5 | 0.11 | -0.09 | -0.24 | -0.15 | -0.25 | -0.21 | -0.19 | -0.18 |
| AC013244.1 | -2.15 | -2.15 | -2.11 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| AC013262.1 | -1.74 | -1.73 | -1.68 | -1.70 | -1.69 | -1.70 | -1.74 | -1.71 |
| AC013264.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC013267.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.19 |
| AC013268.3 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC013275.1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.80 | -1.82 |
| AC013287.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC013356.1 | -1.42 | -1.53 | -1.47 | -1.54 | -1.51 | -1.52 | -1.43 | -1.56 |
| AC013391.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC013391.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC013394.1 | 0.37 | 0.30 | 0.41 | 0.53 | 0.47 | 0.53 | 0.71 | 0.29 |
| AC013400.1 | -2.01 | -2.04 | -2.00 | -2.05 | -2.03 | -2.05 | -2.02 | -2.06 |
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| AC013403.2 | -2.10 | -2.03 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AC013404.1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.78 | -1.77 | -1.84 | -1.86 |
| AC013410.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC013429.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC013452.1 | -2.04 | -2.07 | -2.09 | -2.10 | -2.07 | -2.09 | -2.10 | -2.11 |
| AC013468.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.10 | -2.10 | -2.08 |
| AC013470.2 | -1.42 | -1.41 | -1.46 | -1.31 | -1.47 | -1.37 | -1.48 | -1.39 |
| AC013470.3 | 0.16 | -0.12 | 0.15 | -0.06 | 0.00 | -0.04 | -0.07 | 0.07 |
| AC013472.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC013472.3 | -1.94 | -1.94 | -1.93 | -1.87 | -1.94 | -1.93 | -1.95 | -1.92 |
| AC013476.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC013486.1 | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.88 | -1.89 | -1.90 |
| AC013489.3 | -0.65 | -0.56 | -0.63 | -0.43 | -0.57 | -0.47 | -0.58 | -0.55 |
| AC013549.3 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.22 | -2.26 |
| AC013553.4 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC013564.1 | 0.01 | 0.10 | 0.03 | 0.14 | 0.01 | -0.05 | 0.19 | -0.04 |
| AC013565.1 | -2.04 | -2.09 | -2.09 | -2.10 | -2.08 | -2.07 | -2.10 | -2.11 |
| AC013565.3 | -1.43 | -1.48 | -1.41 | -1.49 | -1.39 | -1.50 | -1.49 | -1.51 |
| AC013643.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.86 | -1.91 |
| AC013643.3 | -2.02 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC013652.1 | -0.71 | -0.71 | -0.62 | -0.71 | -0.71 | -0.69 | -0.58 | -0.55 |
| AC013652.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC013726.1 | -1.12 | -1.31 | -1.30 | -1.32 | -1.24 | -1.23 | -1.19 | -1.34 |
| AC013731.1 | -0.92 | -1.12 | -1.18 | -1.07 | -1.12 | -1.11 | -1.20 | -1.21 |
| AC015563.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC015660.1 | 0.46 | 0.63 | 0.41 | 0.69 | 1.37 | 1.01 | 0.28 | 0.67 |
| AC015660.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC015674.1 | -0.99 | -0.99 | -0.90 | -1.00 | -0.91 | -0.90 | -0.86 | -0.89 |
| AC015687.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC015688.6 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.21 |
| AC015689.1 | -1.01 | -1.00 | -1.13 | -0.97 | -1.14 | -1.04 | -1.16 | -1.00 |
| AC015689.2 | -1.75 | -1.79 | -1.78 | -1.80 | -1.77 | -1.76 | -1.80 | -1.77 |
| AC015712.1 | 2.57 | 2.25 | 2.04 | 2.23 | 2.94 | 3.21 | 1.55 | 1.77 |
| AC015712.2 | 2.58 | 2.04 | 1.92 | 2.20 | 2.20 | 2.18 | 2.16 | 2.11 |
| AC015712.6 | 2.09 | 1.20 | 1.42 | 1.58 | 1.58 | 2.47 | 1.15 | 1.32 |
| AC015712.7 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC015720.2 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| AC015726.1 | -0.95 | -1.01 | -1.00 | -1.11 | -1.05 | -1.11 | -1.11 | -1.06 |
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| AC015726.3 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC015727.1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.90 | -1.81 | -1.91 |
| AC015799.1 | -0.24 | -0.24 | -0.01 | -0.25 | -0.08 | -0.06 | 0.25 | -0.15 |
| AC015802.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC015802.4 | -1.64 | -1.64 | -1.63 | -1.64 | -1.56 | -1.57 | -1.59 | -1.61 |
| AC015802.6 | 2.16 | 2.14 | 2.11 | 2.48 | 2.10 | 2.03 | 1.92 | 1.96 |
| AC015802.7 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.02 | -2.05 | -2.06 |
| AC015813.1 | 0.94 | 0.81 | 0.93 | 0.96 | 1.09 | 1.30 | 1.31 | 0.95 |
| AC015813.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC015813.4 | 0.11 | 0.04 | 0.05 | 0.25 | 0.52 | 0.71 | 0.02 | 0.33 |
| AC015813.5 | 0.11 | -0.08 | 0.06 | -0.17 | 0.00 | -0.05 | -0.03 | 0.04 |
| AC015813.6 | 1.76 | 1.80 | 1.80 | 1.80 | 1.84 | 2.30 | 1.89 | 1.44 |
| AC015813.7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC015819.2 | -2.15 | -2.15 | -2.12 | -2.15 | -2.11 | -2.14 | -2.15 | -2.16 |
| AC015845.1 | -0.67 | -0.67 | -0.56 | -0.52 | -0.33 | -0.58 | -0.68 | -0.46 |
| AC015845.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC015849.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC015849.3 | -0.05 | -0.37 | -0.19 | -0.30 | -0.22 | -0.20 | -0.18 | -0.34 |
| AC015849.4 | -0.56 | -0.54 | -0.54 | -0.63 | -0.59 | -0.47 | -0.49 | -0.65 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC015849.5 | -1.94 | -1.87 | -1.93 | -1.94 | -1.94 | -1.95 | -1.87 | -1.96 |
| AC015849.6 | -2.04 | -2.01 | -2.04 | -2.04 | -2.03 | -2.05 | -2.05 | -2.00 |
| AC015853.2 | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| AC015871.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC015871.3 | 0.64 | 0.57 | 0.46 | 0.43 | 0.52 | 0.50 | 0.49 | 0.63 |
| AC015871.4 | -1.94 | -1.94 | -1.90 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |
| AC015871.6 | 1.16 | 1.28 | 1.25 | 1.26 | 1.29 | 1.04 | 1.16 | 0.99 |
| AC015878.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC015883.1 | 1.19 | 1.60 | 1.29 | 1.25 | 1.33 | 1.50 | 1.63 | 1.05 |
| AC015908.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC015908.3 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.11 |
| AC015909.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC015909.2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC015909.5 | -1.64 | -1.54 | -1.53 | -1.59 | -1.64 | -1.55 | -1.60 | -1.66 |
| AC015911.1 | -1.48 | -1.47 | -1.58 | -1.59 | -1.47 | -1.60 | -1.60 | -1.56 |
| AC015911.4 | -1.65 | -1.69 | -1.68 | -1.65 | -1.67 | -1.61 | -1.70 | -1.71 |
| AC015912.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| AC015912.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC015912.3 | 4.11 | 2.57 | 3.08 | 3.22 | 3.52 | 3.11 | 2.56 | 2.58 |
| AC015917.2 | -1.20 | -1.19 | -1.10 | -1.20 | -0.86 | -1.17 | -1.20 | -1.21 |
| AC015920.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AC015921.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC015922.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC015922.3 | 1.84 | 1.15 | 1.35 | 1.12 | 1.27 | 1.40 | 1.48 | 1.52 |
| AC015936.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 |
| AC015961.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC015961.2 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.07 | -2.11 |
| AC015967.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC015967.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC015971.1 | -0.90 | -0.89 | -0.88 | -0.81 | -0.85 | -0.79 | -0.74 | -0.72 |
| AC015977.1 | -1.53 | -1.64 | -1.57 | -1.48 | -1.56 | -1.65 | -1.59 | -1.61 |
| AC015982.1 | 1.70 | 1.29 | 1.08 | 1.24 | 1.47 | 1.45 | 1.48 | 1.29 |
| AC015983.1 | -1.28 | -1.21 | -1.33 | -1.22 | -1.24 | -1.33 | -1.36 | -1.31 |
| AC015987.1 | -1.38 | -1.44 | -1.43 | -1.45 | -1.38 | -1.34 | -1.45 | -1.26 |
| AC016026.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC016026.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC016027.1 | 1.53 | 1.21 | 1.19 | 1.59 | 1.15 | 1.28 | 1.10 | 1.35 |
| AC016027.2 | -1.74 | -1.74 | -1.68 | -1.64 | -1.74 | -1.70 | -1.65 | -1.76 |
| AC016027.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC016044.1 | -1.35 | -1.34 | -1.33 | -0.83 | -1.34 | -1.33 | -1.10 | -1.37 |
| AC016065.1 | 3.38 | 2.76 | 3.71 | 3.08 | 2.79 | 3.31 | 2.32 | 3.06 |
| AC016065.2 | -2.20 | -2.18 | -2.17 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC016074.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC016134.1 | -1.76 | -1.79 | -1.83 | -1.84 | -1.79 | -1.85 | -1.84 | -1.86 |
| AC016168.3 | -1.15 | -1.15 | -1.14 | -1.23 | -1.22 | -1.03 | -1.23 | -1.24 |
| AC016168.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC016240.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC016245.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.13 |
| AC016251.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.16 |
| AC016251.2 | -1.74 | -1.73 | -1.73 | -1.70 | -1.73 | -1.75 | -1.61 | -1.76 |
| AC016252.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC016304.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.91 | -1.95 | -1.92 |
| AC016355.1 | 0.78 | 0.81 | 0.64 | 0.82 | 0.80 | 0.63 | 0.41 | 0.62 |
| AC016394.1 | 3.62 | 2.33 | 2.83 | 2.47 | 3.49 | 2.78 | 2.84 | 2.55 |
| AC016394.2 | 1.35 | 0.99 | 1.03 | 0.96 | 1.09 | 1.10 | 1.02 | 0.94 |
| AC016396.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC016405.1 | -2.01 | -2.01 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC016405.2 | -2.12 | -2.15 | -2.14 | -2.13 | -2.13 | -2.15 | -2.13 | -2.16 |
| AC016405.3 | -0.99 | -0.90 | -0.81 | -0.91 | -0.87 | -0.81 | -0.99 | -0.94 |
| AC016526.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| AC016542.1 | -1.75 | -1.74 | -1.78 | -1.79 | -1.79 | -1.75 | -1.79 | -1.81 |
| AC016542.2 | 1.57 | 1.54 | 1.96 | 1.73 | 1.51 | 1.41 | 1.94 | 1.32 |
| AC016542.3 | -1.10 | -0.95 | -1.16 | -1.05 | -1.06 | -1.15 | -1.11 | -1.19 |
| AC016546.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| AC016550.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC016553.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC016575.1 | -1.48 | -1.54 | -1.53 | -1.54 | -1.45 | -1.55 | -1.49 | -1.56 |
| AC016582.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.89 | -1.87 |
| AC016582.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC016586.1 | 4.06 | 4.19 | 4.46 | 4.60 | 3.98 | 4.40 | 4.43 | 4.14 |
| AC016588.1 | -1.69 | -1.74 | -1.73 | -1.74 | -1.71 | -1.73 | -1.70 | -1.71 |
| AC016590.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC016590.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC016590.3 | -1.11 | -1.10 | -1.09 | -0.96 | -1.02 | -1.12 | -1.11 | -1.12 |
| AC016590.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC016596.1 | -1.15 | -1.28 | -1.06 | -1.29 | -1.28 | -1.20 | -1.29 | -1.30 |
| AC016596.2 | -1.10 | -1.16 | -1.15 | -1.17 | -1.13 | -0.99 | -1.10 | -1.12 |
| AC016597.1 | -1.36 | -1.47 | -1.46 | -1.54 | -1.29 | -1.55 | -1.55 | -1.56 |
| AC016601.1 | -2.05 | -2.04 | -1.97 | -2.05 | -2.04 | -2.05 | -1.95 | -2.06 |
| AC016629.3 | -1.36 | -1.28 | -1.34 | -1.36 | -1.32 | -1.34 | -1.36 | -1.32 |
| AC016682.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| AC016687.1 | 0.80 | 0.66 | 0.62 | 0.61 | 0.94 | 0.62 | 0.75 | 0.54 |
| AC016687.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC016691.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC016700.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC016700.2 | 0.43 | 0.30 | 0.48 | 0.35 | 0.58 | 0.42 | 0.41 | 0.72 |
| AC016705.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC016705.2 | -0.66 | -0.66 | -0.79 | -0.60 | -0.73 | -0.70 | -0.75 | -0.77 |
| AC016712.1 | 0.01 | 0.09 | -0.05 | 0.14 | 0.29 | 0.08 | 0.26 | 0.07 |
| AC016717.2 | -1.37 | -1.53 | -1.52 | -1.49 | -1.53 | -1.55 | -1.54 | -1.56 |
| AC016722.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.34 |
| AC016722.2 | -1.34 | -1.40 | -1.39 | -1.41 | -1.37 | -1.35 | -1.28 | -1.37 |
| AC016723.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC016724.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC016727.1 | 1.57 | 1.26 | 1.33 | 1.35 | 1.42 | 1.28 | 1.51 | 1.19 |
| AC016727.3 | -1.80 | -1.84 | -1.79 | -1.84 | -1.80 | -1.85 | -1.80 | -1.82 |
| AC016730.1 | -1.84 | -1.79 | -1.83 | -1.80 | -1.82 | -1.83 | -1.85 | -1.86 |
| AC016734.1 | -0.94 | -0.94 | -0.92 | -0.80 | -0.82 | -0.88 | -0.95 | -0.84 |
| AC016734.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC016735.1 | 0.83 | 1.65 | 0.88 | 1.89 | 2.06 | 0.76 | 0.90 | 0.81 |
| AC016737.1 | -1.49 | -1.49 | -1.48 | -1.32 | -1.49 | -1.47 | -1.38 | -1.51 |
| AC016737.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC016738.1 | -1.54 | -1.48 | -1.53 | -1.55 | -1.45 | -1.50 | -1.49 | -1.57 |
| AC016738.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC016739.1 | 6.76 | 6.99 | 5.67 | 7.01 | 7.73 | 6.61 | 6.13 | 8.19 |
| AC016745.1 | -1.79 | -1.79 | -1.73 | -1.79 | -1.79 | -1.78 | -1.70 | -1.81 |
| AC016745.2 | -1.84 | -1.71 | -1.83 | -1.84 | -1.84 | -1.83 | -1.68 | -1.86 |
| AC016747.1 | 4.28 | 4.37 | 4.23 | 4.40 | 4.76 | 4.41 | 3.61 | 3.56 |
| AC016747.2 | -0.24 | -0.63 | -0.62 | -0.64 | -0.59 | -0.57 | -0.64 | -0.65 |
| AC016747.4 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC016769.2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.24 | -2.26 |
| AC016769.5 | -2.00 | -1.99 | -1.99 | -2.00 | -1.99 | -1.98 | -1.96 | -2.02 |
| AC016773.1 | 0.26 | -0.11 | -0.18 | 0.02 | 0.00 | -0.07 | 0.07 | 0.09 |
| AC016821.1 | -1.96 | -1.99 | -1.95 | -2.00 | -1.99 | -2.00 | -1.96 | -1.97 |
| AC016831.1 | 1.27 | 1.17 | 1.63 | 1.12 | 1.54 | 1.38 | 1.50 | 1.47 |
| AC016831.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC016831.5 | 1.97 | 2.24 | 2.47 | 2.22 | 1.95 | 2.40 | 2.44 | 2.33 |
| AC016831.7 | 0.55 | 0.57 | 0.75 | 0.39 | 1.18 | 0.79 | 0.79 | 0.70 |
| AC016866.1 | -0.44 | -0.51 | -0.42 | -0.44 | -0.39 | -0.49 | -0.26 | -0.54 |
| AC016876.1 | 2.27 | 2.78 | 2.24 | 3.24 | 2.61 | 2.46 | 2.97 | 2.22 |
| AC016876.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC016876.3 | -1.80 | -1.79 | -1.83 | -1.84 | -1.84 | -1.83 | -1.80 | -1.86 |
| AC016877.3 | -1.56 | -1.61 | -1.60 | -1.56 | -1.61 | -1.57 | -1.62 | -1.63 |
| AC016888.1 | -1.28 | -1.14 | -1.26 | -1.15 | -1.24 | -1.23 | -1.22 | -1.19 |
| AC016894.1 | -1.21 | -1.06 | -1.05 | -1.22 | -1.14 | -1.19 | -1.15 | -1.17 |
| AC016910.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC016924.1 | -1.64 | -1.68 | -1.58 | -1.69 | -1.64 | -1.65 | -1.69 | -1.71 |
| AC016925.1 | 0.03 | 0.11 | -0.03 | 0.06 | 0.17 | 0.07 | 0.20 | 0.06 |
| AC016949.1 | 1.56 | 1.85 | 2.46 | 2.05 | 1.49 | 1.55 | 2.06 | 2.02 |
| AC016957.2 | -0.42 | -0.11 | -0.30 | -0.50 | -0.50 | -0.44 | -0.16 | -0.35 |
| AC017007.3 | -1.80 | -1.84 | -1.83 | -1.80 | -1.82 | -1.81 | -1.84 | -1.82 |
| AC017028.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC017028.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC017033.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 |
| AC017035.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.23 | -2.26 |
| AC017037.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC017050.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC017071.1 | -0.36 | -0.20 | -0.16 | -0.29 | -0.21 | -0.27 | -0.15 | -0.32 |
| AC017074.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC017076.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC017079.1 | -2.10 | -2.06 | -2.09 | -2.10 | -2.08 | -2.09 | -2.07 | -2.11 |
| AC017079.2 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.08 |
| AC017083.1 | 0.28 | 0.30 | 0.56 | 0.33 | 0.60 | 0.15 | 0.12 | 0.31 |
| AC017083.2 | -1.37 | -1.37 | -1.35 | -1.25 | -1.40 | -1.38 | -1.31 | -1.46 |
| AC017083.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC017099.1 | -1.89 | -1.89 | -1.84 | -1.78 | -1.87 | -1.90 | -1.86 | -1.87 |
| AC017100.1 | -0.28 | -0.42 | -0.23 | -0.27 | -0.34 | -0.23 | -0.36 | -0.38 |
| AC017101.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC017104.1 | -1.53 | -1.53 | -1.57 | -1.59 | -1.50 | -1.60 | -1.48 | -1.61 |
| AC017104.4 | -1.89 | -1.89 | -1.88 | -1.89 | -1.85 | -1.84 | -1.89 | -1.91 |
| AC017104.5 | -1.74 | -1.74 | -1.68 | -1.74 | -1.64 | -1.70 | -1.65 | -1.76 |
| AC017116.2 | 0.60 | 0.41 | 0.52 | 0.51 | 0.49 | 0.39 | 0.49 | 0.43 |
| AC018362.1 | 1.71 | 1.68 | 1.88 | 2.23 | 1.83 | 1.58 | 2.12 | 2.17 |
| AC018362.2 | -0.30 | -0.50 | -0.57 | -0.38 | -0.47 | -0.43 | -0.52 | -0.44 |
| AC018371.2 | -1.44 | -1.49 | -1.48 | -1.44 | -1.49 | -1.48 | -1.38 | -1.46 |
| AC018398.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC018413.1 | 1.58 | 1.74 | 1.55 | 1.91 | 1.81 | 1.45 | 1.80 | 1.41 |
| AC018437.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC018445.4 | -1.71 | -1.79 | -1.79 | -1.80 | -1.79 | -1.83 | -1.80 | -1.86 |
| AC018445.5 | -2.15 | -2.15 | -2.14 | -2.13 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC018450.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC018462.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC018467.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC018475.1 | -2.06 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC018521.2 | 0.29 | 0.39 | 0.47 | 0.64 | 0.45 | 0.60 | 0.63 | 0.38 |
| AC018521.4 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC018521.5 | 4.21 | 3.28 | 3.75 | 3.26 | 3.85 | 3.23 | 3.44 | 3.41 |
| AC018521.7 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC018523.1 | 0.03 | 0.05 | -0.17 | 0.09 | 0.07 | -0.03 | 0.01 | -0.04 |
| AC018529.3 | -0.93 | -0.98 | -0.97 | -1.07 | -1.13 | -1.08 | -0.94 | -1.15 |
| AC018541.1 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC018545.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC018552.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC018553.1 | -1.11 | -0.88 | -1.01 | -0.78 | -0.91 | -1.12 | -1.04 | -1.06 |
| AC018553.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| AC018557.1 | 0.62 | 0.71 | 0.75 | 0.72 | 0.67 | 0.54 | 0.65 | 0.36 |
| AC018557.2 | 1.46 | 1.63 | 1.88 | 1.67 | 1.77 | 1.54 | 1.66 | 1.54 |
| AC018607.1 | -2.10 | -2.10 | -2.05 | -2.06 | -2.10 | -2.11 | -2.10 | -2.08 |
| AC018620.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.21 |
| AC018628.1 | 1.00 | 1.16 | 1.29 | 1.36 | 1.19 | 1.43 | 1.49 | 1.23 |
| AC018628.2 | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.88 | -1.86 | -1.87 |
| AC018629.1 | 3.21 | 5.26 | 3.90 | 5.08 | 3.59 | 4.45 | 4.07 | 3.30 |
| AC018630.2 | -2.36 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC018635.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC018635.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC018638.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC018638.5 | -1.56 | -1.55 | -1.42 | -1.56 | -1.49 | -1.57 | -1.56 | -1.42 |
| AC018638.6 | -1.99 | -1.96 | -1.98 | -1.99 | -1.97 | -2.00 | -2.00 | -2.01 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC018638.7 | -0.77 | -0.68 | -0.75 | -0.55 | -0.64 | -0.67 | -0.64 | -0.66 |
| AC018644.1 | -1.75 | -1.79 | -1.78 | -1.79 | -1.79 | -1.75 | -1.66 | -1.81 |
| AC018645.2 | 1.20 | 1.54 | 1.99 | 1.26 | 1.58 | 1.58 | 1.41 | 1.26 |
| AC018647.2 | 2.26 | 2.91 | 2.51 | 2.42 | 2.16 | 2.15 | 2.10 | 1.95 |
| AC018647.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC018648.1 | -2.10 | -2.06 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC018653.3 | -1.90 | -1.94 | -1.89 | -1.95 | -1.90 | -1.93 | -1.95 | -1.96 |
| AC018659.2 | -1.69 | -1.59 | -1.68 | -1.60 | -1.69 | -1.68 | -1.70 | -1.66 |
| AC018665.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC018682.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AC018690.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| AC018695.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC018695.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -1.99 | -2.03 |
| AC018695.6 | -1.74 | -1.74 | -1.68 | -1.69 | -1.66 | -1.68 | -1.75 | -1.71 |
| AC018695.9 | -1.99 | -1.96 | -1.98 | -1.99 | -1.97 | -1.98 | -1.99 | -1.92 |
| AC018712.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.28 |
| AC018714.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC018737.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC018737.2 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.18 | -2.21 |
| AC018738.1 | -1.49 | -1.30 | -1.48 | -1.44 | -1.40 | -1.47 | -1.38 | -1.46 |
| AC018742.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.94 | -1.94 | -1.72 |
| AC018754.1 | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.14 | -2.15 | -2.13 |
| AC018755.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC018755.3 | 3.13 | 2.33 | 2.93 | 2.74 | 4.68 | 3.85 | 3.10 | 2.79 |
| AC018755.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC018761.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC018761.2 | 2.07 | 2.50 | 1.95 | 1.99 | 2.10 | 1.94 | 2.47 | 1.86 |
| AC018761.4 | -2.07 | -2.09 | -2.06 | -2.10 | -2.08 | -2.10 | -2.07 | -2.08 |
| AC018766.1 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AC018781.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC018797.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC018797.3 | -2.10 | -2.07 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.08 |
| AC018804.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC018809.1 | -1.15 | -1.06 | -1.12 | -1.15 | -0.98 | -1.08 | -1.15 | -1.10 |
| AC018809.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC018816.1 | 1.19 | 2.35 | 1.45 | 2.15 | 1.26 | 1.36 | 1.39 | 1.30 |
| AC018845.3 | -1.29 | -1.34 | -1.40 | -1.42 | -1.22 | -1.33 | -1.42 | -1.43 |
| AC018865.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC018868.1 | 0.66 | 0.68 | 0.53 | 0.90 | 0.88 | 0.77 | 0.70 | 0.69 |
| AC018892.3 | -1.42 | -1.59 | -1.52 | -1.54 | -1.59 | -1.60 | -1.60 | -1.61 |
| AC018904.1 | -1.79 | -1.79 | -1.78 | -1.70 | -1.74 | -1.78 | -1.79 | -1.72 |
| AC018926.2 | -0.34 | -0.71 | -0.62 | -0.72 | -0.55 | -0.65 | -0.57 | -0.62 |
| AC018926.3 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC018943.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC018946.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC018978.1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.78 | -1.86 | -1.91 |
| AC018992.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC019068.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC019069.1 | 0.79 | 1.50 | 1.06 | 1.37 | 1.11 | 0.94 | 0.85 | 0.90 |
| AC019077.1 | -1.89 | -1.89 | -1.88 | -1.77 | -1.89 | -1.86 | -1.90 | -1.91 |
| AC019080.1 | 0.01 | 0.17 | 0.13 | 0.08 | 0.41 | 0.38 | 0.08 | 0.31 |
| AC019080.4 | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.76 |
| AC019080.5 | -0.80 | -0.80 | -0.78 | -0.72 | -0.67 | -0.73 | -0.73 | -0.75 |
| AC019097.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC019109.1 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.14 | -2.10 | -2.16 |
| AC019117.1 | 1.48 | 1.50 | 1.53 | 1.73 | 1.34 | 1.42 | 2.34 | 1.63 |
| AC019117.2 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC019129.1 | -1.34 | -1.39 | -1.19 | -1.34 | -1.26 | -1.38 | -1.41 | -1.42 |
| AC019129.2 | -1.59 | -1.63 | -1.63 | -1.64 | -1.61 | -1.62 | -1.64 | -1.56 |
| AC019131.2 | -1.99 | -1.99 | -1.95 | -1.99 | -1.99 | -2.00 | -1.93 | -1.94 |
| AC019131.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.24 | -2.26 |
| AC019159.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC019163.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -1.97 |
| AC019171.1 | -0.13 | 0.03 | -0.27 | -0.14 | -0.28 | -0.26 | -0.22 | -0.31 |
| AC019176.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.24 |
| AC019181.1 | 0.00 | 0.30 | 0.12 | 0.31 | -0.01 | -0.03 | 0.31 | -0.05 |
| AC019186.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.07 | -2.07 | -2.11 |
| AC019193.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC019193.3 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC019197.1 | 0.55 | 0.58 | 0.45 | 0.47 | 0.33 | 0.38 | 1.00 | 0.53 |
| AC019205.1 | -1.19 | -1.18 | -1.17 | -1.12 | -1.18 | -1.05 | -1.13 | -1.15 |
| AC019206.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC019226.1 | -0.97 | -1.04 | -0.87 | -0.90 | -1.00 | -1.02 | -0.97 | -1.00 |
| AC019226.2 | -1.89 | -1.89 | -1.88 | -1.86 | -1.89 | -1.88 | -1.89 | -1.87 |
| AC019227.1 | -1.85 | -1.89 | -1.84 | -1.86 | -1.89 | -1.88 | -1.82 | -1.91 |
| AC019254.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC019257.1 | -0.96 | -0.87 | -0.86 | -0.81 | -0.91 | -0.90 | -0.97 | -0.91 |
| AC019257.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC019257.9 | -1.80 | -1.84 | -1.79 | -1.80 | -1.84 | -1.85 | -1.80 | -1.82 |
| AC019294.2 | -1.96 | -1.99 | -1.98 | -1.96 | -1.97 | -1.97 | -2.00 | -2.01 |
| AC019349.1 | 1.15 | 1.09 | 1.49 | 1.05 | 1.33 | 1.10 | 1.20 | 0.89 |
| AC020550.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC020550.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC020558.1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.81 | -1.80 | -1.86 |
| AC020611.1 | -1.60 | -1.55 | -1.54 | -1.55 | -1.60 | -1.49 | -1.61 | -1.63 |
| AC020611.2 | -2.15 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.12 | -2.16 |
| AC020612.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC020629.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.96 | -1.94 |
| AC020633.1 | -2.18 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC020651.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.12 | -2.15 | -2.16 |
| AC020656.1 | 6.80 | 6.62 | 8.01 | 7.17 | 7.10 | 7.19 | 8.35 | 6.45 |
| AC020656.2 | 2.61 | 2.27 | 2.61 | 3.08 | 2.50 | 2.12 | 3.21 | 1.95 |
| AC020658.1 | -1.25 | -1.18 | -1.30 | -1.26 | -1.21 | -1.33 | -1.32 | -1.28 |
| AC020658.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC020658.4 | -1.79 | -1.79 | -1.68 | -1.75 | -1.79 | -1.73 | -1.75 | -1.81 |
| AC020658.5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AC020658.6 | -1.40 | -1.45 | -1.44 | -1.40 | -1.45 | -1.44 | -1.40 | -1.37 |
| AC020659.1 | 0.94 | 0.47 | 0.64 | 0.68 | 0.73 | 0.76 | 0.60 | 0.66 |
| AC020659.2 | -2.01 | -2.04 | -2.01 | -2.02 | -2.03 | -2.05 | -2.05 | -2.03 |
| AC020661.1 | 0.71 | 0.57 | 0.77 | 0.63 | 0.97 | 0.69 | 0.62 | 0.84 |
| AC020661.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC020661.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC020663.2 | 0.25 | 0.12 | 0.24 | 0.17 | 0.15 | 0.05 | 0.22 | -0.01 |
| AC020663.3 | -0.61 | -0.53 | -0.41 | -0.48 | -0.65 | -0.63 | -0.69 | -0.71 |
| AC020688.1 | -1.09 | -1.08 | -1.06 | -1.09 | -1.16 | -1.03 | -1.09 | -1.18 |
| AC020704.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC020741.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC020763.2 | -1.32 | -1.18 | -1.10 | -1.26 | -1.32 | -1.30 | -1.33 | -1.28 |
| AC020763.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC020763.4 | -1.11 | -1.17 | -1.23 | -1.18 | -1.17 | -1.26 | -1.18 | -1.21 |
| AC020765.2 | 2.68 | 1.42 | 1.84 | 1.37 | 1.67 | 1.75 | 1.45 | 1.67 |
| AC020779.1 | -1.89 | -1.89 | -1.84 | -1.85 | -1.85 | -1.90 | -1.78 | -1.87 |
| AC020779.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.17 |
| AC020891.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.12 | -2.15 | -2.16 |
| AC020891.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC020892.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC020893.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.19 |
| AC020898.1 | 1.90 | 2.54 | 1.84 | 2.37 | 2.21 | 2.31 | 2.13 | 2.44 |
| AC020899.1 | -0.44 | -0.06 | -0.42 | -0.10 | -0.17 | -0.35 | -0.37 | -0.23 |
| AC020900.1 | -1.59 | -1.53 | -1.46 | -1.54 | -1.59 | -1.58 | -1.60 | -1.62 |
| AC020904.2 | -1.34 | -1.39 | -1.32 | -1.40 | -1.33 | -1.35 | -1.28 | -1.36 |
| AC020904.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC020907.1 | 0.19 | -0.10 | 0.11 | 0.59 | 0.54 | 0.06 | -0.04 | -0.14 |
| AC020907.3 | -1.86 | -1.94 | -1.85 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| AC020907.4 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC020907.5 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC020908.1 | -1.55 | -1.60 | -1.59 | -1.55 | -1.55 | -1.61 | -1.56 | -1.47 |
| AC020908.3 | -1.64 | -1.63 | -1.51 | -1.64 | -1.66 | -1.65 | -1.64 | -1.71 |
| AC020909.1 | 4.52 | 3.47 | 3.16 | 3.45 | 4.16 | 3.74 | 3.12 | 3.46 |
| AC020909.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC020909.4 | 0.54 | 0.40 | 0.44 | 0.51 | 0.44 | 0.42 | 0.37 | 0.48 |
| AC020910.1 | -2.12 | -2.15 | -2.12 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| AC020910.4 | 0.78 | 0.41 | 0.45 | 0.46 | 0.63 | 0.45 | 0.31 | 0.33 |
| AC020910.5 | -0.63 | -0.71 | -0.61 | -0.64 | -0.48 | -0.65 | -0.71 | -0.61 |
| AC020911.2 | -2.10 | -2.06 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC020911.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC020913.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC020915.1 | -1.29 | -1.41 | -1.33 | -1.24 | -1.38 | -1.24 | -1.42 | -1.43 |
| AC020915.2 | -1.45 | -1.39 | -1.38 | -1.34 | -1.45 | -1.43 | -1.22 | -1.47 |
| AC020915.3 | 3.58 | 3.06 | 3.01 | 3.31 | 3.99 | 3.57 | 3.36 | 3.05 |
| AC020916.1 | 4.83 | 4.06 | 5.14 | 4.50 | 4.38 | 4.49 | 4.14 | 4.45 |
| AC020917.1 | -0.96 | -0.95 | -1.01 | -0.82 | -0.91 | -0.94 | -0.96 | -0.93 |
| AC020917.3 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC020917.4 | -0.38 | -0.30 | -0.37 | -0.30 | -0.53 | -0.48 | -0.27 | -0.39 |
| AC020922.2 | 1.43 | 2.30 | 1.69 | 2.39 | 2.04 | 1.42 | 2.32 | 1.31 |
| AC020922.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC020922.4 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC020923.1 | -2.07 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC020928.1 | -0.92 | -1.13 | -1.12 | -1.07 | -1.13 | -1.14 | -1.14 | -1.09 |
| AC020928.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC020934.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| AC020934.2 | -2.10 | -2.09 | -2.09 | -2.04 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC020951.1 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.14 | -2.10 | -2.16 |
| AC020978.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC020978.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC020978.5 | 3.71 | 3.91 | 4.12 | 4.17 | 3.64 | 3.87 | 4.60 | 4.17 |
| AC020978.6 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.07 | -2.07 | -2.11 |
| AC020978.7 | -1.28 | -1.21 | -1.26 | -1.35 | -1.35 | -1.30 | -1.23 | -1.31 |
| AC020978.9 | -1.13 | -1.04 | -1.03 | -0.92 | -1.09 | -1.05 | -0.92 | -1.09 |
| AC020983.1 | -1.25 | -1.24 | -1.30 | -1.25 | -1.24 | -1.29 | -1.32 | -1.28 |
| AC021006.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC021016.1 | -1.69 | -1.69 | -1.68 | -1.69 | -1.58 | -1.65 | -1.64 | -1.71 |
| AC021016.2 | 0.07 | 0.30 | 0.24 | 0.42 | 0.07 | 0.18 | 0.38 | 0.15 |
| AC021016.3 | 0.48 | 0.08 | 0.17 | 0.28 | 0.15 | 0.16 | 0.34 | 0.04 |
| AC021028.1 | -1.25 | -1.38 | -1.44 | -1.32 | -1.34 | -1.36 | -1.46 | -1.42 |
| AC021037.1 | 0.11 | -0.13 | -0.02 | -0.06 | 0.11 | 0.02 | -0.07 | -0.17 |
| AC021054.1 | 1.91 | 2.46 | 1.92 | 2.44 | 2.01 | 1.82 | 2.07 | 2.24 |
| AC021074.1 | 1.04 | 1.32 | 0.79 | 1.10 | 1.31 | 1.34 | 0.89 | 1.43 |
| AC021074.3 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC021078.1 | 2.27 | 3.41 | 4.13 | 3.52 | 2.97 | 3.40 | 4.33 | 2.63 |
| AC021086.1 | -1.00 | -0.76 | -0.82 | -1.00 | -0.95 | -0.93 | -1.00 | -0.84 |
| AC021087.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC021087.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC021087.3 | -1.02 | -1.01 | -1.00 | -0.89 | -0.90 | -0.93 | -1.02 | -1.03 |
| AC021087.5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC021088.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC021092.1 | 1.79 | 0.64 | 0.66 | 0.78 | 0.72 | 0.82 | 0.70 | 0.64 |
| AC021097.1 | 1.30 | 1.26 | 1.47 | 1.51 | 1.32 | 1.41 | 1.39 | 1.38 |
| AC021097.2 | -0.76 | -0.67 | -0.74 | -0.76 | -0.06 | -0.77 | -0.62 | -0.65 |
| AC021106.1 | -1.95 | -1.94 | -1.93 | -1.95 | -1.94 | -1.91 | -1.86 | -1.92 |
| AC021106.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC021146.12 | -0.94 | -0.79 | -1.00 | -0.31 | -0.79 | -1.03 | -0.96 | -0.98 |
| AC021146.3 | -2.25 | -2.25 | -2.25 | -2.20 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC021148.1 | -2.05 | -2.04 | -2.04 | -2.01 | -2.05 | -2.03 | -2.05 | -2.02 |
| AC021148.2 | -0.46 | -0.29 | -0.36 | -0.17 | -0.38 | -0.13 | -0.40 | -0.30 |
| AC021171.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC021180.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC021205.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.26 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC021218.1 | 1.58 | 2.55 | 1.75 | 2.97 | 2.66 | 1.78 | 2.19 | 2.37 |
| AC021231.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC021231.2 | -1.18 | -1.24 | -1.23 | -1.32 | -1.28 | -1.30 | -1.32 | -1.28 |
| AC021236.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| AC021242.3 | -1.56 | -1.45 | -1.54 | -1.45 | -1.55 | -1.54 | -1.56 | -1.44 |
| AC021269.3 | -1.76 | -1.84 | -1.83 | -1.80 | -1.82 | -1.85 | -1.84 | -1.86 |
| AC021321.1 | -1.30 | -1.23 | -1.22 | -1.24 | -1.27 | -1.22 | -1.31 | -1.16 |
| AC021321.2 | -1.81 | -1.80 | -1.75 | -1.76 | -1.80 | -1.79 | -1.81 | -1.66 |
| AC021422.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC021443.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| AC021483.2 | -1.64 | -1.64 | -1.63 | -1.54 | -1.61 | -1.58 | -1.60 | -1.61 |
| AC021491.2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC021491.4 | -1.75 | -1.78 | -1.78 | -1.79 | -1.79 | -1.76 | -1.79 | -1.80 |
| AC021517.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC021549.1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 | -1.81 | -1.80 | -1.86 |
| AC021613.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.30 |
| AC021660.4 | -1.74 | -1.79 | -1.78 | -1.79 | -1.76 | -1.80 | -1.79 | -1.81 |
| AC021683.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AC021683.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC021701.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| AC021713.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC021723.1 | 0.20 | 0.05 | 0.06 | 0.38 | 0.31 | 0.29 | 0.04 | 0.13 |
| AC021723.2 | -0.01 | -0.50 | -0.49 | -0.44 | -0.50 | -0.52 | -0.44 | -0.53 |
| AC021739.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.07 | -2.10 | -2.08 |
| AC021739.2 | -0.37 | -0.28 | -0.16 | -0.12 | -0.32 | -0.31 | -0.05 | -0.21 |
| AC021739.3 | -1.79 | -1.74 | -1.78 | -1.79 | -1.79 | -1.75 | -1.80 | -1.81 |
| AC021739.4 | -1.69 | -1.68 | -1.68 | -1.69 | -1.64 | -1.70 | -1.69 | -1.66 |
| AC021752.1 | -1.38 | -1.44 | -1.37 | -1.27 | -1.35 | -1.37 | -1.33 | -1.46 |
| AC021755.3 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.00 | -2.05 | -2.06 |
| AC021766.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC021851.1 | -0.53 | -0.44 | -0.17 | -0.53 | -0.48 | -0.41 | -0.01 | -0.31 |
| AC021851.2 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC021876.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC021945.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -1.99 | -2.03 |
| AC022007.1 | -0.21 | -0.29 | -0.44 | -0.25 | -0.34 | -0.36 | -0.39 | -0.48 |
| AC022018.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.12 | -2.15 | -2.16 |
| AC022034.1 | -0.96 | -0.95 | -0.57 | -0.96 | -0.68 | -0.89 | -0.96 | -0.97 |
| AC022034.2 | -1.59 | -1.63 | -1.63 | -1.64 | -1.56 | -1.60 | -1.59 | -1.61 |
| AC022075.1 | 2.92 | 4.32 | 3.10 | 4.03 | 2.28 | 2.71 | 2.67 | 3.61 |
| AC022079.1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 | -1.85 | -1.85 | -1.82 |
| AC022079.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC022087.1 | -2.18 | -2.18 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC022098.1 | -0.37 | -0.28 | -0.43 | -0.38 | -0.17 | -0.32 | -0.45 | -0.25 |
| AC022098.3 | -1.64 | -1.69 | -1.68 | -1.64 | -1.69 | -1.67 | -1.64 | -1.66 |
| AC022098.4 | -1.17 | -1.24 | -1.30 | -1.11 | -1.32 | -1.30 | -1.33 | -1.34 |
| AC022101.1 | -0.37 | -0.50 | -0.65 | -0.59 | -0.62 | -0.57 | -0.59 | -0.62 |
| AC022107.1 | 1.53 | 1.43 | 1.83 | 1.79 | 1.90 | 1.57 | 1.56 | 1.35 |
| AC022126.1 | -1.15 | -1.21 | -1.27 | -1.29 | -1.21 | -1.30 | -1.29 | -1.30 |
| AC022137.3 | 2.38 | 1.64 | 1.87 | 2.02 | 1.40 | 1.63 | 1.86 | 1.75 |
| AC022137.4 | -0.89 | -0.94 | -1.01 | -0.95 | -0.98 | -1.00 | -0.84 | -0.76 |
| AC022144.1 | 1.18 | 1.51 | 1.19 | 1.77 | 1.33 | 1.24 | 1.56 | 0.89 |
| AC022148.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC022148.2 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC022149.1 | -0.14 | -0.14 | -0.20 | -0.22 | -0.25 | -0.23 | -0.15 | -0.14 |
| AC022150.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC022150.2 | -1.89 | -1.89 | -1.84 | -1.89 | -1.85 | -1.88 | -1.89 | -1.91 |
| AC022150.4 | 0.86 | 0.38 | 1.06 | 0.37 | 0.38 | 0.35 | 0.94 | 0.62 |
| AC022154.1 | -0.50 | -0.70 | -0.77 | -0.79 | -0.67 | -0.66 | -0.64 | -0.68 |
| AC022165.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC022167.1 | -1.79 | -1.79 | -1.78 | -1.70 | -1.76 | -1.80 | -1.71 | -1.81 |
| AC022167.2 | 0.25 | 0.11 | 0.14 | 0.31 | 0.15 | 0.15 | 0.08 | 0.23 |
| AC022167.3 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC022167.4 | -1.27 | -1.58 | -1.58 | -1.54 | -1.59 | -1.60 | -1.59 | -1.56 |
| AC022182.1 | -2.04 | -1.98 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC022182.2 | -1.74 | -1.74 | -1.78 | -1.80 | -1.79 | -1.80 | -1.75 | -1.81 |
| AC022182.3 | -1.74 | -1.69 | -1.73 | -1.69 | -1.74 | -1.73 | -1.65 | -1.76 |
| AC022201.2 | -1.59 | -1.69 | -1.68 | -1.69 | -1.56 | -1.70 | -1.59 | -1.71 |
| AC022206.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC022210.1 | -0.78 | -0.85 | -0.91 | -0.93 | -0.93 | -0.90 | -0.86 | -0.89 |
| AC022210.2 | 0.20 | -0.09 | 0.10 | 0.12 | 0.13 | 0.06 | 0.29 | 0.04 |
| AC022211.1 | -1.20 | -1.26 | -1.18 | -1.27 | -1.29 | -1.34 | -1.27 | -1.23 |
| AC022211.2 | -0.46 | -0.53 | -0.52 | -0.61 | -0.57 | -0.42 | -0.48 | -0.52 |
| AC022211.3 | -1.08 | -1.00 | -0.86 | -1.02 | -1.00 | -1.03 | -1.02 | -1.04 |
| AC022211.4 | -0.13 | -0.11 | -0.12 | -0.20 | -0.20 | -0.05 | -0.22 | -0.08 |
| AC022215.1 | -1.94 | -1.94 | -1.93 | -1.87 | -1.90 | -1.95 | -1.95 | -1.96 |
| AC022306.1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC022306.2 | 0.40 | 0.61 | 0.38 | 0.63 | 0.42 | 0.42 | 0.50 | 0.51 |
| AC022306.3 | -1.44 | -1.43 | -1.36 | -1.32 | -1.37 | -1.36 | -1.44 | -1.40 |
| AC022335.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC022336.3 | -1.46 | -1.45 | -1.44 | -1.46 | -1.42 | -1.41 | -1.46 | -1.48 |
| AC022364.1 | -1.49 | -1.54 | -1.53 | -1.55 | -1.46 | -1.53 | -1.50 | -1.46 |
| AC022382.1 | -1.61 | -1.61 | -1.60 | -1.56 | -1.55 | -1.60 | -1.56 | -1.49 |
| AC022387.2 | -1.38 | -1.43 | -1.42 | -1.38 | -1.43 | -1.44 | -1.38 | -1.30 |
| AC022395.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC022400.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC022400.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC022400.5 | -2.12 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC022400.6 | -2.31 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.32 |
| AC022400.7 | -2.05 | -2.04 | -2.04 | -2.01 | -2.04 | -2.04 | -2.05 | -2.06 |
| AC022400.8 | 4.31 | 3.21 | 3.30 | 3.97 | 4.27 | 3.72 | 3.52 | 3.44 |
| AC022400.9 | 2.17 | 1.99 | 1.69 | 1.87 | 2.05 | 2.03 | 2.32 | 1.78 |
| AC022405.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.90 | -1.95 | -1.95 | -1.92 |
| AC022413.1 | 0.48 | 0.41 | 0.43 | 0.53 | 0.70 | 0.56 | 0.45 | 0.40 |
| AC022413.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC022415.1 | -1.24 | -1.30 | -1.29 | -1.32 | -1.31 | -1.32 | -1.32 | -1.22 |
| AC022415.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC022417.1 | -1.74 | -1.74 | -1.73 | -1.74 | -1.71 | -1.75 | -1.70 | -1.71 |
| AC022431.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC022463.1 | 0.06 | 0.02 | -0.19 | 0.03 | -0.17 | -0.20 | -0.29 | -0.25 |
| AC022483.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC022494.1 | -0.72 | -0.99 | -0.98 | -1.00 | -0.92 | -0.94 | -0.93 | -0.90 |
| AC022497.1 | -2.07 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC022498.2 | -1.66 | -1.66 | -1.60 | -1.66 | -1.63 | -1.50 | -1.61 | -1.68 |
| AC022506.2 | -0.66 | -1.04 | -0.89 | -0.91 | -1.05 | -0.96 | -0.99 | -1.01 |
| AC022509.1 | -0.06 | -0.33 | -0.32 | -0.34 | -0.21 | -0.21 | -0.34 | -0.13 |
| AC022509.2 | -1.96 | -1.99 | -1.98 | -1.99 | -1.97 | -2.00 | -2.00 | -2.01 |
| AC022509.3 | -1.36 | -1.29 | -1.34 | -1.36 | -1.29 | -1.34 | -1.30 | -1.22 |
| AC022509.4 | -2.05 | -2.01 | -2.04 | -1.98 | -2.04 | -2.04 | -2.05 | -2.06 |
| AC022523.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC022532.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AC022558.1 | -0.28 | -0.34 | -0.24 | -0.28 | -0.23 | -0.31 | 0.07 | -0.39 |
| AC022558.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC022558.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC022613.1 | 1.64 | 1.45 | 1.55 | 1.57 | 1.68 | 1.35 | 1.31 | 1.50 |
| AC022613.2 | -1.22 | -1.28 | -1.34 | -1.36 | -1.32 | -1.31 | -1.36 | -1.37 |
| AC022613.3 | 0.50 | 0.59 | 0.66 | 0.63 | 0.72 | 0.72 | 0.75 | 0.56 |
| AC022706.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| AC022710.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC022730.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC022762.2 | 0.14 | 0.08 | 0.09 | 0.38 | 0.08 | 0.08 | 0.33 | 0.08 |
| AC022784.1 | 3.88 | 4.60 | 3.83 | 5.17 | 5.63 | 4.64 | 3.10 | 3.59 |
| AC022784.2 | -1.23 | -1.23 | -1.21 | -1.24 | -1.23 | -1.21 | -1.24 | -1.25 |
| AC022784.5 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 |
| AC022784.6 | -1.85 | -1.85 | -1.84 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 |
| AC022795.1 | -1.18 | -1.02 | -1.08 | -1.11 | -1.03 | -1.09 | -1.18 | -0.97 |
| AC022809.1 | -1.75 | -1.79 | -1.78 | -1.80 | -1.79 | -1.78 | -1.80 | -1.65 |
| AC022819.1 | -1.64 | -1.63 | -1.58 | -1.64 | -1.64 | -1.57 | -1.64 | -1.56 |
| AC022826.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC022868.1 | -0.93 | -0.85 | -0.91 | -0.93 | -0.81 | -0.87 | -0.79 | -0.62 |
| AC022893.1 | -1.51 | -1.51 | -1.32 | -1.52 | -1.48 | -1.39 | -1.52 | -1.54 |
| AC022915.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC022916.1 | -0.38 | -0.51 | -0.39 | -0.52 | -0.58 | -0.57 | -0.60 | -0.57 |
| AC022919.1 | -1.69 | -1.58 | -1.62 | -1.70 | -1.69 | -1.65 | -1.53 | -1.72 |
| AC022960.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC022966.1 | 4.70 | 5.03 | 5.52 | 5.08 | 4.88 | 4.85 | 5.01 | 4.15 |
| AC022966.2 | -0.57 | -0.47 | -0.64 | -0.57 | -0.52 | -0.59 | -0.58 | -0.68 |
| AC022966.3 | -1.84 | -1.84 | -1.70 | -1.76 | -1.82 | -1.81 | -1.85 | -1.82 |
| AC022968.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC022973.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC022973.2 | -1.89 | -1.89 | -1.88 | -1.85 | -1.87 | -1.86 | -1.90 | -1.91 |
| AC022973.3 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC022973.4 | -2.23 | -2.21 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC023024.1 | -1.37 | -1.37 | -1.43 | -1.23 | -1.37 | -1.42 | -1.38 | -1.47 |
| AC023024.2 | -1.95 | -1.89 | -1.93 | -1.95 | -1.92 | -1.93 | -1.95 | -1.97 |
| AC023043.1 | 4.80 | 4.32 | 3.95 | 4.16 | 6.11 | 5.23 | 4.54 | 3.79 |
| AC023043.2 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.11 |
| AC023043.4 | -0.71 | -0.70 | -0.56 | -0.72 | -0.74 | -0.55 | -0.72 | -0.74 |
| AC023050.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC023055.1 | -0.39 | -0.46 | -0.53 | -0.55 | -0.42 | -0.46 | -0.28 | -0.51 |
| AC023090.1 | 1.96 | 1.73 | 1.27 | 1.36 | 1.10 | 1.36 | 1.03 | 1.49 |
| AC023090.2 | -0.69 | -0.52 | -0.42 | -0.47 | -0.68 | -0.62 | -0.29 | -0.70 |
| AC023095.1 | -2.12 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC023137.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC023157.1 | -0.74 | -0.89 | -0.80 | -0.82 | -0.67 | -0.86 | -0.82 | -0.90 |
| AC023157.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC023157.3 | 3.78 | 2.63 | 3.98 | 2.89 | 3.28 | 2.88 | 2.67 | 3.37 |
| AC023161.2 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.05 | -2.00 |
| AC023194.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.93 | -1.91 | -1.96 |
| AC023194.2 | -1.96 | -1.99 | -1.98 | -1.96 | -1.99 | -1.97 | -1.99 | -2.00 |
| AC023202.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC023232.1 | 0.03 | -0.08 | -0.22 | -0.17 | -0.16 | -0.26 | -0.18 | -0.22 |
| AC023282.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC023300.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC023302.1 | -0.89 | -0.81 | -0.64 | -0.81 | -0.69 | -0.76 | -0.89 | -0.85 |
| AC023302.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 | -1.83 | -1.67 | -1.82 |
| AC023355.1 | -0.60 | -0.73 | -0.65 | -0.48 | -0.73 | -0.67 | -0.82 | -0.77 |
| AC023389.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC023389.2 | -1.79 | -1.79 | -1.64 | -1.79 | -1.79 | -1.80 | -1.75 | -1.81 |
| AC023421.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC023424.1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.83 | -1.86 | -1.90 | -1.91 |
| AC023424.2 | -1.11 | -1.03 | -1.09 | -0.85 | -1.07 | -1.09 | -0.98 | -1.02 |
| AC023449.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC023449.2 | -1.99 | -1.99 | -1.95 | -2.00 | -1.99 | -2.00 | -1.88 | -2.01 |
| AC023480.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC023481.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.01 | -2.06 |
| AC023483.1 | -2.08 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC023509.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC023509.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.87 | -1.92 |
| AC023509.3 | 1.13 | 0.85 | 0.65 | 0.83 | 0.87 | 1.10 | 0.83 | 0.76 |
| AC023509.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC023509.5 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC023512.1 | -0.99 | -1.06 | -0.97 | -1.14 | -1.09 | -1.05 | -1.14 | -1.09 |
| AC023513.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC023538.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC023590.1 | -1.31 | -1.37 | -1.36 | -1.38 | -1.31 | -1.32 | -1.32 | -1.24 |
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| AC023632.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.07 | -2.08 |
| AC023632.2 | -0.87 | -0.93 | -0.92 | -1.02 | -0.80 | -0.90 | -0.95 | -0.97 |

| | | | | | | | | |
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| AC023632.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC023790.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC023790.2 | -1.26 | -1.44 | -1.43 | -1.45 | -1.32 | -1.39 | -1.39 | -1.41 |
| AC023794.1 | -2.07 | -2.06 | -2.09 | -2.10 | -2.06 | -2.10 | -2.10 | -2.11 |
| AC023794.3 | 0.53 | 0.34 | -0.11 | 0.10 | -0.12 | -0.03 | -0.14 | -0.09 |
| AC023794.4 | -0.66 | -0.19 | -0.80 | -0.60 | -0.81 | -0.83 | -0.82 | -0.77 |
| AC023794.6 | -2.15 | -2.15 | -2.14 | -2.05 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC023813.3 | -2.04 | -2.01 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC023818.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC023830.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC023886.2 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.73 | -1.71 | -1.72 |
| AC023906.1 | 3.62 | 3.63 | 2.99 | 3.91 | 4.53 | 3.85 | 3.11 | 3.61 |
| AC023906.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC023906.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC023908.3 | -0.40 | -0.30 | -0.45 | -0.19 | -0.42 | -0.27 | 0.01 | -0.21 |
| AC023983.1 | -2.10 | -2.06 | -2.09 | -2.07 | -2.09 | -2.10 | -2.07 | -2.08 |
| AC023983.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC024060.1 | 0.87 | 0.99 | 1.22 | 0.92 | 0.77 | 0.89 | 1.22 | 0.83 |
| AC024075.1 | 0.48 | 0.97 | 0.51 | 1.04 | 0.58 | 0.70 | 0.90 | 0.48 |
| AC024075.2 | 1.76 | 2.16 | 2.52 | 2.24 | 1.91 | 2.01 | 2.47 | 1.85 |
| AC024075.3 | -1.65 | -1.64 | -1.63 | -1.65 | -1.58 | -1.57 | -1.59 | -1.67 |
| AC024082.2 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.83 | -1.85 | -1.86 |
| AC024243.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -1.97 | -2.00 | -1.97 |
| AC024257.3 | -0.27 | -0.34 | -0.07 | -0.35 | -0.33 | -0.47 | -0.22 | -0.52 |
| AC024257.4 | -2.12 | -2.15 | -2.09 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC024257.5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC024267.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC024267.6 | -2.15 | -2.15 | -2.09 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC024270.5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC024293.1 | 5.93 | 6.34 | 4.81 | 6.35 | 5.36 | 5.88 | 5.24 | 6.62 |
| AC024337.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.04 | -2.11 |
| AC024361.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 |
| AC024361.2 | -1.80 | -1.84 | -1.78 | -1.85 | -1.74 | -1.83 | -1.85 | -1.86 |
| AC024451.1 | -1.94 | -1.90 | -1.93 | -1.94 | -1.88 | -1.91 | -1.95 | -1.96 |
| AC024451.4 | -1.11 | -1.10 | -0.86 | -1.04 | -1.03 | -1.12 | -1.12 | -1.01 |
| AC024475.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC024475.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC024560.1 | -1.75 | -1.75 | -1.74 | -1.76 | -1.72 | -1.71 | -1.76 | -1.78 |
| AC024560.3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC024560.4 | -0.32 | -0.39 | -0.36 | -0.40 | -0.39 | -0.25 | -0.48 | -0.14 |
| AC024560.5 | 3.11 | 2.95 | 2.91 | 2.74 | 2.86 | 2.56 | 2.54 | 2.96 |
| AC024568.1 | -1.14 | -0.97 | -0.95 | -0.98 | -1.13 | -1.11 | -1.06 | -1.09 |
| AC024575.1 | -1.94 | -1.86 | -1.93 | -1.95 | -1.92 | -1.95 | -1.95 | -1.96 |
| AC024580.1 | -0.85 | -0.92 | -0.83 | -0.72 | -0.88 | -0.77 | -0.80 | -0.94 |
| AC024581.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC024587.1 | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC024588.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC024592.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC024619.4 | 0.77 | 0.64 | 0.75 | 0.98 | 1.03 | 0.78 | 0.80 | 0.67 |
| AC024884.2 | -2.23 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC024896.1 | -1.51 | -1.44 | -1.43 | -1.52 | -1.51 | -1.43 | -1.52 | -1.42 |
| AC024901.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC024909.1 | -0.73 | -0.65 | -0.64 | -0.46 | -0.57 | -0.67 | -0.74 | -0.63 |
| AC024933.1 | -1.74 | -1.74 | -1.73 | -1.74 | -1.74 | -1.73 | -1.75 | -1.67 |
| AC024940.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC024940.2 | 0.86 | 0.27 | 0.36 | 0.37 | 0.35 | 0.33 | 0.17 | 1.19 |
| AC024940.3 | 2.20 | 1.71 | 1.63 | 2.04 | 2.38 | 1.77 | 1.86 | 1.83 |
| AC024940.6 | -1.70 | -1.69 | -1.68 | -1.70 | -1.66 | -1.68 | -1.70 | -1.72 |
| AC024941.2 | 1.12 | 0.94 | 1.01 | 1.16 | 1.19 | 1.00 | 0.96 | 1.18 |
| AC024995.1 | -1.26 | -1.19 | -1.25 | -1.14 | -1.12 | -1.28 | -1.20 | -1.22 |
| AC025031.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC025031.3 | -0.72 | -0.71 | -0.53 | -0.80 | -0.71 | -0.70 | -0.73 | -0.59 |
| AC025031.4 | -1.37 | -1.36 | -1.22 | -1.30 | -1.33 | -1.35 | -1.37 | -1.38 |
| AC025031.5 | -0.98 | -0.89 | -0.81 | -0.98 | -0.78 | -0.78 | -0.83 | -0.99 |
| AC025034.1 | -1.45 | -1.44 | -1.31 | -1.45 | -1.44 | -1.37 | -1.34 | -1.47 |
| AC025043.1 | -1.65 | -1.69 | -1.68 | -1.60 | -1.67 | -1.70 | -1.70 | -1.62 |
| AC025048.2 | 0.22 | 0.00 | 0.47 | 0.28 | 0.31 | 0.26 | 0.06 | -0.04 |
| AC025048.4 | -0.71 | -0.84 | -0.91 | -0.78 | -0.84 | -0.87 | -0.93 | -0.94 |
| AC025048.6 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.89 | -1.95 | -1.96 |
| AC025062.1 | -1.47 | -1.46 | -1.33 | -1.41 | -1.40 | -1.48 | -1.41 | -1.38 |
| AC025062.3 | -0.04 | 0.17 | -0.25 | -0.05 | -0.26 | -0.01 | -0.27 | -0.23 |
| AC025154.2 | 6.71 | 5.32 | 5.38 | 5.69 | 7.27 | 5.85 | 6.54 | 5.73 |
| AC025159.1 | 4.13 | 2.55 | 3.25 | 3.56 | 3.62 | 3.18 | 3.17 | 3.22 |
| AC025160.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC025161.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| AC025164.1 | 0.62 | 0.71 | 0.93 | 0.39 | 0.60 | 0.57 | 0.60 | 0.42 |
| AC025165.2 | 1.43 | 1.36 | 1.29 | 1.29 | 1.16 | 1.08 | 1.18 | 1.13 |
| AC025165.5 | -0.78 | -0.61 | -0.68 | -0.70 | -0.69 | -0.75 | -0.64 | -0.67 |
| AC025166.1 | -0.75 | -0.80 | -0.94 | -0.83 | -0.96 | -0.93 | -0.96 | -0.92 |
| AC025171.1 | 0.98 | 1.65 | 1.05 | 1.34 | 1.11 | 1.03 | 1.32 | 1.37 |
| AC025171.2 | 1.68 | 2.12 | 1.79 | 1.85 | 1.63 | 1.83 | 1.79 | 1.74 |
| AC025171.3 | -1.41 | -1.21 | -1.33 | -1.29 | -1.34 | -1.36 | -1.29 | -1.32 |
| AC025171.4 | -1.36 | -1.29 | -1.34 | -1.24 | -1.32 | -1.28 | -1.30 | -1.27 |
| AC025171.5 | -1.96 | -2.04 | -2.04 | -2.05 | -2.02 | -2.03 | -2.05 | -2.07 |
| AC025175.1 | -1.85 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.90 | -1.91 |
| AC025175.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.91 |
| AC025176.1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.73 | -1.63 | -1.65 | -1.71 |
| AC025178.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.16 |
| AC025180.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC025181.1 | 0.55 | 0.72 | 0.60 | 0.54 | 0.95 | 0.71 | 0.53 | 0.61 |
| AC025181.2 | 3.21 | 2.60 | 2.78 | 3.40 | 2.76 | 2.39 | 2.49 | 2.56 |
| AC025183.1 | -2.01 | -2.04 | -2.00 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC025186.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC025198.1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.75 | -1.79 | -1.81 |

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| AC025211.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC025244.1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC025244.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC025252.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AC025257.1 | -0.74 | -0.83 | -0.63 | -0.75 | -0.70 | -0.73 | -0.69 | -0.54 |
| AC025259.1 | 0.21 | 0.30 | 0.33 | 0.12 | 0.33 | 0.48 | 0.26 | 0.33 |
| AC025259.3 | -1.71 | -1.78 | -1.78 | -1.79 | -1.79 | -1.73 | -1.79 | -1.76 |
| AC025262.2 | -2.04 | -2.01 | -2.04 | -1.99 | -2.01 | -2.05 | -2.05 | -2.03 |
| AC025262.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| AC025263.1 | -1.25 | -1.25 | -1.23 | -1.19 | -1.21 | -1.20 | -1.19 | -1.21 |
| AC025265.1 | -1.59 | -1.58 | -1.46 | -1.54 | -1.56 | -1.57 | -1.54 | -1.61 |
| AC025268.1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC025271.1 | -1.23 | -1.22 | -1.14 | -1.10 | -1.15 | -1.15 | -1.23 | -1.19 |
| AC025280.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC025280.2 | -1.42 | -1.29 | -1.40 | -1.07 | -1.32 | -1.43 | -1.42 | -1.44 |
| AC025283.2 | 0.02 | -0.05 | 0.15 | -0.06 | 0.12 | 0.17 | 0.16 | 0.04 |
| AC025283.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC025287.2 | -0.84 | -0.90 | -0.90 | -1.00 | -0.98 | -0.97 | -1.07 | -1.02 |
| AC025419.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC025423.1 | 0.15 | 0.33 | 0.11 | 0.47 | 0.10 | 0.13 | 0.51 | -0.02 |
| AC025423.4 | 1.28 | 1.84 | 1.40 | 2.00 | 1.55 | 1.72 | 1.80 | 1.82 |
| AC025430.1 | -2.12 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.16 |
| AC025431.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.06 |
| AC025442.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC025442.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| AC025449.1 | 0.48 | 0.58 | 0.70 | 0.54 | 0.42 | 0.51 | 0.83 | 0.41 |
| AC025449.2 | 1.62 | 1.16 | 1.06 | 1.09 | 1.05 | 1.01 | 1.04 | 0.84 |
| AC025458.1 | -0.45 | -0.59 | -0.66 | -0.46 | -0.51 | -0.59 | -0.53 | -0.58 |
| AC025459.1 | -0.75 | -0.82 | -0.81 | -0.68 | -0.60 | -0.76 | -0.62 | -0.78 |
| AC025518.1 | -1.74 | -1.68 | -1.73 | -1.69 | -1.69 | -1.73 | -1.75 | -1.76 |
| AC025524.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AC025539.1 | -1.32 | -1.31 | -1.23 | -1.32 | -1.28 | -1.30 | -1.26 | -1.34 |
| AC025569.1 | -1.11 | -1.02 | -1.01 | -1.11 | -1.10 | -0.95 | -1.11 | -1.06 |
| AC025574.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC025575.2 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| AC025576.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.24 | -2.26 |
| AC025576.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC025580.1 | -1.32 | -1.31 | -1.24 | -1.20 | -1.31 | -1.33 | -1.26 | -1.34 |
| AC025580.2 | 0.37 | 0.30 | 0.41 | 0.20 | 0.38 | 0.26 | 0.87 | 0.22 |
| AC025580.3 | -2.04 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.06 |
| AC025588.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC025594.2 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -2.00 | -2.00 | -1.97 |
| AC025614.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC025627.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC025627.3 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 | -1.88 | -1.90 | -1.91 |
| AC025627.4 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.05 | -2.06 |
| AC025647.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| AC025678.3 | -1.80 | -1.84 | -1.79 | -1.76 | -1.82 | -1.85 | -1.80 | -1.86 |
| AC025682.1 | 1.00 | 0.55 | 0.59 | 0.46 | 0.66 | 0.64 | 0.52 | 0.67 |
| AC025750.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC025750.2 | 1.37 | 1.04 | 1.04 | 0.94 | 1.36 | 0.99 | 0.72 | 1.06 |
| AC025754.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.91 | -1.94 | -1.92 |
| AC025774.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC025822.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC025857.2 | 1.60 | 1.88 | 1.61 | 1.82 | 1.78 | 2.93 | 1.50 | 2.01 |
| AC025871.2 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC025887.2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC026111.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC026124.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.18 | -2.20 | -2.21 |
| AC026124.2 | -0.43 | -0.50 | -0.49 | -0.51 | -0.55 | -0.40 | -0.52 | -0.38 |
| AC026150.3 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC026167.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.12 | -2.13 | -2.16 |
| AC026191.1 | -0.27 | -0.38 | -0.45 | -0.39 | -0.17 | -0.37 | -0.47 | -0.48 |
| AC026202.2 | -0.65 | -0.87 | -0.86 | -0.88 | -0.75 | -0.78 | -0.88 | -0.66 |
| AC026202.3 | -2.01 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC026250.1 | -0.08 | -0.42 | -0.32 | -0.43 | -0.07 | -0.30 | -0.43 | -0.20 |
| AC026254.2 | -1.99 | -1.96 | -1.98 | -1.96 | -1.96 | -1.98 | -1.96 | -2.01 |
| AC026271.1 | -0.60 | -0.34 | -0.50 | -0.52 | -0.55 | -0.43 | -0.46 | -0.55 |
| AC026273.1 | 2.31 | 2.36 | 2.21 | 2.86 | 3.77 | 2.22 | 2.65 | 3.23 |
| AC026304.1 | 2.66 | 1.70 | 1.68 | 1.73 | 1.82 | 1.82 | 1.64 | 2.33 |
| AC026316.1 | -0.19 | -0.02 | -0.17 | -0.04 | 0.10 | -0.03 | 0.01 | 0.02 |
| AC026333.4 | -1.84 | -1.84 | -1.70 | -1.80 | -1.84 | -1.85 | -1.76 | -1.77 |
| AC026355.1 | -2.15 | -2.10 | -2.14 | -2.10 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC026356.1 | 0.55 | 0.38 | 0.37 | 0.32 | 0.26 | 0.15 | 0.45 | 0.22 |
| AC026356.2 | 1.40 | 1.66 | 1.36 | 1.66 | 1.42 | 1.37 | 1.89 | 1.61 |
| AC026362.2 | -1.07 | -1.06 | -1.05 | -1.00 | -1.03 | -1.08 | -1.01 | -1.09 |
| AC026367.1 | -2.05 | -2.04 | -1.97 | -1.98 | -2.04 | -2.05 | -2.02 | -2.06 |
| AC026367.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC026367.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC026368.1 | -1.16 | -0.92 | -1.06 | -1.01 | -1.00 | -1.07 | -1.10 | -1.06 |
| AC026369.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC026401.2 | -1.45 | -1.44 | -1.43 | -1.16 | -1.45 | -1.46 | -1.46 | -1.47 |
| AC026401.3 | 2.92 | 3.08 | 3.73 | 3.14 | 3.12 | 3.47 | 3.18 | 3.93 |
| AC026402.2 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.05 | -2.11 |
| AC026403.1 | 2.13 | 2.63 | 2.24 | 2.89 | 3.05 | 2.80 | 2.42 | 2.62 |
| AC026410.2 | -1.64 | -1.63 | -1.68 | -1.64 | -1.58 | -1.65 | -1.70 | -1.71 |
| AC026412.1 | 4.34 | 3.49 | 3.60 | 3.45 | 4.45 | 3.46 | 3.90 | 4.15 |
| AC026412.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC026412.3 | -1.50 | -1.49 | -1.48 | -1.50 | -1.38 | -1.51 | -1.44 | -1.41 |
| AC026422.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC026436.1 | 0.51 | 0.23 | 0.39 | 0.43 | 0.48 | 0.43 | 0.48 | 0.47 |
| AC026444.1 | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC026461.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC026462.1 | 0.28 | 0.30 | 0.08 | 0.13 | 0.14 | 0.32 | 0.33 | 0.26 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC026462.3 | 1.97 | 1.91 | 1.47 | 2.51 | 1.99 | 1.60 | 2.28 | 1.49 |
| AC026470.1 | 5.18 | 5.64 | 5.29 | 5.44 | 5.24 | 5.17 | 5.87 | 5.52 |
| AC026471.1 | 1.38 | 1.29 | 1.63 | 1.44 | 1.54 | 1.23 | 1.23 | 1.66 |
| AC026471.2 | 0.12 | -0.20 | -0.09 | -0.14 | -0.24 | -0.16 | -0.14 | -0.25 |
| AC026471.3 | -0.21 | -0.59 | -0.49 | -0.52 | -0.47 | -0.54 | -0.60 | -0.56 |
| AC026471.4 | 0.52 | 0.35 | 0.56 | 0.89 | 0.43 | 0.45 | 0.54 | 0.29 |
| AC026471.6 | -2.20 | -2.17 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC026474.1 | -1.54 | -1.53 | -1.40 | -1.54 | -1.51 | -1.52 | -1.49 | -1.56 |
| AC026477.1 | -0.64 | -0.70 | -0.69 | -0.52 | -0.48 | -0.52 | -0.57 | -0.67 |
| AC026634.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC026689.1 | -1.06 | -1.05 | -1.04 | -0.91 | -0.73 | -0.97 | -1.06 | -1.07 |
| AC026691.1 | -1.85 | -1.85 | -1.88 | -1.89 | -1.85 | -1.90 | -1.89 | -1.91 |
| AC026700.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.18 | -2.20 | -2.21 |
| AC026704.1 | -1.49 | -1.36 | -1.53 | -1.55 | -1.37 | -1.50 | -1.55 | -1.57 |
| AC026725.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC026726.1 | -1.89 | -1.85 | -1.88 | -1.89 | -1.89 | -1.82 | -1.89 | -1.91 |
| AC026726.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| AC026740.1 | 0.81 | 1.05 | 0.94 | 1.13 | 1.19 | 1.01 | 1.18 | 1.18 |
| AC026740.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC026741.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC026748.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC026748.3 | 1.95 | 1.40 | 2.47 | 1.80 | 1.66 | 1.71 | 1.80 | 1.58 |
| AC026765.2 | -1.64 | -1.64 | -1.57 | -1.64 | -1.64 | -1.62 | -1.59 | -1.66 |
| AC026770.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC026771.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC026786.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC026798.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC026801.2 | 1.32 | 0.69 | 0.72 | 1.03 | 1.02 | 0.95 | 0.89 | 0.82 |
| AC026803.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.13 | -2.13 |
| AC026803.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC026877.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC026894.1 | -1.94 | -1.90 | -1.89 | -1.95 | -1.92 | -1.93 | -1.95 | -1.92 |
| AC026951.1 | -1.96 | -1.96 | -1.98 | -1.99 | -1.99 | -1.97 | -2.00 | -1.97 |
| AC026954.3 | -1.99 | -1.95 | -1.95 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC026956.1 | -1.54 | -1.48 | -1.47 | -1.54 | -1.45 | -1.47 | -1.49 | -1.56 |
| AC026979.2 | 4.36 | 2.71 | 3.76 | 2.61 | 2.78 | 3.19 | 2.74 | 3.00 |
| AC026979.3 | -1.53 | -1.58 | -1.57 | -1.59 | -1.58 | -1.54 | -1.54 | -1.61 |
| AC026979.4 | 0.87 | 0.75 | 0.99 | 0.73 | 0.67 | 0.74 | 1.18 | 0.54 |
| AC026992.2 | -1.75 | -1.79 | -1.78 | -1.79 | -1.76 | -1.80 | -1.75 | -1.81 |
| AC027020.2 | -0.33 | -0.16 | -0.23 | 0.02 | -0.24 | -0.34 | -0.18 | -0.36 |
| AC027031.2 | 3.15 | 3.38 | 3.90 | 3.38 | 3.16 | 3.01 | 3.71 | 4.06 |
| AC027088.3 | -1.91 | -1.94 | -1.93 | -1.94 | -1.90 | -1.95 | -1.94 | -1.89 |
| AC027097.1 | 1.86 | 1.79 | 1.98 | 1.96 | 1.86 | 1.61 | 1.94 | 1.43 |
| AC027097.2 | -0.62 | -0.62 | -0.27 | -0.48 | -0.54 | -0.47 | -0.48 | -0.52 |
| AC027104.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AC027117.1 | 1.76 | 1.47 | 1.61 | 1.74 | 1.25 | 1.12 | 1.58 | 1.36 |
| AC027117.2 | -0.99 | -1.19 | -1.04 | -1.13 | -1.16 | -1.17 | -1.20 | -1.15 |
| AC027130.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC027228.2 | -1.84 | -1.79 | -1.74 | -1.84 | -1.79 | -1.83 | -1.85 | -1.86 |
| AC027228.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC027237.1 | 5.35 | 5.29 | 5.85 | 5.35 | 5.28 | 5.57 | 5.33 | 5.54 |
| AC027237.3 | -1.59 | -1.59 | -1.46 | -1.54 | -1.59 | -1.60 | -1.54 | -1.62 |
| AC027237.4 | 0.01 | -0.05 | 0.02 | -0.07 | 0.05 | 0.06 | 0.00 | 0.01 |
| AC027237.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC027243.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC027271.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.06 |
| AC027277.1 | -0.20 | -0.41 | -0.23 | -0.28 | -0.29 | -0.44 | -0.43 | -0.23 |
| AC027277.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC027279.1 | -0.76 | -0.76 | -0.59 | -0.78 | -0.84 | -0.66 | -0.57 | -0.86 |
| AC027279.4 | -1.54 | -1.48 | -1.53 | -1.37 | -1.51 | -1.52 | -1.55 | -1.56 |
| AC027287.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC027288.2 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC027288.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC027290.1 | -0.42 | -0.33 | -0.26 | -0.09 | -0.34 | -0.27 | -0.22 | -0.32 |
| AC027290.2 | 2.73 | 3.66 | 4.01 | 3.86 | 3.32 | 3.25 | 4.36 | 3.22 |
| AC027307.1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.03 |
| AC027307.2 | 1.83 | 2.29 | 2.23 | 2.29 | 2.15 | 2.34 | 2.28 | 2.35 |
| AC027307.3 | -0.77 | -0.83 | -0.82 | -0.70 | -0.87 | -0.92 | -0.79 | -0.93 |
| AC027309.2 | 1.86 | 1.58 | 1.35 | 1.85 | 1.47 | 1.69 | 1.18 | 1.29 |
| AC027319.1 | 0.50 | 0.67 | 0.37 | 0.56 | 0.58 | 0.60 | 0.34 | 0.55 |
| AC027335.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |
| AC027338.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC027348.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC027369.5 | -1.89 | -1.89 | -1.88 | -1.90 | -1.89 | -1.90 | -1.90 | -1.91 |
| AC027373.1 | -1.50 | -1.50 | -1.49 | -1.45 | -1.44 | -1.48 | -1.39 | -1.52 |
| AC027449.1 | 0.73 | 0.82 | 0.80 | 0.50 | 0.84 | 0.61 | 0.49 | 0.63 |
| AC027514.1 | -1.36 | -1.08 | -1.27 | -1.29 | -1.35 | -1.37 | -1.04 | -1.32 |
| AC027544.1 | -2.04 | -2.04 | -2.04 | -1.96 | -2.04 | -2.05 | -1.99 | -2.06 |
| AC027559.1 | -0.55 | -1.01 | -1.00 | -1.02 | -0.93 | -0.99 | -1.02 | -1.03 |
| AC027575.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC027575.2 | -1.02 | -0.85 | -1.00 | -0.81 | -1.01 | -0.96 | -1.02 | -0.97 |
| AC027601.1 | 1.90 | 1.62 | 1.93 | 1.36 | 1.50 | 1.54 | 1.35 | 2.12 |
| AC027601.4 | -0.59 | -0.50 | -0.50 | -0.52 | -0.55 | -0.51 | -0.46 | -0.46 |
| AC027601.6 | 3.31 | 2.81 | 3.57 | 3.32 | 3.76 | 3.46 | 3.28 | 3.73 |
| AC027607.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC027612.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC027644.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AC027644.3 | 6.23 | 4.58 | 4.12 | 4.29 | 5.03 | 4.84 | 4.30 | 4.26 |
| AC027667.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC027682.1 | -1.20 | -1.26 | -1.25 | -1.20 | -1.22 | -1.24 | -1.20 | -1.28 |
| AC027682.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC027682.4 | -1.54 | -1.53 | -1.58 | -1.60 | -1.59 | -1.55 | -1.54 | -1.62 |
| AC027682.6 | -0.89 | -0.94 | -0.93 | -0.96 | -0.84 | -0.90 | -0.96 | -0.92 |
| AC027682.7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC027702.1 | -0.35 | -0.27 | -0.42 | -0.28 | -0.39 | -0.22 | -0.44 | -0.45 |
| AC027763.1 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.13 |
| AC027796.1 | -1.31 | -1.23 | -1.15 | -1.18 | -1.23 | -1.32 | -1.11 | -1.33 |
| AC027796.2 | -1.31 | -1.30 | -1.29 | -1.12 | -1.30 | -1.23 | -1.31 | -1.27 |
| AC027796.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC027796.4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC027796.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC027808.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC027811.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC032011.1 | -0.83 | -0.90 | -0.80 | -0.76 | -0.78 | -0.88 | -0.91 | -0.75 |
| AC032044.1 | -2.02 | -2.04 | -2.04 | -2.04 | -2.04 | -2.05 | -2.02 | -2.03 |
| AC034102.1 | 5.64 | 6.12 | 6.26 | 5.78 | 5.62 | 5.93 | 6.34 | 6.06 |
| AC034102.2 | -0.33 | -0.23 | -0.38 | -0.06 | -0.17 | -0.25 | -0.33 | -0.30 |
| AC034102.4 | -1.99 | -1.95 | -1.98 | -1.96 | -1.97 | -1.98 | -2.00 | -2.01 |
| AC034102.5 | 0.12 | 0.36 | 0.48 | 0.38 | 0.32 | 0.33 | 0.26 | 0.21 |
| AC034102.6 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC034102.7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC034102.9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 |
| AC034111.1 | -1.74 | -1.73 | -1.73 | -1.70 | -1.69 | -1.73 | -1.74 | -1.71 |
| AC034111.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC034139.1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.87 | -1.86 | -1.82 | -1.91 |
| AC034187.1 | -2.20 | -2.18 | -2.19 | -2.16 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC034193.1 | -0.47 | -0.55 | -0.45 | -0.42 | -0.47 | -0.39 | -0.33 | -0.51 |
| AC034198.2 | -1.79 | -1.79 | -1.83 | -1.79 | -1.81 | -1.83 | -1.80 | -1.87 |
| AC034207.1 | -1.35 | -1.21 | -1.26 | -1.29 | -1.28 | -1.33 | -1.16 | -1.37 |
| AC034213.1 | -1.55 | -1.54 | -1.48 | -1.55 | -1.54 | -1.53 | -1.55 | -1.52 |
| AC034229.4 | -1.80 | -1.84 | -1.79 | -1.80 | -1.84 | -1.83 | -1.85 | -1.82 |
| AC034231.1 | 0.22 | -0.09 | -0.09 | -0.18 | 0.04 | -0.15 | -0.26 | -0.22 |
| AC034232.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC034236.1 | 4.17 | 4.42 | 3.80 | 4.43 | 5.13 | 4.18 | 4.01 | 4.23 |
| AC034236.2 | 1.44 | 1.22 | 1.90 | 1.29 | 1.37 | 1.36 | 1.28 | 1.13 |
| AC034236.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC034238.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC034243.1 | -0.42 | -0.47 | -0.46 | -0.48 | -0.12 | -0.43 | -0.37 | -0.58 |
| AC035140.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC036103.1 | -0.92 | -0.76 | -0.90 | -0.58 | -0.70 | -0.80 | -0.85 | -0.66 |
| AC036108.2 | -1.89 | -1.89 | -1.88 | -1.85 | -1.87 | -1.88 | -1.90 | -1.83 |
| AC036108.3 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC036164.1 | -1.74 | -1.69 | -1.73 | -1.70 | -1.69 | -1.72 | -1.74 | -1.71 |
| AC036176.1 | 0.03 | -0.04 | 0.05 | 0.09 | 0.08 | -0.03 | 0.24 | -0.02 |
| AC036176.2 | -1.59 | -1.58 | -1.58 | -1.48 | -1.53 | -1.57 | -1.54 | -1.61 |
| AC036176.3 | 0.06 | 0.15 | 0.10 | 0.20 | 0.07 | 0.10 | 0.25 | 0.12 |
| AC036214.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC036214.2 | 0.02 | 0.24 | -0.01 | 0.02 | -0.01 | 0.05 | 0.01 | 0.02 |
| AC036214.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.29 | -2.31 |
| AC036222.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.13 |
| AC037198.1 | -1.65 | -1.64 | -1.63 | -1.65 | -1.64 | -1.63 | -1.33 | -1.67 |
| AC037459.2 | 0.62 | 0.42 | 1.08 | 0.54 | 0.53 | 0.59 | 0.72 | 0.29 |
| AC037459.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC037487.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC037487.3 | -2.12 | -2.15 | -2.12 | -2.12 | -2.13 | -2.14 | -2.15 | -2.16 |
| AC039056.2 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.86 |
| AC040160.1 | -1.49 | -1.48 | -1.47 | -1.49 | -1.36 | -1.47 | -1.37 | -1.51 |
| AC040160.2 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.97 | -2.00 | -2.01 |
| AC040162.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -1.94 |
| AC040162.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC040169.1 | 2.98 | 2.07 | 2.46 | 2.32 | 2.33 | 2.24 | 1.98 | 2.06 |
| AC040169.3 | -1.99 | -1.96 | -1.98 | -1.96 | -1.99 | -2.00 | -1.96 | -2.01 |
| AC040173.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.06 |
| AC040174.1 | -0.27 | -0.43 | -0.40 | -0.26 | -0.60 | -0.44 | -0.61 | -0.29 |
| AC040174.2 | -1.65 | -1.64 | -1.58 | -1.60 | -1.64 | -1.58 | -1.65 | -1.57 |
| AC040896.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC040904.1 | 0.10 | 0.19 | 0.12 | 0.36 | 0.15 | 0.20 | 0.49 | -0.01 |
| AC040918.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.26 |
| AC040934.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC040970.1 | 1.73 | 1.72 | 1.93 | 1.73 | 2.12 | 1.46 | 1.53 | 1.77 |
| AC040977.1 | -0.72 | -0.80 | -0.70 | -0.80 | -0.75 | -0.74 | -0.81 | -0.75 |
| AC041005.1 | -1.76 | -1.84 | -1.83 | -1.80 | -1.84 | -1.83 | -1.84 | -1.78 |
| AC044787.1 | 1.63 | 1.78 | 1.51 | 1.59 | 1.63 | 1.73 | 1.69 | 1.55 |
| AC044802.1 | -1.33 | -1.19 | -1.24 | -1.27 | -1.29 | -1.21 | -1.33 | -1.18 |
| AC044802.2 | -1.69 | -1.73 | -1.73 | -1.60 | -1.69 | -1.70 | -1.74 | -1.76 |
| AC044810.1 | 0.19 | 0.12 | 0.13 | 0.37 | 0.15 | 0.25 | 0.24 | 0.17 |
| AC044810.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC044839.1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.85 | -1.90 | -1.90 | -1.91 |
| AC044849.1 | -0.64 | -0.72 | -0.48 | -0.65 | -0.68 | -0.66 | -0.51 | -0.56 |
| AC044893.1 | -2.36 | -2.36 | -2.33 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC044913.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC046129.1 | -1.74 | -1.73 | -1.73 | -1.65 | -1.71 | -1.68 | -1.74 | -1.76 |
| AC046134.2 | 2.66 | 1.86 | 2.01 | 1.91 | 2.42 | 2.09 | 1.97 | 2.94 |
| AC046143.1 | 0.80 | 0.96 | 1.07 | 0.80 | 1.01 | 1.19 | 0.86 | 0.74 |
| AC046143.2 | -0.71 | -0.87 | -0.68 | -0.88 | -0.88 | -0.93 | -0.80 | -0.72 |
| AC046158.3 | -2.28 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC046158.4 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC046168.2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC046176.1 | -2.15 | -2.15 | -2.14 | -2.10 | -2.15 | -2.14 | -2.10 | -2.16 |
| AC046185.3 | -1.16 | -1.34 | -1.33 | -1.35 | -1.34 | -1.33 | -1.23 | -1.36 |
| AC048338.1 | 6.33 | 6.13 | 6.15 | 6.27 | 6.35 | 6.38 | 5.73 | 6.83 |
| AC048341.1 | 0.63 | 1.10 | 1.44 | 0.83 | 0.88 | 1.10 | 0.98 | 0.71 |
| AC048341.2 | -0.07 | 0.02 | 0.13 | 0.22 | 0.14 | 0.14 | 0.15 | -0.03 |
| AC048344.4 | -0.58 | -0.79 | -0.48 | -0.80 | -0.72 | -0.77 | -0.80 | -0.75 |
| AC048351.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC048380.2 | -0.89 | -0.88 | -0.64 | -0.89 | -0.88 | -0.86 | -0.51 | -0.84 |
| AC048382.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC048382.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC048382.5 | -2.01 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 |
| AC048382.6 | -1.84 | -1.79 | -1.83 | -1.80 | -1.77 | -1.85 | -1.85 | -1.82 |
| AC051619.10 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC051619.5 | -0.42 | -0.34 | -0.31 | -0.24 | -0.22 | -0.24 | -0.43 | -0.18 |
| AC051619.6 | -1.64 | -1.48 | -1.57 | -1.54 | -1.64 | -1.65 | -1.65 | -1.61 |
| AC051619.7 | -1.33 | -1.33 | -1.31 | -1.27 | -1.29 | -1.34 | -1.34 | -1.29 |
| AC051619.8 | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.88 | -1.89 | -1.87 |
| AC053503.2 | -1.11 | -1.37 | -1.35 | -1.31 | -1.30 | -1.32 | -1.31 | -1.39 |
| AC053503.5 | -0.76 | -0.60 | -0.80 | -0.82 | -0.77 | -0.87 | -0.71 | -0.85 |
| AC053513.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.26 |
| AC053513.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.95 | -1.96 |
| AC053527.1 | -1.36 | -1.28 | -1.27 | -1.23 | -1.25 | -1.37 | -1.23 | -1.26 |
| AC053545.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.11 |
| AC055713.1 | 0.41 | 0.50 | 0.61 | 0.74 | 0.70 | 0.76 | 0.59 | 0.83 |
| AC055714.1 | -1.61 | -1.60 | -1.59 | -1.66 | -1.60 | -1.64 | -1.66 | -1.58 |
| AC055733.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC055764.2 | -1.69 | -1.74 | -1.73 | -1.69 | -1.71 | -1.73 | -1.70 | -1.71 |
| AC055811.1 | -2.12 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC055811.3 | -1.64 | -1.59 | -1.58 | -1.54 | -1.64 | -1.60 | -1.65 | -1.57 |
| AC055811.4 | -1.20 | -1.19 | -1.11 | -1.20 | -1.19 | -1.14 | -1.07 | -1.16 |
| AC055822.1 | -1.38 | -1.44 | -1.30 | -1.45 | -1.44 | -1.40 | -1.39 | -1.35 |
| AC055839.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC055854.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC055872.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC058791.1 | 0.44 | 0.46 | 0.46 | 0.57 | 1.08 | 0.54 | 0.28 | 0.43 |
| AC058823.1 | -1.74 | -1.69 | -1.68 | -1.74 | -1.71 | -1.73 | -1.64 | -1.76 |
| AC060766.1 | -0.74 | -0.66 | -0.65 | -0.68 | -0.74 | -0.54 | -0.60 | -0.70 |
| AC060766.3 | -1.48 | -1.53 | -1.62 | -1.64 | -1.66 | -1.67 | -1.70 | -1.71 |
| AC060766.4 | -1.19 | -1.18 | -1.17 | -1.19 | -1.18 | -1.04 | -1.12 | -1.14 |
| AC060766.7 | -0.92 | -0.84 | -0.90 | -0.85 | -0.88 | -0.57 | -0.79 | -0.93 |
| AC060771.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC060780.1 | 2.31 | 2.46 | 2.63 | 2.38 | 3.10 | 2.94 | 2.70 | 2.24 |
| AC060780.2 | -1.39 | -1.31 | -1.43 | -1.39 | -1.44 | -1.37 | -1.46 | -1.36 |
| AC060780.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC061708.1 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC061958.1 | 0.93 | 0.10 | 0.11 | 0.08 | 0.86 | 0.22 | 0.08 | 0.05 |
| AC061975.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC061975.6 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC061992.1 | -0.56 | -0.63 | -0.70 | -0.72 | -0.08 | -0.73 | -0.73 | -0.67 |
| AC062015.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC062028.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC062028.2 | -1.60 | -1.64 | -1.58 | -1.65 | -1.64 | -1.65 | -1.65 | -1.53 |
| AC062029.1 | 0.43 | -0.02 | 0.09 | -0.03 | 0.37 | 0.09 | -0.03 | 0.18 |
| AC062037.1 | -2.30 | -2.29 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AC062037.2 | -1.45 | -1.25 | -1.43 | -1.32 | -1.41 | -1.37 | -1.45 | -1.47 |
| AC062037.3 | -0.84 | -0.91 | -0.82 | -0.77 | -0.84 | -0.92 | -0.92 | -0.39 |
| AC062039.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC063924.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC063943.1 | -1.94 | -1.90 | -1.93 | -1.95 | -1.94 | -1.95 | -1.95 | -1.92 |
| AC063947.2 | -1.69 | -1.74 | -1.73 | -1.74 | -1.74 | -1.75 | -1.70 | -1.76 |
| AC063949.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC063950.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.19 | -2.18 | -2.21 |
| AC063952.4 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| AC063955.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC063960.1 | -0.59 | -0.71 | -0.85 | -0.87 | -0.78 | -0.73 | -0.87 | -0.65 |
| AC063960.2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC063965.1 | -1.41 | -1.28 | -1.40 | -1.13 | -1.38 | -1.39 | -1.23 | -1.43 |
| AC063976.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC064799.1 | 0.18 | 0.40 | 0.27 | 0.53 | 0.36 | 0.34 | 0.24 | 0.19 |
| AC064801.1 | -1.48 | -1.54 | -1.53 | -1.55 | -1.48 | -1.55 | -1.49 | -1.56 |
| AC064801.2 | -1.45 | -1.44 | -1.12 | -1.45 | -1.41 | -1.43 | -1.20 | -1.47 |
| AC064802.1 | -1.41 | -1.40 | -1.39 | -1.41 | -1.30 | -1.42 | -1.41 | -1.31 |
| AC064805.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.23 | -2.25 | -2.25 | -2.26 |
| AC064807.1 | 3.16 | 2.69 | 2.77 | 2.69 | 2.83 | 2.67 | 2.25 | 2.41 |
| AC064807.2 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.05 |
| AC064807.4 | -0.93 | -0.76 | -0.98 | -0.66 | -0.92 | -0.94 | -0.86 | -0.95 |
| AC064836.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC064836.3 | 1.39 | 1.38 | 1.49 | 1.42 | 1.64 | 1.10 | 1.12 | 1.51 |
| AC064836.4 | 1.08 | 0.83 | 0.97 | 1.00 | 0.87 | 0.82 | 1.20 | 0.90 |
| AC064847.1 | -0.52 | -0.58 | -0.18 | -0.59 | -0.62 | -0.57 | -0.20 | -0.63 |
| AC064850.1 | -1.99 | -1.92 | -1.98 | -1.92 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC064852.1 | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC066613.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| AC066692.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC067750.1 | -0.03 | -0.10 | -0.09 | 0.08 | -0.03 | -0.13 | 0.05 | -0.15 |
| AC067751.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC067817.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AC067838.1 | 0.28 | 0.38 | 0.64 | 0.42 | 0.33 | 0.48 | 0.76 | 0.29 |
| AC067852.2 | 3.12 | 3.27 | 3.35 | 3.40 | 3.16 | 3.52 | 3.07 | 3.15 |
| AC067852.3 | 0.19 | 0.19 | 0.23 | 0.37 | 0.33 | 0.21 | 0.35 | 0.00 |
| AC067852.5 | 1.77 | 1.72 | 1.61 | 1.59 | 1.52 | 1.65 | 1.21 | 1.31 |
| AC067904.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC067904.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC067930.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC067930.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC067930.4 | -0.29 | -0.27 | -0.23 | -0.36 | -0.30 | -0.40 | -0.29 | -0.27 |
| AC067930.5 | 2.25 | 1.96 | 2.33 | 2.07 | 2.20 | 2.19 | 1.93 | 2.11 |
| AC067930.8 | 0.32 | 0.26 | 0.43 | 0.18 | 0.34 | 0.32 | 0.17 | 0.13 |
| AC067931.1 | -0.10 | -0.31 | -0.13 | -0.10 | -0.15 | -0.14 | -0.18 | -0.28 |
| AC067940.1 | -2.20 | -2.18 | -2.19 | -2.18 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC067942.1 | 1.09 | 1.03 | 0.61 | 0.97 | 0.99 | 0.85 | 0.71 | 0.83 |
| AC067942.2 | -0.96 | -0.94 | -1.14 | -1.16 | -1.00 | -1.10 | -1.02 | -1.05 |
| AC067945.1 | -1.75 | -1.79 | -1.73 | -1.79 | -1.76 | -1.78 | -1.79 | -1.81 |
| AC067945.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC067956.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AC068025.1 | -1.64 | -1.63 | -1.57 | -1.64 | -1.63 | -1.62 | -1.59 | -1.66 |
| AC068025.2 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -1.96 | -2.01 |
| AC068050.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC068137.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.81 | -1.84 | -1.78 |
| AC068189.2 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.05 |
| AC068193.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC068196.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC068205.2 | 0.20 | -0.08 | 0.20 | -0.02 | 0.56 | 0.04 | -0.01 | 0.00 |
| AC068228.3 | -2.07 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| AC068234.2 | -1.36 | -1.46 | -1.51 | -1.42 | -1.44 | -1.48 | -1.53 | -1.55 |
| AC068279.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.77 | -1.91 |
| AC068282.1 | -0.85 | -0.85 | -0.84 | -0.78 | -0.85 | -0.74 | -0.86 | -0.81 |
| AC068282.2 | -1.64 | -1.58 | -1.63 | -1.59 | -1.61 | -1.62 | -1.49 | -1.61 |
| AC068305.2 | -1.33 | -1.27 | -1.38 | -1.22 | -1.36 | -1.35 | -1.34 | -1.36 |
| AC068338.2 | 2.19 | 1.76 | 1.57 | 1.81 | 1.75 | 1.85 | 1.62 | 1.82 |
| AC068338.3 | 1.27 | 0.61 | 0.87 | 0.59 | 0.61 | 0.65 | 0.65 | 0.58 |
| AC068385.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC068389.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC068389.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| AC068472.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.09 | -2.04 | -2.11 |
| AC068473.5 | 1.53 | 0.95 | 1.14 | 0.55 | 0.65 | 0.71 | 0.83 | 0.51 |
| AC068491.3 | -0.26 | -0.25 | -0.22 | -0.20 | -0.40 | -0.26 | -0.41 | -0.37 |
| AC068491.4 | 0.75 | 0.77 | 1.01 | 0.65 | 0.72 | 0.99 | 0.91 | 0.72 |
| AC068492.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| AC068522.1 | 0.33 | 0.29 | 0.32 | 0.51 | 0.21 | 0.24 | 0.04 | 0.25 |
| AC068533.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 |
| AC068544.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC068580.2 | -1.74 | -1.69 | -1.73 | -1.74 | -1.64 | -1.75 | -1.75 | -1.76 |
| AC068580.3 | 0.49 | 0.44 | 0.39 | 0.48 | 0.40 | 0.45 | 0.47 | 0.29 |
| AC068580.4 | 0.40 | 0.33 | 0.91 | 0.31 | 0.48 | 0.44 | 0.96 | 0.85 |
| AC068580.5 | 0.87 | 0.10 | 0.31 | 0.17 | 0.19 | 0.16 | 0.09 | 0.46 |
| AC068587.4 | -1.42 | -1.42 | -1.28 | -1.37 | -1.39 | -1.40 | -1.30 | -1.44 |
| AC068594.1 | 0.29 | 0.30 | 0.32 | 0.61 | 0.30 | 0.52 | 0.42 | 0.70 |
| AC068620.1 | -1.36 | -1.49 | -1.48 | -1.44 | -1.46 | -1.52 | -1.51 | -1.53 |
| AC068620.2 | -1.69 | -1.74 | -1.63 | -1.69 | -1.71 | -1.68 | -1.74 | -1.71 |
| AC068620.3 | -0.57 | -0.72 | -0.54 | -0.65 | -0.68 | -0.74 | -0.65 | -0.74 |
| AC068631.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -2.00 | -2.00 | -1.97 |
| AC068631.3 | -1.69 | -1.73 | -1.68 | -1.70 | -1.69 | -1.70 | -1.70 | -1.76 |
| AC068647.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC068657.1 | -2.15 | -2.15 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC068658.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC068669.1 | -1.79 | -1.74 | -1.78 | -1.75 | -1.76 | -1.73 | -1.75 | -1.81 |
| AC068672.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC068700.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| AC068707.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC068722.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC068724.1 | -1.54 | -1.63 | -1.52 | -1.54 | -1.63 | -1.65 | -1.64 | -1.61 |
| AC068724.3 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC068733.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC068733.3 | -0.11 | 0.03 | -0.39 | -0.13 | -0.36 | -0.32 | -0.41 | -0.15 |
| AC068756.1 | -0.84 | -1.11 | -1.10 | -1.12 | -1.07 | -1.13 | -0.98 | -1.13 |
| AC068760.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.10 | -2.10 | -2.08 |
| AC068768.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC068774.1 | -1.37 | -1.53 | -1.52 | -1.54 | -1.53 | -1.54 | -1.54 | -1.50 |
| AC068790.2 | -1.89 | -1.85 | -1.76 | -1.89 | -1.87 | -1.90 | -1.90 | -1.91 |
| AC068790.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AC068790.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC068790.5 | -2.15 | -2.12 | -2.14 | -2.10 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC068790.7 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC068790.8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC068790.9 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC068792.1 | -1.59 | -1.53 | -1.52 | -1.59 | -1.59 | -1.60 | -1.54 | -1.61 |
| AC068831.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.06 |
| AC068831.4 | -0.60 | -0.84 | -0.82 | -0.69 | -0.80 | -0.78 | -0.70 | -0.67 |
| AC068831.6 | -1.96 | -1.99 | -1.95 | -1.96 | -1.97 | -1.98 | -2.00 | -2.01 |
| AC068831.7 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC068860.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| AC068870.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC068870.2 | -0.65 | -0.56 | -0.71 | -0.66 | -0.49 | -0.70 | -0.59 | -0.62 |
| AC068888.1 | 4.65 | 3.64 | 3.48 | 3.85 | 3.87 | 3.89 | 4.03 | 3.89 |
| AC068888.2 | -0.37 | -0.36 | -0.10 | -0.16 | -0.21 | -0.24 | -0.04 | -0.21 |
| AC068946.1 | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| AC068946.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC068987.3 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC068987.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC068989.1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 | -1.88 | -1.89 | -1.91 |
| AC068993.1 | -0.64 | -0.63 | -0.54 | -0.64 | -0.59 | -0.61 | -0.64 | -0.60 |
| AC069079.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC069120.1 | 0.98 | 0.34 | 0.63 | 0.31 | 0.65 | 0.70 | 0.31 | 0.26 |
| AC069133.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC069148.1 | -0.06 | -0.27 | -0.27 | -0.30 | -0.08 | -0.21 | -0.37 | -0.33 |
| AC069154.1 | -1.50 | -1.49 | -1.36 | -1.26 | -1.50 | -1.51 | -1.51 | -1.52 |
| AC069185.1 | 1.09 | 0.70 | 0.99 | 0.59 | 0.61 | 0.66 | 0.51 | 0.74 |
| AC069200.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC069213.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC069213.3 | 0.64 | 0.73 | 0.69 | 0.76 | 0.72 | 0.84 | 1.02 | 0.82 |
| AC069218.1 | 3.07 | 3.44 | 2.94 | 3.64 | 3.89 | 3.48 | 2.91 | 3.39 |
| AC069222.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC069224.1 | -0.92 | -0.91 | -1.04 | -1.13 | -1.02 | -1.14 | -1.00 | -1.09 |
| AC069234.2 | -0.69 | -0.84 | -0.83 | -0.85 | -0.76 | -0.82 | -0.85 | -0.64 |
| AC069234.3 | -2.10 | -2.09 | -2.09 | -2.04 | -2.09 | -2.07 | -2.10 | -2.11 |
| AC069234.4 | -2.25 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC069234.5 | -1.75 | -1.79 | -1.78 | -1.79 | -1.79 | -1.80 | -1.79 | -1.81 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC069236.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 |
| AC069243.1 | -0.25 | -0.37 | -0.44 | -0.47 | -0.45 | -0.39 | -0.10 | -0.50 |
| AC069257.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC069271.1 | -0.29 | 0.03 | -0.19 | -0.14 | -0.02 | -0.30 | -0.22 | -0.14 |
| AC069277.1 | -0.44 | -0.52 | -0.51 | -0.45 | -0.48 | -0.54 | -0.32 | -0.55 |
| AC069281.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC069282.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC069287.2 | -1.32 | -1.43 | -1.42 | -1.44 | -1.40 | -1.39 | -1.45 | -1.46 |
| AC069288.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.06 | -2.10 | -2.10 | -2.11 |
| AC069294.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AC069307.1 | -1.14 | -0.91 | -0.90 | -1.00 | -1.13 | -1.08 | -1.07 | -0.95 |
| AC069360.1 | -0.80 | -0.72 | -0.53 | -0.73 | -0.40 | -0.62 | -0.66 | -0.51 |
| AC069421.3 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC069444.2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC069499.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.16 | -2.21 |
| AC069499.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC069503.1 | 0.03 | -0.18 | -0.33 | -0.20 | -0.26 | -0.16 | -0.28 | -0.38 |
| AC069503.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC069503.4 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC069528.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC069528.2 | -0.12 | -0.02 | -0.08 | -0.12 | 0.01 | -0.14 | -0.05 | -0.04 |
| AC069540.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC069544.1 | 0.81 | 0.44 | 0.38 | 0.81 | 0.55 | 0.53 | 0.34 | 0.70 |
| AC072022.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC072028.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC072039.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AC072052.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.08 |
| AC072054.1 | 0.57 | 0.41 | 0.21 | 0.31 | 0.49 | 0.18 | 0.16 | 0.12 |
| AC072061.1 | -0.88 | -0.72 | -0.69 | -0.81 | -0.68 | -0.85 | -0.74 | -0.83 |
| AC072062.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC073046.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC073046.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC073046.4 | 0.26 | -0.14 | -0.02 | 0.00 | 0.13 | -0.24 | -0.16 | -0.25 |
| AC073052.1 | 0.14 | 0.25 | 0.36 | 0.21 | 0.12 | 0.21 | 0.65 | 0.10 |
| AC073052.2 | -0.68 | -0.75 | -0.82 | -0.64 | -0.71 | -0.81 | -0.69 | -0.67 |
| AC073062.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC073063.1 | -0.37 | -0.21 | -0.36 | -0.24 | -0.41 | -0.39 | -0.18 | -0.24 |
| AC073072.2 | 1.15 | 1.36 | 1.07 | 1.32 | 0.98 | 1.53 | 0.99 | 0.97 |
| AC073073.1 | -0.83 | -0.41 | -0.73 | -0.44 | -0.68 | -0.81 | -0.69 | -0.79 |
| AC073073.2 | -1.14 | -0.84 | -1.12 | -0.94 | -1.10 | -1.05 | -1.07 | -1.10 |
| AC073082.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -1.98 | -2.06 |
| AC073107.1 | -1.40 | -1.39 | -1.44 | -1.40 | -1.39 | -1.44 | -1.46 | -1.48 |
| AC073109.1 | -1.53 | -1.47 | -1.52 | -1.53 | -1.50 | -1.54 | -1.54 | -1.50 |
| AC073111.4 | 2.45 | 2.16 | 2.21 | 1.95 | 2.85 | 2.31 | 2.54 | 2.58 |
| AC073114.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC073115.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC073130.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.91 | -1.92 |
| AC073130.3 | -0.49 | -0.40 | -0.39 | -0.49 | -0.40 | -0.46 | -0.42 | -0.23 |
| AC073136.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC073140.1 | -1.20 | -1.19 | -1.04 | -1.21 | -1.12 | -1.11 | -1.21 | -1.16 |
| AC073140.2 | -1.07 | -1.21 | -1.19 | -1.08 | -0.97 | -1.16 | -1.15 | -1.17 |
| AC073167.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC073195.1 | -0.13 | -0.26 | -0.24 | -0.28 | -0.12 | -0.33 | -0.36 | -0.26 |
| AC073210.3 | -1.89 | -1.89 | -1.88 | -1.89 | -1.77 | -1.88 | -1.89 | -1.91 |
| AC073225.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC073254.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AC073257.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 | -2.25 | -2.26 |
| AC073257.2 | -1.34 | -1.45 | -1.38 | -1.46 | -1.42 | -1.35 | -1.34 | -1.47 |
| AC073263.1 | -0.38 | -0.29 | -0.34 | -0.53 | -0.41 | -0.41 | -0.39 | -0.44 |
| AC073263.2 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC073270.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC073270.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AC073283.1 | -0.54 | -0.18 | -0.61 | -0.22 | -0.62 | -0.47 | -0.63 | -0.52 |
| AC073283.2 | -2.20 | -2.20 | -2.18 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC073283.3 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AC073314.1 | -1.80 | -1.89 | -1.88 | -1.90 | -1.89 | -1.90 | -1.90 | -1.92 |
| AC073316.1 | -1.03 | -1.02 | -0.92 | -1.03 | -0.21 | -1.04 | -1.04 | -1.05 |
| AC073316.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC073320.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC073321.1 | -1.84 | -1.79 | -1.83 | -1.84 | -1.73 | -1.81 | -1.85 | -1.86 |
| AC073323.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 |
| AC073325.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.26 |
| AC073332.1 | 2.45 | 2.17 | 2.09 | 2.92 | 2.88 | 2.50 | 2.31 | 2.80 |
| AC073333.1 | -2.05 | -2.04 | -2.00 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| AC073335.1 | -0.97 | -0.96 | -0.95 | -0.76 | -0.81 | -0.85 | -0.90 | -0.86 |
| AC073342.1 | -0.92 | -1.10 | -1.01 | -1.04 | -1.03 | -1.12 | -0.99 | -1.12 |
| AC073343.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC073343.2 | -1.64 | -1.59 | -1.63 | -1.55 | -1.64 | -1.63 | -1.50 | -1.61 |
| AC073349.1 | -0.97 | -1.04 | -1.02 | -0.91 | -0.93 | -1.05 | -1.05 | -0.95 |
| AC073349.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC073352.1 | -0.51 | -0.72 | -0.71 | -0.65 | -0.53 | -0.60 | -0.73 | -0.51 |
| AC073352.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC073365.1 | 3.47 | 1.14 | 1.40 | 1.37 | 1.33 | 1.15 | 1.18 | 1.31 |
| AC073367.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC073370.1 | -1.49 | -1.54 | -1.53 | -1.55 | -1.34 | -1.53 | -1.55 | -1.57 |
| AC073389.1 | 1.88 | 1.14 | 1.32 | 1.18 | 1.34 | 1.53 | 1.22 | 1.15 |
| AC073389.3 | -1.28 | -1.28 | -1.33 | -1.35 | -1.31 | -1.24 | -1.23 | -1.26 |
| AC073410.1 | -1.50 | -1.49 | -1.42 | -1.44 | -1.43 | -1.42 | -1.50 | -1.46 |
| AC073415.1 | -2.10 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC073439.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| AC073465.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| AC073475.1 | -1.48 | -1.53 | -1.52 | -1.48 | -1.53 | -1.44 | -1.54 | -1.56 |
| AC073476.3 | -1.25 | -1.25 | -1.03 | -1.26 | -1.21 | -1.26 | -1.06 | -1.16 |
| AC073487.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC073508.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC073508.3 | 1.38 | 1.59 | 1.20 | 1.11 | 1.40 | 1.00 | 1.07 | 1.35 |
| AC073522.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC073525.1 | -2.09 | -2.09 | -2.09 | -2.03 | -2.09 | -2.10 | -2.10 | -2.06 |
| AC073529.1 | -0.19 | -0.04 | -0.19 | -0.41 | -0.29 | -0.23 | -0.28 | -0.27 |
| AC073530.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC073534.2 | -1.94 | -1.94 | -1.89 | -1.91 | -1.94 | -1.95 | -1.91 | -1.96 |
| AC073539.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.13 |
| AC073539.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC073548.1 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC073548.2 | -1.90 | -1.94 | -1.93 | -1.95 | -1.90 | -1.93 | -1.95 | -1.96 |
| AC073551.1 | -1.74 | -1.73 | -1.73 | -1.65 | -1.73 | -1.70 | -1.65 | -1.71 |
| AC073569.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| AC073575.2 | -1.64 | -1.64 | -1.52 | -1.48 | -1.64 | -1.60 | -1.59 | -1.61 |
| AC073585.1 | 0.87 | 0.59 | 0.64 | 0.53 | 0.69 | 0.56 | 0.41 | 0.47 |
| AC073592.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC073592.6 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC073593.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.91 | -1.85 |
| AC073610.1 | 0.11 | -0.13 | -0.11 | -0.15 | -0.10 | 0.18 | -0.16 | 0.64 |
| AC073611.2 | -0.67 | -0.67 | -0.66 | -0.38 | -0.63 | -0.42 | -0.68 | -0.45 |
| AC073626.2 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC073641.1 | -1.79 | -1.79 | -1.78 | -1.75 | -1.79 | -1.80 | -1.79 | -1.72 |
| AC073655.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC073657.1 | -0.09 | -0.28 | -0.26 | -0.30 | -0.25 | -0.22 | -0.17 | -0.27 |
| AC073657.2 | -1.75 | -1.74 | -1.78 | -1.75 | -1.77 | -1.78 | -1.75 | -1.64 |
| AC073842.2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC073857.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.04 | -2.05 | -2.06 |
| AC073861.1 | 7.34 | 7.53 | 6.15 | 7.70 | 7.40 | 7.60 | 6.56 | 7.79 |
| AC073869.1 | 2.65 | 2.92 | 3.40 | 2.85 | 2.36 | 2.57 | 2.79 | 2.69 |
| AC073869.3 | -1.99 | -1.99 | -1.98 | -1.93 | -1.99 | -1.98 | -1.96 | -2.01 |
| AC073878.1 | -2.05 | -2.04 | -2.00 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| AC073896.2 | 3.42 | 2.96 | 2.79 | 3.40 | 2.72 | 3.24 | 2.41 | 2.87 |
| AC073896.3 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC073900.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC073910.1 | -1.85 | -1.89 | -1.84 | -1.89 | -1.87 | -1.88 | -1.90 | -1.91 |
| AC073911.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
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| AC073916.1 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 |
| AC073957.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC073957.2 | -2.04 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC073957.3 | 1.39 | 1.17 | 1.36 | 1.13 | 1.20 | 1.26 | 0.99 | 1.39 |
| AC074008.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.15 | -2.13 | -2.16 |
| AC074019.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| AC074024.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC074029.3 | -2.10 | -2.07 | -2.09 | -2.10 | -2.08 | -2.09 | -2.07 | -2.08 |
| AC074032.1 | 1.63 | 1.65 | 1.44 | 1.74 | 1.40 | 1.68 | 1.21 | 1.34 |
| AC074033.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC074043.1 | -1.80 | -1.79 | -1.74 | -1.80 | -1.79 | -1.81 | -1.76 | -1.69 |
| AC074044.1 | -0.71 | -0.78 | -0.77 | -0.79 | -0.71 | -0.66 | -0.48 | -0.68 |
| AC074050.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC074050.4 | -1.89 | -1.81 | -1.88 | -1.81 | -1.89 | -1.90 | -1.90 | -1.91 |
| AC074051.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC074051.4 | -1.89 | -1.89 | -1.80 | -1.86 | -1.89 | -1.90 | -1.86 | -1.91 |
| AC074052.1 | -1.89 | -1.85 | -1.88 | -1.89 | -1.87 | -1.88 | -1.86 | -1.91 |
| AC074085.2 | 0.60 | 0.76 | 0.49 | 0.38 | 0.85 | 0.62 | 0.71 | 0.62 |
| AC074099.1 | -0.75 | -0.88 | -1.02 | -1.04 | -0.89 | -0.98 | -0.83 | -0.88 |
| AC074117.1 | 1.38 | 1.34 | 1.62 | 1.46 | 1.34 | 1.51 | 1.49 | 1.45 |
| AC074117.2 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC074121.1 | -1.76 | -1.84 | -1.83 | -1.84 | -1.80 | -1.81 | -1.80 | -1.86 |
| AC074132.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC074134.1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AC074138.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC074141.1 | -1.40 | -1.40 | -1.20 | -1.34 | -1.33 | -1.29 | -1.29 | -1.37 |
| AC074143.1 | 5.73 | 6.08 | 5.24 | 6.05 | 5.41 | 5.99 | 5.80 | 6.05 |
| AC074194.1 | -2.25 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC074194.2 | -1.41 | -1.40 | -1.26 | -1.35 | -1.40 | -1.34 | -1.29 | -1.43 |
| AC074212.1 | 1.25 | 1.03 | 0.82 | 1.06 | 1.02 | 1.19 | 1.15 | 1.17 |
| AC074250.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC074276.1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.66 | -1.70 | -1.74 | -1.76 |
| AC074290.1 | -1.99 | -1.99 | -1.95 | -2.00 | -1.99 | -1.97 | -2.00 | -2.01 |
| AC074367.1 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC074386.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.91 | -1.96 |
| AC076968.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC076968.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC077690.1 | -1.30 | -1.29 | -1.21 | -1.30 | -1.23 | -1.22 | -1.24 | -1.32 |
| AC078777.1 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC078785.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC078789.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC078795.1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 | -1.85 | -1.84 | -1.82 |
| AC078795.2 | -1.74 | -1.74 | -1.73 | -1.69 | -1.74 | -1.73 | -1.70 | -1.71 |
| AC078795.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| AC078802.1 | -1.05 | -1.04 | -1.17 | -1.05 | -1.11 | -1.16 | -1.19 | -0.99 |
| AC078816.1 | -1.58 | -1.52 | -1.56 | -1.58 | -1.57 | -1.54 | -1.48 | -1.46 |
| AC078817.1 | 1.53 | 1.56 | 1.46 | 1.99 | 1.74 | 1.73 | 1.79 | 1.44 |
| AC078820.1 | -1.30 | -1.29 | -1.28 | -1.30 | -1.29 | -1.18 | -1.30 | -1.15 |
| AC078845.1 | -2.18 | -2.20 | -2.17 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC078846.1 | 2.90 | 2.70 | 2.77 | 3.14 | 2.80 | 2.62 | 3.18 | 2.69 |
| AC078850.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC078852.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AC078874.1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC078880.3 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC078880.5 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.21 | -2.20 | -2.21 |
| AC078881.1 | -1.16 | -1.08 | -1.14 | -0.82 | -1.12 | -1.17 | -1.09 | -0.81 |
| AC078883.1 | 1.25 | 1.14 | 1.26 | 1.35 | 1.46 | 1.22 | 1.22 | 1.38 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC078883.2 | -0.71 | -0.70 | -0.69 | -0.72 | -0.71 | -0.67 | -0.59 | -0.58 |
| AC078883.3 | -2.30 | -2.30 | -2.30 | -2.28 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC078899.1 | -1.50 | -1.49 | -1.48 | -1.44 | -1.46 | -1.45 | -1.45 | -1.41 |
| AC078909.1 | -0.13 | -0.13 | -0.12 | 0.05 | 0.09 | -0.09 | -0.03 | -0.24 |
| AC078909.2 | 0.34 | 0.19 | 0.35 | 0.46 | 0.70 | 0.37 | 0.57 | 0.33 |
| AC078923.1 | -0.91 | -1.05 | -0.96 | -1.06 | -1.01 | -0.77 | -1.06 | -1.01 |
| AC078962.1 | -0.78 | -0.61 | -0.68 | -0.57 | -0.69 | -0.73 | -0.86 | -0.87 |
| AC078962.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC078983.1 | -1.28 | -1.28 | -1.26 | -1.29 | -1.34 | -1.13 | -1.22 | -1.36 |
| AC078991.1 | -0.92 | -0.99 | -0.98 | -1.00 | -0.74 | -1.00 | -0.93 | -0.95 |
| AC078993.1 | -0.86 | -0.85 | -0.92 | -0.95 | -0.89 | 0.03 | -0.95 | -0.96 |
| AC079062.1 | 3.76 | 1.66 | 1.63 | 1.42 | 1.56 | 1.61 | 1.49 | 1.37 |
| AC079089.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.07 | -2.10 |
| AC079140.2 | 3.38 | 3.73 | 2.85 | 3.78 | 3.74 | 3.41 | 3.34 | 3.37 |
| AC079140.6 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.08 |
| AC079142.1 | -0.66 | -0.71 | -0.70 | -0.73 | -0.79 | -0.74 | -0.43 | -0.75 |
| AC079145.1 | -0.08 | -0.30 | -0.21 | -0.17 | -0.14 | -0.18 | -0.16 | -0.20 |
| AC079148.1 | -1.96 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -1.96 | -2.01 |
| AC079150.1 | -2.25 | -2.23 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC079163.2 | -1.79 | -1.79 | -1.78 | -1.65 | -1.79 | -1.80 | -1.80 | -1.81 |
| AC079174.1 | 0.22 | 0.35 | 0.89 | 0.33 | 0.29 | 0.18 | 0.20 | 0.26 |
| AC079174.2 | -0.93 | -0.98 | -1.05 | -1.07 | -0.99 | -0.97 | -1.00 | -0.91 |
| AC079178.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC079193.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC079203.1 | -1.42 | -1.35 | -1.40 | -1.36 | -1.41 | -1.40 | -1.18 | -1.33 |
| AC079228.1 | -1.74 | -1.64 | -1.68 | -1.74 | -1.74 | -1.75 | -1.70 | -1.71 |
| AC079250.1 | 0.65 | 0.85 | 0.45 | 0.79 | 0.92 | 0.72 | 0.41 | 0.67 |
| AC079296.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC079298.3 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC079305.1 | 0.04 | 0.13 | 0.14 | 0.11 | 0.16 | 0.16 | 0.42 | 0.24 |
| AC079305.3 | -0.20 | -0.26 | -0.41 | -0.16 | -0.34 | -0.29 | -0.28 | -0.24 |
| AC079313.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC079316.1 | -0.79 | -0.98 | -0.71 | -1.06 | -1.02 | -1.00 | -1.07 | -0.91 |
| AC079322.1 | -1.59 | -1.58 | -1.57 | -1.54 | -1.47 | -1.57 | -1.48 | -1.61 |
| AC079328.1 | -2.05 | -2.04 | -1.97 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC079328.2 | 0.61 | 0.42 | 0.53 | 0.61 | 0.53 | 0.48 | 0.66 | 0.41 |
| AC079329.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.05 | -2.09 | -2.10 | -2.08 |
| AC079331.1 | -1.24 | -1.16 | -1.22 | -1.24 | -1.20 | -1.18 | -1.11 | -1.26 |
| AC079331.2 | -0.07 | 0.02 | -0.09 | -0.06 | -0.17 | -0.22 | 0.13 | -0.05 |
| AC079336.2 | -1.60 | -1.73 | -1.73 | -1.74 | -1.71 | -1.70 | -1.70 | -1.71 |
| AC079336.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC079336.5 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC079354.1 | -1.89 | -1.85 | -1.88 | -1.85 | -1.81 | -1.88 | -1.90 | -1.87 |
| AC079354.2 | -0.39 | -0.80 | -0.70 | -0.66 | -0.65 | -0.78 | -0.81 | -0.70 |
| AC079354.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC079385.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC079414.3 | 0.10 | 0.26 | 0.45 | 0.31 | 0.23 | 0.38 | 0.59 | 0.31 |
| AC079416.1 | -0.92 | -0.83 | -0.82 | -0.77 | -0.88 | -0.93 | -0.78 | -0.88 |
| AC079416.2 | -1.30 | -1.01 | -1.14 | -1.23 | -1.26 | -1.31 | -1.17 | -1.32 |
| AC079416.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC079447.1 | -0.81 | -0.95 | -0.94 | -0.82 | -0.73 | -0.90 | -0.82 | -0.86 |
| AC079460.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC079594.1 | -2.15 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC079594.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC079598.3 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC079600.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC079600.3 | -1.45 | -1.45 | -1.32 | -1.46 | -1.45 | -1.41 | -1.28 | -1.42 |
| AC079601.1 | -2.24 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC079601.2 | -1.94 | -1.94 | -1.89 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| AC079602.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.23 |
| AC079610.2 | -0.42 | -0.40 | -0.53 | -0.57 | -0.56 | -0.55 | -0.50 | -0.48 |
| AC079630.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC079684.1 | -2.04 | -2.04 | -2.04 | -1.97 | -2.04 | -2.04 | -2.05 | -2.03 |
| AC079741.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC079742.1 | -0.74 | -0.73 | -0.72 | -0.83 | -0.61 | -0.65 | -0.75 | -0.78 |
| AC079753.1 | -1.94 | -1.90 | -1.93 | -1.94 | -1.94 | -1.88 | -1.94 | -1.96 |
| AC079753.2 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 | -1.83 | -1.85 | -1.86 |
| AC079760.2 | -2.08 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC079766.1 | -1.70 | -1.74 | -1.73 | -1.75 | -1.72 | -1.75 | -1.65 | -1.72 |
| AC079779.2 | -1.70 | -1.79 | -1.73 | -1.79 | -1.76 | -1.75 | -1.80 | -1.81 |
| AC079781.5 | -1.33 | -1.39 | -1.38 | -1.21 | -1.36 | -1.38 | -1.40 | -1.42 |
| AC079804.3 | -0.33 | -0.09 | -0.54 | -0.20 | -0.47 | -0.57 | -0.41 | -0.58 |
| AC079807.1 | 0.17 | 0.12 | 0.07 | 0.10 | 0.37 | 0.20 | 0.02 | 0.04 |
| AC079834.1 | -0.92 | -0.99 | -0.98 | -0.85 | -0.70 | -0.94 | -1.00 | -0.85 |
| AC079834.2 | -1.01 | -0.79 | -0.76 | -0.74 | -0.89 | -0.88 | -0.94 | -1.03 |
| AC079848.1 | 2.02 | 0.82 | 0.66 | 0.85 | 1.12 | 0.64 | 0.88 | 0.71 |
| AC079848.2 | -0.58 | -0.74 | -0.63 | -0.74 | -0.50 | -0.75 | -0.67 | -0.36 |
| AC079866.2 | -1.21 | -1.13 | -1.19 | -1.15 | -1.17 | -1.16 | -0.97 | -1.23 |
| AC079905.1 | -2.07 | -2.03 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC079906.1 | -2.05 | -2.01 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| AC079907.1 | -1.48 | -1.64 | -1.52 | -1.64 | -1.61 | -1.65 | -1.59 | -1.61 |
| AC079915.1 | -0.05 | 0.26 | 0.07 | -0.12 | 0.04 | -0.01 | 0.21 | -0.02 |
| AC079921.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC079921.2 | -1.75 | -1.79 | -1.78 | -1.79 | -1.79 | -1.71 | -1.66 | -1.81 |
| AC079922.1 | 0.68 | 0.79 | 0.47 | 0.90 | 0.86 | 0.62 | 0.59 | 0.92 |
| AC079922.2 | 1.30 | 1.21 | 0.93 | 1.22 | 1.37 | 1.07 | 1.02 | 1.10 |
| AC079944.1 | -1.69 | -1.74 | -1.73 | -1.74 | -1.69 | -1.73 | -1.65 | -1.76 |
| AC079949.1 | -0.82 | -0.81 | -0.80 | -0.82 | -0.81 | -0.79 | -0.33 | -0.72 |
| AC079949.2 | 0.03 | 0.03 | 0.23 | 0.02 | 0.03 | 0.01 | 0.47 | 0.29 |
| AC079949.4 | -1.79 | -1.78 | -1.78 | -1.79 | -1.79 | -1.80 | -1.75 | -1.76 |
| AC079949.6 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC080005.1 | -1.96 | -1.99 | -1.98 | -2.00 | -1.97 | -2.00 | -2.00 | -1.94 |
| AC080013.1 | 0.72 | 0.50 | 0.70 | 0.49 | 0.96 | 0.81 | 0.68 | 0.82 |
| AC080013.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC080013.3 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AC080013.4 | -2.12 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AC080013.5 | -1.79 | -1.79 | -1.69 | -1.79 | -1.76 | -1.78 | -1.75 | -1.81 |
| AC080013.6 | 0.07 | -0.13 | 0.21 | -0.15 | -0.17 | -0.04 | -0.01 | -0.02 |
| AC080014.1 | -2.20 | -2.20 | -2.15 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC080023.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AC080023.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC080037.1 | 0.71 | 0.86 | 1.07 | 0.95 | 0.79 | 0.77 | 0.76 | 0.50 |
| AC080038.1 | 1.45 | 0.86 | 1.25 | 1.07 | 1.06 | 1.37 | 0.75 | 0.96 |
| AC080038.2 | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC080038.3 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC080079.2 | -0.68 | -1.08 | -1.07 | -1.02 | -1.09 | -1.01 | -1.03 | -1.11 |
| AC080080.1 | -1.11 | -1.11 | -1.10 | -1.05 | -1.00 | -1.03 | -1.12 | -1.02 |
| AC080080.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC080089.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC080112.1 | -1.43 | -1.42 | -1.41 | -1.26 | -1.36 | -1.38 | -1.32 | -1.34 |
| AC080112.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC080112.4 | -0.86 | -1.11 | -1.10 | -1.12 | -1.01 | -1.10 | -1.05 | -0.88 |
| AC080128.2 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |
| AC080129.2 | -0.28 | -0.21 | -0.32 | -0.16 | -0.27 | -0.37 | -0.16 | -0.45 |
| AC080162.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC080188.2 | -1.11 | -1.03 | -1.16 | -1.12 | -1.18 | -1.13 | -1.19 | -1.20 |
| AC082651.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC083795.1 | -1.94 | -1.94 | -1.90 | -1.94 | -1.92 | -1.93 | -1.95 | -1.96 |
| AC083798.2 | 1.72 | 1.48 | 1.67 | 1.85 | 1.48 | 1.79 | 1.63 | 1.61 |
| AC083799.1 | 2.37 | 2.42 | 2.66 | 2.38 | 2.18 | 2.35 | 2.67 | 2.98 |
| AC083805.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC083805.3 | -0.34 | -0.25 | -0.05 | -0.42 | -0.33 | -0.32 | -0.34 | -0.32 |
| AC083809.1 | -1.75 | -1.74 | -1.74 | -1.75 | -1.75 | -1.67 | -1.75 | -1.72 |
| AC083837.1 | -0.81 | -0.65 | -0.63 | -0.81 | -0.81 | -0.66 | -0.74 | -0.61 |
| AC083841.2 | -1.35 | -1.27 | -1.26 | -1.35 | -1.34 | -1.33 | -1.29 | -1.31 |
| AC083843.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC083843.3 | 0.11 | 0.12 | 0.47 | 0.30 | 0.41 | 0.34 | 0.38 | 0.20 |
| AC083843.4 | -1.99 | -1.95 | -1.95 | -2.00 | -1.95 | -2.00 | -1.96 | -2.01 |
| AC083855.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC083855.2 | 2.00 | 2.37 | 1.79 | 2.14 | 2.72 | 2.58 | 2.02 | 2.33 |
| AC083862.2 | -1.33 | -1.32 | -1.31 | -1.33 | -1.28 | -1.34 | -1.33 | -1.28 |
| AC083862.3 | -0.45 | -0.44 | -0.43 | -0.37 | -0.30 | -0.46 | -0.30 | -0.34 |
| AC083873.1 | -1.89 | -1.85 | -1.88 | -1.89 | -1.89 | -1.88 | -1.86 | -1.80 |
| AC083880.1 | 2.36 | 1.93 | 2.07 | 2.49 | 2.57 | 2.32 | 2.30 | 2.54 |
| AC083899.2 | -2.20 | -2.20 | -2.15 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AC083900.1 | -1.54 | -1.58 | -1.57 | -1.59 | -1.58 | -1.55 | -1.59 | -1.61 |
| AC083904.1 | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 | -2.00 | -2.00 | -2.01 |
| AC083906.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.08 |
| AC083906.3 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 | -1.88 | -1.85 | -1.87 |
| AC083906.5 | -1.59 | -1.64 | -1.57 | -1.64 | -1.58 | -1.65 | -1.65 | -1.61 |
| AC083949.1 | -1.75 | -1.74 | -1.78 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 |
| AC083964.1 | -1.74 | -1.74 | -1.73 | -1.74 | -1.74 | -1.75 | -1.75 | -1.76 |
| AC083964.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC083973.1 | -0.59 | -0.59 | -0.49 | -0.59 | -0.40 | -0.56 | -0.52 | -0.55 |
| AC084018.2 | -0.06 | -0.02 | -0.07 | -0.11 | -0.06 | -0.10 | -0.12 | -0.16 |
| AC084024.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC084024.2 | -1.59 | -1.64 | -1.52 | -1.64 | -1.58 | -1.62 | -1.65 | -1.66 |
| AC084024.3 | 0.15 | 0.32 | 0.11 | 0.22 | 0.21 | 0.20 | 0.21 | 0.21 |
| AC084026.2 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC084033.2 | -1.36 | -1.41 | -1.40 | -1.42 | -1.38 | -1.43 | -1.42 | -1.38 |
| AC084036.1 | 0.58 | 0.60 | 1.35 | 0.98 | 0.86 | 0.76 | 1.08 | 0.85 |
| AC084082.1 | -2.04 | -2.01 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| AC084083.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.06 |
| AC084116.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC084117.1 | -2.04 | -2.01 | -2.04 | -2.02 | -2.04 | -2.05 | -2.02 | -2.03 |
| AC084125.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.96 | -1.98 | -2.00 | -2.01 |
| AC084125.2 | -1.01 | -1.08 | -1.06 | -1.08 | -1.08 | -1.09 | -0.94 | -0.93 |
| AC084125.4 | 0.63 | 0.56 | 1.09 | 0.76 | 0.68 | 0.83 | 0.81 | 0.80 |
| AC084198.1 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AC084198.2 | -0.74 | -0.73 | -0.57 | -0.74 | -0.66 | -0.79 | -0.67 | -0.77 |
| AC084262.1 | 0.08 | 0.15 | -0.05 | 0.21 | 0.09 | 0.01 | -0.08 | -0.04 |
| AC084262.2 | -0.48 | -0.69 | -0.67 | -0.69 | -0.69 | -0.78 | -0.78 | -0.73 |
| AC084337.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC084357.1 | -1.69 | -1.74 | -1.73 | -1.64 | -1.69 | -1.75 | -1.70 | -1.76 |
| AC084357.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.95 | -1.91 | -1.92 |
| AC084375.1 | -0.05 | 0.05 | 0.08 | 0.19 | 0.05 | 0.05 | 0.26 | -0.09 |
| AC084398.2 | -2.20 | -2.18 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC084740.1 | -1.94 | -1.94 | -1.90 | -1.94 | -1.94 | -1.93 | -1.95 | -1.96 |
| AC084756.1 | 0.76 | 0.64 | 0.74 | 0.63 | 0.64 | 0.68 | 0.90 | 0.55 |
| AC084757.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.84 | -1.85 | -1.91 |
| AC084757.4 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC084759.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC084781.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC084781.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC084782.1 | -1.96 | -1.96 | -1.95 | -1.96 | -1.99 | -2.00 | -1.96 | -2.01 |
| AC084782.3 | -1.81 | -1.80 | -1.88 | -1.81 | -1.89 | -1.90 | -1.85 | -1.91 |
| AC084783.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| AC084809.1 | -0.08 | -0.06 | -0.22 | 0.03 | 0.13 | -0.11 | 0.09 | -0.03 |
| AC084809.2 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.03 | -2.05 | -2.06 |
| AC084819.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC084824.1 | 1.02 | 1.24 | 0.92 | 1.08 | 1.25 | 1.04 | 0.80 | 0.75 |
| AC084824.3 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.84 | -1.82 | -1.83 |
| AC084824.4 | -0.56 | -0.71 | -0.55 | -0.57 | -0.67 | -0.65 | -0.64 | -0.67 |
| AC084824.5 | -0.65 | -0.41 | -0.46 | -0.57 | -0.32 | -0.62 | -0.44 | -0.55 |
| AC084855.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC084855.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC084859.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.93 | -1.95 | -1.96 |
| AC084864.2 | -1.99 | -1.99 | -1.95 | -1.99 | -1.97 | -1.97 | -1.99 | -1.97 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC084876.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC084876.2 | -2.05 | -2.04 | -2.04 | -2.01 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC084878.1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC084880.1 | -1.54 | -1.48 | -1.53 | -1.55 | -1.51 | -1.52 | -1.55 | -1.56 |
| AC087071.1 | -1.69 | -1.73 | -1.73 | -1.74 | -1.73 | -1.72 | -1.74 | -1.71 |
| AC087072.1 | -1.89 | -1.85 | -1.88 | -1.89 | -1.89 | -1.90 | -1.85 | -1.83 |
| AC087163.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC087164.1 | -1.79 | -1.79 | -1.78 | -1.70 | -1.79 | -1.80 | -1.80 | -1.81 |
| AC087164.2 | -1.18 | -1.10 | -1.08 | -1.19 | -1.14 | -1.19 | -1.19 | -1.14 |
| AC087175.1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC087190.1 | -1.06 | -1.13 | -1.04 | -1.00 | -1.09 | -1.04 | -1.14 | -0.71 |
| AC087222.1 | -2.10 | -2.09 | -2.03 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| AC087239.1 | -0.26 | -0.40 | -0.29 | -0.33 | -0.24 | -0.36 | -0.42 | -0.33 |
| AC087241.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.14 | -2.13 | -2.16 |
| AC087257.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| AC087257.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC087276.1 | -1.16 | -1.15 | -1.14 | -1.17 | -1.16 | -1.24 | -1.17 | -1.19 |
| AC087276.2 | -2.12 | -2.12 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC087280.1 | -1.79 | -1.74 | -1.73 | -1.79 | -1.79 | -1.80 | -1.70 | -1.81 |
| AC087280.2 | -2.05 | -2.01 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| AC087283.1 | -0.89 | -1.10 | -1.09 | -1.04 | -0.99 | -1.12 | -1.11 | -1.01 |
| AC087284.1 | -0.08 | -0.23 | 0.20 | -0.11 | -0.19 | -0.15 | 0.10 | -0.03 |
| AC087286.3 | -1.85 | -1.84 | -1.83 | -1.79 | -1.84 | -1.83 | -1.85 | -1.81 |
| AC087286.4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC087289.1 | 6.57 | 5.92 | 6.17 | 5.86 | 7.02 | 5.89 | 5.60 | 5.21 |
| AC087289.3 | -1.03 | -1.10 | -1.08 | -1.04 | -0.95 | -1.08 | -1.04 | -1.06 |
| AC087289.6 | 0.54 | 0.42 | 0.32 | 0.37 | 0.34 | 0.36 | 0.10 | 0.07 |
| AC087292.1 | -1.79 | -1.79 | -1.78 | -1.70 | -1.79 | -1.78 | -1.75 | -1.72 |
| AC087294.1 | -0.61 | -0.68 | -0.48 | -0.61 | -0.56 | -0.69 | -0.42 | -0.64 |
| AC087301.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.12 | -2.16 |
| AC087343.1 | 1.10 | 1.33 | 0.93 | 1.41 | 1.74 | 1.24 | 1.28 | 1.63 |
| AC087359.1 | -2.12 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.11 |
| AC087362.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC087362.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC087379.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC087385.1 | -1.96 | -1.96 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -1.97 |
| AC087385.2 | -1.64 | -1.64 | -1.63 | -1.54 | -1.58 | -1.57 | -1.65 | -1.61 |
| AC087392.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC087392.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC087392.5 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC087393.2 | 0.52 | 0.76 | 0.93 | 0.72 | 0.49 | 0.57 | 0.68 | 0.68 |
| AC087439.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC087441.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC087465.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC087473.1 | -2.07 | -2.15 | -2.14 | -2.15 | -2.15 | -2.16 | -2.16 | -2.17 |
| AC087477.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.19 |
| AC087477.2 | 0.20 | 0.22 | 0.23 | 0.20 | 0.18 | 0.50 | 0.52 | 0.22 |
| AC087482.1 | -0.24 | -0.40 | -0.39 | -0.33 | -0.23 | -0.32 | -0.41 | -0.31 |
| AC087491.1 | -1.80 | -1.75 | -1.79 | -1.80 | -1.80 | -1.85 | -1.84 | -1.78 |
| AC087498.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC087500.1 | 0.26 | 0.35 | 0.22 | 0.10 | 0.27 | 0.34 | 0.55 | 0.20 |
| AC087501.4 | -1.22 | -1.13 | -1.05 | -1.15 | -1.21 | -1.19 | -1.15 | -1.23 |
| AC087521.2 | -2.07 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.11 |
| AC087521.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC087521.4 | 1.07 | 0.60 | 0.84 | 0.87 | 1.00 | 0.74 | 0.73 | 0.93 |
| AC087533.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC087564.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC087588.1 | -0.18 | -0.16 | -0.24 | -0.26 | -0.06 | -0.21 | -0.07 | -0.13 |
| AC087588.2 | -0.51 | -0.66 | -0.65 | -0.52 | -0.44 | -0.61 | -0.52 | -0.51 |
| AC087620.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC087623.2 | 1.33 | 1.26 | 0.96 | 1.35 | 1.06 | 1.05 | 0.96 | 0.94 |
| AC087623.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC087632.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| AC087633.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC087633.2 | 0.92 | 0.95 | 0.60 | 0.85 | 1.17 | 0.91 | 0.77 | 0.90 |
| AC087639.1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.89 | -1.90 | -1.86 | -1.91 |
| AC087645.2 | -0.45 | -0.60 | -0.49 | -0.69 | -0.56 | -0.59 | -0.47 | -0.52 |
| AC087650.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC087651.1 | -0.83 | -1.05 | -1.04 | -1.06 | -1.01 | -1.03 | -0.85 | -1.07 |
| AC087683.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC087683.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC087721.1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.73 | -1.70 | -1.56 | -1.71 |
| AC087741.1 | 0.97 | 0.71 | 0.64 | 0.74 | 0.98 | 0.90 | 1.20 | 0.86 |
| AC087741.2 | -0.26 | -0.40 | -0.21 | -0.34 | -0.19 | -0.28 | -0.26 | -0.25 |
| AC087741.3 | -1.64 | -1.63 | -1.57 | -1.64 | -1.61 | -1.62 | -1.64 | -1.66 |
| AC087752.1 | -1.84 | -1.71 | -1.83 | -1.84 | -1.84 | -1.81 | -1.85 | -1.86 |
| AC087752.3 | -1.94 | -1.94 | -1.89 | -1.95 | -1.92 | -1.95 | -1.91 | -1.92 |
| AC087752.4 | -1.53 | -1.46 | -1.45 | -1.54 | -1.53 | -1.48 | -1.41 | -1.50 |
| AC087762.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC087762.2 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC087763.1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.73 | -1.79 | -1.76 |
| AC087821.1 | -1.64 | -1.63 | -1.58 | -1.59 | -1.61 | -1.55 | -1.54 | -1.66 |
| AC087854.1 | -1.26 | -1.39 | -1.37 | -1.40 | -1.19 | -1.34 | -1.33 | -1.35 |
| AC087854.2 | -2.15 | -2.12 | -2.12 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC087855.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC087857.1 | -1.26 | -1.18 | -1.17 | -1.26 | -1.25 | -1.03 | -1.19 | -1.27 |
| AC087879.1 | -1.29 | -1.28 | -1.34 | -1.23 | -1.25 | -1.27 | -1.36 | -1.26 |
| AC087883.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.13 |
| AC087893.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC089983.1 | -0.56 | -0.91 | -0.74 | -0.91 | -0.84 | -0.92 | -0.91 | -0.87 |
| AC089984.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC089999.1 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -1.97 | -2.00 | -2.01 |
| AC089999.2 | -0.81 | -0.88 | -0.87 | -0.89 | -0.84 | -0.73 | -0.55 | -0.84 |
| AC090001.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC090004.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.10 | -2.15 | -2.15 | -2.16 |
| AC090013.1 | 0.69 | 0.84 | 0.42 | 0.66 | 0.98 | 0.54 | 0.66 | 0.68 |
| AC090015.1 | -0.52 | -0.36 | -0.43 | -0.53 | -0.52 | -0.10 | -0.39 | 0.19 |
| AC090018.2 | -0.34 | -0.39 | -0.55 | -0.57 | -0.49 | -0.31 | -0.50 | -0.53 |
| AC090023.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| AC090023.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC090058.1 | -0.65 | -0.65 | -0.71 | -0.66 | -0.38 | -0.63 | -0.74 | -0.75 |
| AC090061.1 | -1.02 | -1.01 | -1.14 | -1.16 | -1.08 | -1.05 | -1.16 | -1.06 |
| AC090092.1 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| AC090099.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC090114.1 | 0.64 | 0.93 | 0.53 | 0.93 | 0.59 | 0.51 | 0.69 | 0.81 |
| AC090114.2 | 1.40 | 1.67 | 1.75 | 1.39 | 1.53 | 1.83 | 1.55 | 1.63 |
| AC090114.3 | 0.39 | 0.48 | 0.42 | 0.74 | 0.65 | 0.47 | 0.98 | 0.73 |
| AC090115.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC090116.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC090124.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC090136.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC090136.2 | -2.20 | -2.18 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.19 |
| AC090138.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC090142.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC090142.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC090152.1 | -0.67 | -0.22 | -0.57 | -0.33 | -0.66 | -0.30 | -0.67 | -0.07 |
| AC090159.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC090164.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC090164.5 | -1.42 | -1.47 | -1.46 | -1.48 | -1.47 | -1.40 | -1.48 | -1.35 |
| AC090181.2 | -1.15 | -1.28 | -1.34 | -1.29 | -1.25 | -1.37 | -1.36 | -1.31 |
| AC090181.3 | 0.61 | 0.92 | 0.98 | 0.88 | 0.87 | 0.59 | 1.18 | 0.55 |
| AC090186.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -2.00 | -2.00 | -1.91 |
| AC090192.2 | -0.89 | -1.04 | -0.95 | -0.98 | -0.82 | -1.06 | -1.06 | -1.07 |
| AC090197.1 | -2.10 | -2.09 | -1.99 | -2.10 | -2.06 | -2.10 | -2.10 | -2.11 |
| AC090198.1 | -0.53 | -0.52 | -0.13 | -0.23 | -0.53 | -0.47 | -0.38 | -0.49 |
| AC090204.1 | 4.66 | 2.40 | 4.46 | 2.45 | 2.44 | 4.06 | 3.02 | 3.70 |
| AC090220.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC090229.1 | -0.59 | -0.50 | -0.57 | -0.44 | -0.47 | -0.46 | -0.20 | -0.61 |
| AC090236.2 | -1.30 | -1.36 | -1.35 | -1.30 | -1.33 | -1.26 | -1.31 | -1.39 |
| AC090241.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC090241.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC090241.3 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC090246.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC090260.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.90 | -1.91 | -1.95 |
| AC090281.1 | -1.28 | -1.28 | -1.20 | -1.16 | -1.25 | -1.20 | -1.29 | -1.30 |
| AC090286.2 | -1.09 | -1.16 | -1.22 | -1.24 | -1.19 | -1.25 | -1.17 | -1.19 |
| AC090287.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC090311.1 | -1.84 | -1.75 | -1.83 | -1.84 | -1.82 | -1.83 | -1.84 | -1.86 |
| AC090340.1 | 1.43 | 1.96 | 1.68 | 2.34 | 1.97 | 1.50 | 3.36 | 2.00 |
| AC090360.1 | -1.30 | -1.36 | -1.35 | -1.31 | -1.36 | -1.32 | -1.31 | -1.39 |
| AC090365.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC090373.1 | -0.86 | -0.78 | -0.75 | -0.94 | -0.77 | -0.91 | -0.68 | -0.95 |
| AC090398.2 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC090409.1 | 0.54 | 1.16 | 0.75 | 0.85 | 0.43 | 0.43 | 0.52 | 0.40 |
| AC090409.2 | -1.89 | -1.85 | -1.88 | -1.85 | -1.89 | -1.90 | -1.85 | -1.91 |
| AC090425.1 | -1.19 | -1.11 | -1.10 | -1.12 | -1.22 | -1.20 | -1.27 | -1.22 |
| AC090425.2 | -1.89 | -1.85 | -1.88 | -1.89 | -1.85 | -1.86 | -1.89 | -1.91 |
| AC090453.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC090469.1 | -0.28 | -0.33 | -0.34 | -0.59 | -0.46 | -0.52 | -0.51 | -0.61 |
| AC090498.1 | 1.58 | 2.13 | 1.43 | 2.10 | 2.00 | 2.12 | 1.72 | 1.95 |
| AC090502.3 | -2.25 | -2.21 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC090505.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC090510.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.93 | -1.94 | -1.92 |
| AC090515.1 | 0.41 | 0.53 | 0.31 | 0.55 | 0.61 | 0.43 | 0.27 | 0.49 |
| AC090515.2 | 0.11 | 0.28 | 0.15 | 0.17 | 0.20 | 0.19 | 0.10 | 0.29 |
| AC090515.3 | -1.64 | -1.68 | -1.68 | -1.69 | -1.64 | -1.67 | -1.64 | -1.66 |
| AC090515.4 | -0.67 | -0.30 | -0.66 | -0.53 | -0.35 | -0.52 | -0.68 | -0.63 |
| AC090515.5 | -1.99 | -1.96 | -1.95 | -1.96 | -1.99 | -2.00 | -1.96 | -2.01 |
| AC090517.2 | -0.08 | 0.01 | -0.13 | 0.17 | -0.12 | -0.21 | -0.17 | -0.26 |
| AC090517.4 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.23 | -2.26 |
| AC090517.5 | 2.30 | 1.33 | 1.44 | 1.61 | 1.87 | 1.49 | 1.28 | 1.13 |
| AC090518.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 |
| AC090519.1 | -1.84 | -1.79 | -1.83 | -1.84 | -1.82 | -1.83 | -1.85 | -1.86 |
| AC090525.1 | -0.65 | -0.49 | -0.64 | -0.43 | -0.41 | -0.59 | -0.50 | -0.55 |
| AC090525.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC090527.3 | 0.25 | -0.03 | 0.13 | 0.15 | 0.30 | 0.08 | 0.10 | 0.16 |
| AC090543.1 | -1.69 | -1.69 | -1.68 | -1.61 | -1.64 | -1.66 | -1.70 | -1.58 |
| AC090543.2 | 1.07 | 0.97 | 1.02 | 1.14 | 0.90 | 1.43 | 0.71 | 0.99 |
| AC090559.2 | 0.02 | 0.27 | 0.45 | 0.27 | -0.01 | 0.06 | 0.50 | -0.08 |
| AC090578.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC090579.1 | -0.67 | -0.61 | -0.73 | -0.83 | -0.82 | -0.73 | -0.75 | -0.39 |
| AC090587.1 | 0.39 | 0.05 | 0.08 | 0.24 | 0.05 | 0.15 | 0.03 | -0.07 |
| AC090587.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC090589.1 | -0.44 | -0.35 | -0.42 | -0.51 | -0.39 | -0.42 | -0.52 | -0.17 |
| AC090589.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC090589.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC090602.1 | 0.15 | -0.08 | -0.31 | -0.06 | 0.04 | -0.20 | -0.18 | -0.17 |
| AC090607.2 | -0.27 | 0.03 | 0.03 | -0.28 | -0.22 | -0.16 | -0.08 | -0.25 |
| AC090607.4 | -2.05 | -2.01 | -2.00 | -2.05 | -2.04 | -2.04 | -2.05 | -1.99 |
| AC090607.5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC090616.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC090616.6 | -1.79 | -1.74 | -1.69 | -1.75 | -1.74 | -1.80 | -1.79 | -1.81 |
| AC090617.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC090617.10 | -1.26 | -1.17 | -1.09 | -1.26 | -1.21 | -1.23 | -1.19 | -1.21 |
| AC090617.3 | 0.09 | 0.18 | 0.15 | -0.05 | 0.08 | 0.00 | 0.09 | 0.10 |
| AC090617.5 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC090621.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC090627.1 | -1.54 | -1.59 | -1.41 | -1.60 | -1.59 | -1.58 | -1.60 | -1.56 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC090643.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC090673.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC090686.1 | -0.76 | -0.54 | -0.75 | -0.70 | -0.72 | -0.81 | -0.78 | -0.70 |
| AC090720.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC090739.1 | -1.74 | -1.73 | -1.73 | -1.70 | -1.74 | -1.75 | -1.61 | -1.76 |
| AC090771.1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC090772.3 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| AC090772.4 | -1.64 | -1.64 | -1.63 | -1.59 | -1.58 | -1.65 | -1.65 | -1.61 |
| AC090791.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.12 | -2.15 | -2.16 |
| AC090825.1 | -1.54 | -1.68 | -1.68 | -1.69 | -1.64 | -1.70 | -1.69 | -1.71 |
| AC090826.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC090833.1 | 0.42 | 0.43 | 0.45 | 0.41 | 0.47 | 0.89 | 0.61 | 0.49 |
| AC090844.1 | -1.94 | -1.94 | -1.93 | -1.87 | -1.90 | -1.95 | -1.95 | -1.92 |
| AC090844.2 | -1.75 | -1.79 | -1.83 | -1.84 | -1.77 | -1.85 | -1.85 | -1.86 |
| AC090877.1 | -1.07 | -0.76 | -1.05 | -1.00 | -1.02 | -0.82 | -1.00 | -0.96 |
| AC090877.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC090907.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC090907.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC090912.1 | -0.59 | -0.79 | -0.69 | -0.88 | -0.65 | -0.82 | -0.73 | -0.78 |
| AC090912.2 | 0.60 | 0.27 | 0.50 | 0.40 | 0.66 | 0.37 | 0.62 | 0.56 |
| AC090912.3 | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -1.97 | -2.00 | -2.01 |
| AC090921.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC090945.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC090946.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| AC090948.1 | -1.85 | -1.89 | -1.84 | -1.89 | -1.89 | -1.88 | -1.81 | -1.83 |
| AC090948.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC090950.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC090950.2 | -1.30 | -1.30 | -1.29 | -0.93 | -1.30 | -1.32 | -1.24 | -1.32 |
| AC090952.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC090970.1 | -0.19 | -0.02 | -0.15 | -0.04 | -0.17 | -0.17 | 0.13 | 0.00 |
| AC090970.2 | -0.09 | -0.33 | -0.31 | -0.21 | -0.30 | -0.39 | -0.28 | -0.18 |
| AC090971.1 | -1.03 | -0.94 | -1.08 | -1.03 | -1.02 | -1.08 | -0.97 | -0.95 |
| AC090971.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.06 | -2.10 | -2.07 | -2.11 |
| AC090971.3 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.02 | -2.06 |
| AC090971.4 | -2.30 | -2.29 | -2.30 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC090971.5 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AC090983.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 |
| AC090984.1 | -1.41 | -1.46 | -1.33 | -1.47 | -1.40 | -1.36 | -1.41 | -1.34 |
| AC091021.1 | 4.76 | 4.95 | 5.84 | 4.93 | 4.86 | 5.62 | 5.59 | 4.42 |
| AC091042.1 | -1.64 | -1.64 | -1.68 | -1.60 | -1.66 | -1.65 | -1.69 | -1.66 |
| AC091043.1 | -0.55 | -0.72 | -0.71 | -0.73 | -0.62 | -0.82 | -0.74 | -0.76 |
| AC091044.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC091045.1 | -1.45 | -1.44 | -1.37 | -1.39 | -1.38 | -1.43 | -1.45 | -1.36 |
| AC091046.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.05 |
| AC091053.1 | -0.70 | -0.78 | -0.76 | -0.64 | -0.65 | -0.66 | -0.71 | -0.74 |
| AC091057.1 | 0.99 | 0.73 | 1.14 | 0.91 | 0.97 | 1.02 | 0.96 | 0.92 |
| AC091057.2 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.85 | -1.85 | -1.86 |
| AC091057.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC091057.4 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.05 | -2.10 | -2.11 |
| AC091057.6 | 0.38 | 0.33 | 0.44 | 0.23 | 0.18 | 0.30 | 0.32 | 0.43 |
| AC091059.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC091059.2 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC091060.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC091074.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC091078.1 | -2.36 | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC091132.2 | -1.60 | -1.73 | -1.73 | -1.74 | -1.74 | -1.75 | -1.74 | -1.76 |
| AC091132.4 | -2.13 | -2.14 | -2.14 | -2.15 | -2.14 | -2.14 | -2.13 | -2.10 |
| AC091133.1 | 0.04 | 0.14 | -0.08 | 0.05 | -0.01 | 0.23 | 0.17 | 0.10 |
| AC091133.2 | -0.48 | -0.64 | -0.54 | -0.65 | -0.64 | -0.03 | -0.65 | 0.43 |
| AC091133.4 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| AC091133.5 | -0.19 | -0.27 | -0.26 | 0.00 | 0.16 | -0.18 | -0.15 | -0.07 |
| AC091144.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| AC091152.2 | -1.50 | -1.50 | -1.49 | -1.45 | -1.47 | -1.48 | -1.45 | -1.52 |
| AC091152.4 | -1.74 | -1.73 | -1.68 | -1.70 | -1.71 | -1.70 | -1.74 | -1.75 |
| AC091153.1 | 3.49 | 3.25 | 2.54 | 3.21 | 3.63 | 3.12 | 2.73 | 3.58 |
| AC091153.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC091153.3 | 1.14 | 0.46 | 0.69 | 0.51 | 0.86 | 0.67 | 0.63 | 0.69 |
| AC091153.4 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC091167.4 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC091167.6 | -2.15 | -2.15 | -2.14 | -2.15 | -2.09 | -2.14 | -2.16 | -2.17 |
| AC091173.1 | -1.22 | -1.28 | -1.33 | -1.29 | -1.21 | -1.33 | -1.29 | -1.31 |
| AC091178.2 | -1.84 | -1.79 | -1.83 | -1.84 | -1.79 | -1.81 | -1.84 | -1.86 |
| AC091180.1 | -1.47 | -1.40 | -1.45 | -1.47 | -1.37 | -1.48 | -1.41 | -1.39 |
| AC091180.2 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AC091180.3 | 2.45 | 2.12 | 2.14 | 2.21 | 2.22 | 2.27 | 1.98 | 2.13 |
| AC091181.1 | 1.04 | 1.14 | 1.54 | 1.24 | 0.94 | 1.47 | 1.02 | 0.81 |
| AC091181.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.17 |
| AC091182.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC091182.2 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| AC091185.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC091212.1 | -1.29 | -1.22 | -1.14 | -1.23 | -1.25 | -1.24 | -1.30 | -1.31 |
| AC091214.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC091231.1 | -1.74 | -1.74 | -1.73 | -1.69 | -1.74 | -1.70 | -1.74 | -1.76 |
| AC091271.1 | 2.88 | 1.88 | 2.10 | 2.29 | 2.27 | 2.54 | 2.14 | 2.23 |
| AC091304.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC091305.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| AC091390.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC091390.3 | -1.64 | -1.64 | -1.51 | -1.59 | -1.55 | -1.60 | -1.59 | -1.67 |
| AC091390.4 | 0.18 | 0.11 | 0.28 | 0.10 | 0.51 | 0.22 | 0.17 | 0.25 |
| AC091429.1 | -0.24 | -0.10 | -0.37 | -0.04 | -0.16 | -0.17 | -0.24 | -0.14 |
| AC091488.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.79 | -1.84 | -1.82 |
| AC091492.1 | 0.18 | 0.14 | 0.08 | 0.26 | 0.18 | 0.20 | 0.45 | 0.07 |
| AC091544.4 | -2.15 | -2.15 | -2.12 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| AC091563.1 | -0.67 | -0.36 | -0.41 | -0.46 | -0.45 | -0.58 | -0.53 | -0.41 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC091564.1 | -1.48 | -1.48 | -1.53 | -1.49 | -1.48 | -1.55 | -1.55 | -1.51 |
| AC091564.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC091588.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC091588.3 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC091607.2 | 1.69 | 1.42 | 1.22 | 1.67 | 1.66 | 1.35 | 1.23 | 1.98 |
| AC091614.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC091675.1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.00 | -2.05 | -2.06 |
| AC091685.2 | -0.15 | 0.09 | -0.20 | 0.05 | 0.01 | 0.00 | -0.15 | 0.12 |
| AC091691.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC091729.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 |
| AC091729.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC091729.3 | 4.36 | 2.70 | 3.42 | 2.70 | 4.07 | 3.50 | 2.74 | 2.73 |
| AC091736.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.25 | -2.26 |
| AC091769.2 | -0.93 | -0.85 | -0.77 | -0.94 | -0.93 | -0.84 | -0.72 | -0.83 |
| AC091799.1 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC091805.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC091806.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC091812.1 | -1.40 | -1.39 | -0.76 | -1.33 | -1.22 | -1.38 | -1.41 | -1.42 |
| AC091825.1 | -0.57 | -0.49 | -0.41 | -0.51 | -0.39 | -0.48 | -0.37 | -0.59 |
| AC091826.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC091839.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC091849.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC091868.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC091874.1 | -1.54 | -1.59 | -1.53 | -1.54 | -1.59 | -1.60 | -1.60 | -1.56 |
| AC091874.3 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC091887.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC091925.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC091931.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| AC091932.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC091959.1 | 0.16 | 0.32 | 0.10 | 0.30 | 0.32 | 0.14 | 0.15 | 0.23 |
| AC091959.2 | -1.75 | -1.84 | -1.79 | -1.84 | -1.84 | -1.85 | -1.85 | -1.82 |
| AC091965.4 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| AC091965.5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC091978.1 | -0.85 | -1.03 | -1.02 | -0.96 | -0.88 | -1.01 | -0.90 | -0.94 |
| AC091982.3 | -1.32 | -1.37 | -1.36 | -1.38 | -1.34 | -1.33 | -1.32 | -1.34 |
| AC091987.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC092017.1 | -0.76 | -0.76 | -0.74 | -0.84 | -0.76 | -0.75 | -0.64 | -0.68 |
| AC092017.2 | 0.43 | 0.59 | 0.30 | 0.81 | 0.63 | 0.63 | 0.34 | 0.42 |
| AC092035.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.05 | -1.99 | -2.06 |
| AC092040.1 | -0.47 | -0.31 | -0.46 | -0.40 | -0.43 | -0.35 | -0.48 | -0.43 |
| AC092042.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC092045.1 | -1.22 | -1.22 | -1.06 | -1.08 | -1.22 | -1.16 | -1.03 | -1.24 |
| AC092047.1 | -2.04 | -2.01 | -2.04 | -1.98 | -2.03 | -2.05 | -2.05 | -2.06 |
| AC092053.2 | -2.12 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC092053.3 | -1.75 | -1.79 | -1.73 | -1.79 | -1.74 | -1.75 | -1.79 | -1.76 |
| AC092053.4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC092066.1 | -1.84 | -1.84 | -1.79 | -1.84 | -1.84 | -1.85 | -1.84 | -1.86 |
| AC092068.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092069.1 | 6.40 | 6.54 | 6.94 | 7.16 | 6.98 | 6.30 | 6.22 | 6.67 |
| AC092070.2 | 1.93 | 1.06 | 1.52 | 1.11 | 1.16 | 1.48 | 1.25 | 2.16 |
| AC092072.1 | 1.05 | 0.91 | 0.91 | 0.87 | 0.75 | 0.94 | 1.05 | 1.09 |
| AC092111.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092114.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 | -2.25 | -2.26 |
| AC092115.1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.69 | -1.70 | -1.74 | -1.71 |
| AC092115.2 | 0.40 | 0.35 | 0.53 | 0.47 | 0.49 | 0.31 | 0.33 | 0.51 |
| AC092115.3 | -0.90 | -1.05 | -0.96 | -0.99 | -1.05 | -1.03 | -1.06 | -0.96 |
| AC092117.1 | -0.01 | -0.33 | -0.32 | -0.21 | -0.14 | -0.21 | -0.14 | -0.25 |
| AC092117.2 | 0.32 | 0.21 | 0.32 | 0.19 | 0.32 | 0.50 | 0.39 | 0.09 |
| AC092118.1 | -1.01 | -1.14 | -1.06 | -1.08 | -1.03 | -1.16 | -1.03 | -1.16 |
| AC092118.2 | -1.56 | -1.79 | -1.78 | -1.79 | -1.76 | -1.78 | -1.80 | -1.81 |
| AC092119.2 | -0.82 | -0.67 | -0.60 | -0.75 | -0.74 | -0.70 | -0.76 | -0.84 |
| AC092119.3 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| AC092120.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092123.1 | 0.04 | -0.16 | -0.06 | -0.26 | -0.17 | -0.13 | -0.12 | -0.10 |
| AC092128.1 | -1.81 | -1.77 | -1.88 | -1.89 | -1.87 | -1.88 | -1.90 | -1.91 |
| AC092134.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC092135.3 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.85 | -1.84 | -1.86 |
| AC092139.1 | 0.41 | 0.66 | 0.82 | 0.79 | 0.70 | 0.53 | 0.67 | 0.61 |
| AC092139.3 | 0.75 | 0.90 | 1.10 | 0.60 | 0.57 | 0.85 | 1.11 | 0.54 |
| AC092140.1 | -2.12 | -2.15 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC092140.2 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC092142.1 | -0.72 | -0.64 | -0.79 | -0.48 | -0.73 | -0.74 | -0.81 | -0.76 |
| AC092143.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC092153.1 | -1.85 | -1.89 | -1.80 | -1.81 | -1.89 | -1.90 | -1.90 | -1.91 |
| AC092155.1 | -1.99 | -1.96 | -1.98 | -1.93 | -1.99 | -2.00 | -1.96 | -2.01 |
| AC092155.2 | 0.20 | 0.44 | 0.23 | 0.35 | 0.54 | 0.35 | 0.34 | 0.65 |
| AC092159.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC092161.1 | 2.86 | 2.62 | 2.62 | 2.58 | 3.34 | 3.08 | 2.41 | 2.69 |
| AC092164.1 | 1.01 | 0.77 | 0.64 | 0.89 | 0.91 | 1.21 | 0.74 | 0.99 |
| AC092168.2 | -0.57 | -0.48 | -0.46 | -0.36 | -0.34 | -0.48 | -0.43 | -0.52 |
| AC092171.1 | -1.59 | -1.69 | -1.68 | -1.69 | -1.66 | -1.67 | -1.70 | -1.71 |
| AC092171.2 | -1.74 | -1.79 | -1.73 | -1.79 | -1.79 | -1.80 | -1.79 | -1.81 |
| AC092171.3 | 1.63 | 1.23 | 1.17 | 1.60 | 1.42 | 1.55 | 1.72 | 1.33 |
| AC092171.4 | 0.06 | 0.22 | 0.24 | 0.05 | 0.28 | 0.21 | 0.31 | 0.18 |
| AC092171.5 | 0.65 | 0.58 | 0.26 | 0.70 | 0.47 | 0.32 | 0.30 | 0.38 |
| AC092183.1 | -1.43 | -1.59 | -1.58 | -1.54 | -1.51 | -1.55 | -1.54 | -1.56 |
| AC092198.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC092268.1 | -1.48 | -1.47 | -1.58 | -1.54 | -1.53 | -1.57 | -1.60 | -1.61 |
| AC092268.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC092275.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092279.1 | 2.09 | 2.06 | 2.34 | 2.43 | 1.76 | 2.21 | 2.49 | 1.62 |
| AC092279.2 | -1.02 | -0.94 | -1.00 | -0.89 | -0.94 | -0.93 | -0.82 | -0.98 |
| AC092287.1 | -0.91 | -1.06 | -0.97 | -0.92 | -1.06 | -1.00 | -1.07 | -0.96 |
| AC092295.2 | -1.62 | -1.62 | -1.54 | -1.56 | -1.62 | -1.63 | -1.37 | -1.65 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC092296.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC092301.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092306.1 | 1.50 | 1.37 | 1.80 | 1.65 | 1.23 | 1.07 | 1.78 | 1.30 |
| AC092324.1 | -0.13 | -0.39 | -0.37 | -0.40 | -0.32 | -0.36 | -0.34 | -0.22 |
| AC092329.4 | -0.17 | -0.31 | -0.22 | -0.32 | -0.31 | 0.11 | -0.32 | -0.21 |
| AC092332.1 | -1.96 | -1.96 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC092338.1 | 4.77 | 4.65 | 4.74 | 4.77 | 5.00 | 4.93 | 4.54 | 5.35 |
| AC092338.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC092338.3 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -2.00 | -2.01 |
| AC092338.4 | 0.92 | 1.23 | 1.20 | 0.98 | 1.17 | 1.04 | 1.16 | 1.20 |
| AC092343.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC092353.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC092354.1 | -1.69 | -1.69 | -1.52 | -1.59 | -1.69 | -1.70 | -1.59 | -1.66 |
| AC092354.2 | -1.64 | -1.64 | -1.57 | -1.53 | -1.61 | -1.65 | -1.59 | -1.67 |
| AC092368.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC092375.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC092375.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC092384.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC092384.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092384.3 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC092418.1 | -1.45 | -1.50 | -1.49 | -1.51 | -1.44 | -1.41 | -1.45 | -1.47 |
| AC092418.2 | -1.59 | -1.53 | -1.58 | -1.54 | -1.53 | -1.58 | -1.54 | -1.51 |
| AC092427.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.06 |
| AC092428.1 | 0.78 | 0.70 | 0.81 | 0.60 | 0.63 | 0.62 | 0.72 | 0.64 |
| AC092431.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC092431.2 | 0.26 | 0.15 | 0.18 | 0.12 | 0.29 | 0.12 | -0.03 | 0.00 |
| AC092436.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC092436.4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC092437.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092445.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC092447.2 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.08 |
| AC092447.7 | -1.99 | -1.99 | -1.87 | -2.00 | -1.94 | -1.96 | -2.00 | -2.01 |
| AC092447.9 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092473.1 | -0.81 | -0.65 | -0.63 | -0.82 | -0.58 | -0.72 | -0.82 | -0.61 |
| AC092490.1 | -1.04 | -1.11 | -1.17 | -1.19 | -1.18 | -1.20 | -1.12 | -1.20 |
| AC092506.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC092535.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AC092535.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC092535.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC092535.4 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AC092567.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC092567.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092569.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC092570.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC092570.3 | 0.50 | 0.05 | 0.07 | 0.21 | 0.10 | 0.07 | 0.03 | 0.08 |
| AC092573.1 | -0.34 | -0.18 | -0.32 | -0.35 | -0.22 | -0.17 | -0.42 | -0.32 |
| AC092573.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092574.1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.88 | -1.90 | -1.87 |
| AC092587.1 | -0.49 | -0.71 | -0.53 | -0.72 | -0.45 | -0.72 | -0.72 | -0.57 |
| AC092597.1 | -0.36 | -0.34 | -0.49 | -0.51 | -0.19 | -0.41 | -0.51 | -0.46 |
| AC092611.1 | -2.10 | -2.09 | -2.06 | -2.07 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC092612.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC092614.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC092617.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC092620.1 | -0.07 | -0.18 | -0.16 | 0.00 | -0.19 | -0.01 | 0.00 | -0.30 |
| AC092623.1 | -2.15 | -2.12 | -2.14 | -2.08 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC092634.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC092636.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC092640.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC092642.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092645.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC092650.1 | 0.72 | 0.14 | 0.16 | 0.19 | 0.39 | 0.11 | 0.05 | 0.31 |
| AC092653.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| AC092653.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC092656.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 | -2.21 | -2.22 |
| AC092681.3 | -2.13 | -2.14 | -2.14 | -2.08 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC092683.1 | -2.10 | -2.09 | -2.06 | -2.07 | -2.09 | -2.10 | -2.10 | -2.10 |
| AC092687.3 | 0.58 | 0.60 | 0.49 | 0.72 | 0.45 | 0.31 | 0.36 | 0.70 |
| AC092692.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092718.1 | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC092718.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.08 | -2.10 | -2.08 |
| AC092718.3 | -1.27 | -1.26 | -1.38 | -1.34 | -1.39 | -1.35 | -1.28 | -1.36 |
| AC092718.4 | 4.37 | 4.03 | 4.49 | 3.75 | 3.52 | 3.65 | 4.28 | 3.48 |
| AC092718.5 | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.05 | -2.06 |
| AC092718.6 | -1.64 | -1.64 | -1.63 | -1.59 | -1.64 | -1.57 | -1.65 | -1.61 |
| AC092718.7 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC092718.8 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -1.98 | -1.96 | -2.01 |
| AC092720.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 |
| AC092723.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC092723.5 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC092724.1 | 4.64 | 4.20 | 3.34 | 4.21 | 4.23 | 3.26 | 3.78 | 2.59 |
| AC092745.2 | -1.59 | -1.58 | -1.63 | -1.54 | -1.61 | -1.63 | -1.65 | -1.56 |
| AC092745.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AC092745.5 | -1.94 | -1.94 | -1.93 | -1.91 | -1.90 | -1.95 | -1.95 | -1.92 |
| AC092747.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC092747.4 | 2.65 | 3.00 | 3.62 | 2.65 | 3.18 | 2.32 | 3.29 | 2.54 |
| AC092754.1 | -0.57 | -0.48 | -0.55 | -0.44 | -0.38 | -0.29 | -0.57 | -0.47 |
| AC092754.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092755.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC092755.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.86 | -1.90 | -1.87 |
| AC092756.1 | 0.52 | 0.27 | 0.47 | 0.17 | 0.26 | 0.36 | 0.32 | 0.37 |
| AC092757.1 | -1.94 | -1.90 | -1.93 | -1.91 | -1.94 | -1.89 | -1.95 | -1.96 |
| AC092757.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.08 |
| AC092757.3 | -1.99 | -1.99 | -1.92 | -2.00 | -1.97 | -2.00 | -2.00 | -1.97 |

| | | | | | | | | |
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| AC092794.1 | -1.35 | -1.40 | -1.33 | -1.41 | -1.40 | -1.31 | -1.36 | -1.38 |
| AC092794.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC092798.1 | -1.49 | -1.48 | -1.47 | -1.49 | -1.45 | -1.44 | -1.43 | -1.51 |
| AC092802.1 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC092802.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092803.2 | 1.28 | 0.75 | 0.69 | 0.98 | 1.21 | 0.66 | 0.70 | 0.86 |
| AC092803.4 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -1.93 | -2.01 |
| AC092803.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC092807.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC092807.3 | -1.70 | -1.74 | -1.69 | -1.79 | -1.79 | -1.80 | -1.80 | -1.81 |
| AC092809.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.24 | -2.26 | -2.25 | -2.24 |
| AC092809.3 | -0.09 | -0.30 | -0.21 | -0.31 | -0.18 | -0.24 | -0.23 | 0.00 |
| AC092809.4 | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.93 | -1.91 | -1.92 |
| AC092811.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC092821.1 | -1.69 | -1.68 | -1.58 | -1.69 | -1.64 | -1.70 | -1.60 | -1.66 |
| AC092821.2 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC092821.3 | -1.70 | -1.74 | -1.73 | -1.75 | -1.79 | -1.78 | -1.79 | -1.72 |
| AC092828.1 | 0.30 | 0.40 | 0.41 | 0.55 | 0.55 | 0.43 | 0.89 | 0.27 |
| AC092835.1 | 1.47 | 0.78 | 1.09 | 0.68 | 0.93 | 0.96 | 1.16 | 0.87 |
| AC092839.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC092844.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC092849.1 | -1.29 | -1.40 | -1.44 | -1.41 | -1.37 | -1.44 | -1.41 | -1.37 |
| AC092849.2 | -0.92 | -0.91 | -1.04 | -1.06 | -1.02 | -1.00 | -1.00 | -0.91 |
| AC092849.3 | -1.32 | -1.49 | -1.48 | -1.44 | -1.37 | -1.51 | -1.44 | -1.52 |
| AC092851.1 | -0.67 | -0.82 | -0.34 | -0.75 | -0.74 | -0.70 | -0.82 | -0.78 |
| AC092865.1 | -1.22 | -1.15 | -1.27 | -1.17 | -1.18 | -1.27 | -1.23 | -1.31 |
| AC092868.1 | 2.23 | 2.88 | 2.71 | 2.84 | 2.84 | 2.65 | 2.26 | 2.01 |
| AC092868.2 | -0.04 | 0.10 | 0.07 | 0.09 | -0.08 | -0.02 | 0.20 | -0.03 |
| AC092868.3 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC092881.1 | 6.43 | 6.12 | 6.28 | 6.22 | 6.22 | 6.40 | 6.48 | 6.66 |
| AC092881.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092881.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092896.1 | -1.69 | -1.69 | -1.62 | -1.59 | -1.66 | -1.67 | -1.70 | -1.66 |
| AC092902.2 | -1.74 | -1.73 | -1.68 | -1.74 | -1.67 | -1.75 | -1.74 | -1.76 |
| AC092902.4 | -1.17 | -1.16 | -1.07 | -1.17 | -0.88 | -1.18 | -1.17 | -1.18 |
| AC092903.2 | 0.38 | -0.07 | 0.13 | -0.08 | -0.11 | -0.13 | 0.12 | 0.07 |
| AC092910.3 | 1.58 | 1.49 | 2.30 | 1.49 | 1.38 | 1.52 | 1.90 | 1.45 |
| AC092919.1 | 0.93 | 0.71 | 0.68 | 1.40 | 0.62 | 0.76 | 0.45 | 0.53 |
| AC092919.2 | 3.31 | 2.97 | 2.93 | 3.24 | 2.99 | 2.72 | 2.62 | 2.55 |
| AC092941.2 | -2.15 | -2.14 | -2.14 | -2.13 | -2.12 | -2.15 | -2.15 | -2.16 |
| AC092944.1 | 1.83 | 1.75 | 1.47 | 1.76 | 1.77 | 1.52 | 1.63 | 2.32 |
| AC092952.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC092953.1 | -1.29 | -1.29 | -1.14 | -1.30 | -1.29 | -1.24 | -1.23 | -1.25 |
| AC092953.2 | -1.42 | -1.42 | -1.35 | -1.37 | -1.33 | -1.34 | -1.43 | -1.24 |
| AC092991.1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.94 | -2.00 | -2.00 | -2.01 |
| AC092994.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC093001.1 | -1.99 | -1.89 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 |
| AC093001.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC093004.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC093014.1 | -0.68 | -0.75 | -0.74 | -0.61 | -0.60 | -0.76 | -0.62 | -0.66 |
| AC093025.1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.93 | -1.91 | -1.92 |
| AC093028.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC093106.1 | -1.36 | -1.29 | -1.34 | -1.30 | -1.29 | -1.21 | -1.24 | -1.37 |
| AC093106.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC093107.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 | -2.15 | -2.13 | -2.16 |
| AC093110.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC093142.1 | 0.78 | 0.86 | 0.66 | 0.92 | 0.89 | 0.76 | 0.94 | 0.74 |
| AC093151.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093151.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC093151.3 | -1.16 | -1.35 | -1.34 | -1.36 | -1.32 | -1.37 | -1.30 | -1.37 |
| AC093151.8 | -1.28 | -1.45 | -1.44 | -1.46 | -1.37 | -1.47 | -1.47 | -1.48 |
| AC093152.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC093157.1 | 3.69 | 3.50 | 3.35 | 3.93 | 3.74 | 3.82 | 3.42 | 3.54 |
| AC093157.2 | -0.34 | -0.47 | -0.54 | -0.21 | -0.55 | -0.57 | -0.49 | -0.46 |
| AC093159.1 | -0.69 | -0.89 | -0.96 | -0.98 | -0.78 | -0.92 | -0.91 | -0.99 |
| AC093162.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC093166.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093166.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC093225.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC093227.1 | 0.67 | 0.62 | 0.93 | 0.51 | 0.52 | 0.66 | 0.43 | 0.74 |
| AC093227.3 | -2.15 | -2.12 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC093249.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC093249.6 | 2.86 | 2.13 | 2.28 | 2.20 | 2.26 | 1.94 | 1.83 | 1.93 |
| AC093270.1 | -2.15 | -2.12 | -2.12 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC093270.2 | -1.84 | -1.80 | -1.83 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 |
| AC093274.1 | -2.30 | -2.30 | -2.30 | -2.28 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC093297.2 | 1.70 | 2.05 | 2.56 | 1.98 | 2.05 | 2.23 | 2.31 | 2.04 |
| AC093323.1 | 4.29 | 4.36 | 4.55 | 4.24 | 4.27 | 4.77 | 4.59 | 5.02 |
| AC093323.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093326.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.90 |
| AC093330.1 | -2.00 | -1.99 | -1.99 | -2.00 | -1.97 | -2.01 | -2.00 | -2.02 |
| AC093330.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.79 | -1.85 | -1.76 | -1.86 |
| AC093330.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC093382.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC093388.1 | -1.87 | -1.90 | -1.93 | -1.94 | -1.92 | -1.93 | -1.94 | -1.89 |
| AC093422.1 | -0.70 | -0.70 | -0.76 | -0.72 | -0.81 | -0.73 | -0.86 | -0.81 |
| AC093423.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093424.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC093425.1 | -0.99 | -1.19 | -1.03 | -0.96 | -1.08 | -1.11 | -1.13 | -1.16 |
| AC093426.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC093433.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| AC093433.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC093458.1 | -1.79 | -1.78 | -1.78 | -1.79 | -1.78 | -1.76 | -1.75 | -1.65 |
| AC093462.1 | -1.94 | -1.90 | -1.89 | -1.95 | -1.92 | -1.93 | -1.95 | -1.92 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC093484.3 | 3.40 | 3.02 | 3.12 | 2.82 | 3.17 | 3.05 | 2.94 | 2.97 |
| AC093484.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093495.1 | -0.87 | -1.08 | -0.91 | -1.09 | -0.97 | -1.03 | -1.02 | -1.04 |
| AC093503.2 | -1.79 | -1.79 | -1.78 | -1.79 | -1.79 | -1.78 | -1.75 | -1.76 |
| AC093503.3 | 0.68 | 0.46 | 0.58 | 0.72 | 0.91 | 0.60 | 0.72 | 0.75 |
| AC093510.1 | -2.01 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC093510.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.16 | -2.21 |
| AC093512.1 | -1.00 | -1.06 | -1.05 | -1.07 | -0.95 | -1.15 | -1.14 | -1.04 |
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| AC093525.10 | -0.82 | -0.65 | -0.73 | -0.90 | -0.89 | -0.87 | -0.56 | -0.91 |
| AC093525.6 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC093525.8 | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093525.9 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC093535.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC093535.2 | -0.64 | -0.26 | -0.45 | -0.56 | -0.64 | -0.48 | -0.57 | -0.54 |
| AC093536.1 | -1.04 | -1.03 | -0.80 | -0.90 | -0.78 | -0.98 | -1.04 | -0.90 |
| AC093575.1 | -2.20 | -2.18 | -2.19 | -2.16 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC093585.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC093591.1 | 2.47 | 2.52 | 2.35 | 2.91 | 3.57 | 2.60 | 2.47 | 3.29 |
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| AC093599.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093599.2 | -0.85 | -0.92 | -0.82 | -0.79 | -0.69 | -0.89 | -0.92 | -0.87 |
| AC093620.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -1.98 | -2.00 | -1.94 |
| AC093627.4 | 0.43 | 1.14 | 0.29 | 1.06 | 0.50 | 0.36 | 0.33 | 0.23 |
| AC093627.5 | 1.35 | 1.37 | 1.18 | 1.15 | 1.06 | 0.99 | 1.01 | 0.87 |
| AC093627.6 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.10 | -2.15 | -2.16 |
| AC093627.7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC093635.1 | 0.23 | 0.03 | 0.22 | 0.28 | 0.26 | 0.20 | 0.01 | -0.09 |
| AC093642.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC093648.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093663.1 | -1.74 | -1.73 | -1.73 | -1.70 | -1.71 | -1.72 | -1.74 | -1.76 |
| AC093663.2 | -0.49 | -0.19 | -0.30 | -0.49 | -0.37 | -0.50 | -0.49 | -0.52 |
| AC093673.1 | 4.16 | 3.88 | 4.26 | 3.58 | 4.54 | 4.09 | 4.06 | 4.46 |
| AC093673.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.91 | -1.94 | -1.95 |
| AC093675.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC093677.1 | -1.24 | -1.30 | -1.22 | -1.24 | -1.27 | -1.19 | -1.18 | -1.27 |
| AC093677.2 | -0.79 | -0.86 | -0.84 | -0.73 | -0.82 | -0.77 | -0.66 | -0.77 |
| AC093690.1 | -1.64 | -1.68 | -1.68 | -1.69 | -1.69 | -1.70 | -1.64 | -1.66 |
| AC093700.1 | -0.65 | -0.73 | -0.71 | -0.52 | -0.73 | -0.74 | -0.60 | -0.63 |
| AC093702.1 | -1.76 | -1.84 | -1.83 | -1.84 | -1.75 | -1.85 | -1.84 | -1.86 |
| AC093720.1 | -1.57 | -1.16 | -1.55 | -1.07 | -1.56 | -1.58 | -1.57 | -1.59 |
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| AC093725.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC093726.2 | -1.69 | -1.63 | -1.63 | -1.64 | -1.64 | -1.65 | -1.64 | -1.71 |
| AC093732.1 | -1.85 | -1.89 | -1.88 | -1.82 | -1.89 | -1.90 | -1.89 | -1.87 |
| AC093734.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093752.1 | 2.51 | 3.01 | 2.59 | 2.84 | 2.69 | 3.13 | 3.19 | 3.51 |
| AC093770.1 | -1.79 | -1.79 | -1.78 | -1.75 | -1.77 | -1.80 | -1.79 | -1.81 |
| AC093788.1 | -0.73 | -0.57 | -0.71 | -0.52 | -0.72 | -0.64 | -0.47 | -0.53 |
| AC093789.1 | -1.64 | -1.70 | -1.63 | -1.71 | -1.67 | -1.69 | -1.65 | -1.73 |
| AC093799.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.13 | -2.15 | -2.16 |
| AC093809.1 | -0.81 | -0.89 | -0.79 | -0.90 | -0.42 | -0.83 | -0.90 | -0.91 |
| AC093817.2 | -2.05 | -2.01 | -1.97 | -2.01 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC093821.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093827.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.91 | -1.95 | -1.96 |
| AC093827.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC093827.3 | -1.74 | -1.69 | -1.63 | -1.74 | -1.74 | -1.70 | -1.70 | -1.76 |
| AC093827.4 | 1.26 | 1.36 | 1.30 | 1.41 | 1.46 | 1.33 | 1.67 | 1.15 |
| AC093827.5 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC093833.1 | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.93 | -1.95 | -1.96 |
| AC093838.2 | -0.95 | -0.86 | -0.78 | -0.76 | -0.86 | -0.92 | -0.88 | -0.96 |
| AC093840.1 | -0.65 | -0.71 | -0.78 | -0.65 | -0.47 | -0.65 | -0.80 | -0.70 |
| AC093849.2 | -0.46 | -0.54 | -0.52 | -0.55 | -0.54 | -0.52 | -0.33 | -0.57 |
| AC093849.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC093849.4 | -1.27 | -1.20 | -1.25 | -1.27 | -1.20 | -1.05 | -1.21 | -1.29 |
| AC093865.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC093866.1 | 3.26 | 3.68 | 1.77 | 4.49 | 2.46 | 1.61 | 1.81 | 1.44 |
| AC093894.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.84 |
| AC093895.1 | -0.70 | -1.16 | -1.15 | -1.17 | -1.16 | -1.18 | -1.17 | -1.12 |
| AC093903.1 | -2.36 | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093904.2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.15 |
| AC093904.3 | -1.47 | -1.46 | -1.45 | -1.41 | -1.38 | -1.34 | -1.47 | -1.43 |
| AC093904.4 | -0.73 | -0.65 | -0.52 | -0.54 | -0.81 | -0.78 | -0.60 | -0.55 |
| AC093909.1 | -0.56 | -0.56 | -0.36 | -0.37 | -0.44 | -0.47 | -0.35 | -0.47 |
| AC093911.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC093912.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC093928.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC094019.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC094085.1 | -2.04 | -2.01 | -2.01 | -2.05 | -2.03 | -2.02 | -2.02 | -2.06 |
| AC095031.1 | -1.24 | -1.36 | -1.35 | -1.08 | -1.36 | -1.38 | -1.37 | -1.39 |
| AC095032.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
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| AC095041.1 | -2.20 | -2.20 | -2.17 | -2.16 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC095055.1 | -0.70 | -0.68 | -0.83 | -0.70 | -0.74 | -0.72 | -0.78 | -0.80 |
| AC095057.3 | -1.74 | -1.69 | -1.68 | -1.65 | -1.74 | -1.75 | -1.70 | -1.71 |
| AC095059.2 | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -1.97 | -2.00 | -2.01 |
| AC096531.2 | -1.89 | -1.85 | -1.88 | -1.85 | -1.89 | -1.90 | -1.90 | -1.83 |
| AC096536.2 | -1.80 | -1.84 | -1.83 | -1.76 | -1.78 | -1.85 | -1.84 | -1.86 |
| AC096536.3 | -2.20 | -2.20 | -2.19 | -2.17 | -2.18 | -2.21 | -2.21 | -2.22 |
| AC096537.1 | -2.02 | -2.04 | -2.04 | -2.04 | -2.04 | -2.05 | -2.05 | -1.93 |
| AC096553.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC096564.1 | 0.63 | 1.56 | 1.01 | 1.44 | 0.77 | 0.99 | 0.97 | 0.65 |
| AC096564.2 | -1.99 | -1.96 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -2.01 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC096586.1 | -0.20 | -0.35 | 0.06 | -0.22 | -0.35 | -0.20 | -0.23 | -0.09 |
| AC096586.2 | -1.80 | -1.79 | -1.74 | -1.75 | -1.75 | -1.80 | -1.76 | -1.81 |
| AC096589.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| AC096589.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.89 | -1.71 |
| AC096631.2 | -1.37 | -1.37 | -1.42 | -1.44 | -1.27 | -1.39 | -1.38 | -1.46 |
| AC096636.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.09 | -2.04 | -2.11 |
| AC096637.2 | -1.84 | -1.84 | -1.79 | -1.80 | -1.84 | -1.83 | -1.84 | -1.86 |
| AC096642.1 | -0.82 | -0.74 | -0.53 | -0.82 | -0.82 | -0.73 | -0.61 | -0.84 |
| AC096642.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC096647.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 |
| AC096649.2 | -0.59 | -0.65 | -0.72 | -0.59 | -0.58 | -0.61 | -0.67 | -0.64 |
| AC096664.2 | 0.18 | 0.33 | 0.20 | 0.72 | 0.38 | 0.32 | 0.17 | 0.36 |
| AC096677.1 | 1.75 | 2.07 | 1.80 | 2.17 | 1.96 | 1.54 | 1.53 | 1.55 |
| AC096711.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC096720.2 | -0.72 | -0.63 | -0.53 | -0.51 | -0.63 | -0.59 | -0.58 | -0.73 |
| AC096733.2 | -1.34 | -1.33 | -1.17 | -1.34 | -1.29 | -1.28 | -1.34 | -1.36 |
| AC096734.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC096741.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC096751.1 | -1.15 | -0.92 | -1.13 | -1.07 | -1.14 | -1.12 | -1.08 | -1.10 |
| AC096751.2 | 0.88 | 0.77 | 0.78 | 1.06 | 0.83 | 0.98 | 0.80 | 0.89 |
| AC096759.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC096772.1 | 0.47 | 0.56 | 0.51 | 0.52 | 0.64 | 0.55 | 0.77 | 0.58 |
| AC096775.1 | -1.91 | -1.94 | -1.93 | -1.91 | -1.92 | -1.95 | -1.95 | -1.89 |
| AC096861.2 | -0.03 | -0.43 | -0.32 | -0.44 | -0.16 | -0.28 | -0.36 | -0.39 |
| AC096887.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC096887.2 | 0.38 | 0.14 | 0.34 | 0.05 | 0.24 | 0.10 | 0.18 | 0.11 |
| AC096915.1 | -2.04 | -1.98 | -2.01 | -2.02 | -2.04 | -2.05 | -2.05 | -2.03 |
| AC096921.2 | 0.94 | 1.17 | 1.25 | 1.50 | 1.20 | 1.11 | 1.53 | 0.98 |
| AC096922.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC096949.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC096992.2 | 0.57 | 0.52 | 0.86 | 0.63 | 0.47 | 0.53 | 0.90 | 0.70 |
| AC097059.1 | -1.35 | -1.34 | -1.33 | -1.35 | -1.34 | -1.30 | -1.36 | -1.37 |
| AC097059.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC097065.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC097263.1 | 0.94 | 0.56 | 0.65 | 0.75 | 0.67 | 0.65 | 0.60 | 0.72 |
| AC097358.1 | -1.79 | -1.78 | -1.78 | -1.79 | -1.76 | -1.75 | -1.79 | -1.72 |
| AC097358.2 | -0.84 | -0.90 | -0.89 | -0.99 | -0.87 | -0.93 | -0.92 | -1.00 |
| AC097359.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AC097359.2 | -0.45 | -0.50 | -0.48 | -0.32 | -0.46 | -0.49 | -0.52 | -0.33 |
| AC097369.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC097372.2 | -2.25 | -2.23 | -2.21 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC097375.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC097376.1 | 0.64 | 0.78 | 0.69 | 1.25 | 0.57 | 0.67 | 0.88 | 0.61 |
| AC097376.2 | 2.39 | 3.11 | 2.98 | 2.97 | 2.26 | 2.62 | 2.97 | 2.63 |
| AC097381.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC097381.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC097382.2 | -0.98 | -0.80 | -0.87 | -0.84 | -0.94 | -0.81 | -0.99 | -0.86 |
| AC097382.3 | 1.82 | 1.16 | 1.40 | 1.11 | 1.07 | 1.16 | 1.08 | 1.53 |
| AC097448.1 | 1.64 | 1.56 | 1.54 | 1.77 | 1.42 | 1.60 | 1.43 | 1.98 |
| AC097460.1 | -0.73 | -0.56 | -0.71 | -0.80 | -0.61 | -0.78 | -0.60 | -0.66 |
| AC097460.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC097462.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC097467.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC097468.1 | -2.09 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.04 |
| AC097468.3 | 0.40 | 1.08 | 0.70 | 0.74 | 0.68 | 0.73 | 0.94 | 0.53 |
| AC097468.4 | -2.35 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC097478.1 | -2.15 | -2.15 | -2.14 | -2.10 | -2.13 | -2.15 | -2.13 | -2.16 |
| AC097478.2 | -2.20 | -2.20 | -2.19 | -2.14 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC097478.3 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC097484.1 | -2.04 | -2.01 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 |
| AC097484.2 | -1.85 | -1.89 | -1.88 | -1.85 | -1.85 | -1.86 | -1.90 | -1.91 |
| AC097493.2 | -1.37 | -1.23 | -1.22 | -1.12 | -1.30 | -1.39 | -1.31 | -1.39 |
| AC097493.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| AC097499.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC097500.1 | -0.50 | -0.42 | -0.48 | -0.51 | -0.46 | -0.49 | -0.18 | -0.61 |
| AC097504.1 | -1.69 | -1.68 | -1.58 | -1.64 | -1.69 | -1.65 | -1.69 | -1.66 |
| AC097504.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.11 |
| AC097510.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC097523.1 | -1.18 | -1.31 | -1.30 | -1.32 | -1.21 | -1.23 | -1.26 | -1.33 |
| AC097523.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC097532.2 | -1.55 | -1.69 | -1.68 | -1.65 | -1.64 | -1.70 | -1.70 | -1.62 |
| AC097532.3 | -1.79 | -1.79 | -1.78 | -1.75 | -1.79 | -1.78 | -1.75 | -1.72 |
| AC097534.1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.79 | -1.78 | -1.75 | -1.81 |
| AC097534.2 | 1.75 | 2.25 | 2.38 | 2.39 | 2.22 | 2.15 | 2.69 | 1.73 |
| AC097625.1 | -2.15 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC097625.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC097634.1 | -1.50 | -1.37 | -1.48 | -1.33 | -1.49 | -1.48 | -1.38 | -1.46 |
| AC097634.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.22 |
| AC097637.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC097637.3 | -2.24 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC097638.1 | -0.52 | -0.52 | -0.59 | -0.47 | -0.11 | -0.45 | -0.61 | -0.50 |
| AC097639.1 | 2.36 | 1.87 | 1.75 | 1.76 | 1.76 | 1.83 | 1.73 | 1.27 |
| AC097641.2 | -1.34 | -1.33 | -1.32 | -1.34 | -1.30 | -1.23 | -1.28 | -1.20 |
| AC097658.1 | 0.98 | 0.94 | 0.65 | 1.03 | 1.10 | 1.06 | 1.22 | 0.76 |
| AC097662.1 | 0.57 | 0.23 | 0.24 | 0.28 | 0.37 | 0.43 | 0.54 | 0.35 |
| AC097709.1 | -1.49 | -1.54 | -1.36 | -1.55 | -1.54 | -1.53 | -1.55 | -1.51 |
| AC097713.2 | -1.16 | -1.01 | -1.14 | -1.02 | -1.01 | -1.14 | -1.03 | -1.18 |
| AC097716.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC097717.1 | -0.92 | -0.98 | -0.82 | -1.00 | -0.95 | -0.89 | -1.07 | -0.97 |
| AC097721.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 |
| AC097724.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC098479.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AC098484.2 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.97 | -2.00 | -1.97 |
| AC098484.4 | -1.74 | -1.69 | -1.68 | -1.74 | -1.69 | -1.70 | -1.70 | -1.76 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC098487.1 | 1.22 | 1.75 | 1.64 | 1.63 | 1.57 | 1.69 | 1.56 | 1.39 |
| AC098583.1 | 1.38 | 1.51 | 1.21 | 1.21 | 1.69 | 1.39 | 1.26 | 1.52 |
| AC098588.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC098590.1 | 0.36 | 0.22 | 0.09 | 0.37 | 0.33 | 0.14 | 0.11 | 0.01 |
| AC098591.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC098591.2 | 0.20 | 0.22 | 0.07 | 0.19 | 0.06 | 0.07 | 0.31 | 0.26 |
| AC098592.1 | -2.10 | -2.09 | -2.09 | -2.05 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC098592.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC098595.1 | 0.07 | -0.19 | -0.09 | -0.21 | -0.16 | -0.26 | -0.21 | -0.19 |
| AC098613.1 | -1.64 | -1.69 | -1.62 | -1.70 | -1.66 | -1.65 | -1.70 | -1.66 |
| AC098614.1 | -0.80 | -0.79 | -0.85 | -0.61 | -0.61 | -0.75 | -0.74 | -0.77 |
| AC098614.3 | -0.15 | 0.01 | -0.14 | 0.13 | 0.00 | -0.06 | 0.12 | -0.06 |
| AC098679.2 | -1.94 | -1.90 | -1.89 | -1.91 | -1.94 | -1.89 | -1.95 | -1.92 |
| AC098679.5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC098798.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC098818.1 | -1.69 | -1.74 | -1.68 | -1.74 | -1.66 | -1.73 | -1.70 | -1.71 |
| AC098818.2 | -0.89 | -1.09 | -1.00 | -0.97 | -1.09 | -1.04 | -1.03 | -1.05 |
| AC098820.1 | -0.85 | -1.06 | -1.05 | -1.00 | -0.99 | -1.04 | -0.93 | -1.02 |
| AC098820.3 | -1.69 | -1.73 | -1.68 | -1.74 | -1.69 | -1.72 | -1.74 | -1.76 |
| AC098824.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC098828.1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.85 | -1.88 | -1.89 | -1.83 |
| AC098828.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC098828.3 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC098829.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.79 | -1.85 | -1.85 | -1.86 |
| AC098847.1 | -1.54 | -1.48 | -1.53 | -1.54 | -1.42 | -1.47 | -1.55 | -1.51 |
| AC098848.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC098859.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| AC098869.1 | 0.47 | 0.72 | 0.65 | 0.76 | 0.52 | 0.69 | 0.68 | 1.57 |
| AC098934.1 | 3.03 | 2.80 | 2.74 | 3.00 | 2.60 | 3.71 | 2.49 | 2.65 |
| AC098934.2 | 1.28 | 0.97 | 1.00 | 0.94 | 0.85 | 1.35 | 0.63 | 0.83 |
| AC098934.3 | -1.42 | -1.42 | -1.34 | -1.43 | -1.39 | -1.40 | -1.21 | -1.44 |
| AC098935.1 | 0.63 | 0.66 | 0.38 | 0.75 | 0.90 | 0.54 | 0.42 | 0.74 |
| AC098936.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| AC099050.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.06 | -2.10 | -2.11 |
| AC099062.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| AC099063.4 | -1.69 | -1.54 | -1.68 | -1.69 | -1.66 | -1.62 | -1.69 | -1.71 |
| AC099066.2 | -1.85 | -1.85 | -1.88 | -1.89 | -1.89 | -1.86 | -1.89 | -1.91 |
| AC099314.1 | -1.09 | -0.93 | -1.07 | -0.94 | -0.97 | -1.06 | -1.09 | -1.04 |
| AC099329.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC099329.2 | -1.74 | -1.73 | -1.73 | -1.74 | -1.69 | -1.70 | -1.74 | -1.76 |
| AC099332.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC099332.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.07 | -2.08 |
| AC099335.1 | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.13 | -2.15 | -2.16 |
| AC099336.1 | -0.52 | -0.51 | -0.43 | -0.33 | -0.48 | -0.44 | -0.33 | -0.62 |
| AC099336.2 | 1.52 | 1.22 | 1.03 | 1.59 | 1.80 | 1.42 | 1.12 | 1.62 |
| AC099340.1 | -0.50 | -0.73 | -0.72 | -0.52 | -0.53 | -0.60 | -0.74 | -0.69 |
| AC099342.1 | -1.09 | -1.08 | -1.07 | -1.09 | -1.05 | -0.68 | -1.03 | -0.99 |
| AC099343.2 | -0.93 | -1.19 | -1.18 | -1.06 | -1.09 | -1.14 | -1.13 | -1.06 |
| AC099343.3 | 1.30 | 1.02 | 1.12 | 1.28 | 1.15 | 1.22 | 0.98 | 0.85 |
| AC099343.4 | -2.15 | -2.15 | -2.14 | -2.10 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC099344.3 | -1.15 | -1.27 | -1.26 | -1.22 | -1.28 | -1.23 | -1.22 | -1.24 |
| AC099489.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC099494.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AC099494.2 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -1.96 | -2.03 |
| AC099494.3 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.06 |
| AC099508.1 | 0.00 | 0.16 | 0.21 | 0.37 | 0.02 | -0.12 | -0.08 | -0.06 |
| AC099509.1 | 1.05 | 1.54 | 1.41 | 1.62 | 1.17 | 1.13 | 0.93 | 0.68 |
| AC099513.1 | -0.20 | -0.02 | -0.32 | -0.06 | 0.01 | -0.18 | -0.27 | -0.13 |
| AC099518.1 | 0.11 | -0.47 | -0.46 | -0.33 | -0.13 | -0.39 | -0.41 | -0.44 |
| AC099518.2 | -1.13 | -1.19 | -1.18 | -1.01 | -1.05 | -1.21 | -1.20 | -1.05 |
| AC099518.4 | -0.64 | -0.71 | -0.78 | -0.73 | -0.68 | -0.80 | -0.73 | -0.81 |
| AC099518.5 | 1.77 | 1.84 | 1.86 | 1.96 | 1.76 | 1.55 | 1.26 | 1.86 |
| AC099518.6 | -1.89 | -1.85 | -1.88 | -1.85 | -1.89 | -1.90 | -1.90 | -1.87 |
| AC099520.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC099521.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.06 |
| AC099521.2 | -1.74 | -1.73 | -1.73 | -1.74 | -1.74 | -1.72 | -1.70 | -1.76 |
| AC099521.3 | -1.09 | -1.08 | -1.00 | -1.09 | -0.97 | -1.07 | -1.03 | -1.10 |
| AC099522.2 | 0.66 | 0.88 | 0.87 | 0.78 | 0.80 | 0.48 | 0.57 | 0.51 |
| AC099524.1 | -2.18 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC099535.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC099548.2 | -2.20 | -2.15 | -2.19 | -2.18 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC099552.5 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC099560.2 | 1.74 | 2.00 | 1.41 | 2.04 | 1.96 | 1.73 | 1.54 | 1.67 |
| AC099568.2 | 1.50 | 0.80 | 0.43 | 0.87 | 0.46 | 0.52 | 0.62 | 0.55 |
| AC099654.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC099654.5 | -0.90 | -0.89 | -0.80 | -0.90 | -0.89 | -0.87 | -0.70 | -0.92 |
| AC099661.1 | -0.43 | -0.64 | -0.63 | -0.50 | -0.42 | -0.65 | -0.52 | -0.55 |
| AC099667.1 | -2.30 | -2.27 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC099670.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC099677.1 | -1.59 | -1.64 | -1.63 | -1.59 | -1.64 | -1.63 | -1.65 | -1.66 |
| AC099689.1 | -0.87 | -0.70 | -0.58 | -0.79 | -0.87 | -0.84 | -0.59 | -0.89 |
| AC099778.1 | 1.42 | 1.03 | 1.06 | 1.53 | 1.35 | 1.07 | 1.00 | 0.87 |
| AC099782.2 | -1.47 | -1.65 | -1.64 | -1.66 | -1.65 | -1.63 | -1.66 | -1.62 |
| AC099789.1 | 4.45 | 4.61 | 3.67 | 4.75 | 4.90 | 4.42 | 4.21 | 4.24 |
| AC099791.2 | 0.87 | 0.74 | 1.11 | 1.23 | 1.39 | 1.01 | 1.02 | 0.84 |
| AC099791.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC099792.1 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC099796.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.94 | -1.89 |
| AC099804.1 | -1.64 | -1.64 | -1.52 | -1.64 | -1.61 | -1.60 | -1.65 | -1.66 |
| AC099811.1 | -2.10 | -2.07 | -2.09 | -2.07 | -2.08 | -2.09 | -2.10 | -2.11 |
| AC099811.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC099811.5 | -1.89 | -1.85 | -1.84 | -1.89 | -1.89 | -1.88 | -1.90 | -1.83 |
| AC099845.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC099850.1 | -0.48 | -0.60 | -0.74 | -0.63 | -0.59 | -0.66 | -0.62 | -0.65 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC099850.3 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.05 | -2.03 |
| AC100756.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC100757.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC100763.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC100771.1 | 0.52 | 0.46 | 0.32 | 0.44 | 0.69 | 0.73 | 0.42 | 0.69 |
| AC100771.2 | -2.12 | -2.12 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC100774.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC100778.3 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC100786.1 | -0.09 | 0.01 | -0.03 | 0.14 | -0.01 | -0.15 | -0.24 | 0.02 |
| AC100791.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| AC100791.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC100793.1 | -2.15 | -2.12 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC100793.2 | -0.37 | -0.58 | -0.30 | -0.51 | -0.25 | -0.43 | -0.59 | -0.33 |
| AC100800.1 | -1.84 | -1.79 | -1.79 | -1.80 | -1.82 | -1.81 | -1.80 | -1.86 |
| AC100803.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC100803.2 | -2.16 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AC100805.1 | -1.58 | -1.58 | -1.57 | -1.59 | -1.58 | -1.59 | -1.54 | -1.60 |
| AC100810.1 | 3.81 | 4.64 | 4.72 | 4.13 | 4.06 | 4.40 | 3.93 | 3.88 |
| AC100810.3 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.94 | -1.96 | -2.00 |
| AC100810.7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC100812.1 | -2.18 | -2.20 | -2.17 | -2.20 | -2.20 | -2.21 | -2.20 | -2.21 |
| AC100814.1 | 0.32 | 0.33 | 0.55 | 0.38 | 0.24 | 0.49 | 0.37 | 0.25 |
| AC100821.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.08 | -2.16 |
| AC100821.2 | -1.59 | -1.68 | -1.68 | -1.64 | -1.69 | -1.70 | -1.64 | -1.71 |
| AC100823.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC100827.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC100830.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC100830.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC100830.3 | -2.10 | -2.07 | -2.09 | -2.07 | -2.09 | -2.09 | -2.07 | -2.08 |
| AC100832.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| AC100835.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC100847.1 | -1.24 | -1.24 | -1.09 | -1.25 | -1.17 | -1.25 | -1.18 | -1.10 |
| AC100861.1 | 3.75 | 2.97 | 4.24 | 3.34 | 3.85 | 4.47 | 3.56 | 3.69 |
| AC100861.2 | -1.23 | -1.29 | -1.28 | -1.30 | -1.23 | -1.21 | -1.30 | -1.31 |
| AC102945.2 | -1.47 | -1.47 | -1.40 | -1.48 | -1.47 | -1.43 | -1.48 | -1.44 |
| AC102953.2 | 0.26 | 0.21 | 0.06 | 0.30 | 0.20 | 0.16 | 0.48 | 0.29 |
| AC103563.9 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC103591.1 | -1.33 | -1.32 | -1.31 | -1.33 | -1.19 | -1.34 | -1.20 | -1.24 |
| AC103591.3 | 1.75 | 1.01 | 0.98 | 1.18 | 1.18 | 1.04 | 1.04 | 1.03 |
| AC103691.1 | -0.65 | -0.48 | -0.22 | -0.50 | -0.60 | -0.52 | -0.51 | -0.61 |
| AC103691.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC103702.1 | 0.18 | 0.36 | 1.16 | 0.32 | 0.19 | 0.84 | 0.09 | 0.13 |
| AC103702.2 | 5.95 | 6.39 | 6.25 | 6.15 | 5.45 | 6.58 | 3.36 | 4.07 |
| AC103703.1 | -0.11 | -0.03 | 0.08 | -0.18 | -0.12 | 0.04 | 0.19 | -0.22 |
| AC103705.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.13 | -2.15 | -2.13 |
| AC103706.1 | 2.42 | 2.84 | 3.12 | 3.17 | 2.85 | 2.72 | 2.64 | 2.13 |
| AC103718.1 | -1.79 | -1.78 | -1.73 | -1.79 | -1.76 | -1.78 | -1.75 | -1.81 |
| AC103724.4 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.10 |
| AC103736.1 | -0.89 | -1.15 | -1.07 | -1.16 | -1.12 | -1.17 | -1.10 | -1.18 |
| AC103739.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC103739.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC103740.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC103740.2 | -1.55 | -1.60 | -1.48 | -1.61 | -1.57 | -1.56 | -1.61 | -1.43 |
| AC103746.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.01 | -2.06 |
| AC103758.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AC103760.1 | -1.01 | -0.85 | -0.83 | -0.88 | -1.01 | -0.91 | -0.81 | -0.97 |
| AC103764.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC103769.1 | 0.51 | 0.31 | 1.07 | 0.43 | 0.22 | 0.48 | 0.55 | 0.24 |
| AC103770.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC103808.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC103810.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC103810.2 | -2.04 | -2.04 | -2.04 | -2.04 | -2.03 | -2.01 | -2.02 | -2.00 |
| AC103810.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC103810.5 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC103858.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC103858.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC103874.1 | -2.30 | -2.29 | -2.29 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC103923.1 | -1.80 | -1.84 | -1.79 | -1.84 | -1.82 | -1.83 | -1.85 | -1.86 |
| AC103952.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC103957.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC103957.2 | -1.07 | -1.12 | -1.18 | -1.20 | -1.20 | -1.11 | -1.07 | -1.16 |
| AC103974.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC103987.1 | -1.02 | -1.21 | -1.20 | -1.22 | -1.11 | -1.23 | -1.23 | -1.02 |
| AC103988.1 | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.93 | -1.87 | -1.96 |
| AC103996.1 | -2.36 | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC104010.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| AC104024.2 | -0.10 | -0.07 | -0.20 | -0.24 | -0.27 | -0.19 | -0.25 | -0.17 |
| AC104024.3 | 1.42 | 0.81 | 0.81 | 0.62 | 0.94 | 0.75 | 0.76 | 0.63 |
| AC104024.4 | -0.87 | -1.00 | -0.99 | -0.93 | -0.96 | -0.98 | -0.87 | -0.91 |
| AC104027.1 | -1.84 | -1.84 | -1.79 | -1.84 | -1.84 | -1.81 | -1.84 | -1.86 |
| AC104031.1 | -0.07 | -0.23 | 0.50 | -0.25 | 0.55 | -0.18 | -0.25 | -0.20 |
| AC104035.1 | -1.40 | -1.45 | -1.44 | -1.34 | -1.42 | -1.44 | -1.47 | -1.48 |
| AC104041.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC104046.1 | -1.55 | -1.48 | -1.53 | -1.55 | -1.54 | -1.53 | -1.33 | -1.46 |
| AC104058.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC104066.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC104066.3 | -2.10 | -2.09 | -2.09 | -2.04 | -2.09 | -2.07 | -2.10 | -2.11 |
| AC104073.4 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC104076.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC104076.2 | -2.04 | -2.01 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.06 |
| AC104078.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC104083.1 | 0.12 | 0.30 | 0.41 | 0.20 | 0.05 | 0.99 | 0.11 | 0.08 |
| AC104088.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC104088.2 | -0.54 | -0.45 | -0.52 | -0.30 | 0.20 | -0.51 | -0.46 | -0.57 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC104109.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC104109.2 | -1.49 | -1.43 | -1.48 | -1.44 | -1.37 | -1.48 | -1.32 | -1.41 |
| AC104109.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC104109.4 | -1.20 | -1.26 | -1.25 | -1.21 | -1.20 | -1.13 | -1.21 | -1.23 |
| AC104113.1 | -0.63 | -0.47 | -0.53 | -0.50 | -0.55 | -0.62 | -0.53 | -0.67 |
| AC104115.1 | -1.54 | -1.54 | -1.47 | -1.55 | -1.51 | -1.49 | -1.43 | -1.51 |
| AC104116.1 | -1.89 | -1.89 | -1.84 | -1.90 | -1.83 | -1.88 | -1.90 | -1.91 |
| AC104117.2 | -1.54 | -1.64 | -1.58 | -1.59 | -1.64 | -1.63 | -1.60 | -1.66 |
| AC104117.5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC104118.1 | -1.20 | -1.19 | -1.09 | -1.05 | -1.11 | -1.06 | -1.12 | -1.08 |
| AC104123.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC104126.1 | -1.81 | -1.81 | -1.80 | -1.81 | -1.81 | -1.82 | -1.82 | -1.83 |
| AC104134.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC104162.2 | 0.12 | 0.05 | 0.22 | 0.25 | 0.29 | 0.29 | 0.25 | 0.33 |
| AC104164.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AC104170.1 | -0.90 | -0.90 | -0.88 | -0.75 | -0.85 | -0.79 | -0.69 | -0.85 |
| AC104187.1 | -1.20 | -1.20 | -1.11 | -1.28 | -1.20 | -1.19 | -1.28 | -1.29 |
| AC104211.1 | -0.17 | -0.09 | 0.03 | 0.02 | -0.16 | -0.12 | 0.01 | -0.21 |
| AC104212.1 | -1.32 | -1.38 | -1.43 | -1.39 | -1.32 | -1.37 | -1.45 | -1.46 |
| AC104212.2 | 0.37 | 0.45 | 0.17 | 0.14 | 0.46 | 0.32 | 0.42 | 0.48 |
| AC104232.3 | -2.05 | -1.94 | -2.00 | -2.01 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC104241.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC104248.1 | -1.49 | -1.49 | -1.48 | -1.50 | -1.10 | -1.50 | -1.50 | -1.51 |
| AC104297.1 | -1.59 | -1.48 | -1.58 | -1.59 | -1.56 | -1.55 | -1.49 | -1.56 |
| AC104306.1 | -0.78 | -0.77 | -0.61 | -0.63 | -0.49 | -0.69 | -0.78 | -0.63 |
| AC104316.1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AC104316.2 | -1.79 | -1.79 | -1.73 | -1.79 | -1.76 | -1.78 | -1.79 | -1.72 |
| AC104332.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC104333.2 | -1.84 | -1.80 | -1.83 | -1.80 | -1.80 | -1.81 | -1.80 | -1.82 |
| AC104333.3 | 1.74 | 1.37 | 1.13 | 1.41 | 1.97 | 1.28 | 1.78 | 1.63 |
| AC104335.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC104339.1 | 0.86 | 1.13 | 0.84 | 1.08 | 0.79 | 1.18 | 0.69 | 1.01 |
| AC104365.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC104365.3 | -1.60 | -1.59 | -1.58 | -1.54 | -1.56 | -1.58 | -1.54 | -1.62 |
| AC104370.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC104383.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC104389.3 | -2.10 | -2.06 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC104389.4 | -1.43 | -1.43 | -1.42 | -1.44 | -1.40 | -1.41 | -1.32 | -1.45 |
| AC104411.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC104417.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC104447.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC104450.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC104451.1 | -1.64 | -1.58 | -1.62 | -1.64 | -1.63 | -1.60 | -1.54 | -1.66 |
| AC104451.2 | -1.44 | -1.59 | -1.58 | -1.60 | -1.46 | -1.58 | -1.55 | -1.62 |
| AC104453.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC104458.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC104459.1 | -2.04 | -2.01 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.03 |
| AC104461.1 | -0.15 | -0.55 | -0.54 | -0.56 | -0.51 | -0.53 | -0.34 | -0.52 |
| AC104463.2 | -1.84 | -1.79 | -1.83 | -1.84 | -1.84 | -1.79 | -1.84 | -1.82 |
| AC104472.1 | -2.16 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC104472.3 | -1.99 | -1.99 | -1.91 | -2.00 | -1.99 | -2.00 | -1.93 | -2.01 |
| AC104472.4 | -0.39 | -0.61 | -0.52 | -0.47 | -0.39 | -0.52 | -0.62 | -0.57 |
| AC104472.5 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.01 | -2.06 |
| AC104506.1 | 1.69 | 1.09 | 1.20 | 1.42 | 1.23 | 1.35 | 1.12 | 1.24 |
| AC104532.2 | 0.20 | 0.09 | 0.35 | 0.28 | 0.30 | 0.37 | -0.01 | 0.19 |
| AC104561.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC104561.4 | -1.59 | -1.59 | -1.52 | -1.59 | -1.59 | -1.54 | -1.48 | -1.61 |
| AC104563.1 | 1.06 | 1.07 | 0.83 | 0.98 | 1.45 | 0.96 | 0.93 | 0.99 |
| AC104564.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC104564.3 | 0.29 | 0.23 | 0.27 | 0.28 | 0.29 | 0.25 | 0.45 | 0.27 |
| AC104564.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC104564.5 | -1.99 | -1.99 | -1.98 | -1.99 | -1.96 | -1.97 | -1.96 | -2.01 |
| AC104581.3 | -2.20 | -2.16 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC104581.4 | -0.72 | -0.72 | -0.78 | -0.59 | -0.80 | -0.71 | -0.60 | -0.76 |
| AC104590.1 | -1.06 | -1.13 | -1.12 | -1.14 | -0.93 | -1.01 | -1.14 | -1.09 |
| AC104596.1 | -1.64 | -1.64 | -1.57 | -1.48 | -1.55 | -1.65 | -1.48 | -1.66 |
| AC104619.1 | 0.36 | 0.00 | -0.07 | 0.25 | 0.14 | 0.13 | 0.05 | 0.21 |
| AC104619.3 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.16 | -2.19 |
| AC104619.4 | -2.20 | -2.20 | -2.19 | -2.21 | -2.16 | -2.19 | -2.21 | -2.22 |
| AC104634.1 | -1.84 | -1.75 | -1.83 | -1.84 | -1.75 | -1.85 | -1.84 | -1.82 |
| AC104634.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC104651.1 | -1.44 | -1.50 | -1.25 | -1.50 | -1.47 | -1.48 | -1.51 | -1.47 |
| AC104653.1 | 1.06 | 0.58 | 0.60 | 0.65 | 0.73 | 1.15 | 0.91 | 0.88 |
| AC104653.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC104655.1 | -1.91 | -1.87 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.92 |
| AC104656.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC104667.2 | 3.00 | 2.07 | 2.08 | 2.29 | 2.32 | 2.69 | 1.93 | 2.18 |
| AC104687.1 | -1.79 | -1.74 | -1.78 | -1.79 | -1.72 | -1.78 | -1.75 | -1.72 |
| AC104692.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.92 | -2.00 | -1.97 |
| AC104692.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 |
| AC104695.2 | -0.77 | -0.77 | -0.28 | -0.77 | -0.73 | -0.68 | -0.63 | -0.61 |
| AC104695.3 | -0.53 | -0.35 | -0.49 | -0.53 | -0.43 | -0.55 | -0.62 | -0.64 |
| AC104695.4 | 0.32 | 0.35 | 0.30 | 0.53 | 0.27 | 0.17 | 0.57 | 0.43 |
| AC104698.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC104758.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC104758.3 | -1.74 | -1.79 | -1.73 | -1.79 | -1.79 | -1.80 | -1.80 | -1.81 |
| AC104759.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.85 | -1.87 |
| AC104763.1 | -0.12 | -0.18 | 0.02 | -0.05 | -0.15 | -0.17 | 0.07 | -0.23 |
| AC104763.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC104785.1 | -1.58 | -1.45 | -1.50 | -1.65 | -1.64 | -1.60 | -1.59 | -1.61 |
| AC104791.2 | -1.74 | -1.73 | -1.68 | -1.65 | -1.73 | -1.68 | -1.74 | -1.71 |
| AC104794.2 | 1.62 | 0.87 | 1.28 | 0.69 | 0.98 | 1.11 | 0.76 | 0.71 |
| AC104794.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC104794.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC104805.1 | -1.51 | -1.44 | -1.49 | -1.51 | -1.50 | -1.49 | -1.45 | -1.53 |
| AC104806.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC104809.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC104819.3 | -1.89 | -1.89 | -1.88 | -1.86 | -1.89 | -1.84 | -1.86 | -1.87 |
| AC104825.1 | -0.84 | -0.76 | -0.82 | -0.71 | -0.72 | -0.72 | -0.64 | -0.80 |
| AC104836.1 | -2.10 | -2.05 | -2.09 | -2.10 | -2.08 | -2.11 | -2.10 | -2.12 |
| AC104837.1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -1.96 | -2.01 |
| AC104837.2 | -1.80 | -1.76 | -1.79 | -1.77 | -1.80 | -1.79 | -1.81 | -1.82 |
| AC104841.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC104843.1 | 0.42 | 0.49 | 0.43 | 0.48 | 0.63 | 0.47 | 0.53 | 0.51 |
| AC104843.2 | -1.04 | -0.81 | -1.02 | -0.90 | -0.75 | -0.88 | -1.05 | -0.94 |
| AC104849.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.07 | -2.11 |
| AC104850.2 | -1.32 | -1.49 | -1.42 | -1.32 | -1.43 | -1.48 | -1.50 | -1.52 |
| AC104938.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC104958.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| AC104958.2 | 2.65 | 2.35 | 2.49 | 1.99 | 4.40 | 2.69 | 2.06 | 2.10 |
| AC104964.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.09 | -2.10 | -2.08 |
| AC104964.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC104964.3 | -1.84 | -1.79 | -1.83 | -1.72 | -1.84 | -1.83 | -1.80 | -1.86 |
| AC104964.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC104964.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC104971.1 | -0.95 | -0.86 | -0.77 | -0.87 | -0.90 | -0.85 | -0.81 | -0.96 |
| AC104978.1 | -0.89 | -1.03 | -1.02 | -1.05 | -0.85 | -1.09 | -1.05 | -1.01 |
| AC104982.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC104984.1 | -2.36 | -2.36 | -2.33 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC104984.3 | 0.24 | -0.03 | -0.10 | -0.12 | -0.07 | 0.06 | 0.15 | 0.17 |
| AC104986.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.95 | -1.87 | -1.96 |
| AC104986.2 | 3.57 | 2.76 | 3.71 | 3.03 | 4.11 | 4.16 | 2.99 | 3.20 |
| AC104996.2 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC105020.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AC105020.2 | -1.59 | -1.58 | -1.68 | -1.69 | -1.63 | -1.70 | -1.64 | -1.71 |
| AC105020.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC105020.5 | -2.20 | -2.20 | -2.18 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC105020.6 | -0.52 | -0.57 | -0.64 | -0.66 | -0.37 | -0.53 | -0.51 | -0.45 |
| AC105021.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| AC105036.1 | -2.36 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC105046.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC105052.2 | -1.99 | -1.96 | -1.98 | -1.96 | -1.97 | -2.00 | -1.96 | -2.01 |
| AC105052.5 | -2.05 | -2.04 | -1.93 | -2.05 | -2.03 | -2.05 | -2.05 | -1.96 |
| AC105074.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC105094.2 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -1.97 |
| AC105101.1 | -1.54 | -1.30 | -1.41 | -1.49 | -1.48 | -1.49 | -1.55 | -1.51 |
| AC105105.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC105129.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC105129.3 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC105137.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC105137.2 | -1.44 | -1.49 | -1.48 | -1.50 | -1.46 | -1.45 | -1.45 | -1.42 |
| AC105206.3 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC105219.1 | 1.68 | 1.70 | 2.66 | 1.77 | 2.03 | 1.82 | 1.87 | 1.68 |
| AC105219.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.11 |
| AC105219.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC105219.4 | -1.99 | -1.92 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -2.01 |
| AC105233.5 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC105235.1 | -0.96 | -0.86 | -0.45 | -0.72 | -0.91 | -0.89 | -0.80 | -0.98 |
| AC105250.1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.90 | -1.89 | -1.91 |
| AC105254.1 | -1.60 | -1.48 | -1.58 | -1.34 | -1.59 | -1.61 | -1.44 | -1.57 |
| AC105265.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC105277.1 | -0.38 | -0.28 | -0.40 | -0.18 | -0.28 | -0.27 | -0.45 | -0.31 |
| AC105285.1 | 1.31 | 1.39 | 1.19 | 1.46 | 1.42 | 1.68 | 1.13 | 1.69 |
| AC105328.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC105339.2 | -1.00 | -0.99 | -0.69 | -1.00 | -0.96 | -1.01 | -0.82 | -0.84 |
| AC105339.3 | -2.04 | -2.04 | -2.04 | -1.99 | -2.03 | -2.05 | -2.02 | -2.06 |
| AC105339.6 | -1.05 | -1.12 | -1.03 | -1.05 | -1.01 | -1.00 | -1.05 | -1.02 |
| AC105342.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC105345.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC105383.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC105391.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC105399.1 | 2.38 | 2.33 | 2.24 | 2.45 | 2.61 | 2.69 | 2.47 | 2.45 |
| AC105402.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC105402.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC105411.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.91 |
| AC105416.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC105429.1 | -0.21 | -0.20 | 0.00 | -0.08 | -0.17 | -0.17 | 0.16 | -0.32 |
| AC105446.1 | 1.97 | 1.53 | 2.03 | 2.04 | 1.71 | 1.86 | 1.48 | 1.45 |
| AC105460.1 | -0.02 | -0.09 | 0.22 | -0.12 | -0.20 | -0.01 | -0.22 | -0.09 |
| AC105460.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.33 | -2.37 |
| AC105749.1 | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.76 |
| AC105760.1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.71 | -1.68 | -1.61 | -1.76 |
| AC105916.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC105918.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC105935.1 | -1.77 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.91 |
| AC105935.2 | -2.01 | -1.98 | -2.00 | -2.05 | -2.04 | -2.04 | -2.02 | -2.03 |
| AC105942.1 | 2.05 | 0.91 | 1.12 | 1.31 | 1.61 | 1.20 | 0.95 | 1.14 |
| AC106028.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC106028.3 | -1.59 | -1.64 | -1.63 | -1.70 | -1.69 | -1.68 | -1.65 | -1.57 |
| AC106028.4 | -1.80 | -1.84 | -1.79 | -1.80 | -1.82 | -1.85 | -1.85 | -1.86 |
| AC106037.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC106038.1 | -2.36 | -2.36 | -2.33 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC106045.1 | 3.23 | 3.25 | 2.19 | 2.60 | 1.95 | 2.37 | 2.21 | 3.80 |
| AC106052.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC106053.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC106707.1 | 1.83 | 1.36 | 1.57 | 1.40 | 1.60 | 1.64 | 1.39 | 1.81 |
| AC106707.2 | -1.13 | -1.13 | -0.73 | -1.14 | -1.09 | -1.01 | -0.85 | -1.15 |
| AC106712.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC106738.1 | -1.85 | -1.77 | -1.84 | -1.81 | -1.83 | -1.86 | -1.85 | -1.68 |
| AC106739.1 | -1.85 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.79 |
| AC106754.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC106772.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC106772.2 | -1.28 | -1.27 | -1.26 | -1.14 | -0.79 | -1.25 | -1.28 | -1.30 |
| AC106779.1 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC106782.2 | 1.14 | 0.72 | 0.93 | 0.96 | 0.90 | 0.97 | 0.62 | 0.74 |
| AC106782.5 | -1.06 | -1.35 | -1.28 | -1.36 | -1.32 | -1.31 | -1.30 | -1.38 |
| AC106782.6 | -0.49 | -0.68 | -0.60 | -0.62 | -0.68 | -0.70 | -0.77 | -0.78 |
| AC106786.2 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC106791.1 | 0.42 | 0.53 | 1.15 | 0.91 | 0.40 | 0.99 | 0.41 | 0.53 |
| AC106791.3 | -1.94 | -1.94 | -1.87 | -1.91 | -1.94 | -1.95 | -1.94 | -1.95 |
| AC106793.1 | -1.47 | -1.41 | -1.40 | -1.42 | -1.44 | -1.48 | -1.48 | -1.39 |
| AC106795.1 | 2.60 | 4.10 | 3.73 | 4.11 | 4.65 | 4.38 | 3.74 | 3.47 |
| AC106795.2 | -1.50 | -1.43 | -1.48 | -1.44 | -1.19 | -1.48 | -1.44 | -1.53 |
| AC106798.1 | -2.29 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC106799.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC106800.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC106806.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.85 | -1.90 | -1.86 | -1.87 |
| AC106818.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC106818.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC106820.1 | 0.45 | 0.40 | 0.59 | 0.44 | 0.60 | 0.43 | 0.37 | 0.43 |
| AC106820.2 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| AC106820.3 | -0.63 | -0.92 | -0.75 | -0.79 | -0.92 | -0.93 | -0.85 | -0.82 |
| AC106820.4 | -1.76 | -1.84 | -1.83 | -1.80 | -1.84 | -1.81 | -1.80 | -1.86 |
| AC106820.6 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC106827.1 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC106845.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC106858.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC106872.2 | 1.34 | 1.92 | 1.43 | 1.93 | 2.18 | 1.31 | 1.25 | 1.79 |
| AC106872.3 | -0.16 | -0.24 | -0.15 | -0.03 | -0.16 | -0.12 | -0.17 | -0.04 |
| AC106872.6 | -1.08 | -1.07 | -1.06 | -1.08 | -1.07 | -1.16 | -1.02 | -1.05 |
| AC106876.1 | 2.16 | 2.90 | 2.14 | 2.59 | 2.49 | 1.80 | 2.37 | 2.55 |
| AC106886.3 | -1.21 | -1.28 | -1.33 | -1.29 | -1.28 | -1.33 | -1.23 | -1.31 |
| AC106886.4 | -0.42 | -0.19 | -0.32 | -0.42 | -0.25 | -0.39 | -0.35 | -0.26 |
| AC106886.5 | 2.01 | 2.10 | 2.05 | 1.93 | 1.55 | 1.93 | 2.00 | 2.10 |
| AC106895.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AC106897.1 | 0.42 | 0.35 | 0.64 | 0.33 | 0.78 | 0.53 | 0.40 | 0.47 |
| AC106900.1 | 0.67 | 0.84 | 0.47 | 1.17 | 0.96 | 1.17 | 0.43 | 0.96 |
| AC107021.2 | -1.65 | -1.59 | -1.52 | -1.65 | -1.59 | -1.66 | -1.60 | -1.67 |
| AC107027.1 | -1.60 | -1.59 | -1.64 | -1.55 | -1.62 | -1.61 | -1.65 | -1.48 |
| AC107027.3 | -0.22 | -0.29 | -0.28 | -0.09 | -0.25 | -0.24 | -0.23 | 0.01 |
| AC107032.1 | -1.16 | -1.15 | -1.07 | -1.02 | -0.97 | -1.04 | -1.16 | -1.00 |
| AC107032.2 | -2.25 | -2.25 | -2.23 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC107067.2 | -2.09 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC107068.1 | 0.40 | 0.69 | 0.66 | 0.32 | 0.52 | 0.63 | 0.65 | 0.67 |
| AC107068.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC107071.1 | -1.91 | -1.94 | -1.93 | -1.88 | -1.94 | -1.95 | -1.94 | -1.96 |
| AC107072.2 | -0.85 | -0.76 | -0.91 | -0.93 | -0.88 | -0.90 | -0.71 | -0.94 |
| AC107075.1 | 1.05 | 0.86 | 1.05 | 1.25 | 1.47 | 1.27 | 1.21 | 1.34 |
| AC107079.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC107081.2 | 1.36 | 1.03 | 1.42 | 1.13 | 1.39 | 1.18 | 1.06 | 1.18 |
| AC107081.4 | -1.80 | -1.80 | -1.83 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 |
| AC107204.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC107208.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC107214.1 | 0.89 | 1.05 | 0.77 | 0.94 | 0.83 | 0.98 | 0.73 | 0.90 |
| AC107214.2 | -0.83 | -0.60 | -0.81 | -0.70 | -0.90 | -0.88 | -0.84 | -0.86 |
| AC107223.1 | -0.49 | -0.49 | -0.41 | -0.50 | -0.41 | -0.51 | -0.50 | -0.36 |
| AC107241.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC107294.2 | -1.20 | -1.19 | -1.18 | -1.13 | -1.15 | -1.11 | -1.13 | -1.10 |
| AC107308.1 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -1.97 | -2.05 | -2.05 |
| AC107373.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC107375.1 | 1.33 | 1.30 | 1.93 | 1.31 | 1.13 | 1.48 | 1.58 | 1.19 |
| AC107398.1 | -1.89 | -1.76 | -1.88 | -1.85 | -1.87 | -1.88 | -1.90 | -1.91 |
| AC107398.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC107419.1 | -1.29 | -1.35 | -1.12 | -1.36 | -1.32 | -1.37 | -1.37 | -1.38 |
| AC107421.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.07 | -2.11 |
| AC107464.3 | -1.50 | -1.43 | -1.48 | -1.44 | -1.49 | -1.48 | -1.38 | -1.52 |
| AC107871.1 | -1.37 | -1.30 | -1.29 | -1.24 | -1.36 | -1.26 | -1.37 | -1.28 |
| AC107871.2 | -2.04 | -2.04 | -2.04 | -2.02 | -2.01 | -2.05 | -2.05 | -2.03 |
| AC107884.1 | -1.20 | -1.05 | -1.24 | -1.02 | -1.16 | -1.24 | -1.20 | -1.28 |
| AC107884.2 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC107890.1 | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 | -1.98 | -2.00 | -1.97 |
| AC107918.4 | -0.20 | -0.02 | 0.00 | -0.20 | 0.08 | -0.10 | 0.14 | -0.23 |
| AC107952.2 | -1.60 | -1.59 | -1.58 | -1.60 | -1.57 | -1.56 | -1.60 | -1.52 |
| AC107954.1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.72 | -1.78 | -1.79 | -1.76 |
| AC107956.1 | 0.26 | 0.50 | 0.53 | 0.40 | 0.71 | 0.53 | 0.68 | 0.55 |
| AC107958.3 | -2.25 | -2.25 | -2.23 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC107959.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.76 | -1.80 | -1.86 |
| AC107959.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC107959.3 | -2.11 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.11 |
| AC107959.4 | 0.16 | 0.00 | 0.17 | 0.07 | 0.17 | 0.45 | 0.07 | 0.08 |
| AC107980.1 | -1.75 | -1.74 | -1.78 | -1.79 | -1.79 | -1.80 | -1.79 | -1.81 |
| AC107982.3 | -1.07 | -0.99 | -1.05 | -1.00 | -1.03 | -1.05 | -0.93 | -1.03 |
| AC107983.1 | -0.28 | 0.01 | -0.42 | -0.22 | -0.14 | -0.24 | -0.29 | -0.23 |
| AC107993.1 | -1.04 | -1.03 | -0.78 | -0.96 | -1.04 | -1.05 | -0.97 | -1.06 |
| AC108002.1 | -2.04 | -2.01 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.03 |
| AC108010.1 | 0.13 | 0.30 | 0.15 | 0.27 | 0.24 | 0.11 | 0.26 | 0.45 |
| AC108021.1 | -1.69 | -1.58 | -1.68 | -1.59 | -1.64 | -1.70 | -1.70 | -1.71 |
| AC108022.1 | -0.80 | -0.79 | -0.86 | -0.73 | -0.69 | -0.75 | -0.88 | -0.53 |
| AC108039.1 | -2.01 | -2.01 | -2.04 | -2.05 | -2.00 | -2.05 | -2.02 | -2.03 |
| AC108047.1 | 3.79 | 2.72 | 2.58 | 3.39 | 2.53 | 2.20 | 2.02 | 2.46 |
| AC108053.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.24 |
| AC108057.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC108058.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| AC108059.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC108059.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC108066.2 | -1.10 | -0.94 | -1.08 | -1.02 | -1.05 | -1.04 | -0.90 | -1.11 |
| AC108073.1 | -0.54 | -0.83 | -0.81 | -0.68 | -0.63 | -0.84 | -0.83 | -0.73 |
| AC108075.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.03 | -2.10 | -2.10 |
| AC108102.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC108112.1 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC108114.1 | -0.02 | 0.00 | -0.14 | 0.34 | 0.26 | -0.03 | -0.10 | -0.19 |
| AC108134.1 | -1.84 | -1.80 | -1.83 | -1.84 | -1.82 | -1.81 | -1.84 | -1.82 |
| AC108134.2 | 2.34 | 1.82 | 2.11 | 2.08 | 1.82 | 2.37 | 2.31 | 2.08 |
| AC108134.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC108134.4 | -0.14 | -0.19 | -0.25 | -0.22 | -0.28 | -0.20 | -0.09 | -0.26 |
| AC108136.1 | -1.79 | -1.74 | -1.78 | -1.79 | -1.79 | -1.75 | -1.75 | -1.72 |
| AC108161.1 | -1.59 | -1.59 | -1.58 | -1.54 | -1.59 | -1.60 | -1.54 | -1.56 |
| AC108174.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC108210.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 |
| AC108215.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC108448.3 | -2.36 | -2.36 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC108449.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC108449.2 | -1.49 | -1.54 | -1.53 | -1.55 | -1.51 | -1.56 | -1.49 | -1.51 |
| AC108449.3 | -0.74 | -0.49 | -0.56 | -0.46 | -0.69 | -0.64 | -0.67 | -0.64 |
| AC108451.2 | 0.46 | 0.56 | 0.49 | 0.45 | 0.91 | 0.35 | 0.52 | 0.51 |
| AC108463.1 | -1.96 | -1.99 | -1.98 | -2.00 | -1.97 | -1.97 | -2.00 | -1.97 |
| AC108463.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC108471.1 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC108471.2 | 0.16 | 0.33 | 0.32 | 0.37 | 0.33 | 0.33 | 0.15 | 0.17 |
| AC108471.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.08 |
| AC108477.2 | -2.12 | -2.10 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC108479.3 | 0.50 | 0.24 | 0.32 | 0.29 | 0.31 | 0.26 | 0.14 | 0.16 |
| AC108488.1 | -2.01 | -1.98 | -2.04 | -1.98 | -2.01 | -2.04 | -2.05 | -2.06 |
| AC108488.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC108488.3 | 2.47 | 1.50 | 1.68 | 1.79 | 1.82 | 1.79 | 2.10 | 1.54 |
| AC108517.1 | -2.20 | -2.20 | -2.15 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC108519.1 | 0.23 | 0.17 | 0.28 | 0.22 | 0.12 | 0.26 | 0.28 | 0.11 |
| AC108673.2 | -1.29 | -1.28 | -1.20 | -1.37 | -1.36 | -1.31 | -1.37 | -1.39 |
| AC108673.3 | 0.61 | 0.55 | 0.88 | 0.89 | 0.54 | 0.70 | 0.52 | 0.92 |
| AC108676.1 | -0.20 | -0.19 | -0.16 | -0.14 | -0.19 | -0.26 | -0.22 | -0.06 |
| AC108688.1 | -2.25 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC108690.1 | -0.90 | -1.11 | -1.09 | -1.12 | -1.07 | -1.12 | -0.79 | -1.13 |
| AC108693.1 | 0.89 | 1.07 | 1.11 | 1.27 | 1.12 | 1.11 | 1.37 | 1.10 |
| AC108693.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.13 |
| AC108704.1 | -2.20 | -2.20 | -2.17 | -2.16 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC108704.2 | 0.81 | 1.11 | 1.12 | 1.00 | 0.94 | 0.90 | 1.44 | 0.73 |
| AC108718.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC108725.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC108729.2 | -2.05 | -2.04 | -2.04 | -2.01 | -2.04 | -2.04 | -1.98 | -2.06 |
| AC108734.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC108734.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC108734.3 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC108749.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC108751.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC108751.4 | -1.45 | -1.45 | -1.44 | -1.46 | -1.45 | -1.43 | -1.46 | -1.47 |
| AC108751.5 | -1.25 | -1.24 | -1.23 | -1.25 | -1.24 | -1.26 | -1.05 | -1.15 |
| AC108860.1 | -1.69 | -1.63 | -1.52 | -1.69 | -1.64 | -1.62 | -1.70 | -1.66 |
| AC108860.2 | 3.31 | 2.42 | 2.73 | 2.75 | 2.89 | 2.78 | 2.20 | 2.76 |
| AC108863.1 | -0.33 | -0.11 | -0.47 | -0.42 | -0.44 | -0.39 | -0.49 | -0.51 |
| AC108865.2 | -2.30 | -2.30 | -2.29 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC108925.1 | -1.03 | -1.02 | -0.94 | -1.10 | -0.98 | -1.08 | -1.03 | -1.12 |
| AC108941.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.22 | -2.26 |
| AC109133.1 | -1.94 | -1.90 | -1.81 | -1.95 | -1.92 | -1.93 | -1.95 | -1.96 |
| AC109322.1 | 1.97 | 1.31 | 1.90 | 1.75 | 1.60 | 1.81 | 1.27 | 1.46 |
| AC109322.2 | -1.59 | -1.74 | -1.68 | -1.74 | -1.74 | -1.73 | -1.70 | -1.76 |
| AC109326.1 | -0.19 | -0.35 | -0.01 | -0.36 | -0.26 | -0.19 | -0.29 | -0.31 |
| AC109329.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC109347.1 | -1.06 | -0.98 | -0.96 | -0.99 | -1.05 | -1.00 | -1.00 | -0.87 |
| AC109347.2 | -1.21 | -1.29 | -1.27 | -1.22 | -1.29 | -1.23 | -1.30 | -1.32 |
| AC109361.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC109361.2 | -2.04 | -2.01 | -2.01 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC109439.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC109449.1 | -1.15 | -1.28 | -1.20 | -1.23 | -1.28 | -1.27 | -1.30 | -1.20 |
| AC109454.1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.84 | -1.86 |
| AC109454.2 | -0.27 | -0.34 | -0.23 | -0.15 | -0.34 | -0.40 | -0.10 | -0.44 |
| AC109454.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC109454.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC109460.1 | -0.77 | -0.85 | -0.58 | -0.77 | -0.69 | -0.82 | -0.78 | -0.80 |
| AC109460.2 | 0.40 | 0.33 | 0.42 | 0.68 | 0.40 | 0.45 | 0.58 | 0.49 |
| AC109460.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.37 |
| AC109466.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC109486.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC109583.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 |
| AC109583.3 | 0.03 | -0.61 | -0.68 | -0.70 | -0.66 | -0.64 | -0.71 | -0.66 |
| AC109587.1 | -0.64 | -0.79 | -0.86 | -0.80 | -0.83 | -0.71 | -0.66 | -0.83 |
| AC109597.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC109597.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC109635.6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
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| AC109809.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC109925.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC109927.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC109992.1 | -1.59 | -1.69 | -1.68 | -1.65 | -1.69 | -1.68 | -1.65 | -1.62 |
| AC109992.2 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC110015.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC110048.2 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC110056.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AC110058.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.21 | -2.22 |
| AC110079.1 | -1.65 | -1.69 | -1.68 | -1.65 | -1.69 | -1.70 | -1.65 | -1.62 |
| AC110285.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AC110285.2 | -0.96 | -0.95 | -1.01 | -1.11 | -0.96 | -0.93 | -0.86 | -1.06 |
| AC110285.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 | -2.20 | -2.21 |
| AC110285.5 | -2.01 | -2.04 | -2.04 | -2.05 | -2.01 | -2.02 | -2.05 | -2.06 |
| AC110285.6 | 0.10 | 0.39 | 0.15 | -0.06 | 0.26 | 0.27 | 0.01 | -0.02 |
| AC110491.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC110588.1 | -0.93 | -1.13 | -1.11 | -1.14 | -1.13 | -0.96 | -1.14 | -1.03 |
| AC110597.1 | -1.74 | -1.74 | -1.73 | -1.74 | -1.74 | -1.73 | -1.60 | -1.76 |
| AC110597.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC110602.1 | -1.64 | -1.63 | -1.63 | -1.59 | -1.58 | -1.65 | -1.54 | -1.66 |
| AC110611.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AC110611.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| AC110615.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC110619.1 | -0.12 | -0.02 | 0.01 | 0.03 | -0.07 | 0.81 | -0.13 | 0.05 |
| AC110620.2 | -0.44 | -0.59 | -0.39 | -0.44 | -0.55 | -0.44 | -0.60 | -0.61 |
| AC110741.1 | -1.37 | -1.30 | -1.36 | -1.38 | -1.30 | -1.35 | -1.32 | -1.39 |
| AC110749.1 | -1.03 | -1.02 | -1.08 | -1.03 | -0.95 | -1.08 | -0.97 | -1.06 |
| AC110754.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC110768.2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC110769.2 | 0.34 | 0.43 | 0.68 | 0.60 | 0.43 | 0.55 | 0.59 | 0.46 |
| AC110769.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC110771.1 | -0.89 | -1.10 | -1.01 | -1.03 | -1.10 | -1.08 | -1.11 | -1.06 |
| AC110774.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.03 |
| AC110775.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC110792.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC110792.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| AC110792.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC110813.1 | -1.84 | -1.80 | -1.79 | -1.80 | -1.82 | -1.85 | -1.80 | -1.82 |
| AC110926.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC110994.2 | -1.42 | -1.42 | -1.29 | -1.37 | -1.33 | -1.32 | -1.26 | -1.29 |
| AC110998.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AC111000.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.07 | -2.16 |
| AC111000.4 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| AC111149.2 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| AC111170.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC111170.3 | -0.71 | -0.62 | -0.60 | -0.43 | -0.59 | -0.47 | -0.64 | -0.73 |
| AC111182.1 | -1.74 | -1.74 | -1.78 | -1.65 | -1.74 | -1.80 | -1.70 | -1.81 |
| AC111186.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 |
| AC112128.1 | -1.50 | -1.50 | -1.43 | -1.45 | -1.50 | -1.51 | -1.39 | -1.52 |
| AC112184.1 | -1.91 | -1.94 | -1.90 | -1.91 | -1.94 | -1.91 | -1.95 | -1.96 |
| AC112187.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.95 | -1.95 | -1.88 |
| AC112191.2 | 1.55 | 1.65 | 1.46 | 1.80 | 1.72 | 1.60 | 1.25 | 1.73 |
| AC112191.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC112198.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC112206.1 | -1.50 | -1.50 | -1.49 | -1.45 | -1.41 | -1.48 | -1.51 | -1.47 |
| AC112206.2 | 0.48 | 0.75 | 0.30 | 2.23 | 0.21 | 0.24 | 0.85 | 0.18 |
| AC112206.4 | -1.64 | -1.64 | -1.68 | -1.60 | -1.69 | -1.65 | -1.69 | -1.71 |
| AC112211.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC112219.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC112220.2 | 2.62 | 3.07 | 2.26 | 2.72 | 2.28 | 2.43 | 2.60 | 2.42 |
| AC112225.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC112236.1 | -1.15 | -1.06 | -1.13 | -1.08 | -1.10 | -1.12 | -0.94 | -0.96 |
| AC112236.2 | -1.02 | -1.08 | -0.91 | -0.94 | -0.97 | -1.06 | -0.96 | -1.11 |
| AC112254.1 | -1.55 | -1.47 | -1.53 | -1.55 | -1.51 | -1.32 | -1.55 | -1.34 |
| AC112481.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC112484.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC112484.3 | -1.65 | -1.65 | -1.64 | -1.60 | -1.62 | -1.66 | -1.66 | -1.67 |
| AC112484.5 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC112487.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC112491.1 | -1.28 | -1.28 | -1.33 | -1.29 | -1.31 | -1.33 | -1.29 | -1.31 |
| AC112496.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.82 | -1.91 |
| AC112497.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.09 | -2.10 | -2.08 |
| AC112498.1 | -0.54 | -0.38 | -0.53 | -0.33 | -0.31 | -0.42 | -0.48 | -0.34 |
| AC112503.1 | -1.85 | -1.89 | -1.88 | -1.81 | -1.87 | -1.88 | -1.81 | -1.91 |
| AC112503.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 |
| AC112504.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC112512.1 | -1.59 | -1.58 | -1.57 | -1.59 | -1.61 | -1.57 | -1.59 | -1.66 |
| AC112518.1 | -1.29 | -1.28 | -1.27 | -1.16 | -1.28 | -1.26 | -1.22 | -1.30 |
| AC112656.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| AC112719.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| AC112777.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| AC112907.3 | -0.11 | -0.16 | -0.13 | -0.18 | -0.08 | -0.16 | -0.25 | -0.15 |
| AC113133.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC113139.1 | -2.00 | -1.99 | -1.89 | -2.00 | -1.97 | -2.01 | -2.00 | -2.02 |
| AC113143.3 | -1.90 | -1.90 | -1.93 | -1.94 | -1.86 | -1.95 | -1.91 | -1.96 |
| AC113155.1 | -1.85 | -1.89 | -1.88 | -1.86 | -1.89 | -1.88 | -1.89 | -1.87 |
| AC113167.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.11 |
| AC113189.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.21 | -2.20 | -2.21 |
| AC113192.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC113208.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC113208.3 | -1.89 | -1.84 | -1.79 | -1.85 | -1.89 | -1.90 | -1.90 | -1.82 |
| AC113346.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC113367.1 | 1.81 | 1.79 | 1.65 | 1.95 | 2.29 | 2.08 | 1.78 | 1.83 |
| AC113382.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC113383.1 | -1.01 | -0.93 | -1.00 | -0.51 | -0.97 | -0.68 | -1.02 | -0.97 |
| AC113391.2 | -0.21 | -0.20 | -0.09 | -0.10 | -0.21 | -0.12 | 0.22 | -0.32 |
| AC113398.1 | 0.92 | 1.23 | 0.97 | 1.30 | 1.47 | 1.18 | 1.09 | 0.97 |
| AC113398.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.04 | -2.11 |
| AC113404.3 | -0.60 | -0.59 | -0.73 | -0.68 | -0.75 | -0.53 | -0.68 | -0.50 |
| AC113410.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.08 | -2.07 | -2.08 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC113410.3 | -1.37 | -1.37 | -1.36 | -1.26 | -1.30 | -1.32 | -1.38 | -1.34 |
| AC113410.4 | 1.52 | 0.76 | 1.03 | 1.09 | 1.16 | 0.92 | 0.88 | 0.93 |
| AC113414.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -2.00 | -2.00 | -1.97 |
| AC113608.1 | -0.24 | -0.22 | -0.30 | -0.32 | -0.11 | -0.13 | -0.33 | -0.30 |
| AC113935.1 | -1.41 | -1.46 | -1.39 | -1.35 | -1.46 | -1.45 | -1.47 | -1.29 |
| AC114267.1 | -1.74 | -1.73 | -1.68 | -1.74 | -1.74 | -1.65 | -1.74 | -1.76 |
| AC114271.1 | 2.05 | 2.52 | 2.33 | 2.28 | 2.37 | 2.09 | 2.21 | 2.03 |
| AC114291.1 | -1.84 | -1.84 | -1.78 | -1.85 | -1.60 | -1.85 | -1.85 | -1.86 |
| AC114291.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AC114316.1 | -2.05 | -2.04 | -2.00 | -2.05 | -2.04 | -1.99 | -2.05 | -2.06 |
| AC114341.1 | -2.01 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC114401.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC114402.1 | -0.25 | -0.24 | -0.31 | -0.20 | -0.02 | -0.20 | -0.19 | -0.23 |
| AC114482.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC114488.1 | -1.69 | -1.64 | -1.63 | -1.69 | -1.69 | -1.67 | -1.64 | -1.61 |
| AC114488.3 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.12 | -2.13 |
| AC114489.1 | -1.30 | -1.42 | -1.41 | -1.43 | -1.39 | -1.40 | -1.37 | -1.39 |
| AC114490.3 | -0.52 | -0.59 | -0.49 | -0.45 | -0.47 | -0.47 | -0.33 | -0.39 |
| AC114491.1 | 2.41 | 2.26 | 1.86 | 2.62 | 2.54 | 2.38 | 1.73 | 2.56 |
| AC114495.1 | -1.64 | -1.63 | -1.63 | -1.59 | -1.53 | -1.65 | -1.65 | -1.66 |
| AC114495.2 | -0.91 | -0.98 | -0.65 | -0.84 | -0.95 | -0.90 | -0.78 | -1.01 |
| AC114498.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC114546.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC114546.3 | 0.30 | 0.14 | -0.02 | 0.11 | 0.22 | 0.12 | 0.20 | 0.21 |
| AC114550.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AC114728.1 | 0.64 | 0.92 | 0.68 | 0.70 | 1.12 | 0.86 | 0.63 | 1.24 |
| AC114730.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC114730.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC114737.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC114744.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 |
| AC114755.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC114755.3 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC114760.2 | -1.70 | -1.65 | -1.69 | -1.70 | -1.70 | -1.69 | -1.70 | -1.55 |
| AC114763.1 | -0.41 | -0.55 | -0.62 | -0.49 | -0.51 | -0.57 | -0.57 | -0.48 |
| AC114776.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC114781.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC114801.3 | 0.65 | 0.67 | 0.71 | 0.64 | 0.47 | 0.59 | 1.10 | 0.68 |
| AC114803.1 | -2.04 | -2.04 | -2.01 | -2.05 | -2.03 | -2.05 | -1.99 | -2.06 |
| AC114810.1 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| AC114811.2 | -1.99 | -1.99 | -1.95 | -2.00 | -1.94 | -1.97 | -1.96 | -2.01 |
| AC114812.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC114812.2 | -2.24 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC114812.3 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 |
| AC114812.4 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC114930.1 | -0.74 | -0.80 | -0.79 | -0.89 | -0.89 | -0.90 | -0.89 | -0.67 |
| AC114939.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC114947.1 | -0.24 | -0.44 | -0.18 | -0.45 | -0.44 | -0.46 | -0.45 | -0.48 |
| AC114947.2 | 1.76 | 2.10 | 1.52 | 2.38 | 2.44 | 1.84 | 2.11 | 2.22 |
| AC114956.1 | -1.69 | -1.74 | -1.73 | -1.69 | -1.64 | -1.75 | -1.70 | -1.71 |
| AC114956.3 | -1.19 | -1.19 | -1.24 | -1.20 | -1.22 | -1.24 | -1.20 | -1.11 |
| AC114971.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC114980.1 | -0.49 | -0.17 | -0.14 | -0.35 | -0.41 | -0.41 | 0.01 | -0.45 |
| AC115102.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC115223.1 | 2.92 | 3.06 | 2.55 | 3.08 | 3.10 | 2.84 | 2.42 | 2.89 |
| AC115282.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC115284.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC115284.4 | -1.48 | -1.53 | -1.53 | -1.43 | -1.51 | -1.50 | -1.55 | -1.56 |
| AC115285.1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.91 | -1.92 |
| AC115522.1 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC115618.1 | -1.19 | -1.18 | -1.17 | -1.12 | -1.15 | -1.13 | -1.06 | -1.15 |
| AC115618.2 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC115837.1 | -0.71 | -0.47 | -0.69 | -0.49 | -0.48 | -0.56 | -0.64 | -0.50 |
| AC116036.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC116036.2 | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| AC116049.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC116096.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC116158.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC116158.3 | -1.11 | -1.02 | -0.87 | -1.03 | -1.10 | -0.98 | -1.11 | -1.06 |
| AC116312.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.01 | -2.04 | -2.01 | -2.06 |
| AC116317.1 | -1.23 | -1.22 | -1.14 | -1.16 | -1.15 | -1.05 | -1.24 | -1.08 |
| AC116337.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC116345.4 | -2.25 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 | -2.26 | -2.27 |
| AC116347.1 | 0.63 | 0.50 | 0.58 | 0.41 | 0.35 | 0.69 | 0.48 | 0.37 |
| AC116351.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC116351.2 | 0.01 | -0.25 | -0.42 | -0.14 | -0.20 | -0.25 | -0.36 | -0.46 |
| AC116353.5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC116359.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC116366.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.07 | -2.10 | -2.11 |
| AC116366.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.20 |
| AC116407.1 | 2.71 | 2.15 | 2.03 | 2.19 | 1.88 | 1.95 | 2.11 | 1.82 |
| AC116407.2 | 2.48 | 1.38 | 1.48 | 1.38 | 1.36 | 1.17 | 1.18 | 1.39 |
| AC116407.4 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.81 | -1.84 | -1.86 |
| AC116447.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC116533.1 | 5.99 | 6.34 | 5.52 | 6.41 | 6.96 | 6.14 | 5.72 | 5.63 |
| AC116535.1 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.02 | -2.05 |
| AC116562.1 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC116562.4 | -1.81 | -1.81 | -1.72 | -1.81 | -1.81 | -1.82 | -1.82 | -1.79 |
| AC116616.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC116651.1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC116667.1 | -1.94 | -1.94 | -1.90 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 |
| AC116903.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.05 |
| AC116913.1 | 1.85 | 1.27 | 1.24 | 1.36 | 1.14 | 1.23 | 1.12 | 1.36 |
| AC116914.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC116914.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.24 | -2.26 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC116917.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC117382.1 | 1.02 | 1.20 | 1.39 | 1.09 | 1.31 | 1.31 | 1.08 | 1.17 |
| AC117382.2 | -0.49 | -0.38 | -0.59 | -0.62 | -0.64 | -0.36 | -0.62 | -0.70 |
| AC117383.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AC117386.2 | -0.35 | -0.56 | -0.63 | -0.65 | -0.65 | -0.55 | -0.65 | -0.60 |
| AC117394.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC117409.1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| AC117440.1 | -2.30 | -2.27 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC117464.1 | -2.30 | -2.27 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC117498.1 | -1.23 | -1.15 | -1.14 | -1.10 | -1.23 | -1.25 | -1.10 | -1.25 |
| AC117498.2 | 1.58 | 1.26 | 1.38 | 1.68 | 1.32 | 0.94 | 1.15 | 0.79 |
| AC117503.1 | -0.52 | -0.50 | -0.36 | -0.44 | -0.47 | -0.47 | -0.45 | -0.45 |
| AC117503.2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.18 | -2.18 | -2.21 |
| AC117503.3 | -2.10 | -2.09 | -2.06 | -2.07 | -2.08 | -2.10 | -2.07 | -2.11 |
| AC117522.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC118344.1 | 0.38 | 0.32 | 0.67 | 0.51 | 0.46 | 0.45 | 0.55 | 0.20 |
| AC118344.2 | 1.06 | 1.15 | 1.04 | 0.98 | 1.04 | 1.05 | 1.20 | 0.89 |
| AC118465.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC118469.1 | -1.85 | -1.89 | -1.88 | -1.86 | -1.85 | -1.88 | -1.86 | -1.91 |
| AC118469.2 | -1.84 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 |
| AC118549.1 | 4.37 | 5.13 | 4.79 | 5.15 | 4.70 | 4.80 | 4.98 | 4.93 |
| AC118553.1 | 0.09 | -0.17 | -0.24 | -0.13 | -0.14 | -0.20 | -0.13 | -0.12 |
| AC118553.2 | -0.90 | -0.68 | -0.88 | -0.63 | -0.90 | -0.76 | -0.41 | -0.91 |
| AC118658.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC118754.1 | 4.94 | 5.04 | 5.61 | 4.97 | 6.41 | 5.59 | 6.40 | 6.44 |
| AC118754.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.91 | -1.95 | -1.96 |
| AC118757.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC118758.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC119044.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC119396.2 | -1.94 | -1.90 | -1.93 | -1.94 | -1.94 | -1.91 | -1.91 | -1.88 |
| AC119403.1 | -0.20 | -0.11 | -0.16 | -0.01 | -0.12 | -0.19 | -0.01 | -0.24 |
| AC119427.1 | 0.43 | 0.44 | 0.58 | 0.62 | 0.65 | 0.49 | 0.58 | 0.54 |
| AC119673.2 | 3.49 | 2.66 | 2.04 | 2.74 | 1.95 | 3.20 | 3.83 | 1.69 |
| AC119674.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC119674.2 | -0.94 | -1.01 | -0.91 | -1.01 | -0.72 | -0.98 | -1.02 | -0.86 |
| AC119677.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC119751.3 | -2.30 | -2.30 | -2.30 | -2.27 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC119800.1 | -1.31 | -1.23 | -1.29 | -1.31 | -1.27 | -1.29 | -1.25 | -1.21 |
| AC120024.1 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC120036.1 | -2.10 | -2.07 | -2.03 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC120036.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.12 | -2.16 |
| AC120036.4 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC120049.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC120053.1 | 0.01 | 0.02 | 0.46 | 0.15 | 0.10 | 0.26 | 0.09 | 0.41 |
| AC120057.3 | -0.99 | -1.06 | -1.05 | -1.07 | -1.02 | -0.97 | -0.93 | -0.97 |
| AC120114.1 | 1.14 | 0.78 | 0.81 | 0.80 | 0.73 | 0.68 | 0.72 | 0.77 |
| AC120114.2 | -1.04 | -1.04 | -1.02 | -1.05 | -1.04 | -0.96 | -1.12 | -1.02 |
| AC120114.3 | 1.22 | 1.65 | 1.90 | 1.42 | 1.56 | 1.57 | 1.90 | 1.41 |
| AC120498.4 | 1.32 | 0.62 | 0.75 | 0.68 | 0.66 | 0.79 | 0.74 | 0.82 |
| AC120498.9 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| AC121154.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AC121320.1 | -0.77 | -0.67 | -0.55 | -0.84 | -0.72 | -0.78 | -0.57 | -0.73 |
| AC121338.2 | 0.63 | 0.47 | 0.35 | 0.62 | 0.50 | 0.34 | 0.29 | 0.31 |
| AC121493.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC121757.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC121757.2 | -0.51 | -0.43 | -0.42 | -0.37 | -0.51 | -0.39 | -0.31 | -0.26 |
| AC121758.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC121761.1 | -0.97 | -0.97 | -0.87 | -0.90 | -0.75 | -0.84 | -0.90 | -0.62 |
| AC121761.2 | 0.07 | -0.04 | -0.03 | 0.02 | 0.26 | 0.02 | -0.13 | 0.40 |
| AC122108.2 | -0.89 | -0.96 | -0.80 | -1.05 | -1.05 | -1.06 | -0.98 | -1.07 |
| AC122129.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC122134.1 | -2.31 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.29 |
| AC122688.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC122688.3 | 1.71 | 2.20 | 2.71 | 2.32 | 1.92 | 1.75 | 2.38 | 1.57 |
| AC122688.4 | -1.43 | -1.53 | -1.52 | -1.49 | -1.53 | -1.55 | -1.43 | -1.56 |
| AC122710.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC122718.1 | 1.21 | 1.67 | 2.33 | 1.35 | 1.49 | 1.37 | 1.76 | 1.05 |
| AC122718.2 | -1.45 | -1.44 | -1.30 | -1.39 | -1.38 | -1.37 | -1.39 | -1.47 |
| AC122719.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC123595.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC123595.2 | -1.84 | -1.84 | -1.74 | -1.84 | -1.79 | -1.83 | -1.85 | -1.86 |
| AC123768.2 | -1.44 | -1.49 | -1.42 | -1.50 | -1.46 | -1.42 | -1.45 | -1.52 |
| AC123768.3 | -1.59 | -1.64 | -1.63 | -1.65 | -1.59 | -1.57 | -1.65 | -1.61 |
| AC123768.5 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.84 | -1.86 |
| AC123912.1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC123912.4 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC124016.1 | 0.87 | 0.82 | 1.15 | 0.85 | 0.95 | 1.10 | 0.96 | 0.98 |
| AC124016.2 | -0.17 | -0.01 | -0.01 | 0.23 | -0.01 | -0.01 | -0.03 | -0.02 |
| AC124017.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC124045.1 | -0.15 | -0.23 | -0.04 | -0.08 | -0.03 | -0.01 | -0.16 | -0.26 |
| AC124067.2 | 0.40 | 1.05 | 0.26 | 1.50 | 0.37 | 0.95 | 0.22 | 0.44 |
| AC124067.4 | 1.01 | 1.57 | 0.80 | 1.30 | 0.64 | 0.90 | 0.93 | 0.67 |
| AC124068.1 | -0.62 | -0.70 | -0.69 | -0.64 | -0.55 | -0.71 | -0.64 | -0.29 |
| AC124068.2 | 0.40 | 0.20 | 0.32 | 0.17 | 0.45 | 0.10 | 0.18 | 0.19 |
| AC124242.1 | -0.95 | -0.79 | -1.00 | -0.96 | -0.94 | -0.96 | -0.89 | -0.98 |
| AC124242.3 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC124248.1 | 0.86 | 0.80 | 0.58 | 0.91 | 0.63 | 1.87 | 0.61 | 0.56 |
| AC124248.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC124276.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC124283.1 | 4.98 | 3.59 | 3.75 | 3.80 | 4.13 | 3.88 | 3.88 | 4.62 |
| AC124283.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC124283.5 | -1.96 | -1.99 | -1.95 | -1.96 | -1.97 | -2.00 | -2.00 | -2.01 |
| AC124303.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 |
| AC124319.1 | 8.30 | 7.47 | 8.57 | 7.29 | 8.03 | 8.52 | 7.91 | 7.06 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC124319.2 | 1.71 | 1.82 | 2.26 | 1.55 | 1.78 | 2.14 | 2.48 | 1.49 |
| AC124319.3 | -1.49 | -1.49 | -1.29 | -1.50 | -1.49 | -1.47 | -1.38 | -1.52 |
| AC124319.5 | -1.37 | -1.30 | -1.23 | -1.31 | -1.37 | -1.23 | -1.25 | -1.39 |
| AC124798.1 | 2.30 | 3.38 | 2.39 | 2.83 | 2.14 | 2.27 | 2.82 | 1.89 |
| AC124804.1 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC124852.1 | -2.20 | -2.20 | -2.18 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC124916.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC124916.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC124944.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC124944.2 | 0.08 | -0.24 | 0.17 | -0.26 | -0.29 | -0.31 | -0.34 | -0.24 |
| AC124944.3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC124947.1 | -0.27 | -0.26 | -0.25 | 0.05 | -0.22 | -0.19 | -0.35 | 0.05 |
| AC124947.2 | 2.19 | 2.03 | 2.18 | 2.33 | 1.88 | 1.86 | 1.71 | 2.01 |
| AC125232.2 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.95 | -1.91 | -1.89 |
| AC125257.2 | -1.59 | -1.53 | -1.47 | -1.60 | -1.56 | -1.49 | -1.54 | -1.61 |
| AC125421.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC125437.1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC125437.2 | -1.59 | -1.58 | -1.47 | -1.59 | -1.59 | -1.60 | -1.49 | -1.61 |
| AC125437.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC125494.1 | -1.50 | -1.50 | -1.49 | -1.39 | -1.44 | -1.48 | -1.45 | -1.42 |
| AC125494.2 | -2.04 | -2.04 | -2.00 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| AC125604.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC125611.2 | -0.04 | -0.02 | 0.24 | 0.11 | -0.07 | 0.18 | 0.17 | -0.02 |
| AC125611.3 | 1.35 | 1.57 | 1.28 | 1.51 | 1.19 | 1.51 | 1.48 | 1.67 |
| AC125611.4 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC125612.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AC125616.1 | -0.77 | -1.10 | -1.09 | -0.97 | -0.92 | -1.08 | -1.11 | -1.12 |
| AC125807.1 | -0.43 | -0.42 | -0.49 | -0.17 | -0.30 | -0.18 | -0.44 | -0.42 |
| AC125807.2 | 0.26 | 0.75 | 0.70 | 0.48 | 0.38 | 0.31 | 0.70 | 0.34 |
| AC126118.1 | -1.70 | -1.79 | -1.73 | -1.70 | -1.79 | -1.75 | -1.75 | -1.81 |
| AC126124.2 | -1.98 | -2.01 | -2.00 | -2.01 | -2.01 | -2.05 | -2.05 | -2.06 |
| AC126175.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC126178.1 | -1.73 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.91 |
| AC126182.2 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -1.97 |
| AC126283.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC126323.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC126365.1 | -1.54 | -1.54 | -1.47 | -1.49 | -1.51 | -1.47 | -1.49 | -1.51 |
| AC126389.1 | -0.12 | -0.11 | -0.10 | -0.12 | -0.02 | -0.21 | -0.20 | 0.04 |
| AC126474.1 | -1.53 | -1.58 | -1.52 | -1.54 | -1.64 | -1.65 | -1.43 | -1.61 |
| AC126474.2 | 1.18 | 1.99 | 1.57 | 1.39 | 1.36 | 1.62 | 1.90 | 1.22 |
| AC126544.1 | -0.87 | -0.95 | -0.86 | -0.77 | -0.95 | -0.89 | -0.75 | -0.97 |
| AC126544.2 | -2.22 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC126603.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC126614.1 | -2.09 | -2.09 | -2.07 | -2.10 | -2.09 | -2.08 | -2.10 | -2.08 |
| AC126615.1 | 0.56 | 0.66 | 0.39 | 0.67 | 0.60 | 0.58 | 0.40 | 0.40 |
| AC126696.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC126696.3 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.11 |
| AC126773.2 | -0.40 | -0.31 | -0.46 | -0.40 | -0.43 | -0.32 | -0.41 | -0.50 |
| AC126773.4 | -2.15 | -2.15 | -2.14 | -2.10 | -2.15 | -2.15 | -2.13 | -2.16 |
| AC127002.1 | -2.04 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.08 |
| AC127024.1 | -1.44 | -1.54 | -1.53 | -1.50 | -1.49 | -1.50 | -1.50 | -1.47 |
| AC127024.2 | -0.23 | 0.03 | 0.35 | -0.15 | -0.17 | 0.13 | 0.13 | -0.12 |
| AC127024.4 | -1.29 | -1.46 | -1.45 | -1.41 | -1.43 | -1.42 | -1.41 | -1.33 |
| AC127024.5 | -0.33 | -0.39 | -0.43 | -0.40 | -0.46 | -0.46 | -0.40 | -0.34 |
| AC127024.6 | -1.94 | -1.94 | -1.85 | -1.87 | -1.94 | -1.93 | -1.95 | -1.96 |
| AC127024.8 | 0.15 | 0.38 | 0.46 | 0.06 | 0.07 | 0.25 | 0.62 | 0.37 |
| AC127035.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.89 | -1.91 |
| AC127070.1 | 0.10 | -0.11 | -0.24 | -0.07 | -0.23 | -0.30 | -0.36 | -0.26 |
| AC127070.2 | -1.69 | -1.73 | -1.68 | -1.74 | -1.71 | -1.70 | -1.65 | -1.76 |
| AC127070.3 | -1.60 | -1.54 | -1.58 | -1.60 | -1.57 | -1.55 | -1.60 | -1.51 |
| AC127070.4 | -0.59 | -0.59 | -0.43 | -0.60 | -0.59 | -0.47 | -0.33 | -0.61 |
| AC127164.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC127459.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC127496.1 | -0.96 | -0.88 | -0.87 | -0.97 | -0.88 | -0.79 | -0.89 | -0.66 |
| AC127496.5 | -1.64 | -1.58 | -1.63 | -1.54 | -1.64 | -1.60 | -1.65 | -1.66 |
| AC127496.6 | -1.69 | -1.69 | -1.68 | -1.65 | -1.66 | -1.68 | -1.70 | -1.66 |
| AC127496.7 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.93 | -1.95 | -1.96 |
| AC127502.1 | -1.14 | -1.13 | -1.12 | -0.93 | -1.10 | -1.08 | -1.08 | -1.10 |
| AC127502.2 | -0.68 | -0.67 | -0.40 | -0.61 | -0.67 | -0.70 | -0.69 | -0.71 |
| AC127521.1 | 1.64 | 1.70 | 1.39 | 1.83 | 1.86 | 1.46 | 1.80 | 1.73 |
| AC127526.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 | -2.25 | -2.26 |
| AC127526.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC127526.5 | 3.02 | 3.51 | 3.06 | 3.87 | 3.59 | 2.80 | 3.04 | 3.15 |
| AC127537.1 | -1.33 | -1.38 | -1.19 | -1.27 | -1.35 | -1.40 | -1.33 | -1.25 |
| AC127540.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC127540.2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -2.00 | -1.96 | -2.01 |
| AC128687.2 | -0.73 | -1.05 | -0.96 | -0.99 | -0.93 | -1.06 | -0.99 | -1.01 |
| AC128687.3 | -2.15 | -2.12 | -2.14 | -2.15 | -2.12 | -2.14 | -2.13 | -2.16 |
| AC128709.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC129492.1 | 4.02 | 4.32 | 5.55 | 4.43 | 4.22 | 4.32 | 5.32 | 5.07 |
| AC129492.2 | -1.25 | -1.31 | -1.30 | -1.19 | -1.31 | -1.15 | -1.15 | -1.28 |
| AC129492.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AC129492.5 | -1.77 | -1.89 | -1.84 | -1.89 | -1.87 | -1.88 | -1.90 | -1.87 |
| AC129492.6 | -1.54 | -1.48 | -1.58 | -1.55 | -1.54 | -1.61 | -1.60 | -1.52 |
| AC129492.7 | -2.18 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| AC129492.8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC129502.1 | -1.94 | -1.90 | -1.93 | -1.91 | -1.92 | -1.93 | -1.91 | -1.96 |
| AC129507.2 | -0.09 | 0.07 | 0.00 | 0.05 | 0.11 | -0.08 | 0.04 | -0.20 |
| AC129507.4 | -1.37 | -1.31 | -1.36 | -1.38 | -1.37 | -1.36 | -1.38 | -1.39 |
| AC129510.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC129803.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| AC129926.1 | -0.67 | -0.95 | -0.94 | -0.88 | -0.91 | -0.74 | -0.96 | -0.97 |
| AC130304.1 | 2.52 | 2.14 | 2.25 | 2.45 | 2.21 | 2.53 | 2.29 | 2.84 |
| AC130324.1 | -0.35 | -0.40 | -0.45 | -0.37 | -0.60 | -0.61 | -0.50 | -0.48 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC130324.2 | -1.89 | -1.89 | -1.88 | -1.86 | -1.87 | -1.90 | -1.82 | -1.87 |
| AC130324.3 | 0.53 | 0.62 | 0.75 | 0.31 | 0.39 | 0.46 | 0.38 | 0.21 |
| AC130343.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AC130343.2 | -0.84 | -0.83 | -0.74 | -0.85 | -0.87 | -0.76 | -0.71 | -0.93 |
| AC130352.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC130371.2 | -1.33 | -1.32 | -1.25 | -1.33 | -1.32 | -1.25 | -1.27 | -1.14 |
| AC130456.2 | 3.34 | 3.82 | 2.91 | 4.04 | 3.67 | 2.50 | 2.65 | 2.71 |
| AC130456.3 | -1.94 | -1.90 | -1.93 | -1.91 | -1.84 | -1.95 | -1.95 | -1.96 |
| AC130456.4 | -1.59 | -1.47 | -1.52 | -1.48 | -1.59 | -1.58 | -1.54 | -1.56 |
| AC130456.5 | 0.30 | 0.33 | 0.10 | 0.30 | 0.21 | 0.25 | 0.48 | 0.23 |
| AC130456.6 | -1.04 | -0.95 | -1.02 | -0.83 | -0.92 | -1.04 | -0.91 | -1.05 |
| AC130456.7 | 1.18 | 1.10 | 0.68 | 1.27 | 1.17 | 0.79 | 0.91 | 0.94 |
| AC130650.2 | 1.34 | 1.30 | 1.27 | 1.38 | 0.97 | 1.24 | 1.73 | 1.04 |
| AC130686.1 | -1.75 | -1.74 | -1.78 | -1.79 | -1.74 | -1.80 | -1.79 | -1.76 |
| AC130689.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.13 |
| AC130814.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| AC130888.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AC130895.1 | 0.58 | 0.96 | 0.99 | 1.00 | 0.81 | 0.73 | 1.03 | 0.66 |
| AC131009.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC131009.2 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.04 | -2.05 | -2.00 |
| AC131009.3 | 0.07 | -0.06 | 0.13 | -0.07 | -0.02 | 0.08 | 0.19 | 0.23 |
| AC131009.4 | 0.76 | 0.69 | 1.79 | 0.93 | 0.80 | 0.96 | 1.20 | 0.88 |
| AC131011.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC131025.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC131025.3 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC131097.2 | -2.07 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC131159.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC131159.2 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -1.97 | -1.96 | -1.97 |
| AC131206.1 | -0.18 | -0.23 | -0.30 | -0.17 | -0.13 | -0.26 | -0.25 | -0.23 |
| AC131212.1 | -1.29 | -1.35 | -1.34 | -1.36 | -1.29 | -1.31 | -1.24 | -1.37 |
| AC131212.2 | 0.79 | 0.76 | 0.86 | 0.78 | 0.64 | 0.69 | 0.84 | 0.47 |
| AC131212.3 | 0.20 | 0.22 | 0.26 | 0.18 | 0.18 | 0.02 | 0.34 | -0.07 |
| AC131212.4 | -1.69 | -1.69 | -1.57 | -1.59 | -1.69 | -1.62 | -1.49 | -1.71 |
| AC131235.1 | 2.80 | 3.31 | 2.32 | 3.08 | 3.37 | 2.85 | 2.41 | 2.94 |
| AC131235.2 | -0.26 | -0.47 | -0.29 | -0.21 | -0.25 | -0.42 | -0.34 | -0.32 |
| AC131235.3 | -1.85 | -1.89 | -1.84 | -1.89 | -1.87 | -1.88 | -1.86 | -1.87 |
| AC131238.1 | -1.22 | -1.35 | -1.33 | -1.29 | -1.25 | -1.30 | -1.36 | -1.26 |
| AC131254.1 | -1.89 | -1.89 | -1.88 | -1.86 | -1.89 | -1.84 | -1.89 | -1.83 |
| AC131391.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AC131532.1 | -1.90 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -2.01 |
| AC131571.1 | -1.69 | -1.63 | -1.68 | -1.59 | -1.68 | -1.70 | -1.55 | -1.71 |
| AC131649.2 | -0.47 | -0.55 | -0.12 | -0.40 | -0.55 | -0.42 | -0.18 | -0.36 |
| AC131888.1 | 0.46 | 0.68 | 0.59 | 0.87 | 0.50 | 0.52 | 0.36 | 0.55 |
| AC131934.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC131953.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC132008.2 | 3.15 | 2.67 | 2.73 | 3.31 | 2.76 | 2.72 | 3.04 | 3.14 |
| AC132068.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC132153.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.05 |
| AC132192.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC132192.2 | 2.28 | 1.45 | 2.48 | 1.69 | 2.48 | 2.04 | 1.55 | 2.08 |
| AC132219.2 | -2.04 | -2.04 | -2.04 | -2.04 | -2.03 | -1.99 | -2.05 | -2.03 |
| AC132807.2 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC132812.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC132825.1 | -0.75 | -0.74 | -0.65 | -0.46 | -0.42 | -0.68 | -0.60 | -0.76 |
| AC132872.1 | 1.37 | 1.35 | 1.64 | 1.30 | 1.47 | 1.25 | 1.27 | 1.52 |
| AC132872.2 | -1.89 | -1.85 | -1.88 | -1.89 | -1.89 | -1.90 | -1.81 | -1.91 |
| AC132872.3 | -1.19 | -1.19 | -0.96 | -1.20 | -1.15 | -1.12 | -1.07 | -1.01 |
| AC132872.4 | 0.41 | 0.56 | 0.67 | 0.61 | 0.50 | 0.56 | 0.54 | 0.89 |
| AC132872.5 | -1.08 | -1.07 | -0.92 | -1.01 | -1.16 | -1.14 | -0.89 | -1.06 |
| AC132938.1 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| AC132938.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.78 | -1.85 | -1.80 | -1.86 |
| AC132938.3 | -0.24 | -0.39 | -0.38 | -0.32 | -0.12 | -0.37 | -0.19 | -0.35 |
| AC132938.5 | -1.85 | -1.89 | -1.88 | -1.85 | -1.85 | -1.90 | -1.90 | -1.91 |
| AC132938.6 | -1.31 | -1.37 | -1.42 | -1.38 | -1.37 | -1.39 | -1.44 | -1.46 |
| AC132942.1 | 0.84 | 0.74 | 0.60 | 0.42 | 0.83 | 0.63 | 0.49 | 0.72 |
| AC133041.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC133134.1 | -0.13 | -0.26 | -0.15 | -0.14 | -0.20 | -0.19 | -0.36 | -0.15 |
| AC133435.1 | 0.08 | 0.16 | 0.10 | 0.08 | 0.43 | 0.28 | 0.14 | 0.15 |
| AC133473.1 | -1.40 | -1.45 | -1.44 | -1.40 | -1.42 | -1.44 | -1.34 | -1.48 |
| AC133528.1 | -0.81 | -0.66 | -0.71 | -0.55 | -0.69 | -0.65 | -0.74 | -0.55 |
| AC133530.1 | -1.32 | -1.24 | -1.23 | -1.26 | -1.32 | -0.85 | -1.33 | -1.34 |
| AC133539.1 | -2.15 | -2.10 | -2.14 | -2.12 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC133550.1 | -0.22 | -0.21 | 0.18 | -0.31 | -0.25 | -0.17 | -0.08 | -0.13 |
| AC133550.2 | -1.28 | -1.27 | -1.12 | -1.15 | -1.27 | -1.26 | -1.22 | -1.13 |
| AC133552.1 | -1.96 | -1.99 | -1.95 | -1.99 | -1.99 | -1.97 | -2.00 | -2.01 |
| AC133552.2 | 1.79 | 1.44 | 1.49 | 1.55 | 1.50 | 1.18 | 1.45 | 1.15 |
| AC133552.3 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC133552.5 | 3.17 | 2.24 | 2.45 | 2.10 | 2.35 | 2.08 | 2.36 | 1.95 |
| AC133644.2 | -1.79 | -1.78 | -1.78 | -1.79 | -1.78 | -1.80 | -1.67 | -1.80 |
| AC133644.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AC133785.1 | -0.92 | -0.98 | -0.97 | -0.92 | -0.91 | -0.67 | -0.92 | -0.64 |
| AC133919.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC133965.1 | -1.64 | -1.58 | -1.63 | -1.59 | -1.56 | -1.65 | -1.59 | -1.66 |
| AC134043.1 | -1.79 | -1.70 | -1.78 | -1.79 | -1.79 | -1.78 | -1.79 | -1.81 |
| AC134050.1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.88 | -1.90 | -1.87 |
| AC134349.1 | -1.89 | -1.89 | -1.84 | -1.85 | -1.87 | -1.90 | -1.85 | -1.83 |
| AC134349.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.05 | -2.06 |
| AC134407.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 |
| AC134407.2 | -0.11 | -0.11 | -0.10 | -0.13 | -0.07 | -0.01 | -0.05 | -0.23 |
| AC134407.3 | -0.96 | -0.87 | -0.86 | -0.82 | -0.84 | -0.81 | -0.89 | -0.97 |
| AC134682.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC134772.1 | -0.44 | -0.27 | -0.11 | -0.31 | -0.24 | -0.31 | -0.23 | -0.46 |
| AC134775.1 | -2.23 | -2.25 | -2.23 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC134878.2 | 0.80 | 0.54 | 0.47 | 0.98 | 0.87 | 0.56 | 0.57 | 0.53 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC134879.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC135048.1 | 0.61 | 0.62 | 0.69 | 0.73 | 0.78 | 0.64 | 0.78 | 0.70 |
| AC135048.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC135048.3 | -0.42 | -0.57 | -0.48 | -0.51 | -0.57 | -0.49 | -0.39 | -0.53 |
| AC135048.4 | -1.84 | -1.79 | -1.83 | -1.85 | -1.79 | -1.85 | -1.85 | -1.82 |
| AC135050.1 | -0.69 | -0.98 | -0.97 | -0.99 | -0.87 | -0.99 | -0.99 | -1.00 |
| AC135050.3 | -1.65 | -1.69 | -1.73 | -1.74 | -1.73 | -1.75 | -1.70 | -1.76 |
| AC135050.5 | -2.15 | -2.14 | -2.14 | -2.13 | -2.13 | -2.15 | -2.15 | -2.16 |
| AC135050.6 | 3.18 | 3.14 | 2.87 | 2.88 | 2.60 | 2.55 | 2.77 | 2.61 |
| AC135050.7 | -0.63 | -0.63 | -0.03 | -0.64 | -0.39 | -0.44 | -0.56 | -0.53 |
| AC135178.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC135178.5 | -1.69 | -1.68 | -1.58 | -1.69 | -1.66 | -1.68 | -1.56 | -1.66 |
| AC135178.6 | 0.54 | 0.78 | 0.57 | 0.87 | 0.76 | 0.79 | 0.66 | 0.71 |
| AC135279.2 | -1.64 | -1.63 | -1.63 | -1.64 | -1.63 | -1.62 | -1.59 | -1.61 |
| AC135279.3 | -1.53 | -1.53 | -1.46 | -1.54 | -1.53 | -1.46 | -1.48 | -1.50 |
| AC135352.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC135457.1 | 1.36 | 0.90 | 1.11 | 1.03 | 1.67 | 1.26 | 1.15 | 1.37 |
| AC135506.1 | -1.75 | -1.79 | -1.78 | -1.79 | -1.72 | -1.75 | -1.79 | -1.72 |
| AC135507.1 | -0.64 | -0.47 | -0.54 | -0.57 | -0.55 | -0.61 | -0.16 | -0.65 |
| AC135507.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC135626.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC135628.1 | -1.44 | -1.37 | -1.42 | -1.44 | -1.37 | -1.39 | -1.38 | -1.46 |
| AC135782.1 | 1.28 | 1.14 | 1.18 | 1.37 | 1.38 | 1.01 | 0.95 | 1.09 |
| AC135782.3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC135803.1 | -1.80 | -1.84 | -1.83 | -1.80 | -1.84 | -1.81 | -1.85 | -1.86 |
| AC135893.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC135977.1 | -2.15 | -2.14 | -2.14 | -2.13 | -2.14 | -2.14 | -2.15 | -2.13 |
| AC135983.2 | 2.08 | 2.22 | 1.64 | 2.19 | 2.39 | 1.64 | 2.42 | 1.69 |
| AC136297.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC136428.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC136469.2 | -2.10 | -2.09 | -2.06 | -2.07 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC136475.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC136475.3 | -0.94 | -0.94 | -0.92 | -0.17 | -0.65 | -0.91 | -0.87 | -0.90 |
| AC136475.5 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC136475.6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC136489.1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.73 | -1.55 | -1.74 | -1.71 |
| AC136604.2 | -2.05 | -1.97 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| AC136604.3 | -0.81 | -0.94 | -1.00 | -0.90 | -0.91 | -0.84 | -0.95 | -0.98 |
| AC136628.3 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC136632.2 | 2.12 | 1.65 | 1.34 | 1.58 | 1.74 | 1.49 | 1.31 | 1.61 |
| AC137055.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC137561.1 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 | -2.14 | -2.13 | -2.16 |
| AC137579.1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| AC137590.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC137630.1 | -1.13 | -1.04 | -1.10 | -1.05 | -0.96 | -1.10 | -1.13 | -1.14 |
| AC137630.2 | -0.99 | -1.17 | -1.09 | -1.11 | -1.17 | -1.15 | -1.18 | -1.03 |
| AC137630.3 | -0.10 | 0.08 | -0.14 | -0.09 | -0.16 | -0.12 | -0.18 | -0.27 |
| AC137630.4 | 0.49 | 0.03 | 0.23 | 0.10 | 0.15 | 0.10 | 0.24 | 0.18 |
| AC137695.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.04 | -2.11 |
| AC137695.3 | 2.31 | 1.75 | 2.39 | 1.89 | 2.31 | 2.08 | 1.83 | 2.59 |
| AC137723.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.13 | -2.16 |
| AC137767.1 | 1.54 | 1.23 | 1.57 | 1.32 | 1.52 | 1.53 | 1.43 | 1.28 |
| AC137834.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC137894.3 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| AC137932.1 | -0.41 | -0.74 | -0.72 | -0.66 | -0.70 | -0.68 | -0.48 | -0.64 |
| AC137932.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| AC137932.3 | -0.93 | -1.00 | -0.91 | -1.00 | -0.96 | -0.88 | -0.87 | -0.82 |
| AC137936.1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.87 | -1.92 |
| AC137936.2 | -1.46 | -1.34 | -1.44 | -1.29 | -1.43 | -1.44 | -1.47 | -1.48 |
| AC138028.1 | -0.80 | -1.00 | -0.91 | -0.80 | -0.78 | -0.91 | -1.01 | -0.91 |
| AC138028.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AC138028.3 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC138028.4 | -2.05 | -2.04 | -2.04 | -2.05 | -2.05 | -2.06 | -2.01 | -2.07 |
| AC138028.6 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.95 |
| AC138123.1 | -1.64 | -1.52 | -1.57 | -1.53 | -1.61 | -1.65 | -1.65 | -1.67 |
| AC138150.1 | 1.22 | 1.08 | 1.59 | 1.39 | 1.39 | 1.51 | 1.52 | 1.60 |
| AC138150.2 | -0.10 | -0.25 | -0.05 | -0.11 | -0.06 | 0.11 | -0.11 | -0.12 |
| AC138207.2 | 0.03 | -0.04 | 0.07 | -0.13 | 0.00 | 0.21 | -0.13 | 0.02 |
| AC138207.3 | -2.01 | -2.04 | -2.04 | -1.98 | -2.03 | -2.05 | -2.02 | -2.03 |
| AC138207.4 | -0.17 | -0.35 | -0.43 | -0.37 | -0.29 | -0.34 | -0.52 | -0.42 |
| AC138207.7 | -2.25 | -2.23 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC138207.8 | 0.18 | -0.04 | 0.29 | -0.05 | 0.08 | 0.24 | 0.09 | 0.05 |
| AC138230.1 | -1.69 | -1.68 | -1.68 | -1.69 | -1.66 | -1.70 | -1.64 | -1.71 |
| AC138305.1 | 0.14 | 0.23 | 0.17 | -0.03 | -0.16 | -0.14 | -0.10 | -0.19 |
| AC138305.3 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC138356.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 |
| AC138356.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC138392.1 | -1.54 | -1.54 | -1.53 | -1.55 | -1.51 | -1.47 | -1.49 | -1.51 |
| AC138393.1 | 1.27 | 0.83 | 0.69 | 0.93 | 1.03 | 1.03 | 1.13 | 1.18 |
| AC138393.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC138393.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC138409.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC138409.2 | 0.23 | 0.24 | 0.59 | 0.22 | 0.36 | 0.18 | 0.53 | 0.04 |
| AC138409.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC138466.1 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 | -2.15 | -2.13 | -2.16 |
| AC138466.2 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 |
| AC138470.1 | -0.11 | -0.10 | -0.09 | 0.16 | -0.11 | -0.07 | -0.06 | -0.01 |
| AC138470.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC138473.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC138627.1 | -1.77 | -1.85 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.87 |
| AC138647.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AC138649.1 | 1.78 | 0.67 | 0.70 | 0.82 | 1.23 | 0.75 | 0.73 | 0.86 |
| AC138696.2 | 2.04 | 1.53 | 2.00 | 1.93 | 1.78 | 1.70 | 1.65 | 1.57 |
| AC138819.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC138904.1 | -1.64 | -1.48 | -1.57 | -1.54 | -1.58 | -1.62 | -1.54 | -1.66 |
| AC138932.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AC138932.3 | -1.74 | -1.74 | -1.68 | -1.74 | -1.74 | -1.73 | -1.70 | -1.71 |
| AC138965.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC139019.1 | 0.81 | 0.59 | 1.13 | 0.66 | 0.83 | 0.70 | 0.65 | 0.92 |
| AC139085.1 | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.88 | -1.86 | -1.91 |
| AC139100.2 | -0.50 | -0.48 | -0.36 | -0.37 | -0.48 | -0.58 | -0.57 | -0.59 |
| AC139143.1 | -2.31 | -2.30 | -2.26 | -2.31 | -2.30 | -2.31 | -2.31 | -2.32 |
| AC139256.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC139453.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC139491.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC139491.5 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC139491.7 | -2.15 | -2.12 | -2.14 | -2.15 | -2.11 | -2.15 | -2.15 | -2.16 |
| AC139493.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.69 | -1.85 | -1.85 | -1.86 |
| AC139530.1 | -1.23 | -1.35 | -1.28 | -1.36 | -1.26 | -1.31 | -1.36 | -1.27 |
| AC139530.2 | 3.30 | 2.55 | 2.25 | 2.85 | 2.53 | 2.50 | 2.44 | 2.64 |
| AC139530.4 | -0.60 | -0.52 | -0.56 | -0.63 | -0.61 | -0.66 | -0.76 | -0.65 |
| AC139700.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC139713.1 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC139720.1 | -1.40 | -1.40 | -1.39 | -1.28 | -1.33 | -1.26 | -1.41 | -1.42 |
| AC139722.1 | -1.99 | -1.99 | -1.95 | -1.99 | -1.99 | -1.97 | -2.00 | -2.01 |
| AC139768.1 | -0.51 | -0.50 | -0.56 | -0.43 | -0.62 | -0.54 | -0.60 | -0.40 |
| AC139768.2 | -0.89 | -0.88 | -0.86 | -0.38 | -0.75 | -0.71 | -0.72 | -0.84 |
| AC139769.1 | 2.00 | 1.64 | 2.15 | 1.50 | 1.55 | 1.54 | 2.73 | 2.13 |
| AC139769.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC139792.2 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| AC139792.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| AC139795.1 | -1.69 | -1.58 | -1.63 | -1.59 | -1.64 | -1.65 | -1.69 | -1.66 |
| AC139795.2 | -0.34 | -0.41 | -0.32 | -0.29 | -0.18 | -0.32 | -0.35 | -0.21 |
| AC139795.3 | -0.86 | -0.83 | -0.90 | -0.93 | -0.71 | -0.90 | -1.00 | -0.74 |
| AC139887.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC139887.2 | 3.37 | 3.07 | 3.05 | 3.47 | 3.67 | 3.21 | 3.43 | 3.60 |
| AC139887.4 | -2.04 | -2.01 | -2.04 | -1.99 | -2.04 | -2.05 | -2.05 | -2.03 |
| AC139887.5 | -1.52 | -1.57 | -1.50 | -1.57 | -1.57 | -1.53 | -1.58 | -1.59 |
| AC140076.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.00 | -2.02 | -2.05 | -2.03 |
| AC140125.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AC140479.2 | -2.30 | -2.30 | -2.30 | -2.28 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC140479.4 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AC140912.1 | -1.22 | -1.34 | -1.13 | -1.35 | -1.34 | -1.33 | -1.29 | -1.37 |
| AC141002.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC141424.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC141557.1 | -2.20 | -2.20 | -2.15 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC141586.1 | 1.85 | 1.79 | 1.57 | 1.79 | 1.60 | 1.79 | 1.65 | 2.15 |
| AC141586.3 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| AC141586.4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.18 | -2.20 | -2.17 |
| AC141586.5 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC142472.1 | 0.77 | 0.57 | 0.68 | 0.88 | 0.89 | 0.84 | 0.79 | 0.77 |
| AC144521.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AC144530.1 | 2.10 | 1.65 | 2.05 | 1.91 | 2.36 | 1.88 | 2.20 | 2.07 |
| AC144652.1 | 2.33 | 2.18 | 2.49 | 2.26 | 2.87 | 2.29 | 1.82 | 1.99 |
| AC144831.1 | -0.40 | -0.39 | -0.14 | -0.40 | -0.39 | -0.26 | -0.10 | -0.29 |
| AC144836.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 | -2.25 | -2.26 |
| AC145098.2 | -1.39 | -1.50 | -1.38 | -1.51 | -1.50 | -1.46 | -1.51 | -1.37 |
| AC145124.1 | -0.61 | -0.75 | -0.88 | -0.76 | -0.82 | -0.85 | -0.64 | -0.92 |
| AC145138.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC145207.2 | 2.22 | 1.98 | 2.40 | 2.13 | 2.07 | 1.79 | 1.78 | 1.97 |
| AC145207.3 | 3.24 | 3.52 | 3.83 | 3.89 | 4.14 | 3.55 | 3.63 | 3.90 |
| AC145207.4 | 0.78 | 0.59 | 0.79 | 0.49 | 0.79 | 0.63 | 0.48 | 1.11 |
| AC145207.5 | 2.36 | 2.88 | 3.08 | 2.76 | 2.65 | 2.91 | 2.83 | 2.44 |
| AC145207.6 | -1.69 | -1.73 | -1.73 | -1.70 | -1.71 | -1.68 | -1.70 | -1.76 |
| AC145207.8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC145207.9 | -1.22 | -1.21 | -0.96 | -1.08 | -1.02 | -1.12 | -1.02 | -1.05 |
| AC145285.1 | 1.34 | 1.58 | 1.21 | 1.37 | 1.30 | 1.30 | 1.18 | 1.38 |
| AC145285.2 | -1.59 | -1.54 | -1.58 | -1.60 | -1.51 | -1.53 | -1.60 | -1.52 |
| AC145285.3 | -0.81 | -0.81 | -0.79 | -0.67 | -0.77 | -0.54 | -0.74 | -0.71 |
| AC145285.6 | 1.39 | 1.04 | 1.50 | 1.26 | 1.33 | 1.22 | 1.04 | 0.99 |
| AC145343.1 | 1.34 | 1.01 | 0.88 | 0.90 | 1.07 | 1.20 | 0.90 | 0.99 |
| AC145422.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC145423.2 | -1.94 | -1.90 | -1.90 | -1.94 | -1.94 | -1.93 | -1.95 | -1.88 |
| AC145423.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC146507.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC146507.2 | -0.06 | 0.00 | 0.04 | -0.14 | -0.02 | -0.13 | -0.14 | 0.01 |
| AC146507.3 | -2.01 | -2.04 | -2.04 | -1.99 | -2.04 | -2.04 | -2.02 | -2.03 |
| AC147055.1 | -1.43 | -1.16 | -1.41 | -0.62 | -1.43 | -1.45 | -1.37 | -1.45 |
| AC147055.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC147055.4 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC147067.1 | 1.98 | 2.44 | 1.58 | 2.28 | 1.55 | 1.91 | 1.44 | 1.28 |
| AC147651.1 | 0.49 | 0.02 | 0.03 | 0.16 | 0.24 | 0.14 | 0.20 | 0.27 |
| AC147651.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC148476.1 | -1.89 | -1.85 | -1.88 | -1.89 | -1.87 | -1.75 | -1.89 | -1.91 |
| AC148477.2 | -2.30 | -2.30 | -2.28 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC148477.5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AC156455.1 | 0.22 | 1.82 | 1.03 | 2.14 | 0.38 | 0.62 | 0.21 | 0.17 |
| AC188617.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC207130.1 | -1.89 | -1.89 | -1.77 | -1.89 | -1.89 | -1.82 | -1.89 | -1.90 |
| AC209007.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AC211433.1 | -1.74 | -1.74 | -1.68 | -1.64 | -1.74 | -1.75 | -1.75 | -1.76 |
| AC211433.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC211476.2 | -1.41 | -1.41 | -1.33 | -1.35 | -1.27 | -1.39 | -1.29 | -1.37 |
| AC211485.1 | -2.20 | -2.18 | -2.15 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC211486.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| AC226118.1 | -1.90 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -1.94 |
| AC231533.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC231533.2 | -1.69 | -1.75 | -1.56 | -1.76 | -1.75 | -1.74 | -1.70 | -1.78 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC231981.1 | 0.96 | 0.63 | 1.11 | 0.76 | 0.71 | 0.89 | 0.68 | 0.96 |
| AC232271.1 | -1.59 | -1.58 | -1.46 | -1.48 | -1.53 | -1.60 | -1.60 | -1.61 |
| AC232271.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AC232271.3 | -1.99 | -1.99 | -1.92 | -1.96 | -1.97 | -2.00 | -2.00 | -2.01 |
| AC233266.2 | -1.64 | -1.64 | -1.63 | -1.65 | -1.59 | -1.63 | -1.65 | -1.67 |
| AC233279.1 | 0.60 | 0.95 | 0.48 | 0.74 | 0.87 | 0.67 | 0.72 | 0.89 |
| AC233280.1 | -1.38 | -1.37 | -1.36 | -1.32 | -1.34 | -1.36 | -1.39 | -1.18 |
| AC233289.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC233290.2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC233723.1 | 0.72 | 0.47 | 0.41 | 0.30 | 0.55 | 0.45 | 0.49 | 0.64 |
| AC233723.2 | -1.38 | -1.54 | -1.58 | -1.60 | -1.59 | -1.58 | -1.60 | -1.62 |
| AC233992.3 | -0.97 | -1.28 | -1.27 | -1.29 | -1.24 | -1.23 | -1.22 | -1.24 |
| AC234031.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC234582.1 | -0.48 | -0.32 | -0.15 | -0.34 | -0.44 | -0.47 | -0.35 | -0.46 |
| AC234644.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AC234644.2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC234772.2 | -1.79 | -1.74 | -1.73 | -1.79 | -1.79 | -1.73 | -1.80 | -1.81 |
| AC234775.2 | -2.10 | -2.06 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.11 |
| AC234775.3 | -1.89 | -1.85 | -1.80 | -1.81 | -1.87 | -1.88 | -1.90 | -1.87 |
| AC234778.1 | -1.31 | -1.30 | -1.29 | -1.31 | -1.33 | -1.35 | -1.37 | -1.33 |
| AC234781.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC234781.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AC234781.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC234917.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AC234917.3 | 1.18 | 1.13 | 0.86 | 1.11 | 1.18 | 0.95 | 0.72 | 0.94 |
| AC236972.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC239584.1 | 0.25 | 0.35 | 0.36 | 0.33 | 0.50 | 0.87 | 0.32 | 0.66 |
| AC239798.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AC239799.2 | -1.06 | -1.13 | -1.12 | -1.14 | -0.99 | -1.08 | -1.07 | -1.15 |
| AC239800.2 | 4.34 | 3.91 | 2.25 | 4.23 | 2.35 | 3.83 | 2.50 | 2.49 |
| AC239803.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC239803.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC239803.3 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.02 | -2.02 | -2.06 |
| AC239809.3 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AC241377.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC241520.1 | -1.08 | -1.07 | -0.93 | -1.15 | -1.14 | -1.09 | -1.02 | -1.16 |
| AC241584.1 | -0.54 | -0.75 | -0.74 | -0.69 | -0.63 | -0.73 | -0.69 | -0.77 |
| AC241584.2 | -1.79 | -1.79 | -1.78 | -1.75 | -1.76 | -1.73 | -1.75 | -1.81 |
| AC241585.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AC241952.1 | -0.82 | -0.73 | -0.80 | -0.60 | -0.70 | -0.72 | -0.61 | -0.72 |
| AC242376.2 | 1.41 | 1.27 | 1.28 | 1.48 | 1.02 | 1.22 | 1.52 | 1.11 |
| AC242426.2 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AC242843.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.95 | -1.94 | -2.00 |
| AC242988.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AC242988.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC243547.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC243571.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AC243585.2 | -1.74 | -1.73 | -1.73 | -1.65 | -1.69 | -1.72 | -1.65 | -1.71 |
| AC243654.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC243654.2 | -1.69 | -1.69 | -1.73 | -1.69 | -1.71 | -1.75 | -1.74 | -1.71 |
| AC243732.1 | -1.91 | -1.90 | -1.93 | -1.94 | -1.92 | -1.93 | -1.94 | -1.92 |
| AC243772.2 | -1.89 | -1.85 | -1.84 | -1.89 | -1.87 | -1.88 | -1.90 | -1.91 |
| AC243773.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC243829.1 | -2.14 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AC243829.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AC243830.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC243830.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC243830.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC243919.1 | 5.57 | 5.89 | 5.37 | 5.95 | 5.30 | 5.07 | 5.86 | 6.30 |
| AC243960.2 | -0.04 | -0.18 | -0.17 | 0.02 | -0.06 | -0.01 | -0.06 | -0.04 |
| AC243964.2 | 2.42 | 2.14 | 1.78 | 2.58 | 2.35 | 1.69 | 1.82 | 1.60 |
| AC243965.2 | -1.69 | -1.74 | -1.68 | -1.75 | -1.69 | -1.75 | -1.75 | -1.76 |
| AC243967.2 | -1.30 | -0.78 | -1.28 | -0.97 | -1.25 | -1.27 | -1.30 | -1.31 |
| AC243972.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| AC244021.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC244033.1 | -2.04 | -2.01 | -2.04 | -2.02 | -2.03 | -2.05 | -2.05 | -2.03 |
| AC244033.2 | 2.37 | 1.83 | 2.04 | 1.86 | 1.58 | 1.99 | 1.49 | 1.91 |
| AC244034.1 | -1.34 | -1.33 | -1.26 | -1.28 | -1.30 | -1.26 | -0.98 | -1.19 |
| AC244034.2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AC244034.3 | -0.01 | 0.08 | -0.07 | 0.04 | 0.04 | -0.08 | 0.10 | -0.02 |
| AC244035.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC244090.1 | 4.91 | 3.83 | 4.05 | 3.96 | 3.98 | 3.88 | 3.50 | 3.80 |
| AC244090.3 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.02 | -2.03 |
| AC244093.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC244093.2 | -1.24 | -1.16 | -1.15 | -1.18 | -1.24 | -1.33 | -1.25 | -1.28 |
| AC244093.3 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.04 | -2.02 | -2.03 |
| AC244093.4 | -1.74 | -1.73 | -1.73 | -1.70 | -1.71 | -1.72 | -1.74 | -1.76 |
| AC244100.3 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC244153.1 | 0.94 | 0.96 | 1.76 | 1.19 | 1.36 | 3.09 | 1.24 | 1.94 |
| AC244154.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| AC244197.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AC244213.1 | -1.59 | -1.58 | -1.57 | -1.59 | -1.58 | -1.60 | -1.59 | -1.61 |
| AC244250.1 | -2.25 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC244258.1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AC244394.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.05 | -2.03 | -2.01 | -2.02 |
| AC244453.2 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC244502.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.10 | -2.16 |
| AC244517.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC244517.6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AC244636.3 | -2.20 | -2.20 | -2.19 | -2.16 | -2.20 | -2.20 | -2.18 | -2.19 |
| AC244669.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC245014.1 | -2.21 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC245041.1 | -1.18 | -1.25 | -0.93 | -1.06 | -1.25 | -1.20 | -1.19 | -1.27 |
| AC245041.2 | 1.38 | 1.85 | 2.03 | 1.83 | 1.45 | 2.18 | 1.62 | 1.82 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AC245052.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AC245052.4 | -1.80 | -1.79 | -1.83 | -1.80 | -1.80 | -1.83 | -1.84 | -1.86 |
| AC245054.2 | -0.98 | -1.12 | -1.03 | -1.06 | -1.08 | -1.07 | -1.00 | -1.08 |
| AC245060.4 | 2.50 | 2.35 | 2.19 | 2.61 | 2.56 | 2.26 | 2.19 | 2.91 |
| AC245060.5 | 2.97 | 3.86 | 4.37 | 3.85 | 2.97 | 3.21 | 4.26 | 2.52 |
| AC245060.6 | -1.80 | -1.79 | -1.83 | -1.84 | -1.84 | -1.85 | -1.85 | -1.82 |
| AC245060.7 | 2.80 | 3.25 | 2.80 | 2.93 | 2.73 | 2.72 | 3.09 | 3.19 |
| AC245100.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC245100.4 | -0.19 | -0.18 | -0.40 | -0.14 | -0.26 | -0.20 | -0.35 | -0.26 |
| AC245100.7 | -0.68 | -0.90 | -0.71 | -0.83 | -0.82 | -0.84 | -0.90 | -0.85 |
| AC245100.8 | 0.70 | 0.66 | 0.59 | 0.56 | 0.64 | 0.74 | 0.48 | 0.43 |
| AC245102.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AC245140.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AC245140.2 | 2.00 | 1.64 | 1.49 | 1.82 | 1.58 | 1.75 | 1.64 | 1.56 |
| AC245297.2 | -2.07 | -2.09 | -2.09 | -2.07 | -2.09 | -2.08 | -2.10 | -2.08 |
| AC245297.3 | 0.19 | 0.28 | 0.13 | 0.56 | 0.03 | 0.01 | 0.25 | -0.01 |
| AC245407.2 | 2.14 | 2.25 | 2.44 | 2.41 | 2.89 | 2.04 | 2.40 | 2.22 |
| AC245427.2 | -2.12 | -2.15 | -2.14 | -2.13 | -2.15 | -2.13 | -2.15 | -2.16 |
| AC245452.1 | 1.02 | 1.38 | 0.95 | 1.63 | 0.89 | 1.16 | 0.90 | 1.15 |
| AC245884.10 | -1.96 | -1.99 | -1.98 | -1.96 | -1.96 | -2.00 | -2.00 | -2.01 |
| AC245884.8 | -0.92 | -1.05 | -1.11 | -0.99 | -1.12 | -1.02 | -1.00 | -1.08 |
| AC246785.3 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AC246787.1 | 3.01 | 3.36 | 2.79 | 3.49 | 4.20 | 3.63 | 3.58 | 3.55 |
| AC246817.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AC253536.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AC253536.4 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| AC253536.6 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.02 | -2.05 | -2.06 |
| AC253572.1 | -0.50 | -0.56 | -0.37 | -0.58 | -0.61 | -0.49 | -0.58 | -0.67 |
| AC253576.2 | -1.35 | -1.28 | -1.27 | -1.36 | -1.35 | -1.27 | -1.23 | -1.07 |
| AC254562.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.79 | -1.90 |
| AC254562.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AC254629.1 | -1.07 | -1.07 | -1.05 | -1.07 | -0.95 | -1.05 | -1.00 | -1.03 |
| AC254633.1 | -1.12 | -1.04 | -0.96 | -1.05 | -1.12 | -1.01 | -0.99 | -1.14 |
| ACAA1 | 7.33 | 6.80 | 6.25 | 6.89 | 6.55 | 6.75 | 7.04 | 7.14 |
| ACAA2 | 6.02 | 4.30 | 6.57 | 4.56 | 6.35 | 5.77 | 5.80 | 4.99 |
| ACACA | 5.88 | 5.84 | 6.38 | 5.85 | 6.20 | 6.02 | 6.39 | 6.06 |
| ACACB | 2.18 | 2.49 | 2.78 | 2.69 | 2.07 | 1.89 | 3.03 | 2.04 |
| ACAD10 | 3.28 | 3.83 | 4.53 | 4.32 | 3.76 | 3.53 | 4.23 | 3.41 |
| ACAD11 | -1.64 | -1.68 | -1.68 | -1.69 | -1.66 | -1.67 | -1.60 | -1.71 |
| ACAD8 | 4.16 | 4.28 | 4.65 | 4.53 | 4.88 | 4.42 | 4.24 | 4.77 |
| ACAD9 | 4.57 | 4.51 | 5.44 | 4.53 | 4.46 | 4.74 | 4.69 | 5.06 |
| ACADL | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.08 |
| ACADM | 5.13 | 5.72 | 5.33 | 5.89 | 5.60 | 5.38 | 5.28 | 5.61 |
| ACADS | 4.89 | 4.94 | 5.44 | 5.44 | 5.11 | 4.88 | 6.09 | 5.42 |
| ACADSB | 3.79 | 3.65 | 3.63 | 3.10 | 3.40 | 2.94 | 3.85 | 3.20 |
| ACADVL | 7.78 | 6.94 | 8.20 | 7.51 | 7.83 | 7.55 | 8.52 | 8.00 |
| ACAP1 | 2.52 | 2.15 | 2.78 | 2.15 | 2.54 | 2.20 | 2.18 | 1.87 |
| ACAP2 | 6.30 | 6.74 | 6.24 | 6.30 | 6.30 | 6.34 | 6.59 | 7.18 |
| ACAP2-IT1 | -1.69 | -1.69 | -1.58 | -1.64 | -1.69 | -1.70 | -1.60 | -1.66 |
| ACAP3 | 5.29 | 5.07 | 5.22 | 5.82 | 4.90 | 5.20 | 5.74 | 4.86 |
| ACAT1 | 7.12 | 6.69 | 7.00 | 7.09 | 7.19 | 6.07 | 6.48 | 5.76 |
| ACAT2 | 8.79 | 7.58 | 7.25 | 7.98 | 7.75 | 8.00 | 8.73 | 8.26 |
| ACBD3 | 7.74 | 7.88 | 7.54 | 7.93 | 8.42 | 8.32 | 7.92 | 8.83 |
| ACBD3-AS1 | -0.73 | -0.64 | -0.71 | -0.73 | -0.46 | -0.42 | -0.52 | -0.62 |
| ACBD4 | 4.75 | 4.36 | 4.96 | 4.72 | 5.57 | 4.83 | 5.12 | 4.87 |
| ACBD5 | 4.85 | 5.56 | 5.24 | 5.35 | 5.67 | 5.70 | 5.76 | 5.28 |
| ACBD6 | 6.75 | 6.09 | 5.87 | 6.46 | 6.48 | 6.74 | 5.78 | 6.52 |
| ACBD7 | 1.33 | 1.55 | 1.72 | 1.74 | 1.64 | 1.87 | 1.21 | 1.02 |
| ACCS | 1.98 | 2.12 | 2.09 | 2.22 | 2.04 | 1.75 | 1.99 | 1.97 |
| ACD | 6.00 | 4.86 | 5.73 | 5.08 | 5.35 | 5.23 | 4.73 | 4.87 |
| ACE | 2.89 | 3.41 | 2.53 | 3.68 | 2.39 | 2.22 | 3.26 | 2.43 |
| ACE2 | -1.24 | -1.16 | -1.22 | -1.11 | -1.30 | -1.32 | -1.31 | -1.32 |
| ACER2 | -0.49 | -0.40 | -0.39 | -0.49 | -0.36 | -0.31 | -0.28 | -0.45 |
| ACER3 | 5.62 | 5.51 | 5.36 | 5.26 | 5.36 | 4.91 | 5.95 | 4.95 |
| ACHE | 1.29 | 1.23 | 1.37 | 1.43 | 2.12 | 1.15 | 1.34 | 1.23 |
| ACIN1 | 6.33 | 6.82 | 6.93 | 7.28 | 7.12 | 7.23 | 7.11 | 6.77 |
| ACKR2 | 0.24 | 0.26 | 0.19 | 0.30 | 0.37 | 0.33 | 0.56 | 0.32 |
| ACKR3 | -1.12 | -1.11 | -1.10 | -1.12 | -1.07 | -1.13 | -1.12 | -1.07 |
| ACKR4 | 0.22 | 0.47 | 0.34 | 0.43 | 0.38 | 0.42 | 0.61 | 0.94 |
| ACLY | 7.21 | 6.65 | 7.16 | 6.51 | 6.92 | 6.85 | 7.68 | 6.57 |
| ACMSD | -0.83 | -0.82 | -0.81 | -0.75 | -0.78 | -0.76 | -0.62 | -0.84 |
| ACO1 | 5.03 | 6.02 | 5.50 | 5.77 | 4.56 | 5.57 | 6.20 | 4.71 |
| ACO2 | 6.57 | 6.63 | 6.76 | 6.90 | 6.23 | 6.42 | 6.88 | 6.85 |
| ACOD1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ACOT1 | -0.67 | -0.75 | -0.66 | -0.76 | -0.75 | -0.77 | -0.39 | -0.77 |
| ACOT11 | 3.34 | 4.00 | 3.66 | 4.21 | 3.43 | 3.29 | 4.20 | 3.20 |
| ACOT12 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ACOT13 | 7.77 | 6.91 | 6.61 | 7.33 | 6.80 | 7.16 | 6.77 | 8.41 |
| ACOT2 | 2.18 | 2.77 | 2.37 | 3.01 | 3.10 | 2.70 | 3.01 | 2.15 |
| ACOT4 | 2.03 | 2.24 | 2.03 | 2.36 | 2.75 | 2.87 | 2.48 | 2.58 |
| ACOT6 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| ACOT7 | 7.44 | 5.96 | 6.55 | 6.31 | 5.81 | 7.02 | 5.96 | 5.38 |
| ACOT8 | 6.98 | 5.60 | 5.57 | 5.53 | 5.95 | 5.95 | 5.67 | 6.14 |
| ACOT9 | 6.17 | 6.21 | 6.28 | 5.90 | 6.34 | 5.88 | 5.84 | 5.55 |
| ACOX1 | 6.01 | 5.89 | 6.28 | 6.20 | 6.52 | 6.29 | 6.65 | 6.43 |
| ACOX2 | -0.17 | -0.39 | -0.30 | -0.12 | -0.24 | -0.38 | -0.41 | 0.00 |
| ACOX3 | 3.08 | 2.67 | 3.02 | 2.90 | 2.96 | 3.29 | 3.26 | 3.80 |
| ACOXL | -1.65 | -1.73 | -1.73 | -1.74 | -1.71 | -1.66 | -1.74 | -1.76 |
| ACOXL-AS1 | -1.84 | -1.80 | -1.83 | -1.84 | -1.84 | -1.85 | -1.80 | -1.82 |
| ACP1 | 9.23 | 8.22 | 7.55 | 8.55 | 8.34 | 8.57 | 7.95 | 8.72 |
| ACP2 | 5.23 | 5.01 | 5.06 | 5.02 | 4.84 | 4.64 | 4.65 | 5.28 |
| ACP5 | 2.65 | 2.57 | 2.80 | 2.55 | 3.05 | 4.12 | 2.98 | 3.15 |
| ACP6 | 5.48 | 5.59 | 5.72 | 6.09 | 5.40 | 6.30 | 4.72 | 5.70 |
| ACP7 | -0.11 | -0.22 | -0.20 | -0.32 | -0.31 | 0.18 | -0.25 | -0.34 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ACPP | 1.53 | 1.56 | 1.41 | 1.76 | 1.98 | 1.53 | 1.37 | 1.87 |
| ACRBP | 0.88 | 0.55 | 0.50 | 0.66 | 1.51 | 0.45 | 0.59 | 0.58 |
| ACRV1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ACSBG1 | 1.20 | 1.10 | 1.29 | 1.47 | 1.34 | 1.10 | 0.98 | 1.08 |
| ACSF2 | 4.45 | 3.80 | 4.57 | 3.67 | 4.49 | 5.19 | 3.80 | 4.69 |
| ACSF3 | 4.77 | 3.87 | 4.96 | 4.19 | 4.67 | 4.56 | 4.19 | 4.36 |
| ACSL1 | 5.49 | 6.54 | 6.45 | 6.43 | 6.76 | 5.44 | 6.25 | 6.09 |
| ACSL3 | 7.75 | 8.47 | 7.97 | 8.01 | 7.80 | 8.45 | 8.55 | 7.80 |
| ACSL4 | 5.75 | 6.06 | 6.43 | 5.63 | 7.12 | 5.63 | 6.61 | 5.53 |
| ACSL5 | 6.63 | 6.51 | 7.24 | 6.72 | 7.05 | 7.11 | 7.55 | 6.24 |
| ACSL6 | -0.24 | -0.32 | -0.31 | -0.24 | 0.07 | -0.30 | -0.04 | -0.28 |
| ACSM1 | -0.75 | -0.16 | -0.56 | -0.41 | -0.66 | -0.53 | -0.75 | -0.59 |
| ACSM2A | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| ACSM3 | 3.45 | 3.05 | 3.26 | 3.44 | 3.35 | 3.06 | 2.62 | 3.01 |
| ACSS1 | 4.28 | 5.06 | 3.43 | 4.99 | 4.97 | 3.58 | 2.99 | 2.79 |
| ACSS2 | 6.12 | 6.21 | 6.42 | 5.66 | 7.14 | 5.69 | 7.95 | 6.84 |
| ACSS3 | -0.13 | 0.11 | 0.71 | -0.05 | -0.04 | -0.03 | 0.10 | 0.78 |
| ACTA1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ACTA2 | 2.31 | 3.29 | 2.35 | 3.39 | 3.10 | 2.43 | 3.26 | 2.21 |
| ACTA2-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| ACTB | 11.25 | 11.07 | 10.85 | 11.07 | 10.96 | 11.35 | 10.99 | 11.66 |
| ACTBL2 | -1.63 | -1.69 | -1.56 | -1.70 | -1.66 | -1.71 | -1.64 | -1.72 |
| ACTBP1 | -2.24 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ACTBP13 | -1.49 | -1.54 | -1.53 | -1.55 | -1.54 | -1.56 | -1.44 | -1.57 |
| ACTBP2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -1.97 |
| ACTBP8 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| ACTBP9 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 |
| ACTG1 | 11.38 | 11.19 | 11.44 | 10.97 | 10.94 | 11.51 | 11.44 | 11.46 |
| ACTG1P14 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.06 |
| ACTG1P17 | -0.39 | -0.59 | -0.57 | -0.68 | -0.64 | -0.51 | -0.61 | -0.64 |
| ACTG1P20 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| ACTG1P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| ACTL10 | 3.32 | 3.27 | 2.55 | 3.24 | 2.53 | 2.61 | 2.05 | 2.42 |
| ACTL6A | 7.40 | 6.38 | 6.91 | 6.83 | 6.64 | 6.87 | 6.10 | 7.51 |
| ACTL8 | -1.05 | -1.05 | -0.88 | -0.54 | -1.05 | -1.02 | -1.05 | -1.06 |
| ACTN1 | 6.88 | 7.96 | 8.13 | 7.85 | 7.49 | 7.59 | 7.93 | 6.44 |
| ACTN1-AS1 | -1.89 | -1.89 | -1.84 | -1.85 | -1.83 | -1.88 | -1.90 | -1.91 |
| ACTN2 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ACTN4 | 8.70 | 9.04 | 9.33 | 8.73 | 9.30 | 9.38 | 9.42 | 8.86 |
| ACTN4P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| ACTR10 | 5.61 | 6.37 | 5.86 | 6.32 | 6.57 | 6.16 | 5.83 | 6.04 |
| ACTR1A | 6.33 | 6.31 | 6.09 | 6.20 | 5.83 | 6.30 | 6.12 | 5.87 |
| ACTR1B | 5.83 | 5.95 | 5.83 | 6.06 | 5.72 | 5.31 | 6.08 | 5.86 |
| ACTR2 | 7.73 | 8.06 | 7.86 | 7.87 | 8.25 | 7.88 | 8.27 | 8.32 |
| ACTR3 | 7.11 | 7.03 | 6.79 | 6.98 | 7.44 | 7.10 | 7.31 | 7.38 |
| ACTR3B | 3.11 | 3.55 | 3.32 | 3.74 | 4.38 | 3.68 | 3.64 | 3.82 |
| ACTR3C | 2.53 | 2.29 | 1.87 | 2.16 | 2.01 | 2.44 | 2.07 | 2.82 |
| ACTR5 | 4.06 | 3.78 | 3.77 | 3.59 | 3.85 | 3.74 | 3.61 | 3.03 |
| ACTR6 | 4.93 | 4.86 | 5.02 | 4.85 | 5.43 | 5.43 | 5.04 | 5.77 |
| ACTR8 | 4.18 | 3.83 | 3.96 | 4.34 | 4.01 | 4.36 | 4.11 | 4.02 |
| ACTRT3 | 0.35 | 0.12 | 0.18 | 0.23 | 0.18 | 0.14 | 0.01 | 0.39 |
| ACVR1 | 3.65 | 3.75 | 3.76 | 4.00 | 3.79 | 3.95 | 4.07 | 4.26 |
| ACVR1B | 4.44 | 3.97 | 4.84 | 4.55 | 3.96 | 4.38 | 4.53 | 4.30 |
| ACVR1C | 2.44 | 2.28 | 2.20 | 2.05 | 1.83 | 1.98 | 2.26 | 1.57 |
| ACVR2A | 3.87 | 4.04 | 4.12 | 3.82 | 3.81 | 3.65 | 4.15 | 4.02 |
| ACVR2B | 2.18 | 2.30 | 2.21 | 2.23 | 2.87 | 2.74 | 2.58 | 2.10 |
| ACVR2B-AS1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -1.97 |
| ACVRL1 | -0.40 | -0.63 | -0.54 | -0.57 | -0.55 | -0.58 | -0.64 | -0.66 |
| ACY1 | 1.38 | 1.66 | 1.19 | 1.58 | 1.21 | 1.21 | 1.15 | 1.46 |
| ACY3 | 2.42 | 3.42 | 2.27 | 3.48 | 2.42 | 1.97 | 2.04 | 1.99 |
| ACYP1 | 7.09 | 5.43 | 5.79 | 5.57 | 6.59 | 5.97 | 6.00 | 5.66 |
| ACYP2 | 5.26 | 5.71 | 4.82 | 5.84 | 5.66 | 5.41 | 5.09 | 5.34 |
| AD000090.1 | -1.06 | -1.13 | -1.11 | -0.99 | -1.05 | -1.11 | -1.14 | -1.15 |
| AD000671.3 | -0.11 | -0.03 | -0.08 | -0.06 | -0.08 | -0.17 | -0.01 | -0.22 |
| AD000813.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AD000864.1 | -1.85 | -1.85 | -1.88 | -1.89 | -1.85 | -1.88 | -1.89 | -1.91 |
| AD001527.1 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AD001527.2 | -0.97 | -0.75 | -0.87 | -0.90 | -0.96 | -0.88 | -0.83 | -0.98 |
| ADA | 4.74 | 3.64 | 3.24 | 3.37 | 4.17 | 4.00 | 3.13 | 3.99 |
| ADA2 | -0.74 | -0.74 | -0.44 | -0.75 | -0.74 | -0.72 | -0.66 | -0.77 |
| ADAL | 4.22 | 3.79 | 3.72 | 4.04 | 4.24 | 3.41 | 4.25 | 3.53 |
| ADAM10 | 7.52 | 7.56 | 7.72 | 7.25 | 7.32 | 7.17 | 7.32 | 8.02 |
| ADAM11 | -1.79 | -1.79 | -1.69 | -1.75 | -1.74 | -1.75 | -1.79 | -1.81 |
| ADAM12 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ADAM15 | 6.91 | 7.04 | 7.59 | 7.04 | 7.20 | 7.54 | 7.83 | 7.31 |
| ADAM17 | 5.69 | 5.39 | 6.12 | 5.01 | 5.05 | 5.61 | 5.69 | 6.53 |
| ADAM18 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ADAM19 | 2.01 | 2.34 | 2.50 | 2.02 | 2.61 | 4.81 | 2.11 | 2.67 |
| ADAM2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ADAM20 | -1.32 | -1.38 | -1.24 | -1.33 | -1.25 | -1.34 | -1.40 | -1.41 |
| ADAM20P1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| ADAM21 | -1.84 | -1.83 | -1.83 | -1.84 | -1.82 | -1.79 | -1.84 | -1.85 |
| ADAM22 | -0.49 | -0.40 | 0.00 | -0.35 | -0.44 | -0.48 | -0.50 | -0.53 |
| ADAM23 | -0.80 | -0.62 | -0.79 | -0.73 | -0.64 | 0.00 | -0.81 | -0.75 |
| ADAM28 | 3.85 | 4.69 | 6.06 | 4.53 | 3.67 | 4.21 | 4.54 | 3.62 |
| ADAM32 | 0.42 | 0.59 | 0.79 | 0.55 | 0.75 | 0.71 | 0.77 | 0.56 |
| ADAM33 | -1.27 | -1.59 | -1.53 | -1.60 | -1.56 | -1.60 | -1.60 | -1.61 |
| ADAM5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| ADAM8 | 4.02 | 4.63 | 4.82 | 4.27 | 4.59 | 5.31 | 3.55 | 5.71 |
| ADAM9 | 7.00 | 8.33 | 8.94 | 7.98 | 6.79 | 8.10 | 8.14 | 8.02 |
| ADAMTS1 | 0.56 | 1.06 | 0.70 | 1.29 | 0.62 | 0.54 | 0.93 | 0.71 |
| ADAMTS12 | -2.25 | -2.25 | -2.19 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| ADAMTS13 | 0.53 | 0.69 | 0.73 | 0.72 | 0.58 | 0.61 | 0.86 | 0.57 |
| ADAMTS14 | 0.99 | 1.24 | 1.30 | 1.05 | 1.59 | 1.87 | 0.96 | 1.09 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ADAMTS15 | -0.52 | -0.20 | -0.19 | -0.44 | -0.51 | -0.09 | -0.45 | 0.04 |
| ADAMTS16 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| ADAMTS17 | -0.45 | -0.28 | -0.43 | -0.18 | -0.26 | -0.54 | -0.46 | -0.55 |
| ADAMTS2 | -1.11 | -1.10 | -1.09 | -1.11 | -1.11 | -0.90 | -1.12 | -0.85 |
| ADAMTS3 | -2.15 | -2.14 | -2.14 | -2.15 | -2.14 | -2.15 | -2.15 | -2.06 |
| ADAMTS4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| ADAMTS5 | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 | -2.00 | -2.00 | -1.97 |
| ADAMTS6 | 1.35 | 2.33 | 2.26 | 2.74 | 1.78 | 1.42 | 1.96 | 1.24 |
| ADAMTS7 | 1.73 | 1.83 | 1.32 | 1.82 | 1.30 | 1.34 | 1.52 | 1.21 |
| ADAMTS7P3 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.03 |
| ADAMTS7P4 | -1.91 | -1.90 | -1.93 | -1.91 | -1.94 | -1.93 | -1.95 | -1.92 |
| ADAMTS9 | 2.27 | 3.33 | 2.41 | 2.91 | 2.57 | 2.78 | 3.57 | 2.16 |
| ADAMTS9-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ADAMTS9-AS2 | -1.54 | -1.54 | -1.53 | -1.55 | -1.51 | -1.55 | -1.42 | -1.57 |
| ADAMTSL2 | -1.59 | -1.24 | -1.63 | -1.48 | -1.61 | -1.62 | -1.65 | -1.66 |
| ADAMTSL3 | -1.50 | -1.50 | -1.49 | -1.51 | -1.50 | -1.52 | -1.33 | -1.53 |
| ADAMTSL4 | 2.12 | 2.03 | 2.20 | 1.90 | 2.71 | 2.03 | 2.92 | 2.79 |
| ADAMTSL4-AS1 | -0.18 | 0.03 | 0.01 | -0.26 | -0.10 | -0.16 | -0.07 | -0.22 |
| ADAMTSL5 | 2.16 | 1.79 | 2.39 | 2.12 | 2.40 | 2.51 | 2.22 | 2.03 |
| ADAP1 | 7.36 | 7.20 | 6.66 | 7.38 | 7.40 | 6.76 | 6.17 | 6.92 |
| ADAP2 | 1.31 | 1.16 | 0.67 | 1.02 | 0.95 | 0.85 | 0.91 | 0.71 |
| ADAR | 7.20 | 6.91 | 7.06 | 6.64 | 6.85 | 7.00 | 7.00 | 6.88 |
| ADARB1 | 3.06 | 2.17 | 2.25 | 2.49 | 2.30 | 3.04 | 2.36 | 2.20 |
| ADAT1 | 4.61 | 4.32 | 5.35 | 4.18 | 4.07 | 4.22 | 4.59 | 4.49 |
| ADAT2 | 3.91 | 3.76 | 3.30 | 3.44 | 3.20 | 3.43 | 3.58 | 2.94 |
| ADAT3 | -1.36 | -1.35 | -1.34 | -1.24 | -1.35 | -1.31 | -1.36 | -1.32 |
| ADCK1 | 2.60 | 2.50 | 2.91 | 3.10 | 2.86 | 2.42 | 2.59 | 2.28 |
| ADCK2 | 4.41 | 5.17 | 5.31 | 5.30 | 5.06 | 4.49 | 5.00 | 4.27 |
| ADCK5 | 4.57 | 3.53 | 4.28 | 3.83 | 3.89 | 3.70 | 3.85 | 3.76 |
| ADCY1 | 0.32 | 0.60 | 0.13 | 0.80 | 0.08 | 0.01 | 0.16 | 0.06 |
| ADCY10 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ADCY10P1 | 0.75 | 0.84 | 0.73 | 0.60 | 0.69 | 0.91 | 0.96 | 0.77 |
| ADCY3 | 4.83 | 4.33 | 4.98 | 4.73 | 3.68 | 3.85 | 4.05 | 3.58 |
| ADCY4 | -0.63 | -0.54 | -0.34 | -0.28 | -0.50 | -0.50 | -0.41 | -0.65 |
| ADCY5 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -1.93 | -2.01 |
| ADCY6 | 5.07 | 5.03 | 5.69 | 5.65 | 4.78 | 5.16 | 5.97 | 5.51 |
| ADCY7 | 1.86 | 1.74 | 2.10 | 1.61 | 1.79 | 1.51 | 1.39 | 2.17 |
| ADCY8 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| ADCY9 | 3.08 | 2.92 | 3.36 | 2.73 | 2.45 | 2.62 | 3.23 | 2.28 |
| ADD1 | 5.67 | 6.44 | 6.50 | 6.46 | 5.77 | 6.13 | 6.54 | 6.28 |
| ADD2 | -0.82 | -1.04 | -0.94 | -1.05 | -1.04 | -1.05 | -0.97 | -1.00 |
| ADD3 | 6.49 | 7.06 | 6.85 | 6.71 | 5.83 | 6.53 | 7.68 | 6.59 |
| ADD3-AS1 | -0.33 | -0.60 | -0.67 | -0.54 | -0.68 | -0.69 | -0.42 | -0.64 |
| ADGRA1 | -1.60 | -1.59 | -1.58 | -1.54 | -1.59 | -1.58 | -1.21 | -1.63 |
| ADGRA1-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| ADGRA2 | -0.35 | -0.19 | -0.34 | -0.29 | -0.23 | -0.38 | -0.51 | -0.46 |
| ADGRA3 | 4.30 | 5.11 | 5.32 | 5.09 | 4.12 | 4.85 | 5.31 | 4.82 |
| ADGRB1 | -1.96 | -1.99 | -1.91 | -2.00 | -1.95 | -1.95 | -2.00 | -2.01 |
| ADGRB2 | 1.27 | 0.81 | 1.23 | 0.63 | 0.77 | 1.00 | 0.55 | 0.76 |
| ADGRD1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| ADGRD2 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.00 | -2.02 | -2.06 |
| ADGRE1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.95 |
| ADGRE2 | -0.93 | -0.42 | -0.91 | -0.78 | -0.93 | -0.90 | -0.86 | -0.95 |
| ADGRE5 | 5.47 | 6.77 | 6.68 | 6.50 | 6.58 | 6.38 | 5.89 | 5.59 |
| ADGRF1 | 6.41 | 6.43 | 6.01 | 5.82 | 5.66 | 6.46 | 7.51 | 7.07 |
| ADGRF2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ADGRF3 | -1.85 | -1.85 | -1.88 | -1.89 | -1.89 | -1.86 | -1.89 | -1.91 |
| ADGRF4 | 1.01 | 1.54 | 1.73 | 1.44 | 1.31 | 1.95 | 1.53 | 1.00 |
| ADGRF5 | -1.12 | -1.03 | -1.10 | -1.04 | -1.12 | -1.02 | -1.05 | -1.07 |
| ADGRG1 | 7.50 | 7.60 | 7.23 | 7.59 | 6.15 | 6.54 | 6.13 | 7.45 |
| ADGRG2 | -0.21 | -0.04 | -0.09 | 0.15 | -0.16 | -0.18 | 0.45 | -0.23 |
| ADGRG5 | 0.07 | 0.31 | 0.27 | 0.14 | 0.34 | 0.47 | 0.06 | 0.10 |
| ADGRG6 | 4.32 | 5.17 | 5.09 | 5.08 | 5.54 | 5.01 | 6.14 | 4.40 |
| ADGRG7 | 0.29 | 0.31 | 1.23 | 0.21 | 0.22 | 0.36 | 0.28 | 0.24 |
| ADGRL1 | 4.99 | 5.20 | 6.56 | 5.27 | 4.81 | 4.73 | 5.97 | 3.72 |
| ADGRL2 | 2.89 | 2.19 | 2.76 | 2.17 | 2.24 | 4.04 | 3.14 | 3.25 |
| ADGRL3 | 0.91 | 2.45 | 1.06 | 2.82 | 1.22 | 2.18 | 0.80 | 0.81 |
| ADGRL4 | -1.92 | -1.92 | -1.91 | -1.92 | -1.92 | -1.93 | -1.92 | -1.69 |
| ADGRV1 | 0.91 | 1.03 | 1.22 | 0.91 | 2.22 | 0.98 | 1.12 | 0.97 |
| ADH1A | -1.62 | -1.62 | -1.61 | -1.63 | -1.57 | -1.64 | -1.63 | -1.65 |
| ADH1C | -0.36 | -0.18 | -0.24 | -0.37 | 0.02 | -0.38 | -0.37 | -0.39 |
| ADH4 | -1.79 | -1.79 | -1.78 | -1.79 | -1.79 | -1.80 | -1.80 | -1.76 |
| ADH5 | 6.41 | 6.22 | 6.48 | 5.99 | 6.01 | 7.39 | 6.16 | 7.09 |
| ADH5P3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ADH5P4 | -1.79 | -1.78 | -1.78 | -1.79 | -1.76 | -1.80 | -1.79 | -1.76 |
| ADH6 | 0.85 | 1.65 | 0.90 | 1.25 | 0.99 | 0.90 | 1.87 | 0.79 |
| ADHFE1 | 0.04 | 0.12 | 0.08 | 0.03 | 0.18 | -0.02 | 0.17 | 0.36 |
| ADI1 | 8.27 | 8.34 | 7.15 | 8.51 | 7.10 | 7.94 | 7.47 | 8.76 |
| ADIPOR1 | 7.98 | 7.13 | 6.99 | 7.39 | 7.82 | 7.89 | 6.84 | 8.23 |
| ADIPOR2 | 6.25 | 5.87 | 6.84 | 5.67 | 5.60 | 5.46 | 6.50 | 6.54 |
| ADIRF | 11.63 | 8.43 | 9.30 | 9.25 | 9.63 | 9.78 | 9.67 | 10.37 |
| ADIRF-AS1 | 3.28 | 2.12 | 2.63 | 2.13 | 2.46 | 2.65 | 2.21 | 2.65 |
| ADK | 6.26 | 6.27 | 5.92 | 6.49 | 6.99 | 6.94 | 5.97 | 6.32 |
| ADM | 4.97 | 5.95 | 6.85 | 4.74 | 4.91 | 4.84 | 5.35 | 4.96 |
| ADM2 | 2.54 | 2.89 | 2.27 | 3.17 | 2.64 | 2.55 | 3.61 | 4.21 |
| ADM5 | 0.75 | 1.00 | 1.36 | 1.22 | 0.83 | 0.83 | 0.82 | 0.74 |
| ADNP | 6.01 | 5.87 | 6.27 | 5.95 | 5.71 | 5.84 | 6.14 | 6.05 |
| ADNP-AS1 | 0.61 | 0.17 | 0.18 | 0.69 | 0.16 | 0.13 | 0.14 | 0.17 |
| ADNP2 | 4.42 | 4.97 | 4.78 | 4.45 | 4.07 | 4.15 | 4.80 | 3.66 |
| ADO | 4.55 | 4.55 | 4.49 | 4.49 | 4.32 | 4.28 | 4.45 | 3.87 |
| ADORA1 | 1.87 | 1.98 | 2.35 | 1.91 | 2.04 | 1.77 | 3.21 | 1.56 |
| ADORA2B | 5.09 | 4.79 | 4.95 | 4.95 | 5.35 | 5.22 | 4.75 | 6.04 |
| ADPGK | 5.44 | 5.28 | 5.83 | 5.63 | 5.23 | 5.03 | 5.42 | 5.55 |
| ADPGK-AS1 | -2.04 | -2.04 | -2.04 | -2.01 | -2.04 | -2.05 | -2.05 | -2.03 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ADPRH | -0.09 | -0.07 | -0.14 | -0.17 | -0.10 | -0.14 | -0.24 | -0.20 |
| ADPRHL1 | 3.00 | 3.41 | 2.86 | 3.08 | 4.09 | 3.73 | 2.79 | 4.51 |
| ADPRHL2 | 5.06 | 4.84 | 5.12 | 4.89 | 5.56 | 5.71 | 5.37 | 5.33 |
| ADPRM | 2.55 | 2.20 | 2.53 | 2.39 | 3.45 | 2.70 | 3.33 | 3.13 |
| ADRA1B | -1.38 | -1.37 | -1.29 | -1.38 | -1.34 | -1.02 | -1.32 | -1.40 |
| ADRA1D | -0.75 | -0.67 | -0.74 | -0.76 | -0.55 | -0.66 | -0.76 | -0.71 |
| ADRA2A | 3.91 | 6.44 | 4.69 | 6.33 | 4.31 | 3.47 | 5.43 | 3.38 |
| ADRA2B | 0.85 | 0.67 | 0.52 | 0.48 | 1.17 | 0.50 | 0.78 | 0.43 |
| ADRA2C | 2.97 | 2.98 | 2.11 | 3.38 | 2.58 | 2.33 | 2.10 | 1.76 |
| ADRB1 | 0.39 | 0.25 | 0.18 | 0.15 | 0.60 | 0.28 | 0.35 | 0.65 |
| ADRB2 | 2.09 | 1.34 | 1.73 | 1.37 | 1.61 | 1.42 | 1.22 | 1.83 |
| ADRM1 | 9.14 | 7.92 | 8.17 | 8.11 | 8.17 | 8.14 | 7.39 | 8.30 |
| ADSL | 4.63 | 3.78 | 3.49 | 4.23 | 3.71 | 3.84 | 3.33 | 3.76 |
| ADSS | 5.79 | 6.41 | 5.56 | 6.12 | 5.72 | 6.40 | 6.03 | 5.94 |
| ADSSL1 | 3.46 | 3.10 | 3.22 | 3.13 | 4.84 | 3.92 | 4.78 | 3.53 |
| ADTRP | 1.87 | 1.98 | 1.75 | 1.95 | 1.10 | 1.20 | 1.31 | 1.88 |
| AEBP1 | 0.69 | -0.29 | -0.28 | -0.30 | -0.29 | -0.16 | -0.30 | -0.26 |
| AEBP2 | 4.86 | 4.54 | 5.46 | 4.33 | 5.96 | 4.60 | 5.28 | 5.36 |
| AEN | 5.82 | 6.83 | 5.73 | 7.12 | 6.49 | 5.91 | 6.52 | 6.57 |
| AF001548.2 | 0.52 | 0.39 | 0.48 | 0.64 | 0.35 | 0.74 | 0.44 | 0.90 |
| AF001550.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AF013593.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AF038458.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| AF064858.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AF064860.2 | -2.10 | -2.03 | -2.09 | -2.07 | -2.09 | -2.09 | -2.10 | -2.11 |
| AF106564.1 | -2.15 | -2.09 | -2.14 | -2.10 | -2.13 | -2.15 | -2.12 | -2.16 |
| AF111167.1 | -2.02 | -2.04 | -2.04 | -2.02 | -2.03 | -2.05 | -2.05 | -2.06 |
| AF111167.2 | -1.21 | -1.07 | -1.20 | -0.99 | -1.10 | -1.22 | -1.22 | -1.03 |
| AF117829.1 | 1.85 | 2.17 | 3.01 | 2.21 | 2.35 | 2.77 | 2.62 | 2.58 |
| AF121897.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AF124730.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AF127577.1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.75 | -1.85 | -1.76 | -1.82 |
| AF127577.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AF127577.3 | 1.17 | 0.32 | 0.43 | 0.30 | 0.32 | 0.36 | 0.30 | 0.33 |
| AF127577.4 | 1.73 | 2.04 | 1.69 | 1.96 | 2.06 | 2.34 | 1.77 | 1.54 |
| AF127577.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AF127577.6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AF127936.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AF129075.1 | -1.44 | -1.32 | -1.48 | -1.44 | -1.49 | -1.51 | -1.45 | -1.52 |
| AF129075.2 | 0.05 | -0.36 | -0.36 | -0.30 | -0.18 | -0.28 | -0.30 | -0.33 |
| AF129075.3 | 1.24 | 1.09 | 1.12 | 1.18 | 1.10 | 0.92 | 1.11 | 1.08 |
| AF129408.1 | -1.94 | -1.94 | -1.93 | -1.87 | -1.94 | -1.95 | -1.91 | -1.92 |
| AF131215.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AF131215.2 | 0.68 | 0.99 | 1.04 | 1.07 | 0.81 | 0.85 | 1.66 | 0.62 |
| AF131215.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AF131215.4 | -1.12 | -1.03 | -1.01 | -1.12 | -1.11 | -1.13 | -0.78 | -1.07 |
| AF131215.5 | -0.43 | -0.42 | -0.07 | -0.29 | -0.38 | -0.27 | -0.09 | -0.45 |
| AF131215.6 | 1.18 | 1.65 | 2.12 | 1.83 | 1.40 | 1.52 | 2.31 | 1.23 |
| AF131215.7 | -1.94 | -1.94 | -1.86 | -1.94 | -1.92 | -1.93 | -1.87 | -1.96 |
| AF131216.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 | -2.21 | -2.22 |
| AF131216.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AF131216.4 | -1.50 | -1.49 | -1.42 | -1.50 | -1.46 | -1.37 | -1.50 | -1.52 |
| AF131216.5 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| AF165147.1 | -1.82 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.86 | -1.91 |
| AF186192.1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AF186192.2 | -1.39 | -1.44 | -1.43 | -1.45 | -1.45 | -1.46 | -1.39 | -1.47 |
| AF186192.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AF196972.1 | 1.10 | 0.74 | 0.72 | 0.83 | 0.56 | 0.51 | 0.43 | 0.45 |
| AF201337.1 | -1.55 | -1.54 | -1.53 | -1.55 | -1.54 | -1.56 | -1.55 | -1.57 |
| AF213884.3 | -0.72 | -0.99 | -0.98 | -0.85 | -0.80 | -1.00 | -1.00 | -0.95 |
| AF228730.5 | -2.07 | -2.07 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AF230666.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AF230666.2 | -1.74 | -1.64 | -1.63 | -1.74 | -1.71 | -1.73 | -1.70 | -1.76 |
| AF233439.1 | -1.01 | -1.07 | -0.91 | -1.09 | -1.03 | -1.10 | -1.16 | -1.17 |
| AF235103.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AF235103.3 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| AF241726.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AF241728.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| AF274853.1 | -2.01 | -2.04 | -2.00 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| AF274858.1 | 2.29 | 2.06 | 1.90 | 2.07 | 2.03 | 2.44 | 1.56 | 1.93 |
| AF279873.1 | -0.75 | -0.90 | -0.89 | -0.83 | -0.75 | -0.76 | -0.91 | -0.75 |
| AF279873.2 | -1.51 | -1.50 | -1.49 | -1.51 | -1.45 | -1.38 | -1.51 | -1.48 |
| AF287957.1 | -2.20 | -2.20 | -2.19 | -2.16 | -2.20 | -2.19 | -2.20 | -2.21 |
| AF305872.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AFAP1 | 4.20 | 4.00 | 5.33 | 3.96 | 4.07 | 4.77 | 4.02 | 4.42 |
| AFAP1-AS1 | 4.31 | 2.98 | 4.63 | 3.18 | 5.39 | 6.09 | 2.92 | 5.91 |
| AFAP1L1 | 0.70 | 0.28 | 0.37 | 0.34 | 0.36 | 0.36 | 0.48 | 0.79 |
| AFAP1L2 | 4.36 | 3.97 | 3.04 | 3.71 | 4.00 | 3.89 | 2.63 | 2.91 |
| AFDN | 7.78 | 7.27 | 8.28 | 7.07 | 7.61 | 8.01 | 8.17 | 7.52 |
| AFDN-DT | 0.58 | 0.46 | 0.57 | 0.36 | 0.46 | 0.52 | 0.43 | 0.54 |
| AFF1 | 4.44 | 5.04 | 4.97 | 5.05 | 4.23 | 5.18 | 5.84 | 5.29 |
| AFF2 | 0.50 | 0.51 | 0.63 | 0.72 | 0.51 | 0.70 | 0.65 | 0.44 |
| AFF3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AFF4 | 5.11 | 6.35 | 6.87 | 6.13 | 6.28 | 6.45 | 6.79 | 5.63 |
| AFG1L | 2.55 | 2.45 | 2.64 | 2.45 | 2.38 | 2.45 | 2.48 | 2.63 |
| AFG3L1P | 3.88 | 3.63 | 4.06 | 3.55 | 3.29 | 3.42 | 3.95 | 2.92 |
| AFG3L2 | 6.98 | 7.11 | 7.28 | 6.76 | 7.36 | 6.27 | 6.93 | 7.78 |
| AFG3L2P1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.08 |
| AFM | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AFMID | 6.42 | 5.35 | 5.09 | 5.66 | 6.14 | 5.99 | 5.98 | 5.19 |
| AFTPH | 6.03 | 6.28 | 6.44 | 5.93 | 6.78 | 5.68 | 6.27 | 6.32 |
| AGA | 4.20 | 5.04 | 4.36 | 5.41 | 4.56 | 4.14 | 4.67 | 4.53 |
| AGAP1 | 4.92 | 5.44 | 5.32 | 5.37 | 5.40 | 5.69 | 5.91 | 5.27 |
| AGAP1-IT1 | 1.33 | 1.19 | 1.15 | 1.15 | 1.72 | 1.45 | 1.00 | 1.49 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AGAP11 | -1.66 | -1.79 | -1.74 | -1.79 | -1.79 | -1.80 | -1.79 | -1.68 |
| AGAP12P | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AGAP2 | -0.88 | -0.88 | -0.34 | -0.81 | -0.84 | -0.73 | -0.75 | -0.84 |
| AGAP2-AS1 | 2.78 | 3.69 | 2.67 | 3.99 | 3.73 | 3.36 | 2.40 | 2.56 |
| AGAP3 | 4.54 | 5.09 | 4.92 | 4.94 | 4.47 | 4.69 | 5.02 | 4.89 |
| AGAP4 | -1.79 | -1.74 | -1.78 | -1.75 | -1.76 | -1.80 | -1.75 | -1.72 |
| AGAP7P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AGAP9 | -0.48 | -0.47 | -0.61 | -0.55 | -0.47 | -0.48 | -0.36 | -0.65 |
| AGBL2 | 0.08 | -0.14 | 0.21 | -0.07 | 0.08 | -0.02 | 0.13 | -0.11 |
| AGBL3 | 1.12 | 1.21 | 1.31 | 1.45 | 1.28 | 1.47 | 1.40 | 1.62 |
| AGBL4 | -2.07 | -2.04 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AGBL5 | 4.35 | 3.75 | 4.14 | 3.54 | 3.68 | 4.45 | 3.88 | 4.67 |
| AGBL5-AS1 | -1.84 | -1.80 | -1.83 | -1.84 | -1.82 | -1.81 | -1.84 | -1.86 |
| AGER | 0.04 | -0.04 | 0.25 | 0.11 | 0.12 | 0.30 | 0.17 | 0.11 |
| AGFG1 | 6.09 | 6.26 | 5.98 | 6.15 | 6.09 | 6.10 | 6.52 | 6.16 |
| AGFG2 | 4.91 | 5.49 | 5.01 | 5.72 | 5.37 | 4.74 | 5.25 | 4.17 |
| AGGF1 | 3.82 | 4.52 | 4.89 | 4.44 | 4.09 | 4.07 | 4.63 | 3.79 |
| AGGF1P1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AGGF1P3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AGK | 3.78 | 3.92 | 3.74 | 3.59 | 3.95 | 3.65 | 3.74 | 4.07 |
| AGL | 4.29 | 4.84 | 4.69 | 4.75 | 4.18 | 4.25 | 5.25 | 4.24 |
| AGMAT | 4.25 | 3.97 | 2.95 | 3.62 | 3.40 | 3.31 | 3.52 | 3.11 |
| AGMO | 1.10 | 1.88 | 1.87 | 1.98 | 1.20 | 1.14 | 1.16 | 2.17 |
| AGO1 | 4.05 | 3.52 | 4.01 | 3.51 | 3.57 | 4.01 | 4.01 | 3.49 |
| AGO2 | 5.51 | 5.52 | 6.81 | 5.63 | 5.95 | 6.18 | 5.96 | 6.27 |
| AGO3 | 4.04 | 4.25 | 4.71 | 3.71 | 4.30 | 4.78 | 5.12 | 4.05 |
| AGO4 | 2.92 | 3.24 | 2.99 | 2.57 | 3.22 | 3.04 | 3.73 | 2.84 |
| AGPAT1 | 6.33 | 6.50 | 5.93 | 6.41 | 5.65 | 6.45 | 5.89 | 6.26 |
| AGPAT2 | 9.29 | 7.89 | 8.17 | 8.32 | 8.97 | 7.83 | 7.66 | 8.40 |
| AGPAT3 | 5.74 | 6.40 | 6.43 | 5.87 | 5.56 | 5.92 | 6.22 | 5.75 |
| AGPAT4 | 2.39 | 2.93 | 2.68 | 2.77 | 2.90 | 2.72 | 2.23 | 1.95 |
| AGPAT4-IT1 | -1.28 | -1.15 | -1.14 | -1.22 | -1.31 | -1.30 | -1.29 | -1.31 |
| AGPAT5 | 5.09 | 5.99 | 6.63 | 5.96 | 5.36 | 6.26 | 5.83 | 4.82 |
| AGPS | 4.52 | 5.00 | 5.17 | 4.85 | 5.88 | 5.25 | 5.36 | 5.18 |
| AGR2 | 10.79 | 11.35 | 9.49 | 11.81 | 12.16 | 10.33 | 11.46 | 11.94 |
| AGR3 | 7.93 | 7.11 | 5.67 | 7.27 | 8.22 | 7.07 | 6.07 | 6.54 |
| AGRN | 3.81 | 4.15 | 4.16 | 4.14 | 3.60 | 3.83 | 4.37 | 3.38 |
| AGT | 2.09 | 1.98 | 2.23 | 1.84 | 2.53 | 2.19 | 3.79 | 2.07 |
| AGTPBP1 | 3.19 | 3.36 | 3.34 | 3.51 | 3.43 | 3.20 | 3.55 | 2.64 |
| AGTR1 | -1.01 | -1.00 | -0.72 | -1.08 | -1.08 | -1.06 | -0.88 | -1.04 |
| AGTRAP | 7.18 | 6.64 | 6.28 | 6.64 | 6.27 | 6.51 | 5.47 | 6.57 |
| AGXT | -1.27 | -1.45 | -1.44 | -1.46 | -1.36 | -1.41 | -1.40 | -1.37 |
| AGXT2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AHCTF1 | 4.78 | 4.95 | 4.97 | 4.77 | 4.99 | 5.21 | 5.30 | 5.40 |
| AHCY | 8.08 | 7.65 | 7.66 | 7.92 | 8.43 | 7.76 | 7.51 | 7.02 |
| AHCYL1 | 7.24 | 7.33 | 7.66 | 6.81 | 6.78 | 7.02 | 7.64 | 7.08 |
| AHCYL2 | 4.20 | 5.41 | 3.80 | 5.18 | 4.34 | 3.94 | 5.16 | 4.39 |
| AHDC1 | 3.99 | 4.19 | 4.92 | 3.78 | 4.21 | 4.40 | 5.53 | 4.08 |
| AHI1 | 5.80 | 5.32 | 5.59 | 5.05 | 5.24 | 5.31 | 6.15 | 5.42 |
| AHNAK | 8.23 | 8.86 | 8.99 | 8.70 | 7.92 | 8.27 | 9.24 | 9.03 |
| AHNAK2 | 5.50 | 7.19 | 6.14 | 7.57 | 6.21 | 6.96 | 4.50 | 7.18 |
| AHR | 6.91 | 6.76 | 6.76 | 6.68 | 6.35 | 6.31 | 7.62 | 6.45 |
| AHSA1 | 7.21 | 7.32 | 7.46 | 7.52 | 7.86 | 7.83 | 7.03 | 7.00 |
| AHSA2P | 4.77 | 4.07 | 4.58 | 4.72 | 5.19 | 4.38 | 5.14 | 4.54 |
| AHSG | -1.59 | -1.59 | -1.58 | -1.60 | -1.59 | -1.60 | -1.60 | -1.56 |
| AIDA | 3.66 | 3.25 | 3.56 | 3.35 | 3.32 | 3.44 | 3.54 | 3.28 |
| AIF1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| AIF1L | 4.25 | 3.57 | 2.69 | 3.47 | 3.22 | 3.79 | 2.95 | 2.84 |
| AIFM1 | 6.42 | 5.76 | 6.55 | 6.06 | 6.29 | 5.74 | 6.28 | 6.57 |
| AIFM2 | 6.80 | 5.41 | 5.47 | 5.55 | 5.84 | 5.18 | 5.83 | 5.68 |
| AIFM3 | 1.97 | 1.28 | 1.42 | 1.62 | 1.45 | 1.33 | 1.43 | 1.60 |
| AIG1 | 5.97 | 6.44 | 6.36 | 6.49 | 6.23 | 7.78 | 6.32 | 6.67 |
| AIM2 | 0.37 | 0.28 | 0.63 | 0.44 | 0.38 | 2.20 | 0.51 | 0.98 |
| AIMP1 | 7.78 | 8.01 | 7.15 | 7.88 | 7.43 | 7.76 | 7.44 | 8.46 |
| AIMP1P1 | -1.14 | -1.13 | -0.98 | -0.89 | -1.13 | -1.05 | -0.97 | -1.15 |
| AIMP1P2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AIMP2 | 7.16 | 6.70 | 6.12 | 6.92 | 7.00 | 6.63 | 6.01 | 6.66 |
| AIP | 6.10 | 6.49 | 6.74 | 6.33 | 6.98 | 6.27 | 5.94 | 6.86 |
| AJ003147.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AJ003147.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.07 | -2.11 |
| AJ011932.1 | -1.13 | -1.42 | -1.47 | -1.55 | -1.54 | -1.55 | -1.55 | -1.56 |
| AJAP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AJM1 | 1.28 | 1.32 | 1.39 | 1.30 | 1.37 | 1.15 | 1.56 | 1.19 |
| AJUBA | 3.63 | 4.34 | 3.83 | 4.18 | 3.81 | 4.27 | 4.88 | 3.62 |
| AK1 | 6.84 | 6.40 | 5.12 | 6.92 | 4.64 | 5.31 | 6.42 | 5.01 |
| AK2 | 8.78 | 6.97 | 7.35 | 7.06 | 7.93 | 7.66 | 7.34 | 7.29 |
| AK3 | 5.90 | 6.53 | 6.06 | 6.76 | 6.02 | 6.39 | 6.69 | 6.52 |
| AK3P3 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -1.99 | -2.06 |
| AK4 | 4.98 | 5.11 | 5.83 | 4.71 | 5.43 | 6.37 | 6.96 | 4.71 |
| AK4P4 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 |
| AK5 | -1.13 | -0.67 | -1.03 | -0.37 | -1.00 | -1.14 | -0.98 | -1.15 |
| AK6 | 6.56 | 6.49 | 6.38 | 6.78 | 7.13 | 6.95 | 6.09 | 6.63 |
| AK7 | 3.40 | 3.46 | 3.41 | 3.33 | 3.54 | 2.97 | 4.09 | 2.97 |
| AK8 | -0.66 | -0.66 | -0.47 | -0.66 | -0.50 | -0.45 | -0.53 | -0.68 |
| AK9 | 3.80 | 3.46 | 3.23 | 3.39 | 3.55 | 3.52 | 3.29 | 2.92 |
| AKAP1 | 6.23 | 6.10 | 6.31 | 6.13 | 5.90 | 5.98 | 5.94 | 5.54 |
| AKAP10 | 4.80 | 4.08 | 4.86 | 3.92 | 4.07 | 4.14 | 5.01 | 4.81 |
| AKAP11 | 4.75 | 5.51 | 5.68 | 5.18 | 4.70 | 4.96 | 5.69 | 5.67 |
| AKAP12 | 2.49 | 2.78 | 4.35 | 2.91 | 4.00 | 3.98 | 3.60 | 3.37 |
| AKAP13 | 5.82 | 6.99 | 7.74 | 6.90 | 6.37 | 6.44 | 6.96 | 6.50 |
| AKAP14 | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.90 | -1.94 | -1.92 |
| AKAP2 | -1.75 | -1.78 | -1.78 | -1.75 | -1.79 | -1.78 | -1.79 | -1.76 |
| AKAP3 | -0.77 | -0.69 | -0.75 | -0.77 | -0.73 | -0.82 | -0.70 | -0.86 |
| AKAP5 | 0.60 | 0.81 | 0.63 | 1.03 | 0.69 | 0.82 | 0.95 | 0.66 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AKAP6 | -0.04 | -0.11 | -0.10 | -0.12 | -0.16 | -0.04 | -0.07 | -0.16 |
| AKAP7 | 2.94 | 2.89 | 3.42 | 2.47 | 3.12 | 2.83 | 2.72 | 2.39 |
| AKAP8 | 5.15 | 5.61 | 4.92 | 5.92 | 5.55 | 5.81 | 5.30 | 5.76 |
| AKAP8L | 5.87 | 5.69 | 5.85 | 6.08 | 6.39 | 6.59 | 5.93 | 6.04 |
| AKAP9 | 6.07 | 7.58 | 7.39 | 7.35 | 7.14 | 7.27 | 8.09 | 7.00 |
| AKIP1 | 5.90 | 5.36 | 5.31 | 5.70 | 5.96 | 5.20 | 4.84 | 4.61 |
| AKIRIN1 | 5.57 | 5.98 | 5.58 | 5.83 | 6.01 | 6.16 | 6.04 | 6.08 |
| AKIRIN2 | 5.16 | 4.69 | 4.80 | 4.46 | 4.91 | 5.88 | 4.80 | 5.57 |
| AKNA | 3.09 | 3.42 | 3.52 | 3.15 | 2.66 | 3.15 | 3.10 | 2.63 |
| AKNAD1 | -1.99 | -1.92 | -1.95 | -1.99 | -1.99 | -1.95 | -2.00 | -2.01 |
| AKR1A1 | 6.91 | 6.92 | 6.52 | 7.03 | 7.29 | 7.03 | 7.48 | 7.01 |
| AKR1B1 | 9.43 | 6.59 | 7.91 | 7.00 | 7.69 | 6.63 | 5.81 | 9.02 |
| AKR1B10 | 7.16 | 6.71 | 7.47 | 7.81 | 6.76 | 5.90 | 9.02 | 8.64 |
| AKR1B10P1 | -0.73 | -0.64 | -0.71 | -0.58 | -0.73 | -0.71 | -0.51 | -0.75 |
| AKR1B15 | -0.94 | -0.86 | -0.84 | -0.88 | -0.86 | -0.92 | -0.80 | -0.63 |
| AKR1B1P2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AKR1C1 | 7.27 | 4.26 | 5.53 | 5.19 | 6.43 | 4.99 | 5.46 | 7.89 |
| AKR1C2 | 6.78 | 6.45 | 7.49 | 6.72 | 4.64 | 4.81 | 6.17 | 8.08 |
| AKR1C3 | 8.79 | 9.14 | 9.08 | 9.32 | 8.28 | 8.25 | 9.14 | 10.29 |
| AKR1C4 | 2.18 | 2.32 | 2.31 | 2.26 | 1.78 | 1.94 | 2.08 | 2.35 |
| AKR1C7P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AKR1C8P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AKR1E2 | 0.87 | 1.41 | 0.88 | 1.33 | 0.55 | 0.62 | 0.57 | 0.58 |
| AKR7A2 | 7.14 | 6.73 | 7.21 | 6.82 | 7.91 | 7.27 | 7.87 | 6.85 |
| AKR7A2P1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AKR7A3 | 5.67 | 6.18 | 5.85 | 6.48 | 6.99 | 5.80 | 8.67 | 5.26 |
| AKR7L | 2.01 | 2.22 | 2.14 | 2.49 | 2.24 | 2.27 | 3.62 | 1.77 |
| AKT1 | 6.35 | 7.41 | 7.16 | 6.93 | 6.64 | 6.81 | 7.29 | 6.40 |
| AKT1S1 | 6.63 | 6.04 | 5.26 | 6.38 | 6.20 | 6.03 | 5.71 | 6.62 |
| AKT2 | 5.22 | 5.69 | 5.31 | 5.37 | 5.06 | 5.33 | 5.51 | 5.10 |
| AKT3 | -0.34 | -0.51 | -0.33 | -0.52 | -0.46 | 0.55 | -0.35 | -0.47 |
| AKT3-IT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AKTIP | 4.55 | 4.59 | 3.75 | 4.56 | 3.98 | 4.29 | 3.53 | 3.95 |
| AL008582.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL008718.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL008721.2 | -0.24 | 0.00 | -0.23 | 0.10 | -0.24 | -0.15 | 0.03 | -0.21 |
| AL008723.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| AL008725.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL008726.1 | -1.70 | -1.56 | -1.62 | -1.64 | -1.66 | -1.71 | -1.64 | -1.72 |
| AL008727.1 | -1.80 | -1.84 | -1.79 | -1.84 | -1.82 | -1.81 | -1.84 | -1.86 |
| AL008729.1 | -1.51 | -1.43 | -1.42 | -1.44 | -1.44 | -1.52 | -1.38 | -1.47 |
| AL008729.2 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.83 | -1.84 | -1.78 |
| AL008733.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL008987.1 | -1.89 | -1.80 | -1.84 | -1.89 | -1.89 | -1.86 | -1.85 | -1.91 |
| AL009031.1 | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.93 | -1.95 | -1.92 |
| AL009174.1 | 3.22 | 3.18 | 2.85 | 3.06 | 3.36 | 2.80 | 2.72 | 3.07 |
| AL009176.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 |
| AL009178.2 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.06 | -2.10 | -2.11 |
| AL009178.3 | -0.02 | -0.42 | -0.26 | -0.36 | -0.42 | -0.44 | -0.43 | 0.10 |
| AL009179.1 | 0.59 | 0.65 | 0.35 | 0.62 | 0.76 | 0.77 | 0.47 | 0.64 |
| AL009179.2 | 0.50 | -0.09 | 0.33 | -0.10 | -0.05 | -0.03 | 0.12 | -0.06 |
| AL009183.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL020996.1 | 0.43 | 0.09 | 0.28 | 0.15 | 0.32 | 0.19 | 0.41 | 0.05 |
| AL020997.1 | 0.95 | 1.13 | 1.01 | 1.16 | 1.01 | 1.32 | 1.14 | 1.06 |
| AL020997.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| AL020997.3 | -1.60 | -1.59 | -1.58 | -1.50 | -1.54 | -1.61 | -1.55 | -1.52 |
| AL020997.5 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL021068.1 | -2.25 | -2.25 | -2.21 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL021154.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.16 | -2.11 | -2.17 |
| AL021155.2 | -1.30 | -1.30 | -1.22 | -1.37 | -1.30 | -1.38 | -1.37 | -1.33 |
| AL021308.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL021328.1 | -1.27 | -1.33 | -1.32 | -1.34 | -1.33 | -1.35 | -1.34 | -1.35 |
| AL021368.2 | -0.64 | -0.55 | -0.61 | -0.71 | -0.67 | -0.73 | -0.58 | -0.74 |
| AL021392.1 | -1.17 | -1.23 | -1.29 | -1.04 | -1.23 | -1.19 | -1.24 | -1.32 |
| AL021396.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AL021408.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL021578.1 | -1.38 | -1.44 | -1.43 | -1.38 | -1.44 | -1.43 | -1.45 | -1.47 |
| AL021707.1 | -0.26 | -0.25 | -0.24 | -0.18 | -0.09 | -0.14 | -0.13 | 0.00 |
| AL021707.2 | -0.34 | -0.55 | -0.30 | -0.49 | -0.52 | -0.43 | -0.56 | -0.35 |
| AL021707.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL021707.4 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AL021707.5 | -0.87 | -0.77 | -0.84 | -0.86 | -0.90 | -0.95 | -0.87 | -0.90 |
| AL021707.6 | 0.42 | 0.59 | 0.44 | 0.49 | 0.47 | 0.44 | 0.41 | 0.29 |
| AL021707.7 | 0.16 | -0.03 | -0.08 | -0.05 | -0.15 | -0.14 | 0.01 | -0.16 |
| AL021707.8 | -1.90 | -1.90 | -1.93 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| AL021807.1 | 1.21 | 1.29 | 0.94 | 1.49 | 0.89 | 0.86 | 0.86 | 1.00 |
| AL021877.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL021878.2 | -1.75 | -1.79 | -1.78 | -1.85 | -1.82 | -1.85 | -1.85 | -1.82 |
| AL021918.5 | -1.24 | -1.10 | -1.09 | -1.11 | -1.17 | -1.07 | -1.25 | -1.26 |
| AL021937.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.28 |
| AL022067.1 | -1.80 | -1.84 | -1.79 | -1.84 | -1.79 | -1.83 | -1.85 | -1.82 |
| AL022068.1 | 1.06 | 1.01 | 1.14 | 0.97 | 0.96 | 0.91 | 1.51 | 0.90 |
| AL022069.1 | -0.60 | -0.67 | -0.66 | -0.68 | -0.46 | -0.62 | -0.54 | -0.57 |
| AL022069.2 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| AL022069.3 | 0.64 | 0.82 | 0.70 | 0.76 | 0.80 | 0.85 | 0.63 | 0.82 |
| AL022151.1 | 1.57 | 0.44 | 0.55 | 0.50 | 0.48 | 0.44 | 0.50 | 0.37 |
| AL022157.1 | -1.99 | -1.99 | -1.98 | -1.93 | -1.99 | -2.00 | -2.00 | -1.97 |
| AL022162.1 | 2.25 | 2.26 | 2.04 | 1.67 | 2.11 | 1.68 | 1.66 | 1.99 |
| AL022237.1 | -1.54 | -1.54 | -1.53 | -1.55 | -1.48 | -1.50 | -1.49 | -1.46 |
| AL022238.2 | -1.21 | -1.38 | -1.37 | -1.39 | -1.38 | -1.37 | -1.39 | -1.26 |
| AL022311.1 | 1.73 | 1.38 | 1.43 | 1.75 | 1.45 | 1.45 | 1.92 | 1.36 |
| AL022316.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL022318.1 | -1.80 | -1.79 | -1.83 | -1.80 | -1.84 | -1.81 | -1.84 | -1.86 |
| AL022322.1 | -1.14 | -1.13 | -1.05 | -1.21 | -1.13 | -1.13 | -1.22 | -1.23 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL022322.2 | -1.64 | -1.68 | -1.63 | -1.69 | -1.66 | -1.67 | -1.59 | -1.71 |
| AL022323.1 | -0.37 | -0.50 | -0.64 | -0.59 | -0.61 | -0.67 | -0.59 | -0.45 |
| AL022323.3 | -1.99 | -1.96 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| AL022323.4 | 1.55 | 1.20 | 1.19 | 1.25 | 1.10 | 1.34 | 1.27 | 1.63 |
| AL022324.2 | -1.59 | -1.53 | -1.57 | -1.59 | -1.53 | -1.57 | -1.54 | -1.61 |
| AL022326.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL022326.2 | -1.90 | -1.94 | -1.93 | -1.91 | -1.92 | -1.95 | -1.95 | -1.96 |
| AL022328.1 | -2.10 | -2.07 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.05 |
| AL022328.2 | -1.84 | -1.80 | -1.83 | -1.84 | -1.84 | -1.81 | -1.84 | -1.85 |
| AL022328.3 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.06 |
| AL022328.4 | 1.94 | 1.36 | 1.41 | 1.31 | 1.42 | 1.48 | 1.97 | 1.64 |
| AL022329.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL022341.1 | -1.22 | -1.13 | -1.20 | -1.22 | -1.17 | -1.16 | -1.22 | -1.17 |
| AL022341.2 | -1.81 | -1.89 | -1.88 | -1.85 | -1.89 | -1.86 | -1.89 | -1.87 |
| AL022342.1 | 3.19 | 3.10 | 2.75 | 3.48 | 3.20 | 3.06 | 3.04 | 2.97 |
| AL022344.1 | 0.34 | 0.24 | -0.13 | 0.23 | -0.06 | -0.09 | -0.01 | -0.18 |
| AL022345.4 | -0.28 | -0.34 | -0.41 | -0.36 | -0.14 | -0.19 | -0.16 | -0.33 |
| AL022393.1 | -1.49 | -1.54 | -1.53 | -1.54 | -1.54 | -1.42 | -1.49 | -1.51 |
| AL022394.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL022476.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL022718.1 | 3.14 | 3.20 | 2.58 | 3.07 | 3.59 | 2.98 | 2.87 | 3.10 |
| AL022726.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL023280.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL023284.2 | -2.04 | -2.04 | -2.04 | -1.99 | -2.04 | -2.04 | -1.99 | -2.06 |
| AL023284.3 | 0.32 | 0.21 | -0.09 | 0.30 | 0.43 | 0.12 | -0.04 | -0.07 |
| AL023284.4 | 0.97 | 1.17 | 0.99 | 1.08 | 0.90 | 0.98 | 1.46 | 0.87 |
| AL023581.2 | -0.62 | -0.62 | -0.69 | -0.63 | -0.66 | -0.54 | -0.71 | -0.54 |
| AL023583.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL023693.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL023754.2 | -2.04 | -1.98 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| AL023755.1 | -1.79 | -1.74 | -1.78 | -1.70 | -1.74 | -1.78 | -1.79 | -1.81 |
| AL023775.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL023803.1 | 1.20 | 0.33 | 0.36 | 0.23 | 0.49 | 0.49 | 0.22 | 0.26 |
| AL023803.2 | -1.09 | -1.16 | -1.07 | -1.03 | -1.16 | -1.05 | -1.10 | -1.19 |
| AL023803.3 | -1.06 | -1.19 | -1.18 | -1.20 | -1.26 | -1.21 | -1.14 | -1.28 |
| AL023806.1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.73 | -1.75 | -1.74 | -1.76 |
| AL023806.3 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.07 | -2.10 | -2.08 |
| AL023806.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AL023807.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL023881.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.88 | -1.90 | -1.91 |
| AL023882.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| AL024474.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL024493.1 | -1.74 | -1.74 | -1.73 | -1.69 | -1.71 | -1.75 | -1.70 | -1.71 |
| AL024498.1 | -0.76 | -0.84 | -0.83 | -0.77 | -0.69 | -0.82 | -0.64 | -0.58 |
| AL024507.2 | 1.11 | 0.57 | 1.06 | 0.55 | 0.64 | 0.96 | 0.60 | 0.72 |
| AL024508.2 | 2.43 | 2.32 | 1.72 | 2.24 | 1.95 | 1.90 | 1.46 | 1.95 |
| AL024509.2 | -1.50 | -1.50 | -1.43 | -1.45 | -1.44 | -1.51 | -1.45 | -1.42 |
| AL031005.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| AL031005.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL031008.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL031009.1 | 0.79 | 0.73 | 0.80 | 0.84 | 0.58 | 0.61 | 1.16 | 0.88 |
| AL031055.1 | -1.99 | -1.96 | -1.98 | -2.00 | -1.97 | -1.98 | -2.00 | -2.01 |
| AL031058.1 | 1.32 | 0.55 | 0.91 | 0.60 | 0.74 | 0.81 | 0.60 | 1.38 |
| AL031118.1 | -2.10 | -2.10 | -2.09 | -2.10 | -2.07 | -2.09 | -2.11 | -2.12 |
| AL031123.1 | 0.91 | -0.25 | -0.24 | -0.19 | -0.17 | -0.24 | -0.27 | -0.04 |
| AL031123.2 | -1.14 | -1.13 | -1.19 | -1.21 | -1.10 | -1.15 | -1.21 | -1.06 |
| AL031123.5 | -1.16 | -1.22 | -1.21 | -1.30 | -1.19 | -1.31 | -1.30 | -1.05 |
| AL031133.1 | -1.29 | -1.28 | -1.21 | -1.23 | -1.19 | -1.24 | -1.23 | -1.20 |
| AL031229.1 | -1.50 | -1.49 | -1.43 | -1.39 | -1.46 | -1.48 | -1.50 | -1.46 |
| AL031274.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.09 | -2.10 | -2.11 |
| AL031275.1 | -1.89 | -1.99 | -1.98 | -2.00 | -1.96 | -1.98 | -1.93 | -2.01 |
| AL031280.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AL031281.2 | 1.06 | 0.67 | 0.54 | 0.72 | 0.71 | 0.60 | 0.78 | 0.70 |
| AL031282.1 | 3.51 | 2.94 | 3.51 | 3.07 | 2.81 | 3.21 | 2.62 | 3.44 |
| AL031282.2 | -1.64 | -1.74 | -1.73 | -1.69 | -1.71 | -1.75 | -1.74 | -1.76 |
| AL031283.1 | -2.01 | -2.04 | -2.01 | -2.05 | -2.04 | -2.02 | -2.05 | -2.03 |
| AL031283.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL031284.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL031289.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL031291.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL031313.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL031320.2 | -1.79 | -1.79 | -1.73 | -1.79 | -1.79 | -1.78 | -1.75 | -1.81 |
| AL031428.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AL031432.3 | -0.84 | -0.98 | -0.97 | -0.78 | -0.95 | -0.90 | -0.92 | -0.94 |
| AL031432.4 | -0.23 | -0.44 | -0.35 | -0.32 | -0.30 | -0.21 | -0.31 | -0.47 |
| AL031432.5 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| AL031577.1 | -1.99 | -1.96 | -1.98 | -1.99 | -1.99 | -1.93 | -1.96 | -2.01 |
| AL031577.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL031587.3 | -1.50 | -1.50 | -1.54 | -1.40 | -1.55 | -1.57 | -1.56 | -1.53 |
| AL031587.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL031587.5 | 0.45 | 0.54 | 0.26 | 0.42 | 0.45 | 0.38 | 0.56 | 0.32 |
| AL031590.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| AL031595.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AL031595.3 | -1.64 | -1.64 | -1.68 | -1.69 | -1.68 | -1.63 | -1.65 | -1.71 |
| AL031600.3 | -0.62 | -0.61 | -0.59 | -0.34 | -0.65 | -0.60 | -0.55 | -0.42 |
| AL031658.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL031663.3 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AL031666.1 | -1.49 | -1.49 | -1.48 | -1.50 | -1.43 | -1.51 | -1.50 | -1.46 |
| AL031666.2 | -1.80 | -1.79 | -1.83 | -1.84 | -1.84 | -1.81 | -1.85 | -1.86 |
| AL031666.3 | 0.03 | 0.33 | 0.28 | 0.02 | 0.05 | -0.06 | -0.12 | -0.02 |
| AL031667.3 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL031668.2 | -2.20 | -2.17 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL031670.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.25 | -2.26 |
| AL031673.1 | -1.59 | -1.58 | -1.57 | -1.59 | -1.63 | -1.62 | -1.54 | -1.61 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL031686.1 | -2.15 | -2.15 | -2.09 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| AL031705.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.08 |
| AL031708.1 | 1.79 | 1.46 | 1.53 | 1.58 | 1.28 | 1.40 | 1.51 | 1.44 |
| AL031709.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| AL031710.2 | -0.63 | -1.04 | -0.95 | -1.05 | -1.00 | -1.02 | -1.05 | -0.90 |
| AL031714.1 | -0.40 | -0.31 | -0.36 | -0.27 | -0.55 | -0.43 | -0.41 | -0.51 |
| AL031719.2 | -2.28 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL031726.1 | -2.10 | -2.06 | -2.09 | -2.10 | -2.06 | -2.10 | -2.10 | -2.11 |
| AL031726.2 | -1.74 | -1.74 | -1.73 | -1.74 | -1.71 | -1.75 | -1.74 | -1.76 |
| AL031727.1 | 4.83 | 5.39 | 4.68 | 5.60 | 5.93 | 5.10 | 4.90 | 4.96 |
| AL031728.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| AL031729.1 | 3.65 | 3.30 | 2.92 | 3.33 | 3.33 | 3.32 | 2.64 | 2.87 |
| AL031731.1 | -1.50 | -1.55 | -1.49 | -1.55 | -1.55 | -1.54 | -1.45 | -1.52 |
| AL031733.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL031736.1 | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL031736.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL031768.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.13 |
| AL031775.1 | 0.35 | 0.77 | 0.55 | 0.45 | 0.38 | 0.51 | 0.54 | 0.74 |
| AL031775.2 | -1.59 | -1.53 | -1.58 | -1.59 | -1.59 | -1.58 | -1.60 | -1.51 |
| AL031777.1 | -1.47 | -1.35 | -1.46 | -1.19 | -1.38 | -1.45 | -1.48 | -1.39 |
| AL031777.3 | 1.71 | 1.94 | 1.79 | 1.92 | 1.75 | 1.70 | 1.92 | 2.34 |
| AL031779.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL031846.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL031846.2 | -0.72 | -0.79 | -0.77 | -0.79 | -0.83 | -0.81 | -0.80 | -0.71 |
| AL031847.1 | 0.16 | -0.21 | -0.10 | -0.22 | 0.21 | -0.23 | -0.23 | -0.12 |
| AL031848.2 | -0.41 | -0.73 | -0.80 | -0.82 | -0.73 | -0.82 | -0.82 | -0.83 |
| AL031864.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| AL031864.2 | 2.11 | 1.78 | 2.15 | 1.99 | 2.48 | 1.81 | 2.06 | 1.94 |
| AL031963.1 | -1.69 | -1.68 | -1.68 | -1.69 | -1.66 | -1.70 | -1.64 | -1.71 |
| AL031963.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL031963.3 | 0.45 | -0.04 | -0.03 | 0.09 | 0.07 | 0.19 | 0.08 | 0.04 |
| AL031985.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL031985.2 | 0.93 | 1.15 | 0.74 | 1.09 | 1.44 | 0.91 | 0.97 | 1.07 |
| AL031985.3 | -1.15 | -1.15 | -1.06 | -1.16 | -1.15 | -1.04 | -1.02 | -1.17 |
| AL032819.1 | -1.87 | -1.90 | -1.93 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 |
| AL033381.2 | -0.83 | -0.91 | -0.65 | -0.84 | -0.87 | -0.85 | -0.64 | -0.81 |
| AL033381.3 | -1.29 | -1.51 | -1.44 | -1.52 | -1.51 | -1.53 | -1.46 | -1.48 |
| AL033384.1 | -1.21 | -1.27 | -1.26 | -1.28 | -1.27 | -1.29 | -1.15 | -1.12 |
| AL033384.2 | -1.69 | -1.69 | -1.68 | -1.70 | -1.69 | -1.68 | -1.70 | -1.57 |
| AL033397.1 | 3.04 | 2.19 | 1.82 | 1.98 | 1.56 | 2.29 | 1.62 | 1.83 |
| AL033397.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.14 |
| AL033504.1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL033519.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AL033519.2 | 2.11 | 1.93 | 2.06 | 2.13 | 2.20 | 1.93 | 1.90 | 2.14 |
| AL033523.1 | -1.59 | -1.58 | -1.58 | -1.64 | -1.61 | -1.65 | -1.59 | -1.61 |
| AL033527.3 | -0.97 | -1.11 | -1.03 | -0.98 | -0.90 | -1.00 | -1.06 | -1.08 |
| AL033527.5 | -0.35 | -0.92 | -0.83 | -0.78 | -0.92 | -0.80 | -0.72 | -0.94 |
| AL033528.1 | -1.74 | -1.74 | -1.73 | -1.74 | -1.67 | -1.73 | -1.74 | -1.62 |
| AL033543.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL034346.1 | -1.66 | -1.79 | -1.78 | -1.79 | -1.79 | -1.80 | -1.75 | -1.81 |
| AL034348.1 | -1.95 | -1.89 | -1.70 | -1.90 | -1.92 | -1.95 | -1.95 | -1.97 |
| AL034370.1 | -0.65 | -0.72 | -0.53 | -0.52 | -0.65 | -0.63 | -0.66 | -0.57 |
| AL034379.1 | 2.08 | 1.87 | 1.81 | 2.36 | 2.82 | 2.34 | 1.94 | 2.17 |
| AL034380.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AL034405.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL034417.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| AL034417.2 | 0.88 | 0.55 | 0.97 | 0.67 | 0.81 | 0.70 | 0.79 | 0.76 |
| AL034417.3 | -0.79 | -0.70 | -0.68 | -0.71 | -0.79 | -0.66 | -0.46 | -0.75 |
| AL034417.4 | -1.54 | -1.48 | -1.53 | -1.55 | -1.54 | -1.53 | -1.44 | -1.51 |
| AL034422.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL034548.2 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AL034550.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL034550.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL034550.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AL035071.1 | 1.82 | 2.12 | 2.38 | 2.29 | 2.24 | 2.02 | 2.18 | 2.15 |
| AL035078.1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AL035090.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| AL035252.2 | -1.69 | -1.73 | -1.73 | -1.74 | -1.62 | -1.70 | -1.74 | -1.76 |
| AL035252.3 | -0.81 | -0.57 | -0.58 | -0.60 | -0.77 | -0.72 | -0.67 | -0.71 |
| AL035252.4 | 0.60 | 0.38 | 0.88 | 0.45 | 0.69 | 0.57 | 0.88 | 0.33 |
| AL035252.5 | -0.68 | -0.67 | -0.66 | -0.35 | -0.55 | -0.65 | -0.61 | -0.28 |
| AL035398.1 | 0.38 | 0.41 | 0.34 | 0.58 | 0.55 | 0.42 | 0.51 | 0.53 |
| AL035404.1 | -1.70 | -1.79 | -1.78 | -1.79 | -1.79 | -1.80 | -1.79 | -1.81 |
| AL035405.1 | -1.70 | -1.79 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.81 |
| AL035410.1 | -2.15 | -2.15 | -2.14 | -2.12 | -2.13 | -2.15 | -2.12 | -2.16 |
| AL035411.1 | -1.59 | -1.64 | -1.63 | -1.59 | -1.61 | -1.60 | -1.65 | -1.61 |
| AL035413.1 | -1.74 | -1.69 | -1.73 | -1.69 | -1.74 | -1.75 | -1.65 | -1.76 |
| AL035420.1 | -1.74 | -1.69 | -1.73 | -1.74 | -1.71 | -1.72 | -1.70 | -1.71 |
| AL035420.3 | 0.20 | -0.13 | -0.02 | -0.22 | -0.08 | -0.03 | 0.00 | -0.24 |
| AL035427.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL035446.1 | 1.07 | 0.39 | 1.00 | 0.37 | 0.30 | 0.61 | 0.28 | 0.38 |
| AL035446.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL035448.1 | -2.10 | -2.07 | -2.09 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 |
| AL035456.1 | -1.59 | -1.64 | -1.63 | -1.64 | -1.61 | -1.57 | -1.53 | -1.66 |
| AL035458.1 | 0.45 | 0.94 | 0.40 | 0.59 | 0.50 | 0.78 | 0.52 | 0.52 |
| AL035458.2 | -0.96 | -1.03 | -1.01 | -0.88 | -0.95 | -0.90 | -1.04 | -0.93 |
| AL035461.2 | 1.36 | 1.31 | 1.48 | 1.27 | 1.15 | 1.32 | 1.52 | 1.11 |
| AL035530.2 | 0.98 | 1.36 | 1.26 | 1.11 | 1.43 | 1.48 | 1.23 | 1.40 |
| AL035587.1 | -0.09 | 0.07 | -0.22 | -0.23 | -0.31 | -0.26 | -0.17 | -0.33 |
| AL035587.2 | 2.76 | 2.21 | 1.94 | 2.02 | 2.39 | 2.24 | 1.89 | 2.09 |
| AL035658.1 | -2.30 | -2.30 | -2.28 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| AL035661.1 | 4.88 | 4.36 | 4.03 | 4.57 | 4.80 | 3.71 | 3.84 | 5.47 |
| AL035661.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL035681.1 | -0.65 | -0.65 | -0.42 | -0.58 | -0.51 | -0.56 | -0.28 | -0.40 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL035694.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL035701.1 | -0.78 | -0.96 | -1.10 | -0.85 | -1.00 | -1.10 | -1.13 | -1.14 |
| AL049539.1 | -1.64 | -1.74 | -1.73 | -1.74 | -1.71 | -1.75 | -1.75 | -1.71 |
| AL049543.1 | 0.66 | 0.40 | 0.33 | 0.37 | 0.32 | 0.81 | 0.43 | 0.51 |
| AL049548.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL049557.1 | -2.10 | -2.10 | -2.09 | -2.06 | -2.05 | -2.11 | -2.10 | -2.12 |
| AL049569.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL049597.1 | 0.50 | 0.39 | 0.25 | 0.60 | 0.48 | 0.36 | 0.35 | 0.29 |
| AL049597.2 | 0.70 | 0.66 | 0.71 | 0.75 | 0.61 | 0.53 | 0.48 | 0.71 |
| AL049629.1 | 0.15 | 0.10 | 0.34 | 0.00 | 0.24 | 0.06 | 0.46 | 0.16 |
| AL049629.2 | 0.24 | 0.25 | 0.42 | 0.24 | 0.37 | 0.30 | 0.45 | 0.61 |
| AL049641.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL049697.1 | -1.34 | -1.33 | -1.26 | -1.21 | -1.30 | -1.32 | -1.28 | -1.36 |
| AL049712.1 | -2.18 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL049714.1 | -0.56 | -0.55 | -0.54 | -0.49 | -0.39 | -0.33 | -0.35 | -0.25 |
| AL049737.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.01 | -1.99 | -2.06 |
| AL049745.1 | -2.23 | -2.23 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL049747.1 | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL049767.1 | -1.27 | -1.40 | -1.39 | -1.34 | -1.33 | -1.41 | -1.41 | -1.42 |
| AL049776.1 | -1.64 | -1.58 | -1.57 | -1.59 | -1.58 | -1.57 | -1.65 | -1.66 |
| AL049779.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL049779.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| AL049780.1 | -1.49 | -1.64 | -1.53 | -1.59 | -1.64 | -1.65 | -1.55 | -1.66 |
| AL049780.2 | -1.89 | -1.85 | -1.88 | -1.89 | -1.89 | -1.86 | -1.89 | -1.91 |
| AL049780.3 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |
| AL049794.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AL049794.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AL049795.1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.74 | -1.73 | -1.79 | -1.81 |
| AL049796.1 | -1.65 | -1.69 | -1.68 | -1.70 | -1.69 | -1.68 | -1.60 | -1.62 |
| AL049828.1 | 1.44 | 1.19 | 1.21 | 1.02 | 1.49 | 1.34 | 1.42 | 1.18 |
| AL049830.1 | -0.39 | -0.45 | -0.52 | -0.39 | -0.28 | -0.42 | -0.55 | -0.44 |
| AL049830.2 | -2.25 | -2.25 | -2.23 | -2.23 | -2.24 | -2.26 | -2.25 | -2.26 |
| AL049830.3 | -1.94 | -1.94 | -1.90 | -1.91 | -1.92 | -1.95 | -1.87 | -1.92 |
| AL049833.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL049834.1 | 3.38 | 3.16 | 2.89 | 3.64 | 3.38 | 3.75 | 3.11 | 2.89 |
| AL049835.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL049838.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL049839.2 | -1.54 | -1.58 | -1.57 | -1.59 | -1.56 | -1.55 | -1.59 | -1.56 |
| AL049840.1 | -1.00 | -0.98 | -1.05 | -1.07 | -0.84 | -1.01 | -1.07 | -0.96 |
| AL049840.2 | 0.54 | 0.41 | 0.49 | 0.64 | 0.65 | 0.56 | 0.51 | 0.60 |
| AL049840.3 | 0.20 | 0.21 | 0.31 | 0.36 | 0.66 | 0.36 | 0.60 | 0.16 |
| AL049840.4 | 2.92 | 3.02 | 3.20 | 3.16 | 3.55 | 3.06 | 3.68 | 3.01 |
| AL049840.5 | -1.59 | -1.64 | -1.58 | -1.64 | -1.58 | -1.63 | -1.49 | -1.66 |
| AL049844.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL049870.2 | -0.29 | -0.74 | -0.81 | -0.68 | -0.82 | -0.84 | -0.83 | -0.84 |
| AL049870.3 | 1.29 | 0.46 | 0.42 | 0.80 | 0.25 | 0.18 | 0.18 | 0.22 |
| AL049872.1 | -0.07 | -0.40 | -0.31 | -0.40 | -0.32 | -0.27 | -0.19 | -0.31 |
| AL049873.1 | 4.83 | 4.88 | 3.82 | 5.26 | 5.69 | 4.66 | 4.75 | 4.72 |
| AL049874.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL049874.2 | -0.89 | -0.89 | -0.80 | -0.76 | -0.66 | -0.87 | -0.82 | -0.59 |
| AL050309.1 | 1.50 | 1.73 | 2.12 | 1.61 | 1.39 | 1.93 | 1.47 | 1.24 |
| AL050320.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL050331.1 | 4.20 | 3.49 | 2.74 | 3.75 | 4.65 | 3.42 | 3.20 | 3.17 |
| AL050331.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL050341.2 | 2.60 | 2.64 | 2.59 | 2.96 | 2.66 | 2.82 | 2.33 | 2.75 |
| AL050343.1 | -1.51 | -1.50 | -1.43 | -1.51 | -1.47 | -1.49 | -1.51 | -1.47 |
| AL050343.2 | -1.75 | -1.79 | -1.78 | -1.79 | -1.74 | -1.75 | -1.75 | -1.76 |
| AL050403.2 | 0.99 | 1.15 | 0.95 | 1.49 | 1.14 | 1.18 | 1.32 | 1.24 |
| AL078459.1 | -0.03 | -0.03 | -0.24 | 0.07 | -0.25 | -0.20 | 0.06 | -0.22 |
| AL078581.1 | -1.50 | -1.55 | -1.54 | -1.50 | -1.52 | -1.51 | -1.56 | -1.48 |
| AL078581.3 | -1.75 | -1.79 | -1.73 | -1.79 | -1.76 | -1.75 | -1.79 | -1.81 |
| AL078587.2 | -1.43 | -1.49 | -1.48 | -1.44 | -1.49 | -1.42 | -1.38 | -1.46 |
| AL078590.2 | -2.05 | -2.04 | -2.00 | -2.05 | -2.03 | -2.05 | -2.02 | -2.06 |
| AL078595.1 | 2.05 | 1.84 | 1.40 | 1.97 | 1.77 | 1.77 | 2.23 | 1.80 |
| AL078596.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL078602.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AL078604.1 | 2.61 | 2.83 | 2.11 | 2.91 | 3.30 | 2.48 | 2.59 | 2.96 |
| AL078604.2 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AL078612.1 | -1.94 | -1.87 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.92 |
| AL078621.1 | -1.44 | -1.43 | -1.48 | -1.44 | -1.46 | -1.45 | -1.44 | -1.46 |
| AL078621.3 | -1.74 | -1.69 | -1.73 | -1.74 | -1.71 | -1.73 | -1.70 | -1.76 |
| AL078621.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL078622.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL078644.2 | -1.23 | -1.29 | -1.28 | -1.30 | -1.23 | -1.28 | -1.24 | -1.26 |
| AL079303.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL079304.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL079338.1 | -1.89 | -1.89 | -1.79 | -1.90 | -1.76 | -1.88 | -1.90 | -1.91 |
| AL079342.1 | -1.28 | -1.40 | -1.39 | -1.41 | -1.27 | -1.35 | -1.41 | -1.37 |
| AL080243.2 | 2.79 | 3.13 | 2.42 | 3.14 | 3.25 | 2.97 | 2.65 | 2.78 |
| AL080250.1 | -0.07 | -0.22 | 0.03 | -0.31 | -0.26 | -0.19 | -0.31 | -0.16 |
| AL080275.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AL080276.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL080276.2 | 0.15 | -0.10 | -0.13 | -0.12 | -0.28 | -0.23 | -0.12 | -0.19 |
| AL080315.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| AL080317.1 | 2.17 | 2.39 | 1.66 | 2.05 | 1.70 | 1.77 | 1.83 | 1.60 |
| AL080317.2 | -0.05 | 0.03 | 0.06 | 0.35 | 0.11 | 0.03 | 0.22 | 0.10 |
| AL080317.3 | 0.30 | 0.54 | 0.40 | 0.57 | 0.43 | 0.28 | 0.66 | 0.31 |
| AL080317.4 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| AL096678.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AL096700.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL096701.1 | -0.58 | -0.64 | -0.71 | -0.60 | -0.65 | -0.63 | -0.60 | -0.63 |
| AL096701.2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL096701.3 | -1.64 | -1.64 | -1.63 | -1.59 | -1.64 | -1.65 | -1.54 | -1.61 |
| AL096701.4 | 0.02 | -0.34 | -0.33 | -0.35 | -0.18 | -0.06 | -0.27 | -0.13 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL096706.1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.04 | -2.10 | -2.11 |
| AL096711.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AL096794.1 | -1.64 | -1.74 | -1.73 | -1.74 | -1.66 | -1.75 | -1.74 | -1.71 |
| AL096803.2 | -0.24 | -0.39 | -0.19 | -0.32 | -0.12 | -0.21 | -0.12 | -0.13 |
| AL096817.1 | -2.20 | -2.20 | -2.17 | -2.18 | -2.19 | -2.19 | -2.20 | -2.21 |
| AL096828.3 | -0.28 | -0.42 | -0.39 | -0.13 | -0.31 | -0.44 | -0.36 | -0.30 |
| AL096840.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AL096854.1 | -1.02 | -1.21 | -1.20 | -1.16 | -1.21 | -1.07 | -1.22 | -0.99 |
| AL096865.1 | 0.08 | 0.17 | 0.44 | 0.07 | 0.70 | 0.42 | 0.21 | 0.11 |
| AL096870.1 | 4.55 | 5.35 | 4.71 | 5.14 | 5.23 | 5.19 | 4.69 | 4.83 |
| AL096870.10 | 3.28 | 4.06 | 2.95 | 4.27 | 3.70 | 3.81 | 3.55 | 3.53 |
| AL096870.3 | -1.64 | -1.58 | -1.63 | -1.59 | -1.64 | -1.65 | -1.59 | -1.61 |
| AL096870.8 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| AL109613.1 | 0.66 | 0.66 | 0.48 | 1.08 | 1.07 | 0.39 | 0.56 | 0.39 |
| AL109614.1 | -1.37 | -1.36 | -1.35 | -1.30 | -1.33 | -1.34 | -1.31 | -1.22 |
| AL109615.1 | -1.53 | -1.52 | -1.51 | -1.48 | -1.50 | -1.51 | -1.42 | -1.39 |
| AL109615.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.89 | -1.87 |
| AL109615.3 | -0.37 | -0.37 | -0.34 | -0.45 | -0.38 | -0.34 | -0.53 | -0.27 |
| AL109615.4 | 1.28 | 1.39 | 1.58 | 1.45 | 1.26 | 1.57 | 1.68 | 1.68 |
| AL109618.1 | -0.39 | -0.47 | -0.31 | -0.40 | -0.39 | -0.36 | -0.35 | -0.32 |
| AL109628.1 | 2.10 | 2.22 | 1.73 | 2.29 | 2.71 | 1.74 | 1.74 | 1.98 |
| AL109628.2 | 1.52 | 1.43 | 1.30 | 1.86 | 1.74 | 1.46 | 1.24 | 1.57 |
| AL109659.1 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL109659.3 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL109741.1 | -2.15 | -2.12 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL109741.2 | 2.55 | 2.39 | 2.39 | 2.74 | 3.35 | 2.72 | 2.40 | 2.68 |
| AL109763.1 | -1.79 | -1.79 | -1.20 | -1.80 | -1.79 | -1.80 | -1.80 | -1.82 |
| AL109766.1 | -0.55 | -0.68 | -0.74 | -0.50 | -0.64 | -0.67 | -0.62 | -0.66 |
| AL109806.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AL109809.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL109809.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL109809.5 | -1.89 | -1.89 | -1.88 | -1.90 | -1.89 | -1.90 | -1.85 | -1.91 |
| AL109810.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL109811.1 | -1.83 | -1.94 | -1.89 | -1.95 | -1.94 | -1.93 | -1.95 | -1.96 |
| AL109811.2 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL109824.1 | -0.17 | 1.26 | -0.35 | 1.20 | -0.36 | -0.30 | -0.29 | -0.41 |
| AL109840.2 | -0.84 | -0.83 | -0.75 | -0.85 | -0.91 | -0.89 | -0.85 | -0.87 |
| AL109917.1 | -1.75 | -1.79 | -1.78 | -1.79 | -1.76 | -1.80 | -1.79 | -1.81 |
| AL109918.1 | 2.80 | 2.44 | 2.71 | 3.25 | 2.79 | 2.38 | 2.62 | 2.35 |
| AL109918.3 | -1.89 | -1.85 | -1.88 | -1.85 | -1.89 | -1.84 | -1.86 | -1.91 |
| AL109920.1 | 0.76 | 0.69 | 0.93 | 0.66 | 0.68 | 0.76 | 0.92 | 0.66 |
| AL109923.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL109936.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL109936.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.87 | -1.88 |
| AL109946.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AL109955.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL109976.1 | 1.42 | 1.46 | 1.20 | 1.82 | 1.18 | 1.29 | 1.34 | 1.23 |
| AL109983.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |
| AL110114.1 | -0.12 | -0.25 | 0.09 | -0.35 | 0.04 | -0.21 | -0.13 | -0.30 |
| AL110115.1 | -1.74 | -1.74 | -1.63 | -1.74 | -1.69 | -1.70 | -1.70 | -1.71 |
| AL110115.2 | -1.03 | -0.94 | -0.93 | -0.96 | -0.99 | -0.94 | -1.03 | -0.99 |
| AL110118.1 | -2.20 | -2.20 | -2.19 | -2.16 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL110118.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL110505.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL117190.2 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.13 |
| AL117190.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL117209.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL117327.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL117328.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL117332.1 | 1.45 | 1.03 | 1.15 | 1.06 | 1.22 | 0.96 | 0.92 | 0.96 |
| AL117335.1 | -0.70 | -0.98 | -0.97 | -0.99 | -0.87 | -0.99 | -0.91 | -0.94 |
| AL117336.2 | 0.35 | 0.80 | 0.38 | 0.57 | 0.71 | 0.47 | 0.90 | 0.43 |
| AL117339.4 | -1.94 | -1.94 | -1.89 | -1.91 | -1.92 | -1.95 | -1.87 | -1.92 |
| AL117339.5 | 1.73 | 1.84 | 2.25 | 1.88 | 2.01 | 1.70 | 2.24 | 1.68 |
| AL117344.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| AL117344.2 | -1.50 | -1.49 | -1.48 | -1.50 | -1.50 | -1.43 | -1.34 | -1.42 |
| AL117350.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL117379.1 | 0.10 | 0.19 | 0.05 | 0.18 | 0.46 | 0.28 | 0.17 | 0.46 |
| AL117381.1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AL117382.1 | 0.70 | 0.52 | 0.39 | 0.82 | 0.63 | 0.28 | 0.49 | 0.35 |
| AL118505.1 | 0.92 | 1.01 | 1.04 | 0.98 | 1.14 | 0.88 | 1.09 | 1.25 |
| AL118506.1 | 2.50 | 1.94 | 2.54 | 2.00 | 2.05 | 1.76 | 2.02 | 2.03 |
| AL118508.1 | -1.36 | -1.35 | -1.34 | -1.23 | -1.35 | -1.23 | -1.37 | -1.32 |
| AL118511.1 | -1.96 | -1.96 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -2.01 |
| AL118511.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 |
| AL118511.4 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 | -1.86 | -1.90 | -1.87 |
| AL118516.1 | 5.87 | 3.57 | 3.67 | 4.33 | 3.66 | 4.16 | 3.77 | 4.89 |
| AL118522.1 | 0.39 | 1.12 | 0.17 | 1.02 | 0.32 | 0.31 | 0.36 | 0.23 |
| AL118556.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL118558.1 | -1.64 | -1.64 | -1.63 | -1.59 | -1.58 | -1.60 | -1.65 | -1.61 |
| AL118558.2 | -2.20 | -2.15 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL118558.3 | 1.22 | 0.87 | 1.07 | 1.64 | 1.41 | 1.20 | 1.18 | 1.09 |
| AL118558.4 | -0.78 | -0.62 | -0.68 | -0.57 | -0.62 | -0.76 | -0.71 | -0.74 |
| AL121578.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL121578.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL121578.3 | -1.54 | -1.54 | -1.53 | -1.49 | -1.54 | -1.52 | -1.49 | -1.56 |
| AL121583.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.21 | -2.22 |
| AL121601.1 | 0.06 | -0.29 | -0.18 | -0.30 | 0.04 | -0.14 | -0.17 | -0.20 |
| AL121603.2 | 1.94 | 2.19 | 1.79 | 2.06 | 1.98 | 1.71 | 1.87 | 2.13 |
| AL121652.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL121655.1 | -1.70 | -1.74 | -1.78 | -1.70 | -1.79 | -1.71 | -1.75 | -1.81 |
| AL121657.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AL121658.1 | 0.64 | 0.15 | 0.23 | 0.28 | 0.11 | 0.20 | 0.13 | 0.26 |
| AL121672.2 | -1.45 | -1.39 | -1.49 | -1.51 | -1.50 | -1.49 | -1.51 | -1.47 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL121672.3 | -1.99 | -2.01 | -2.04 | -2.05 | -2.04 | -2.04 | -1.99 | -2.06 |
| AL121723.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.02 | -2.05 | -2.05 |
| AL121748.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.81 | -1.84 | -1.86 |
| AL121749.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 |
| AL121749.2 | -2.30 | -2.30 | -2.29 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL121753.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| AL121757.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL121757.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.34 | -2.36 | -2.36 | -2.37 |
| AL121761.1 | 1.39 | 1.61 | 1.46 | 1.30 | 1.51 | 1.55 | 1.75 | 1.52 |
| AL121768.1 | 0.44 | 0.43 | 0.58 | 0.49 | 0.31 | 0.32 | 0.35 | 0.11 |
| AL121769.1 | -1.44 | -1.44 | -1.43 | -1.26 | -1.37 | -1.45 | -1.32 | -1.40 |
| AL121772.1 | -0.96 | -1.09 | -0.92 | -0.95 | -0.94 | -1.10 | -1.03 | -0.89 |
| AL121772.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL121772.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AL121782.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.02 | -2.03 |
| AL121790.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.91 | -1.95 |
| AL121790.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL121820.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.37 |
| AL121820.2 | 0.33 | 0.42 | 0.25 | 0.46 | 0.29 | 0.45 | 0.26 | 0.25 |
| AL121820.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AL121821.1 | -0.41 | -0.97 | -0.87 | -0.98 | -0.97 | -0.98 | -0.98 | -0.99 |
| AL121829.2 | 1.78 | 0.97 | 1.29 | 1.00 | 0.93 | 0.86 | 0.85 | 0.89 |
| AL121830.1 | -2.29 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL121832.1 | -1.80 | -1.84 | -1.78 | -1.85 | -1.79 | -1.80 | -1.80 | -1.86 |
| AL121832.2 | 3.60 | 2.17 | 2.39 | 2.29 | 2.62 | 2.57 | 2.20 | 2.27 |
| AL121832.3 | -0.08 | -0.52 | -0.37 | -0.54 | -0.56 | -0.51 | -0.61 | -0.57 |
| AL121835.1 | 0.19 | 0.28 | 0.21 | 0.32 | 0.58 | 0.41 | 0.25 | 0.20 |
| AL121839.1 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AL121839.2 | 1.76 | 2.10 | 1.74 | 1.94 | 1.75 | 1.80 | 2.57 | 1.61 |
| AL121845.1 | -0.68 | -0.75 | -0.73 | -0.76 | -0.75 | -0.81 | -0.76 | -0.74 |
| AL121845.4 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AL121871.1 | -0.47 | -0.47 | -0.54 | -0.40 | -0.55 | -0.39 | -0.27 | -0.14 |
| AL121877.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL121890.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AL121890.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL121894.2 | -0.71 | -0.78 | -0.69 | -0.63 | -0.70 | -0.69 | -0.64 | -0.80 |
| AL121895.2 | -0.73 | -0.46 | -0.62 | -0.49 | -0.59 | -0.70 | -0.65 | -0.75 |
| AL121899.1 | -0.02 | 0.07 | 0.08 | 0.39 | 0.03 | 0.06 | 0.31 | 0.01 |
| AL121899.4 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL121906.2 | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.90 | -1.87 |
| AL121916.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL121917.1 | -0.23 | -0.32 | -0.54 | -0.63 | -0.59 | -0.61 | -0.49 | -0.65 |
| AL121917.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.37 |
| AL121928.1 | -2.07 | -2.09 | -2.03 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AL121929.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL121929.3 | -1.45 | -1.38 | -1.37 | -1.33 | -1.38 | -1.43 | -1.39 | -1.47 |
| AL121933.1 | -2.07 | -2.09 | -2.09 | -2.07 | -2.09 | -2.07 | -2.10 | -2.11 |
| AL121936.1 | -2.15 | -2.14 | -2.14 | -2.13 | -2.13 | -2.15 | -2.15 | -2.13 |
| AL121936.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL121944.1 | 3.41 | 2.52 | 2.97 | 2.91 | 3.18 | 3.29 | 2.89 | 2.89 |
| AL121952.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL121956.6 | -2.23 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL121972.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL121974.1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AL121983.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL121983.2 | -0.21 | -0.04 | -0.15 | -0.20 | -0.26 | -0.29 | -0.15 | -0.10 |
| AL121987.1 | -1.84 | -1.79 | -1.83 | -1.84 | -1.84 | -1.85 | -1.85 | -1.73 |
| AL121987.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| AL121988.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| AL121989.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AL121990.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.05 |
| AL121992.1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.95 | -1.96 |
| AL121992.3 | -1.74 | -1.64 | -1.73 | -1.69 | -1.74 | -1.73 | -1.65 | -1.76 |
| AL121994.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL122001.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL122008.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL122008.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.12 | -2.13 | -2.16 |
| AL122008.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL122010.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL122013.1 | -2.18 | -2.18 | -2.19 | -2.18 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL122016.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL122017.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL122020.1 | 4.61 | 4.96 | 3.82 | 5.00 | 5.02 | 5.01 | 4.37 | 5.26 |
| AL122023.1 | 0.06 | 0.35 | -0.08 | 0.31 | 0.03 | 0.06 | -0.10 | 0.06 |
| AL122034.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL122035.1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.82 | -1.89 | -1.87 |
| AL122035.2 | -1.38 | -1.37 | -1.43 | -1.39 | -1.41 | -1.40 | -1.39 | -1.41 |
| AL122058.1 | -0.79 | -0.36 | -0.67 | -0.10 | -0.29 | -0.76 | -0.80 | -0.68 |
| AL122125.1 | -2.00 | -1.99 | -1.94 | -2.00 | -1.99 | -1.98 | -1.96 | -2.01 |
| AL132639.2 | -0.96 | -0.72 | -0.86 | -0.81 | -0.76 | -0.87 | -0.89 | -0.86 |
| AL132639.3 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL132640.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL132640.2 | -1.93 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -1.97 |
| AL132655.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.22 | -2.26 |
| AL132656.3 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL132656.4 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.78 | -1.75 | -1.81 |
| AL132657.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AL132712.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL132712.2 | 0.70 | 0.75 | 0.53 | 0.99 | 0.83 | 0.81 | 0.57 | 0.68 |
| AL132765.2 | -1.96 | -1.95 | -1.95 | -2.00 | -1.95 | -1.98 | -2.00 | -1.97 |
| AL132775.1 | -1.13 | -1.32 | -1.31 | -1.33 | -1.32 | -1.34 | -1.34 | -1.35 |
| AL132775.2 | -0.17 | -0.55 | -0.53 | -0.55 | -0.55 | -0.52 | -0.56 | -0.57 |
| AL132777.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL132780.1 | -1.64 | -1.68 | -1.68 | -1.69 | -1.64 | -1.70 | -1.69 | -1.71 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL132780.2 | 0.79 | 0.86 | 0.70 | 1.02 | 0.77 | 1.03 | 1.06 | 0.64 |
| AL132780.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL132780.5 | -1.59 | -1.63 | -1.62 | -1.54 | -1.63 | -1.52 | -1.64 | -1.66 |
| AL132800.1 | -0.64 | -0.63 | -0.46 | -0.71 | -0.67 | -0.56 | -0.64 | -0.56 |
| AL132838.1 | -0.92 | -0.91 | -1.05 | -0.86 | -0.99 | -1.04 | -0.93 | -1.08 |
| AL132838.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL132857.1 | -0.99 | -0.99 | -0.97 | -0.65 | -0.99 | -0.86 | -1.00 | -0.80 |
| AL132986.1 | -2.30 | -2.30 | -2.27 | -2.31 | -2.30 | -2.30 | -2.31 | -2.31 |
| AL132989.1 | -1.89 | -1.89 | -1.88 | -1.86 | -1.87 | -1.86 | -1.86 | -1.91 |
| AL132989.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL133153.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL133153.2 | -1.75 | -1.79 | -1.73 | -1.79 | -1.74 | -1.80 | -1.79 | -1.81 |
| AL133163.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.86 | -1.93 | -1.95 | -1.92 |
| AL133215.1 | -1.45 | -1.39 | -1.44 | -1.40 | -1.39 | -1.47 | -1.46 | -1.42 |
| AL133215.2 | 1.37 | 0.95 | 1.25 | 1.22 | 1.52 | 1.36 | 1.39 | 1.28 |
| AL133215.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL133216.2 | -0.72 | -0.72 | -0.51 | -0.56 | -0.47 | -0.66 | -0.64 | -0.61 |
| AL133227.1 | -1.79 | -1.79 | -1.73 | -1.79 | -1.76 | -1.78 | -1.79 | -1.81 |
| AL133241.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AL133243.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL133243.2 | 0.85 | 0.87 | 1.05 | 1.04 | 0.94 | 0.91 | 1.45 | 0.89 |
| AL133243.3 | 1.70 | 2.03 | 2.00 | 1.56 | 1.50 | 1.68 | 2.30 | 1.58 |
| AL133243.4 | -0.44 | -0.20 | -0.43 | -0.37 | -0.36 | -0.33 | -0.05 | -0.29 |
| AL133245.1 | -0.73 | -0.65 | -0.32 | -0.66 | -0.69 | -0.71 | -0.42 | -0.63 |
| AL133255.1 | -2.12 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AL133260.1 | 1.01 | 1.04 | 1.03 | 1.23 | 1.09 | 0.96 | 1.05 | 1.11 |
| AL133264.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL133284.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL133297.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| AL133297.2 | -1.89 | -1.89 | -1.88 | -1.90 | -1.76 | -1.90 | -1.90 | -1.91 |
| AL133300.1 | 0.91 | 0.99 | 0.97 | 1.09 | 0.96 | 0.76 | 1.51 | 0.75 |
| AL133334.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL133335.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL133338.1 | 0.52 | 0.20 | 0.46 | 0.38 | 0.31 | 0.43 | 0.37 | 0.39 |
| AL133342.1 | -1.83 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.96 |
| AL133346.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 |
| AL133351.1 | 0.61 | 0.22 | 0.15 | 0.20 | 0.41 | 0.15 | 0.26 | 0.28 |
| AL133353.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| AL133353.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL133355.1 | -1.69 | -1.69 | -1.62 | -1.70 | -1.63 | -1.70 | -1.70 | -1.71 |
| AL133367.1 | -0.74 | -0.73 | -0.63 | -0.53 | -0.70 | -0.72 | -0.67 | -0.77 |
| AL133373.2 | -1.51 | -1.50 | -1.49 | -1.51 | -1.47 | -1.52 | -1.38 | -1.53 |
| AL133375.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AL133384.2 | -2.15 | -2.12 | -2.12 | -2.12 | -2.15 | -2.14 | -2.15 | -2.16 |
| AL133390.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AL133396.2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL133406.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL133410.1 | 1.24 | 1.03 | 1.00 | 1.34 | 1.25 | 1.18 | 1.05 | 1.09 |
| AL133410.2 | -1.54 | -1.53 | -1.52 | -1.54 | -1.45 | -1.49 | -1.43 | -1.56 |
| AL133412.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL133445.1 | -1.65 | -1.69 | -1.68 | -1.75 | -1.69 | -1.73 | -1.70 | -1.67 |
| AL133445.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -1.99 | -2.06 |
| AL133453.1 | 3.37 | 3.51 | 3.91 | 3.63 | 4.43 | 3.65 | 4.09 | 4.12 |
| AL133467.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL133477.1 | -0.25 | -0.31 | -0.29 | -0.25 | -0.32 | -0.18 | -0.41 | -0.31 |
| AL133477.2 | -1.49 | -1.59 | -1.58 | -1.60 | -1.56 | -1.60 | -1.55 | -1.52 |
| AL133485.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL133517.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL133520.1 | -0.97 | -0.89 | -1.03 | -0.70 | -1.00 | -1.06 | -0.98 | -1.08 |
| AL133523.1 | -0.29 | -0.12 | -0.20 | 0.04 | -0.20 | -0.08 | 0.04 | -0.08 |
| AL133551.1 | -1.48 | -1.58 | -1.57 | -1.43 | -1.56 | -1.52 | -1.59 | -1.61 |
| AL135744.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL135786.2 | -2.30 | -2.30 | -2.28 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL135787.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AL135791.1 | -0.60 | -0.67 | -0.56 | -0.67 | -0.44 | -0.55 | -0.67 | -0.53 |
| AL135818.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL135838.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL135903.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.06 |
| AL135905.1 | 1.40 | 1.71 | 1.91 | 1.46 | 2.00 | 1.58 | 2.06 | 1.42 |
| AL135905.2 | 1.46 | 1.55 | 1.73 | 1.31 | 1.41 | 1.30 | 1.60 | 1.33 |
| AL135910.1 | -0.44 | -1.07 | -1.06 | -1.00 | -1.03 | -1.09 | -1.08 | -1.03 |
| AL135924.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AL135924.2 | -0.79 | -0.71 | -0.61 | -0.72 | -0.75 | -0.70 | -0.58 | -0.81 |
| AL135925.1 | 1.76 | 1.50 | 1.57 | 1.56 | 1.42 | 1.58 | 1.25 | 1.22 |
| AL135926.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL135978.2 | -2.07 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AL135999.1 | 0.06 | 0.30 | 0.10 | 0.48 | 0.27 | 0.23 | 0.48 | 0.16 |
| AL135999.3 | -1.69 | -1.54 | -1.68 | -1.35 | -1.67 | -1.65 | -1.70 | -1.62 |
| AL136038.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 | -2.15 | -2.15 | -2.16 |
| AL136038.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL136038.3 | -0.15 | -0.07 | 0.10 | -0.02 | 0.06 | -0.14 | -0.16 | -0.26 |
| AL136038.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL136038.5 | 3.05 | 2.89 | 3.36 | 3.37 | 3.81 | 3.78 | 2.93 | 3.13 |
| AL136040.1 | 0.38 | 0.23 | 0.09 | 0.33 | 0.19 | 0.05 | 0.06 | 0.08 |
| AL136084.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.13 |
| AL136115.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL136115.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.90 | -1.95 | -1.96 |
| AL136116.1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.73 | -1.66 | -1.57 | -1.71 |
| AL136116.3 | -0.86 | -0.92 | -0.91 | -1.01 | -0.93 | -0.85 | -1.01 | -1.02 |
| AL136126.1 | 0.35 | 0.37 | 0.48 | 0.99 | 0.59 | 0.82 | 0.48 | 0.63 |
| AL136131.2 | -2.28 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL136131.3 | 0.64 | 0.80 | 0.52 | 0.76 | 0.66 | 0.66 | 0.72 | 0.69 |
| AL136141.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL136162.1 | -0.96 | -1.26 | -1.32 | -1.34 | -1.33 | -1.32 | -1.22 | -1.25 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL136164.3 | 1.69 | 1.47 | 1.76 | 1.44 | 1.26 | 1.43 | 2.20 | 1.08 |
| AL136169.1 | -0.48 | -0.39 | -0.05 | -0.48 | -0.43 | -0.29 | -0.02 | -0.44 |
| AL136171.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AL136172.1 | -2.15 | -2.15 | -2.11 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| AL136221.1 | -0.52 | -0.21 | -0.49 | -0.40 | -0.47 | -0.53 | -0.32 | -0.55 |
| AL136226.1 | -1.33 | -1.43 | -1.48 | -1.44 | -1.49 | -1.50 | -1.44 | -1.41 |
| AL136295.17 | -0.27 | -0.33 | -0.14 | -0.35 | -0.27 | -0.36 | -0.22 | -0.32 |
| AL136295.2 | -0.10 | -0.09 | -0.08 | -0.03 | 0.03 | 0.17 | 0.08 | 0.04 |
| AL136295.6 | -0.96 | -1.02 | -1.01 | -0.96 | -0.95 | -0.81 | -1.03 | -0.93 |
| AL136295.7 | 0.64 | 0.61 | 0.49 | 0.57 | 0.49 | 0.53 | 0.56 | 0.43 |
| AL136298.1 | -2.02 | -2.04 | -2.04 | -2.04 | -2.03 | -2.05 | -2.05 | -2.05 |
| AL136298.3 | -1.69 | -1.68 | -1.63 | -1.69 | -1.66 | -1.70 | -1.69 | -1.66 |
| AL136301.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL136304.1 | -0.98 | -1.04 | -1.03 | -1.06 | -1.12 | -1.00 | -1.06 | -1.03 |
| AL136307.1 | -1.22 | -1.28 | -1.34 | -1.29 | -1.32 | -1.34 | -1.30 | -1.32 |
| AL136310.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL136360.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AL136363.2 | -2.36 | -2.36 | -2.33 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL136366.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AL136372.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AL136380.1 | -0.63 | -0.82 | -0.66 | -0.61 | -0.74 | -0.68 | -0.62 | -0.84 |
| AL136382.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL136418.1 | -0.08 | -0.58 | -0.56 | -0.67 | -0.58 | -0.68 | -0.60 | -0.69 |
| AL136419.1 | -1.75 | -1.74 | -1.78 | -1.79 | -1.76 | -1.78 | -1.75 | -1.80 |
| AL136419.2 | -2.30 | -2.29 | -2.30 | -2.28 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL136419.3 | -1.55 | -1.59 | -1.58 | -1.60 | -1.52 | -1.58 | -1.50 | -1.48 |
| AL136442.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AL136454.1 | 2.01 | 1.87 | 1.73 | 1.90 | 2.71 | 1.92 | 1.90 | 1.91 |
| AL136526.1 | -2.04 | -2.06 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL136531.1 | -1.03 | -1.10 | -0.88 | -1.03 | -1.03 | -1.08 | -1.11 | -1.06 |
| AL136531.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.03 |
| AL136531.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AL136962.1 | 2.16 | 0.38 | 0.41 | 0.45 | 0.43 | 0.42 | 0.35 | 0.31 |
| AL136964.1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL136968.2 | 0.97 | 1.06 | 0.86 | 1.02 | 1.23 | 1.01 | 1.12 | 1.03 |
| AL136980.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL136981.2 | -1.15 | -1.00 | -1.06 | -1.08 | -1.15 | -1.01 | -1.09 | -1.17 |
| AL136982.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| AL136982.3 | -1.90 | -1.90 | -1.93 | -1.91 | -1.92 | -1.95 | -1.91 | -1.96 |
| AL136982.5 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL136984.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.89 | -1.91 | -1.96 |
| AL136985.3 | -1.13 | -1.04 | -1.11 | -1.13 | -1.12 | -1.10 | -1.13 | -1.08 |
| AL136987.1 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL136988.1 | -1.21 | -1.28 | -1.26 | -1.29 | -1.16 | -1.26 | -1.22 | -1.17 |
| AL137002.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL137002.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL137003.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL137003.2 | -0.46 | -0.67 | -0.49 | -0.46 | -0.31 | -0.65 | -0.53 | -0.48 |
| AL137009.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL137013.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AL137025.1 | -1.82 | -1.89 | -1.88 | -1.86 | -1.89 | -1.82 | -1.89 | -1.90 |
| AL137060.1 | -1.69 | -1.69 | -1.68 | -1.65 | -1.64 | -1.68 | -1.70 | -1.66 |
| AL137077.1 | -1.22 | -1.21 | -1.13 | -1.16 | -1.14 | -1.23 | -0.90 | -1.12 |
| AL137077.2 | -0.81 | -0.95 | -0.94 | -0.89 | -0.87 | -0.90 | -0.68 | -0.91 |
| AL137100.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL137127.1 | -1.84 | -1.80 | -1.83 | -1.80 | -1.84 | -1.83 | -1.80 | -1.86 |
| AL137139.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL137186.2 | -0.38 | -0.30 | -0.44 | -0.39 | -0.25 | -0.40 | -0.39 | -0.36 |
| AL137222.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL137230.1 | -2.05 | -2.04 | -2.04 | -2.05 | -1.96 | -2.05 | -2.05 | -2.06 |
| AL137244.1 | -2.04 | -2.01 | -2.04 | -1.99 | -2.04 | -2.05 | -2.02 | -2.03 |
| AL137779.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL137781.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 |
| AL137782.1 | 1.31 | 1.25 | 2.32 | 1.65 | 1.87 | 1.37 | 2.34 | 1.61 |
| AL137783.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL137785.1 | 1.41 | 1.34 | 1.17 | 1.32 | 1.71 | 0.89 | 0.81 | 0.69 |
| AL137786.1 | -1.99 | -1.99 | -1.91 | -2.00 | -1.90 | -2.00 | -2.00 | -2.01 |
| AL137790.1 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL137792.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL137796.1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.05 |
| AL137798.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL137800.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.95 | -1.95 | -1.96 |
| AL137802.2 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL137803.1 | -1.66 | -1.78 | -1.78 | -1.79 | -1.76 | -1.75 | -1.79 | -1.76 |
| AL137845.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.10 |
| AL137847.1 | 0.12 | 0.29 | 0.30 | 0.63 | 0.06 | 0.10 | 0.30 | 0.00 |
| AL137847.2 | -2.15 | -2.14 | -2.14 | -2.10 | -2.15 | -2.13 | -2.15 | -2.16 |
| AL137856.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL137918.1 | -2.20 | -2.18 | -2.15 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL138478.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL138479.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.91 | -1.92 |
| AL138688.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL138688.2 | -1.21 | -0.99 | -1.19 | -1.08 | -1.20 | -1.16 | -1.02 | -1.22 |
| AL138689.1 | -1.54 | -1.59 | -1.53 | -1.60 | -1.57 | -1.53 | -1.60 | -1.62 |
| AL138689.2 | 0.37 | 0.68 | 0.50 | 0.69 | 0.46 | 0.62 | 0.57 | 0.64 |
| AL138693.1 | -1.64 | -1.54 | -1.63 | -1.64 | -1.64 | -1.62 | -1.64 | -1.61 |
| AL138701.1 | -1.54 | -1.54 | -1.58 | -1.60 | -1.59 | -1.58 | -1.60 | -1.57 |
| AL138720.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL138721.1 | -0.36 | -0.19 | -0.42 | -0.30 | -0.16 | -0.34 | -0.29 | -0.27 |
| AL138724.1 | 0.71 | 0.80 | 0.59 | 0.75 | 0.58 | 0.80 | 0.40 | 0.85 |
| AL138752.1 | -0.63 | -0.70 | -0.69 | -0.63 | -0.54 | -0.61 | -0.56 | -0.66 |
| AL138756.1 | 2.29 | 2.23 | 2.37 | 2.06 | 2.16 | 2.36 | 2.32 | 2.17 |
| AL138759.1 | -2.07 | -2.04 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AL138760.1 | -0.89 | -0.46 | -0.87 | -0.74 | -0.81 | -0.83 | -0.75 | -0.74 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL138762.1 | 1.59 | 1.25 | 1.53 | 1.17 | 1.68 | 1.30 | 1.09 | 1.24 |
| AL138767.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL138778.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.24 |
| AL138781.1 | -0.29 | -0.21 | -0.18 | 0.03 | -0.21 | -0.20 | -0.30 | -0.26 |
| AL138781.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL138785.1 | 1.52 | 2.16 | 1.61 | 1.89 | 2.12 | 1.56 | 1.49 | 1.73 |
| AL138787.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL138789.1 | 0.28 | 0.21 | 0.23 | 0.36 | 0.21 | 0.54 | 0.94 | 0.16 |
| AL138799.3 | -1.39 | -1.32 | -1.37 | -1.39 | -1.32 | -1.40 | -1.33 | -1.41 |
| AL138820.1 | -1.55 | -1.54 | -1.47 | -1.49 | -1.51 | -1.56 | -1.31 | -1.57 |
| AL138824.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AL138827.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.80 | -1.83 | -1.80 | -1.82 |
| AL138828.1 | -1.21 | -1.34 | -1.26 | -1.35 | -1.24 | -1.32 | -1.35 | -1.30 |
| AL138831.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL138831.2 | -2.15 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL138847.1 | -1.59 | -1.47 | -1.63 | -1.54 | -1.56 | -1.65 | -1.59 | -1.66 |
| AL138878.1 | -1.12 | -1.11 | -1.02 | -1.04 | -1.11 | -0.87 | -1.12 | -1.01 |
| AL138878.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AL138885.3 | 0.71 | 0.47 | 0.34 | 0.56 | 0.44 | 0.32 | 0.30 | 0.49 |
| AL138885.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AL138895.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL138899.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL138921.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL138921.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL138930.1 | -2.30 | -2.30 | -2.30 | -2.27 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL138955.1 | -1.30 | -1.29 | -1.40 | -1.42 | -1.35 | -1.43 | -1.36 | -1.39 |
| AL138960.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AL138963.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL138963.2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.96 | -1.95 | -1.96 | -2.01 |
| AL138963.3 | 2.19 | 2.07 | 2.41 | 2.44 | 2.61 | 2.23 | 2.37 | 2.26 |
| AL138966.2 | 0.03 | 0.10 | -0.07 | -0.04 | 0.18 | -0.13 | -0.12 | 0.04 |
| AL138976.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL138976.2 | -1.40 | -1.32 | -1.38 | -1.40 | -1.36 | -1.34 | -1.33 | -1.42 |
| AL138995.1 | -1.17 | -1.16 | -1.22 | -1.17 | -1.10 | -1.22 | -1.18 | -1.25 |
| AL138999.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.07 | -2.11 |
| AL139011.1 | -0.44 | -0.35 | -0.42 | -0.23 | -0.28 | -0.29 | -0.37 | -0.19 |
| AL139011.2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AL139021.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL139022.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL139022.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| AL139039.2 | -1.64 | -1.58 | -1.68 | -1.64 | -1.58 | -1.65 | -1.64 | -1.66 |
| AL139039.3 | -1.26 | -1.43 | -1.42 | -1.44 | -1.43 | -1.45 | -1.38 | -1.22 |
| AL139041.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL139089.1 | 0.67 | 0.84 | 0.96 | 0.93 | 1.35 | 0.83 | 0.65 | 1.42 |
| AL139094.1 | -2.04 | -2.04 | -2.04 | -1.99 | -2.04 | -2.05 | -2.02 | -2.03 |
| AL139095.1 | -1.02 | -1.01 | -0.93 | -1.09 | -0.94 | -1.06 | -1.02 | -1.05 |
| AL139095.2 | 1.91 | 2.14 | 1.90 | 2.18 | 2.46 | 1.97 | 1.83 | 2.27 |
| AL139099.1 | 0.66 | 1.03 | 0.80 | 1.04 | 0.95 | 0.80 | 0.91 | 0.66 |
| AL139099.2 | -1.89 | -1.85 | -1.84 | -1.81 | -1.89 | -1.86 | -1.90 | -1.87 |
| AL139100.1 | -0.27 | -0.59 | -0.51 | -0.39 | -0.49 | -0.35 | -0.60 | -0.45 |
| AL139118.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL139120.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AL139123.1 | -1.84 | -1.84 | -1.79 | -1.84 | -1.84 | -1.83 | -1.85 | -1.86 |
| AL139124.1 | -2.31 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.32 |
| AL139128.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL139132.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL139142.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL139156.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.12 | -2.16 |
| AL139174.1 | -1.60 | -1.54 | -1.47 | -1.60 | -1.54 | -1.58 | -1.61 | -1.52 |
| AL139220.2 | 2.55 | 2.13 | 1.90 | 2.18 | 3.36 | 2.57 | 2.05 | 1.92 |
| AL139234.1 | -1.59 | -1.58 | -1.47 | -1.59 | -1.64 | -1.65 | -1.59 | -1.56 |
| AL139241.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL139243.1 | -1.59 | -1.59 | -1.58 | -1.60 | -1.50 | -1.55 | -1.60 | -1.56 |
| AL139246.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL139246.3 | 1.24 | 2.08 | 1.25 | 1.83 | 1.42 | 0.98 | 1.26 | 1.29 |
| AL139246.5 | 3.33 | 2.37 | 2.41 | 2.71 | 2.42 | 2.63 | 2.73 | 2.10 |
| AL139254.3 | -2.10 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 | -2.10 | -2.12 |
| AL139260.1 | -0.04 | -0.09 | 0.08 | 0.10 | 0.04 | 0.04 | -0.19 | -0.09 |
| AL139274.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL139274.2 | 0.36 | 0.12 | 0.39 | -0.06 | 0.07 | 0.17 | 0.02 | 0.10 |
| AL139286.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL139287.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.92 |
| AL139288.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| AL139288.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.18 | -2.20 | -2.21 |
| AL139289.2 | 2.39 | 1.60 | 1.57 | 1.98 | 2.68 | 1.71 | 1.91 | 2.02 |
| AL139317.3 | -0.30 | -0.15 | -0.28 | -0.17 | -0.25 | -0.32 | 0.01 | -0.28 |
| AL139317.5 | -1.44 | -1.43 | -1.42 | -1.44 | -1.49 | -1.48 | -1.44 | -1.46 |
| AL139330.1 | 3.87 | 2.40 | 3.36 | 2.25 | 2.90 | 3.30 | 2.79 | 2.43 |
| AL139339.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL139339.2 | -1.46 | -1.45 | -1.19 | -1.40 | -1.33 | -1.44 | -1.40 | -1.42 |
| AL139351.3 | -1.99 | -1.96 | -1.98 | -1.96 | -1.99 | -1.95 | -2.00 | -1.97 |
| AL139352.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL139353.1 | -0.07 | -0.27 | -0.26 | -0.36 | 0.04 | -0.23 | -0.29 | -0.32 |
| AL139353.2 | -0.55 | -0.53 | -0.51 | -0.47 | -0.43 | -0.59 | -0.23 | -0.58 |
| AL139353.3 | -1.89 | -1.85 | -1.88 | -1.89 | -1.87 | -1.88 | -1.86 | -1.91 |
| AL139383.1 | -0.02 | 0.27 | 0.17 | -0.03 | 0.11 | -0.07 | -0.02 | 0.35 |
| AL139384.1 | 0.69 | 0.33 | 0.73 | 0.32 | 1.11 | 0.45 | 0.53 | 0.80 |
| AL139384.2 | -2.25 | -2.25 | -2.23 | -2.22 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL139385.1 | 1.00 | 1.25 | 1.19 | 1.51 | 1.38 | 1.20 | 1.64 | 1.43 |
| AL139393.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL139393.3 | -0.78 | -0.77 | -0.60 | -0.78 | -0.77 | -0.50 | -0.64 | -0.79 |
| AL139407.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -1.96 | -2.01 |
| AL139412.1 | -0.52 | -0.74 | -0.64 | -0.74 | -0.61 | -0.68 | -0.61 | -0.70 |
| AL139415.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL139420.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL139421.1 | 0.12 | 0.34 | 0.08 | 0.36 | 0.49 | 0.12 | 0.10 | 0.15 |
| AL139423.1 | -1.74 | -1.74 | -1.73 | -1.74 | -1.74 | -1.75 | -1.70 | -1.76 |
| AL139424.1 | -1.76 | -1.84 | -1.83 | -1.80 | -1.84 | -1.83 | -1.76 | -1.86 |
| AL139424.2 | -1.30 | -1.23 | -1.22 | -1.18 | -1.30 | -1.28 | -1.17 | -1.26 |
| AL139424.3 | -1.64 | -1.64 | -1.68 | -1.69 | -1.69 | -1.70 | -1.60 | -1.66 |
| AL139801.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL139811.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL139811.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL139815.1 | -1.85 | -1.85 | -1.84 | -1.81 | -1.89 | -1.86 | -1.85 | -1.91 |
| AL139819.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL157373.2 | -1.47 | -1.46 | -1.45 | -1.47 | -1.35 | -1.39 | -1.47 | -1.34 |
| AL157388.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL157392.3 | 0.99 | 1.24 | 1.16 | 1.00 | 1.03 | 0.96 | 1.34 | 1.08 |
| AL157392.4 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.02 | -2.03 |
| AL157394.2 | -1.08 | -1.00 | -0.91 | -0.82 | -1.00 | -1.05 | -0.95 | -1.09 |
| AL157395.1 | -0.67 | -0.66 | -0.57 | -0.76 | -0.58 | -0.76 | -0.68 | -0.77 |
| AL157396.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL157400.2 | -1.11 | -1.17 | -1.23 | -1.25 | -0.87 | -1.23 | -1.25 | -1.27 |
| AL157400.3 | -1.39 | -1.44 | -1.38 | -1.34 | -1.42 | -1.35 | -1.46 | -1.42 |
| AL157400.4 | -1.45 | -1.44 | -1.43 | -1.45 | -1.50 | -1.46 | -1.51 | -1.53 |
| AL157700.1 | -1.85 | -1.89 | -1.84 | -1.90 | -1.87 | -1.84 | -1.90 | -1.91 |
| AL157702.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 |
| AL157713.1 | -1.70 | -1.69 | -1.68 | -1.70 | -1.67 | -1.66 | -1.70 | -1.59 |
| AL157756.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.06 | -2.09 | -2.10 | -2.11 |
| AL157762.1 | -1.08 | -0.86 | -0.98 | -1.08 | -1.00 | -1.09 | -0.88 | -0.92 |
| AL157769.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL157777.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL157786.1 | -0.55 | -0.61 | -0.59 | -0.70 | -0.54 | -0.57 | -0.57 | -0.71 |
| AL157791.1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| AL157813.1 | -1.23 | -1.16 | -1.22 | -1.17 | -1.23 | -1.28 | -1.24 | -1.32 |
| AL157827.2 | -2.34 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL157829.1 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL157834.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.93 | -1.88 | -1.96 |
| AL157834.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL157838.1 | -1.84 | -1.84 | -1.79 | -1.80 | -1.77 | -1.85 | -1.84 | -1.86 |
| AL157871.1 | -1.69 | -1.68 | -1.68 | -1.69 | -1.61 | -1.65 | -1.69 | -1.71 |
| AL157871.3 | -1.24 | -1.16 | -1.14 | -1.24 | -1.09 | -1.15 | -1.24 | -1.14 |
| AL157871.4 | -1.21 | -1.13 | -1.19 | -1.14 | -1.09 | -1.06 | -1.14 | -1.11 |
| AL157871.5 | -0.81 | -0.65 | -0.63 | -0.60 | -0.81 | -0.82 | -0.67 | -0.77 |
| AL157871.6 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL157884.3 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL157886.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL157888.1 | 0.39 | 0.16 | 0.10 | 0.12 | 0.12 | -0.01 | 0.06 | 0.03 |
| AL157893.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL157893.2 | -1.75 | -1.78 | -1.78 | -1.71 | -1.79 | -1.78 | -1.79 | -1.76 |
| AL157902.2 | -1.99 | -1.96 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -1.97 |
| AL157904.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.11 |
| AL157935.1 | -0.63 | -0.62 | -0.61 | -0.63 | -0.62 | -0.46 | -0.63 | -0.53 |
| AL157936.1 | -1.17 | -1.30 | -1.22 | -1.18 | -1.27 | -1.26 | -1.32 | -1.27 |
| AL157937.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL157938.2 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.00 |
| AL157938.3 | -0.52 | -0.52 | -0.65 | -0.60 | -0.67 | -0.55 | -0.54 | -0.63 |
| AL157944.1 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL157996.2 | -1.69 | -1.68 | -1.68 | -1.69 | -1.51 | -1.67 | -1.69 | -1.66 |
| AL158047.1 | -0.87 | -0.87 | -1.00 | -0.84 | -0.94 | -0.96 | -0.89 | -0.92 |
| AL158050.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.02 | -2.06 |
| AL158063.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL158064.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.29 | -2.31 |
| AL158070.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL158071.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.90 | -1.91 |
| AL158071.3 | -1.29 | -1.28 | -1.20 | -1.29 | -1.28 | -1.21 | -1.29 | -1.25 |
| AL158071.4 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -2.00 | -2.01 |
| AL158071.5 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.16 | -2.16 | -2.17 |
| AL158141.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL158151.1 | 0.65 | 0.43 | 0.55 | 0.42 | 0.58 | 0.60 | 0.63 | 0.56 |
| AL158151.3 | -0.45 | -0.66 | -0.64 | -0.67 | -0.58 | -0.63 | -0.44 | -0.62 |
| AL158151.4 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 |
| AL158152.1 | 2.88 | 3.09 | 3.43 | 3.38 | 3.13 | 3.18 | 3.39 | 2.39 |
| AL158154.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL158156.1 | -1.50 | -1.60 | -1.59 | -1.55 | -1.47 | -1.59 | -1.61 | -1.47 |
| AL158163.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AL158163.2 | -1.59 | -1.59 | -1.52 | -1.60 | -1.53 | -1.54 | -1.60 | -1.62 |
| AL158166.1 | -1.49 | -1.63 | -1.52 | -1.64 | -1.58 | -1.65 | -1.64 | -1.61 |
| AL158167.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.04 | -2.02 | -2.03 |
| AL158175.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL158196.1 | -1.48 | -1.54 | -1.53 | -1.49 | -1.48 | -1.55 | -1.49 | -1.56 |
| AL158201.1 | -2.12 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| AL158206.1 | 2.93 | 3.09 | 3.63 | 3.25 | 3.34 | 3.55 | 3.85 | 3.46 |
| AL158207.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL158207.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL158211.1 | -2.15 | -2.14 | -2.12 | -2.10 | -2.15 | -2.13 | -2.15 | -2.16 |
| AL158211.2 | -2.15 | -2.12 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.11 |
| AL158211.3 | -1.71 | -1.79 | -1.78 | -1.75 | -1.79 | -1.80 | -1.79 | -1.68 |
| AL158211.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL158211.5 | -0.88 | -0.73 | -0.78 | -0.68 | -0.84 | -0.70 | -0.76 | -0.84 |
| AL158212.2 | 0.79 | 0.60 | 0.66 | 0.71 | 0.79 | 0.70 | 0.64 | 0.51 |
| AL158212.3 | 0.62 | 0.79 | 1.00 | 0.82 | 0.81 | 0.81 | 0.94 | 0.78 |
| AL158212.5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL158214.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.11 |
| AL158214.2 | -1.26 | -1.11 | -1.24 | -1.26 | -1.18 | -1.20 | -1.07 | -1.22 |
| AL158801.1 | -1.84 | -1.75 | -1.83 | -1.84 | -1.84 | -1.81 | -1.84 | -1.86 |
| AL158801.2 | -1.31 | -1.43 | -1.42 | -1.44 | -1.34 | -1.42 | -1.31 | -1.46 |
| AL158801.4 | -1.80 | -1.84 | -1.83 | -1.80 | -1.78 | -1.83 | -1.84 | -1.82 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL158801.5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.18 | -2.21 |
| AL158823.1 | 1.02 | 1.38 | 0.92 | 1.20 | 1.58 | 0.95 | 1.07 | 1.39 |
| AL158824.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL158825.2 | -1.24 | -1.16 | -1.22 | -1.05 | -1.20 | -1.25 | -1.18 | -1.26 |
| AL158834.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AL158835.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL158835.2 | -0.63 | -0.78 | -0.77 | -0.79 | -0.78 | -0.60 | -0.71 | -0.74 |
| AL158839.1 | -1.84 | -1.94 | -1.93 | -1.87 | -1.94 | -1.95 | -1.94 | -1.96 |
| AL158847.1 | 1.05 | 1.07 | 0.85 | 0.78 | 0.89 | 0.91 | 0.81 | 0.69 |
| AL159163.1 | 0.71 | 0.65 | 0.61 | 0.63 | 0.73 | 0.67 | 0.87 | 0.44 |
| AL159166.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL159169.2 | -1.94 | -1.94 | -1.89 | -1.95 | -1.94 | -1.91 | -1.95 | -1.92 |
| AL159169.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AL159174.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL160006.1 | 1.79 | 2.10 | 2.17 | 1.82 | 2.01 | 1.86 | 1.85 | 1.86 |
| AL160163.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.13 |
| AL160171.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL160191.1 | -2.25 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL160191.3 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL160287.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| AL160314.1 | -1.30 | -1.22 | -1.21 | -1.23 | -1.22 | -1.24 | -1.11 | -1.26 |
| AL160314.2 | 0.02 | -0.05 | 0.05 | 0.13 | 0.15 | -0.09 | -0.15 | -0.18 |
| AL160396.2 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| AL160400.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL160408.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| AL160408.2 | -0.35 | -0.34 | -0.41 | -0.16 | -0.43 | -0.20 | -0.44 | -0.22 |
| AL160408.3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL160408.4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.18 | -2.21 |
| AL161421.1 | 2.21 | 2.44 | 2.55 | 2.96 | 2.92 | 2.53 | 2.34 | 2.92 |
| AL161431.1 | 1.46 | 1.26 | 1.98 | 1.07 | 1.41 | 1.78 | 1.48 | 1.19 |
| AL161443.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL161449.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL161449.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL161452.1 | -1.30 | -1.41 | -1.40 | -1.42 | -1.39 | -1.37 | -1.31 | -1.44 |
| AL161454.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL161457.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AL161630.1 | -2.04 | -1.95 | -2.04 | -1.95 | -2.04 | -2.05 | -2.05 | -2.03 |
| AL161636.2 | -1.96 | -1.99 | -1.98 | -1.99 | -1.97 | -1.98 | -2.00 | -1.94 |
| AL161640.3 | -1.79 | -1.79 | -1.78 | -1.79 | -1.79 | -1.78 | -1.79 | -1.81 |
| AL161645.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AL161658.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL161663.1 | -1.19 | -1.11 | -1.17 | -1.20 | -1.15 | -1.20 | -1.13 | -1.21 |
| AL161663.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL161665.1 | 0.50 | 0.58 | 0.37 | 0.81 | 0.57 | 0.52 | 0.55 | 0.49 |
| AL161665.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.18 | -2.19 |
| AL161668.3 | -1.69 | -1.63 | -1.68 | -1.59 | -1.61 | -1.65 | -1.64 | -1.71 |
| AL161668.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL161669.3 | -0.24 | -0.44 | -0.52 | -0.54 | -0.49 | -0.51 | -0.32 | -0.56 |
| AL161670.2 | -1.79 | -1.79 | -1.73 | -1.79 | -1.79 | -1.75 | -1.75 | -1.81 |
| AL161719.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL161725.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL161725.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL161729.1 | -1.13 | -1.42 | -1.41 | -1.43 | -1.36 | -1.37 | -1.37 | -1.44 |
| AL161729.2 | -1.81 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.91 |
| AL161729.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL161729.4 | -1.84 | -1.79 | -1.83 | -1.76 | -1.82 | -1.83 | -1.85 | -1.86 |
| AL161733.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL161742.1 | -1.84 | -1.79 | -1.83 | -1.76 | -1.79 | -1.83 | -1.85 | -1.82 |
| AL161752.1 | -2.04 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL161756.1 | -1.49 | -1.49 | -1.48 | -1.43 | -1.43 | -1.47 | -1.50 | -1.51 |
| AL161756.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.26 |
| AL161757.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL161757.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL161772.1 | 3.67 | 3.47 | 3.26 | 3.72 | 4.03 | 2.76 | 3.11 | 2.80 |
| AL161781.1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 | -1.88 | -1.89 | -1.91 |
| AL161785.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL161787.1 | 5.71 | 6.08 | 4.71 | 6.12 | 7.26 | 5.99 | 5.55 | 5.82 |
| AL161804.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL161891.1 | -0.23 | -0.30 | -0.20 | -0.17 | -0.27 | -0.14 | -0.32 | -0.29 |
| AL161893.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL161908.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL161909.1 | 2.98 | 2.68 | 1.89 | 2.86 | 2.28 | 2.81 | 2.30 | 2.41 |
| AL161909.2 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL161910.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL161938.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL162151.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL162171.1 | 2.35 | 2.97 | 2.87 | 3.25 | 2.57 | 2.90 | 3.50 | 2.85 |
| AL162171.2 | -2.15 | -2.15 | -2.12 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| AL162171.3 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL162171.4 | -1.64 | -1.63 | -1.57 | -1.64 | -1.63 | -1.57 | -1.59 | -1.66 |
| AL162231.1 | -1.59 | -1.59 | -1.58 | -1.54 | -1.54 | -1.53 | -1.60 | -1.61 |
| AL162231.2 | 2.38 | 2.40 | 2.19 | 2.68 | 2.81 | 3.21 | 3.29 | 2.38 |
| AL162253.2 | 0.69 | 0.70 | 0.91 | 0.68 | 0.94 | 1.34 | 0.82 | 1.28 |
| AL162258.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL162258.2 | 0.00 | -0.14 | -0.03 | 0.17 | 0.02 | 0.01 | 0.06 | 0.29 |
| AL162274.1 | -1.45 | -1.32 | -1.43 | -1.39 | -1.41 | -1.43 | -1.21 | -1.41 |
| AL162274.2 | 0.03 | 0.06 | 0.17 | 0.03 | -0.03 | -0.06 | 0.16 | -0.15 |
| AL162274.3 | -2.25 | -2.22 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL162293.1 | -0.89 | -0.87 | -0.94 | -1.04 | -0.95 | -0.94 | -0.89 | -0.99 |
| AL162311.3 | -1.41 | -1.26 | -1.39 | -1.41 | -1.33 | -1.28 | -1.34 | -1.31 |
| AL162376.1 | -0.14 | 0.18 | -0.02 | 0.27 | -0.13 | -0.08 | -0.15 | 0.12 |
| AL162377.1 | 0.90 | 0.84 | 0.79 | 0.88 | 0.85 | 0.76 | 0.67 | 0.80 |
| AL162377.3 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.80 | -1.78 |
| AL162385.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL162390.1 | 0.76 | 1.08 | 1.36 | 0.89 | 0.93 | 1.10 | 1.46 | 0.89 |
| AL162411.1 | 0.42 | 0.39 | 0.16 | 0.54 | 0.19 | 0.38 | 0.28 | 0.11 |
| AL162413.1 | -0.53 | -0.73 | -0.80 | -0.74 | -0.81 | -0.63 | -0.82 | -0.83 |
| AL162419.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL162424.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL162426.1 | -1.74 | -1.68 | -1.67 | -1.69 | -1.68 | -1.70 | -1.75 | -1.71 |
| AL162430.1 | -1.44 | -1.43 | -1.48 | -1.44 | -1.40 | -1.48 | -1.50 | -1.46 |
| AL162430.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL162431.2 | -1.35 | -1.35 | -1.27 | -1.29 | -1.28 | -1.27 | -1.36 | -1.32 |
| AL162458.1 | 1.44 | 1.08 | 1.10 | 1.27 | 0.88 | 1.02 | 0.88 | 1.27 |
| AL162497.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL162511.1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| AL162578.1 | 1.33 | 1.56 | 1.74 | 1.31 | 1.28 | 1.31 | 1.82 | 1.15 |
| AL162582.1 | -1.29 | -1.40 | -1.39 | -1.41 | -1.41 | -1.42 | -1.42 | -1.43 |
| AL162586.1 | -1.11 | -0.89 | -1.09 | -1.11 | -1.14 | -1.13 | -1.19 | -1.14 |
| AL162595.1 | 2.81 | 2.73 | 3.33 | 2.74 | 3.07 | 2.99 | 2.76 | 2.91 |
| AL162595.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.05 |
| AL162615.1 | -2.12 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| AL162632.3 | -1.64 | -1.69 | -1.63 | -1.65 | -1.64 | -1.68 | -1.65 | -1.66 |
| AL162713.1 | -2.36 | -2.36 | -2.35 | -2.33 | -2.36 | -2.36 | -2.36 | -2.37 |
| AL162726.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL162741.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL163051.1 | 1.76 | 1.58 | 1.72 | 1.65 | 1.70 | 1.84 | 1.52 | 1.36 |
| AL163192.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL163193.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL163195.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AL163540.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL163636.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.77 | -1.85 | -1.85 | -1.86 |
| AL163642.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.09 | -2.10 | -2.08 |
| AL163952.1 | -1.13 | -1.27 | -1.26 | -1.21 | -1.12 | -1.29 | -1.21 | -1.30 |
| AL163953.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| AL163973.1 | -1.90 | -1.94 | -1.93 | -1.87 | -1.94 | -1.95 | -1.95 | -1.96 |
| AL352979.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL352979.4 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL352984.1 | -0.55 | -0.61 | -0.59 | -0.55 | -0.62 | -0.57 | -0.63 | -0.72 |
| AL353093.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AL353135.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL353135.2 | -1.31 | -1.49 | -1.48 | -1.50 | -1.49 | -1.44 | -1.38 | -1.46 |
| AL353138.1 | -0.81 | -0.50 | -0.70 | -0.48 | -0.80 | -0.82 | -0.49 | -0.82 |
| AL353147.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL353150.1 | -1.59 | -1.59 | -1.58 | -1.54 | -1.59 | -1.46 | -1.60 | -1.61 |
| AL353151.1 | -2.05 | -2.04 | -2.04 | -2.05 | -1.99 | -2.05 | -2.05 | -2.06 |
| AL353151.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL353194.1 | 2.21 | 1.64 | 1.77 | 1.45 | 1.87 | 1.76 | 1.57 | 1.16 |
| AL353572.4 | 1.14 | 2.04 | 1.27 | 1.69 | 1.33 | 1.22 | 1.60 | 1.05 |
| AL353576.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL353588.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL353593.1 | 0.28 | 0.18 | -0.11 | 0.01 | -0.04 | -0.04 | 0.02 | 0.08 |
| AL353593.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL353596.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| AL353600.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AL353600.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL353608.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL353616.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL353621.1 | -1.96 | -1.99 | -1.95 | -2.00 | -1.97 | -2.00 | -1.96 | -2.01 |
| AL353622.1 | 0.90 | 0.63 | 0.83 | 0.90 | 0.93 | 1.10 | 0.89 | 0.95 |
| AL353625.1 | -0.97 | -0.96 | -0.86 | -0.81 | -0.96 | -0.94 | -0.76 | -0.98 |
| AL353637.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL353648.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL353653.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.08 |
| AL353662.1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.91 | -1.92 |
| AL353662.2 | 2.20 | 2.37 | 2.17 | 2.66 | 3.14 | 2.65 | 2.60 | 2.38 |
| AL353678.1 | -1.70 | -1.63 | -1.62 | -1.70 | -1.69 | -1.65 | -1.70 | -1.66 |
| AL353691.1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AL353691.2 | 2.59 | 2.80 | 2.46 | 2.97 | 3.00 | 2.66 | 2.57 | 2.71 |
| AL353693.1 | 0.09 | 0.36 | 0.05 | 0.15 | 0.46 | 0.11 | -0.08 | 0.03 |
| AL353697.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL353704.1 | -2.05 | -2.01 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| AL353705.1 | -1.51 | -1.51 | -1.50 | -1.46 | -1.33 | -1.46 | -1.52 | -1.38 |
| AL353705.3 | -1.35 | -1.14 | -1.27 | -1.29 | -1.31 | -1.33 | -1.36 | -1.37 |
| AL353705.4 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AL353706.1 | -2.15 | -2.15 | -2.12 | -2.13 | -2.15 | -2.14 | -2.15 | -2.16 |
| AL353708.1 | -0.77 | -0.76 | -0.67 | -0.62 | -0.61 | -0.70 | -0.77 | -0.56 |
| AL353708.3 | 0.95 | 0.71 | 0.74 | 0.80 | 0.91 | 0.82 | 0.60 | 0.61 |
| AL353719.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.85 | -1.86 | -1.89 | -1.91 |
| AL353726.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -2.00 | -2.00 | -2.01 |
| AL353730.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL353743.1 | 1.54 | 1.06 | 1.26 | 1.16 | 1.13 | 1.05 | 1.30 | 1.05 |
| AL353743.2 | -1.80 | -1.84 | -1.83 | -1.80 | -1.84 | -1.85 | -1.80 | -1.86 |
| AL353743.3 | -1.70 | -1.74 | -1.78 | -1.79 | -1.79 | -1.80 | -1.80 | -1.81 |
| AL353746.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| AL353747.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL353747.2 | -1.64 | -1.58 | -1.57 | -1.64 | -1.44 | -1.60 | -1.59 | -1.66 |
| AL353747.3 | -1.48 | -1.47 | -1.46 | -1.48 | -1.00 | -1.49 | -1.48 | -1.50 |
| AL353748.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AL353748.2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL353748.3 | 0.28 | 0.17 | 0.29 | 0.07 | 0.17 | 0.39 | 0.32 | 0.28 |
| AL353751.1 | -1.59 | -1.59 | -1.58 | -1.60 | -1.56 | -1.55 | -1.60 | -1.56 |
| AL353752.1 | -1.99 | -1.99 | -1.95 | -1.96 | -1.96 | -1.98 | -2.00 | -1.97 |
| AL353752.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL353754.1 | -1.85 | -1.89 | -1.88 | -1.81 | -1.85 | -1.90 | -1.90 | -1.87 |
| AL353759.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| AL353763.1 | -2.15 | -2.15 | -2.10 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |
| AL353763.2 | 1.16 | 1.15 | 0.92 | 1.41 | 1.33 | 1.01 | 1.13 | 1.23 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL353768.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL353771.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL353795.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL353795.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL353795.3 | 0.29 | 0.39 | 0.39 | 0.21 | 0.37 | 0.40 | 0.47 | 0.24 |
| AL353796.1 | -0.06 | 0.19 | 0.11 | 0.09 | 0.14 | 0.10 | 0.07 | 0.04 |
| AL353796.2 | -0.47 | -0.32 | -0.45 | -0.33 | -0.36 | -0.48 | -0.40 | -0.39 |
| AL353801.3 | -1.40 | -1.50 | -1.50 | -1.46 | -1.48 | -1.47 | -1.52 | -1.48 |
| AL353803.4 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL353804.1 | -2.15 | -2.12 | -2.14 | -2.13 | -2.15 | -2.14 | -2.13 | -2.16 |
| AL353807.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.80 | -1.81 | -1.84 | -1.86 |
| AL353807.3 | -0.38 | -0.29 | -0.42 | -0.46 | -0.23 | -0.47 | -0.39 | -0.49 |
| AL353807.5 | -1.16 | -1.01 | -0.99 | -1.03 | -1.12 | -0.98 | -1.09 | -1.07 |
| AL353898.1 | -1.84 | -1.76 | -1.83 | -1.76 | -1.82 | -1.85 | -1.84 | -1.82 |
| AL353898.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AL353898.3 | -0.36 | -0.35 | 0.05 | -0.29 | -0.44 | -0.35 | -0.31 | -0.34 |
| AL354685.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL354696.1 | -0.12 | 0.11 | -0.10 | 0.01 | 0.22 | 0.00 | 0.02 | 0.19 |
| AL354696.2 | -0.55 | -0.39 | -0.38 | -0.40 | -0.27 | -0.52 | -0.56 | -0.23 |
| AL354702.1 | -1.54 | -1.53 | -1.58 | -1.54 | -1.56 | -1.57 | -1.54 | -1.56 |
| AL354707.1 | 3.64 | 4.54 | 3.73 | 4.69 | 3.25 | 3.34 | 3.55 | 3.88 |
| AL354707.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL354707.3 | -0.19 | -0.24 | -0.47 | -0.20 | -0.40 | -0.40 | -0.41 | -0.39 |
| AL354710.1 | -1.21 | -1.14 | -1.32 | -1.34 | -1.30 | -1.32 | -1.35 | -1.30 |
| AL354710.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL354714.2 | -1.54 | -1.54 | -1.42 | -1.55 | -1.54 | -1.47 | -1.49 | -1.57 |
| AL354718.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.02 | -2.06 |
| AL354718.3 | -0.89 | -0.81 | -0.87 | -0.75 | -0.81 | -0.80 | -0.76 | -0.91 |
| AL354740.1 | 1.21 | 0.92 | 1.03 | 1.25 | 0.87 | 1.14 | 1.19 | 1.22 |
| AL354743.2 | -1.79 | -1.79 | -1.78 | -1.70 | -1.79 | -1.80 | -1.79 | -1.81 |
| AL354751.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL354760.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 |
| AL354794.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL354809.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL354813.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL354836.1 | 3.32 | 2.92 | 3.23 | 3.16 | 2.77 | 2.78 | 3.44 | 2.67 |
| AL354861.1 | -1.94 | -1.94 | -1.93 | -1.95 | -1.86 | -1.95 | -1.95 | -1.96 |
| AL354868.1 | -1.85 | -1.89 | -1.88 | -1.85 | -1.81 | -1.88 | -1.90 | -1.87 |
| AL354872.2 | -0.77 | -0.76 | -0.75 | -0.77 | -0.57 | -0.58 | -0.44 | -0.47 |
| AL354877.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL354890.1 | -1.99 | -1.99 | -1.98 | -1.92 | -1.99 | -2.00 | -2.00 | -2.01 |
| AL354892.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AL354892.2 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AL354892.3 | -1.74 | -1.74 | -1.58 | -1.74 | -1.74 | -1.75 | -1.70 | -1.76 |
| AL354893.1 | -1.44 | -1.44 | -1.49 | -1.34 | -1.50 | -1.45 | -1.51 | -1.52 |
| AL354893.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AL354897.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL354919.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL354920.1 | 1.38 | 1.22 | 1.49 | 1.25 | 1.59 | 1.42 | 1.48 | 1.58 |
| AL354941.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL354943.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL354950.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL354953.1 | 2.45 | 2.78 | 3.20 | 2.54 | 2.49 | 3.06 | 2.95 | 4.17 |
| AL354956.1 | -1.79 | -1.79 | -1.78 | -1.75 | -1.76 | -1.78 | -1.79 | -1.81 |
| AL354977.2 | -1.65 | -1.64 | -1.63 | -1.65 | -1.62 | -1.58 | -1.44 | -1.57 |
| AL354993.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL355001.2 | 2.93 | 3.03 | 2.62 | 3.41 | 2.98 | 2.59 | 3.17 | 3.41 |
| AL355032.1 | 1.75 | 1.75 | 1.60 | 1.81 | 2.02 | 1.70 | 1.42 | 2.15 |
| AL355073.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| AL355075.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| AL355075.3 | -0.25 | -0.01 | 0.03 | -0.10 | -0.19 | -0.14 | -0.18 | -0.36 |
| AL355075.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL355075.5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| AL355075.6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL355102.1 | -0.75 | -0.89 | -0.71 | -0.67 | -0.85 | -0.79 | -0.82 | -0.85 |
| AL355102.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL355297.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL355297.4 | -1.94 | -1.86 | -1.89 | -1.86 | -1.94 | -1.95 | -1.91 | -1.96 |
| AL355304.1 | -1.90 | -1.94 | -1.93 | -1.95 | -1.94 | -1.96 | -1.90 | -1.97 |
| AL355306.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL355306.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL355309.1 | 1.94 | 2.19 | 1.94 | 2.40 | 3.19 | 2.01 | 2.20 | 2.24 |
| AL355310.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL355312.2 | -1.33 | -1.33 | -1.31 | -1.34 | -1.36 | -1.25 | -1.34 | -1.43 |
| AL355312.3 | -2.10 | -2.09 | -2.04 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| AL355312.4 | 3.97 | 4.32 | 4.72 | 4.49 | 6.14 | 5.76 | 3.90 | 4.37 |
| AL355312.6 | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -1.99 | -2.06 |
| AL355334.2 | -0.66 | -1.00 | -0.99 | -0.94 | -0.85 | -0.98 | -1.01 | -1.02 |
| AL355336.1 | -1.59 | -1.59 | -1.58 | -1.60 | -1.56 | -1.61 | -1.54 | -1.62 |
| AL355338.1 | 4.17 | 4.06 | 3.21 | 3.89 | 3.75 | 3.31 | 3.07 | 2.88 |
| AL355338.2 | -1.87 | -1.90 | -1.93 | -1.91 | -1.90 | -1.95 | -1.91 | -1.96 |
| AL355353.1 | 4.27 | 2.58 | 2.97 | 2.60 | 2.84 | 3.60 | 2.73 | 2.45 |
| AL355355.1 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL355375.1 | -1.74 | -1.64 | -1.73 | -1.74 | -1.71 | -1.75 | -1.70 | -1.71 |
| AL355377.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL355377.3 | -1.64 | -1.64 | -1.63 | -1.59 | -1.58 | -1.65 | -1.48 | -1.67 |
| AL355385.1 | -1.70 | -1.79 | -1.78 | -1.79 | -1.79 | -1.73 | -1.75 | -1.76 |
| AL355388.2 | -0.56 | -0.78 | -0.60 | -0.71 | -0.59 | -0.63 | -0.79 | -0.57 |
| AL355388.3 | -1.29 | -1.40 | -1.27 | -1.41 | -1.37 | -1.30 | -1.42 | -1.37 |
| AL355432.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL355472.1 | 0.96 | 0.91 | 0.87 | 1.11 | 1.06 | 1.27 | 0.79 | 0.78 |
| AL355472.2 | -1.89 | -1.81 | -1.88 | -1.89 | -1.89 | -1.86 | -1.90 | -1.91 |
| AL355472.3 | -1.80 | -1.75 | -1.83 | -1.84 | -1.82 | -1.79 | -1.84 | -1.86 |
| AL355482.1 | -2.15 | -2.14 | -2.12 | -2.13 | -2.15 | -2.14 | -2.15 | -2.16 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL355482.2 | -2.12 | -2.15 | -2.14 | -2.12 | -2.13 | -2.15 | -2.15 | -2.16 |
| AL355488.1 | 0.40 | 0.42 | 0.81 | 0.79 | 0.60 | 0.52 | 0.58 | 0.41 |
| AL355490.1 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL355490.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AL355499.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL355512.1 | -1.06 | -1.24 | -1.16 | -1.25 | -0.99 | -1.16 | -1.26 | -1.27 |
| AL355531.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL355538.1 | -1.12 | -1.03 | -1.17 | -0.92 | -1.18 | -1.20 | -1.19 | -0.80 |
| AL355574.1 | 0.74 | 0.16 | 0.27 | 0.21 | 0.19 | 0.26 | 0.20 | 0.22 |
| AL355578.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 |
| AL355596.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| AL355601.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| AL355615.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.19 |
| AL355796.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL355802.1 | 0.54 | 0.56 | 0.42 | 0.69 | 0.58 | 0.70 | 0.31 | 0.52 |
| AL355802.2 | 0.05 | 0.06 | 0.16 | 0.03 | 0.17 | 0.08 | 0.20 | 0.21 |
| AL355816.1 | -0.07 | 0.03 | -0.04 | 0.14 | -0.02 | 0.01 | 0.06 | -0.11 |
| AL355816.2 | 3.44 | 3.83 | 3.41 | 3.77 | 3.16 | 3.37 | 3.78 | 3.43 |
| AL355834.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL355836.2 | -2.01 | -1.98 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.06 |
| AL355852.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |
| AL355864.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL355864.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL355870.1 | -1.99 | -1.95 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| AL355877.1 | 4.22 | 2.35 | 2.28 | 2.34 | 3.95 | 3.42 | 2.32 | 2.36 |
| AL355881.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL355916.1 | 1.98 | 1.01 | 1.38 | 0.90 | 1.42 | 2.17 | 0.97 | 1.16 |
| AL355916.2 | -1.70 | -1.79 | -1.78 | -1.75 | -1.72 | -1.78 | -1.80 | -1.81 |
| AL355922.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL355987.4 | 2.17 | 1.85 | 1.54 | 2.10 | 1.60 | 2.00 | 2.79 | 1.75 |
| AL355994.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL355999.1 | 0.05 | -0.15 | 0.05 | -0.08 | 0.22 | 0.20 | -0.01 | 0.05 |
| AL356000.1 | -1.18 | -1.10 | -1.16 | -1.19 | -1.21 | -1.20 | -1.26 | -1.21 |
| AL356019.2 | -1.35 | -1.34 | -1.33 | -1.22 | -1.31 | -1.30 | -1.36 | -1.31 |
| AL356020.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL356056.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL356056.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL356095.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AL356113.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL356123.2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| AL356124.1 | -1.17 | -1.30 | -1.29 | -1.18 | -1.27 | -1.13 | -1.25 | -1.32 |
| AL356124.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AL356133.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL356133.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL356134.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.29 | -2.31 |
| AL356215.1 | -1.40 | -1.39 | -1.38 | -1.40 | -1.33 | -1.41 | -1.28 | -1.42 |
| AL356218.2 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.08 |
| AL356234.1 | -1.84 | -1.71 | -1.83 | -1.84 | -1.84 | -1.83 | -1.84 | -1.77 |
| AL356234.2 | -1.54 | -1.53 | -1.47 | -1.54 | -1.53 | -1.55 | -1.49 | -1.56 |
| AL356234.3 | -1.85 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.91 |
| AL356235.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AL356273.2 | -1.64 | -1.64 | -1.63 | -1.59 | -1.55 | -1.57 | -1.65 | -1.66 |
| AL356273.3 | -0.35 | -0.26 | -0.27 | -0.43 | -0.41 | -0.39 | -0.17 | -0.24 |
| AL356275.1 | -0.55 | -0.70 | -0.61 | -0.43 | -0.44 | -0.68 | -0.71 | -0.66 |
| AL356289.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL356299.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.08 |
| AL356310.1 | -1.50 | -1.50 | -1.49 | -1.45 | -1.50 | -1.40 | -1.51 | -1.53 |
| AL356317.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 |
| AL356356.1 | -2.10 | -2.06 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL356390.1 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -1.93 | -2.01 |
| AL356421.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -2.00 | -2.00 | -2.01 |
| AL356423.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AL356432.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL356441.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -2.00 | -2.00 | -2.01 |
| AL356441.2 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.81 | -1.80 | -1.85 |
| AL356481.1 | -0.20 | -0.20 | -0.42 | -0.21 | -0.35 | -0.31 | -0.44 | -0.33 |
| AL356481.3 | -1.94 | -1.90 | -1.93 | -1.91 | -1.94 | -1.95 | -1.95 | -1.92 |
| AL356488.3 | 0.88 | 0.85 | 0.53 | 0.82 | 0.57 | 0.55 | 0.39 | 0.48 |
| AL356512.1 | 0.00 | -0.28 | 0.04 | -0.14 | -0.05 | -0.16 | -0.02 | 0.15 |
| AL356515.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL356534.1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.88 | -1.90 | -1.87 |
| AL356535.1 | 0.11 | -0.10 | -0.09 | 0.17 | 0.17 | -0.02 | -0.04 | 0.03 |
| AL356583.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL356585.1 | -1.64 | -1.64 | -1.63 | -1.65 | -1.53 | -1.60 | -1.65 | -1.61 |
| AL356585.4 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL356599.1 | 0.67 | 0.34 | 0.45 | 0.40 | 0.50 | 0.51 | 0.88 | 0.63 |
| AL356608.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| AL356652.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL356653.1 | 2.36 | 1.70 | 1.69 | 1.89 | 1.91 | 1.86 | 1.82 | 2.09 |
| AL356740.1 | -1.40 | -1.39 | -1.31 | -1.33 | -1.06 | -1.41 | -1.40 | -1.36 |
| AL356740.3 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -1.98 | -1.96 | -1.94 |
| AL356776.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL356776.2 | -0.71 | -0.70 | -0.69 | -0.56 | -0.62 | -0.61 | -0.57 | -0.66 |
| AL356801.1 | -1.20 | -1.11 | -1.10 | -1.12 | -0.93 | -1.07 | -1.05 | -1.09 |
| AL356804.1 | -1.20 | -1.13 | -1.32 | -1.21 | -1.30 | -1.32 | -1.35 | -1.36 |
| AL356806.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL356867.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL356966.1 | -0.96 | -0.95 | -0.94 | -0.81 | -0.95 | -0.96 | -0.70 | -0.97 |
| AL356968.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL357033.1 | -1.64 | -1.68 | -1.68 | -1.64 | -1.66 | -1.70 | -1.69 | -1.66 |
| AL357033.4 | -1.54 | -1.53 | -1.52 | -1.48 | -1.48 | -1.49 | -1.54 | -1.56 |
| AL357037.1 | -1.26 | -1.26 | -1.31 | -1.40 | -1.32 | -1.34 | -1.27 | -1.41 |
| AL357054.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 | -2.24 |
| AL357054.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL357054.4 | -1.65 | -1.64 | -1.68 | -1.70 | -1.69 | -1.66 | -1.70 | -1.71 |
| AL357055.1 | 1.53 | 1.62 | 1.27 | 1.64 | 1.83 | 1.25 | 1.44 | 1.51 |
| AL357055.2 | -1.51 | -1.51 | -1.44 | -1.52 | -1.48 | -1.46 | -1.52 | -1.32 |
| AL357055.3 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.99 | -2.00 |
| AL357060.1 | -1.11 | -1.18 | -1.23 | -1.26 | -1.21 | -1.23 | -1.26 | -1.10 |
| AL357075.4 | -0.29 | -0.42 | -0.47 | -0.19 | -0.39 | -0.45 | -0.59 | -0.60 |
| AL357078.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| AL357079.1 | -0.15 | -0.35 | -0.41 | -0.51 | -0.19 | -0.42 | -0.51 | -0.53 |
| AL357079.2 | -0.69 | -1.14 | -1.13 | -1.15 | -0.99 | -1.12 | -1.15 | -1.05 |
| AL357084.1 | -1.79 | -1.70 | -1.78 | -1.70 | -1.74 | -1.75 | -1.79 | -1.76 |
| AL357093.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL357093.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL357140.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL357140.2 | 0.78 | 0.21 | 0.17 | 0.12 | 0.18 | 0.17 | 0.12 | 0.14 |
| AL357140.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL357141.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.18 | -2.21 |
| AL357153.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AL357497.1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.89 | -1.88 | -1.90 | -1.82 |
| AL357515.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AL357552.1 | -2.01 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.06 |
| AL357552.2 | -1.53 | -1.59 | -1.52 | -1.54 | -1.56 | -1.48 | -1.60 | -1.62 |
| AL357556.4 | -1.69 | -1.74 | -1.73 | -1.74 | -1.66 | -1.70 | -1.70 | -1.76 |
| AL357568.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL357568.2 | -1.23 | -1.23 | -1.21 | -1.24 | -1.23 | -1.18 | -1.10 | -1.25 |
| AL357632.1 | -1.12 | -1.04 | -1.10 | -0.99 | -1.08 | -0.94 | -1.00 | -1.02 |
| AL357673.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL357874.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AL358072.1 | -1.22 | -1.29 | -1.20 | -1.16 | -1.22 | -1.24 | -1.30 | -1.31 |
| AL358075.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 |
| AL358075.2 | 0.42 | 0.17 | 0.13 | 0.09 | 0.33 | 0.13 | 0.08 | 0.10 |
| AL358075.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL358113.1 | -1.39 | -1.38 | -1.37 | -1.39 | -1.32 | -1.40 | -1.21 | -1.41 |
| AL358115.1 | -0.03 | -0.16 | -0.23 | 0.13 | -0.17 | -0.10 | -0.26 | -0.05 |
| AL358176.3 | -1.18 | -1.11 | -1.23 | -1.19 | -1.08 | -1.26 | -1.19 | -1.21 |
| AL358178.1 | -1.16 | -1.23 | -1.07 | -1.03 | -1.16 | -1.21 | -1.11 | -1.14 |
| AL358232.2 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AL358334.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL358472.1 | -0.03 | 0.42 | 0.08 | 0.12 | 0.18 | 0.19 | 0.36 | 0.33 |
| AL358472.2 | 1.06 | 0.96 | 0.99 | 1.28 | 1.40 | 1.06 | 1.02 | 0.95 |
| AL358472.3 | 0.54 | 0.83 | 0.59 | 0.73 | 0.51 | 0.53 | 0.51 | 0.63 |
| AL358472.4 | 2.52 | 2.39 | 2.30 | 2.51 | 2.58 | 2.40 | 2.25 | 2.19 |
| AL358472.5 | -0.75 | -0.96 | -0.94 | -0.76 | -0.84 | -0.97 | -0.97 | -0.98 |
| AL358777.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL358781.1 | 0.78 | 0.72 | 0.92 | 0.84 | 0.68 | 0.88 | 0.76 | 0.50 |
| AL358781.2 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| AL358790.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AL358852.1 | 0.01 | -0.12 | -0.19 | -0.07 | -0.28 | -0.09 | -0.29 | -0.25 |
| AL358933.1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| AL358937.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.08 | -2.10 | -2.11 |
| AL358942.1 | -1.31 | -1.30 | -1.35 | -1.37 | -1.36 | -1.26 | -1.37 | -1.23 |
| AL358944.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL359091.4 | -1.00 | -1.19 | -1.24 | -1.14 | -1.25 | -1.24 | -1.20 | -1.28 |
| AL359091.5 | -0.70 | -1.21 | -1.12 | -1.22 | -1.21 | -1.16 | -1.22 | -1.24 |
| AL359092.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL359092.2 | -0.80 | -0.79 | -0.86 | -0.80 | -0.72 | -0.70 | -0.88 | -0.83 |
| AL359094.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.06 |
| AL359095.1 | -1.32 | -1.31 | -1.09 | -1.32 | -1.24 | -1.30 | -1.07 | -1.34 |
| AL359183.1 | -0.01 | 0.23 | 0.15 | 0.38 | -0.01 | -0.07 | -0.10 | -0.06 |
| AL359198.1 | -1.45 | -1.33 | -1.44 | -1.28 | -1.42 | -1.43 | -1.46 | -1.42 |
| AL359220.1 | 0.62 | 0.88 | 0.75 | 0.77 | 1.17 | 0.96 | 1.06 | 0.70 |
| AL359232.1 | 0.69 | 0.53 | 0.47 | 1.07 | 0.92 | 0.61 | 0.63 | 0.60 |
| AL359258.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.07 | -2.10 | -2.11 |
| AL359258.3 | -1.43 | -1.43 | -1.48 | -1.32 | -1.46 | -1.50 | -1.44 | -1.46 |
| AL359263.1 | 0.02 | -0.11 | -0.18 | -0.02 | -0.04 | 0.10 | -0.13 | 0.04 |
| AL359265.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL359265.2 | -0.01 | 0.08 | 0.03 | 0.41 | 0.07 | 0.09 | 0.05 | 0.11 |
| AL359317.2 | -1.79 | -1.79 | -1.78 | -1.75 | -1.76 | -1.75 | -1.79 | -1.81 |
| AL359397.2 | -0.07 | -0.14 | -0.13 | -0.17 | -0.18 | -0.17 | -0.03 | -0.26 |
| AL359504.2 | -0.95 | -1.01 | -0.87 | -1.10 | -0.98 | -1.01 | -1.02 | -1.05 |
| AL359510.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL359510.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL359513.1 | 1.34 | 1.07 | 1.10 | 0.96 | 1.13 | 1.13 | 1.02 | 1.09 |
| AL359532.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.04 | -2.05 | -2.06 |
| AL359535.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL359538.4 | -1.60 | -1.60 | -1.59 | -1.60 | -1.57 | -1.61 | -1.61 | -1.47 |
| AL359541.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL359546.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| AL359632.1 | -1.54 | -1.63 | -1.63 | -1.69 | -1.69 | -1.70 | -1.70 | -1.66 |
| AL359636.2 | 2.07 | 1.42 | 0.79 | 1.60 | 0.66 | 0.66 | 0.71 | 0.66 |
| AL359641.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AL359643.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL359643.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL359643.3 | 2.02 | 1.60 | 1.27 | 1.77 | 1.58 | 1.37 | 1.47 | 1.77 |
| AL359644.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL359697.1 | -1.99 | -1.84 | -1.98 | -2.00 | -1.97 | -1.98 | -1.96 | -2.01 |
| AL359704.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL359711.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| AL359711.2 | -0.35 | -0.48 | -0.55 | -0.57 | -0.45 | -0.54 | -0.43 | -0.48 |
| AL359715.1 | 0.00 | 0.09 | 0.04 | 0.00 | 0.16 | 0.16 | -0.08 | 0.08 |
| AL359715.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.93 | -1.94 | -1.96 |
| AL359715.3 | -0.84 | -0.84 | -0.82 | -0.92 | -0.92 | -0.73 | -0.85 | -0.82 |
| AL359715.4 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 | -1.83 | -1.80 | -1.82 |
| AL359732.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL359762.1 | -0.06 | -0.65 | -0.54 | -0.58 | -0.24 | -0.56 | -0.66 | -0.67 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL359762.3 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.12 | -2.15 | -2.16 |
| AL359764.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL359764.2 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL359813.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL359834.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL359837.1 | -0.31 | -0.29 | -0.45 | -0.40 | -0.27 | -0.37 | -0.33 | -0.25 |
| AL359851.1 | -0.93 | -0.77 | -0.53 | -0.80 | -0.81 | -0.52 | -0.94 | -0.95 |
| AL359853.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 |
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| AL359878.1 | -1.79 | -1.74 | -1.78 | -1.79 | -1.79 | -1.80 | -1.75 | -1.76 |
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| AL359881.1 | -2.20 | -2.20 | -2.19 | -2.17 | -2.20 | -2.21 | -2.17 | -2.22 |
| AL359894.1 | -0.16 | -0.60 | -0.26 | -0.38 | -0.60 | -0.58 | -0.61 | -0.62 |
| AL359915.1 | -2.23 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL359918.1 | -0.47 | -0.53 | -0.45 | -0.26 | -0.34 | -0.45 | -0.54 | -0.38 |
| AL359921.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL359921.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| AL359922.2 | -1.27 | -1.39 | -1.44 | -1.46 | -1.36 | -1.47 | -1.46 | -1.42 |
| AL359922.3 | 0.83 | 0.78 | 1.00 | 0.89 | 0.74 | 0.69 | 1.04 | 0.50 |
| AL359924.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL359962.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL359962.3 | -1.33 | -1.50 | -1.44 | -1.51 | -1.42 | -1.52 | -1.52 | -1.53 |
| AL359976.1 | -1.43 | -1.48 | -1.53 | -1.44 | -1.54 | -1.42 | -1.49 | -1.56 |
| AL360006.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL360091.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 | -2.24 | -2.26 |
| AL360169.2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AL360181.2 | -1.69 | -1.69 | -1.68 | -1.69 | -1.66 | -1.65 | -1.49 | -1.66 |
| AL360181.3 | 4.51 | 4.13 | 4.59 | 4.38 | 4.50 | 4.28 | 4.78 | 3.74 |
| AL360182.1 | -1.80 | -1.79 | -1.78 | -1.80 | -1.76 | -1.75 | -1.69 | -1.82 |
| AL360182.2 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| AL360219.1 | -2.10 | -2.07 | -2.09 | -2.07 | -2.09 | -2.10 | -2.07 | -2.11 |
| AL360270.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| AL360270.2 | -0.44 | -0.35 | -0.50 | -0.30 | -0.47 | -0.36 | -0.39 | -0.54 |
| AL360270.3 | -0.81 | -0.87 | -0.86 | -0.89 | -0.91 | -0.93 | -0.96 | -0.97 |
| AL365181.2 | 4.24 | 3.36 | 4.39 | 3.50 | 3.33 | 3.86 | 2.69 | 4.07 |
| AL365181.3 | 3.17 | 3.11 | 4.23 | 3.13 | 2.91 | 3.26 | 2.97 | 2.98 |
| AL365181.4 | 0.33 | 0.14 | 0.25 | 0.18 | 0.46 | 0.29 | 0.04 | 0.49 |
| AL365184.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| AL365203.2 | 2.13 | 1.88 | 2.15 | 2.27 | 2.09 | 2.06 | 3.01 | 1.99 |
| AL365205.1 | 0.83 | 0.92 | 0.88 | 0.95 | 0.88 | 0.88 | 0.67 | 0.90 |
| AL365205.2 | -0.95 | -0.94 | -1.01 | -1.03 | -0.94 | -1.00 | -0.84 | -1.04 |
| AL365205.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AL365214.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL365223.1 | -1.74 | -1.73 | -1.73 | -1.70 | -1.74 | -1.68 | -1.70 | -1.76 |
| AL365226.1 | -1.54 | -1.63 | -1.63 | -1.54 | -1.61 | -1.60 | -1.59 | -1.56 |
| AL365226.2 | 8.35 | 3.81 | 6.14 | 4.34 | 4.38 | 4.30 | 4.45 | 4.29 |
| AL365258.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| AL365258.2 | 2.23 | 2.03 | 2.15 | 1.88 | 2.35 | 2.21 | 2.03 | 2.66 |
| AL365259.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL365272.1 | -1.27 | -1.32 | -1.31 | -1.21 | -1.29 | -1.34 | -1.34 | -1.29 |
| AL365295.1 | -1.85 | -1.89 | -1.88 | -1.89 | -1.85 | -1.88 | -1.89 | -1.91 |
| AL365330.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL365338.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL365356.1 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.03 |
| AL365357.1 | 2.32 | 2.65 | 3.87 | 2.83 | 2.94 | 4.16 | 3.79 | 3.97 |
| AL365366.1 | -1.50 | -1.50 | -1.49 | -1.39 | -1.47 | -1.46 | -1.51 | -1.37 |
| AL365436.1 | 0.76 | 0.77 | 1.45 | 0.89 | 0.96 | 0.85 | 1.08 | 0.92 |
| AL365436.2 | -1.23 | -1.29 | -1.22 | -1.30 | -1.26 | -1.25 | -1.24 | -1.17 |
| AL365440.1 | 1.26 | 0.98 | 1.10 | 0.87 | 1.03 | 1.11 | 0.99 | 0.80 |
| AL365475.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL389915.1 | -2.10 | -2.06 | -2.09 | -2.10 | -2.08 | -2.07 | -2.10 | -2.11 |
| AL390037.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL390039.1 | -1.50 | -1.49 | -1.41 | -1.51 | -1.46 | -1.34 | -1.51 | -1.53 |
| AL390066.1 | -1.69 | -1.68 | -1.68 | -1.64 | -1.68 | -1.67 | -1.65 | -1.66 |
| AL390067.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AL390071.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL390119.1 | -1.00 | -0.76 | -0.98 | -1.00 | -0.91 | -0.94 | -1.00 | -0.89 |
| AL390195.1 | 0.04 | -0.07 | -0.07 | -0.09 | 0.00 | -0.18 | -0.09 | -0.03 |
| AL390195.2 | -0.68 | -0.74 | -0.65 | -0.60 | -0.67 | -0.61 | -0.75 | -0.71 |
| AL390198.1 | 1.33 | 1.07 | 0.96 | 1.22 | 0.88 | 1.46 | 0.73 | 0.75 |
| AL390208.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL390318.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
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| AL390718.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.23 |
| AL390719.1 | 4.40 | 2.35 | 3.09 | 2.50 | 3.12 | 4.15 | 2.68 | 2.07 |
| AL390719.2 | 2.87 | 2.71 | 3.11 | 3.14 | 2.95 | 2.77 | 2.86 | 2.83 |
| AL390719.3 | -2.11 | -2.15 | -2.10 | -2.15 | -2.15 | -2.14 | -2.16 | -2.17 |
| AL390728.4 | 2.96 | 3.08 | 3.11 | 3.09 | 3.52 | 3.38 | 3.78 | 3.54 |
| AL390728.6 | 2.24 | 2.38 | 2.86 | 2.52 | 2.53 | 2.63 | 3.09 | 2.41 |
| AL390729.1 | -1.96 | -1.99 | -1.98 | -1.96 | -1.94 | -1.98 | -2.00 | -1.97 |
| AL390755.3 | -2.05 | -2.01 | -2.04 | -2.01 | -2.01 | -2.05 | -2.05 | -1.99 |
| AL390879.1 | 0.88 | 0.82 | 1.01 | 1.14 | 0.93 | 1.45 | 1.16 | 0.94 |
| AL390955.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL390955.2 | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -2.00 | -2.00 | -2.01 |
| AL390957.1 | 2.36 | 1.18 | 1.31 | 1.58 | 1.35 | 1.22 | 1.36 | 1.25 |
| AL390961.2 | -1.54 | -1.48 | -1.47 | -1.37 | -1.48 | -1.55 | -1.49 | -1.56 |
| AL390961.3 | -1.89 | -1.81 | -1.88 | -1.81 | -1.89 | -1.90 | -1.86 | -1.91 |
| AL391001.1 | -1.33 | -1.32 | -1.31 | -1.26 | -1.32 | -1.34 | -1.33 | -1.35 |
| AL391056.1 | 4.34 | 3.29 | 4.07 | 3.53 | 4.02 | 3.37 | 2.85 | 2.72 |
| AL391056.2 | -1.29 | -1.21 | -1.27 | -1.03 | -1.28 | -1.21 | -1.29 | -1.25 |
| AL391058.1 | -1.41 | -1.28 | -1.39 | -1.41 | -1.34 | -1.36 | -1.18 | -1.32 |
| AL391069.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL391069.2 | -0.81 | -0.88 | -0.71 | -0.74 | -0.77 | -0.67 | -0.89 | -0.78 |
| AL391069.3 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL391095.1 | -0.51 | -0.57 | -0.56 | -0.13 | -0.57 | -0.49 | -0.44 | -0.54 |
| AL391095.3 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL391097.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL391121.1 | 0.91 | 1.11 | 0.96 | 0.83 | 1.03 | 0.93 | 1.18 | 0.92 |
| AL391152.1 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -1.99 |
| AL391219.1 | -1.05 | -0.97 | -1.18 | -1.20 | -0.95 | -1.21 | -1.13 | -1.15 |
| AL391244.2 | -0.05 | -0.17 | -0.15 | -0.02 | -0.18 | -0.35 | -0.34 | -0.31 |
| AL391261.3 | -1.51 | -1.65 | -1.64 | -1.65 | -1.65 | -1.66 | -1.66 | -1.54 |
| AL391262.1 | -1.79 | -1.79 | -1.78 | -1.75 | -1.76 | -1.80 | -1.80 | -1.76 |
| AL391280.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL391294.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL391335.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.12 | -2.16 |
| AL391416.1 | -0.27 | 0.06 | -0.47 | -0.34 | -0.48 | -0.36 | -0.35 | -0.51 |
| AL391421.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AL391422.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AL391422.4 | 1.56 | 1.58 | 1.55 | 1.57 | 1.79 | 1.44 | 1.95 | 1.95 |
| AL391427.1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL391650.1 | -0.62 | -0.53 | -0.58 | -0.54 | -0.50 | -0.59 | -0.62 | -0.65 |
| AL391684.1 | 0.89 | 0.41 | 0.78 | 0.70 | 0.87 | 0.52 | 0.68 | 0.71 |
| AL391730.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL391822.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL391825.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| AL391832.1 | -2.10 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL391832.2 | 2.66 | 3.63 | 2.40 | 3.75 | 2.46 | 2.68 | 2.75 | 2.88 |
| AL391832.3 | -1.69 | -1.64 | -1.68 | -1.70 | -1.67 | -1.65 | -1.70 | -1.62 |
| AL391834.1 | -0.44 | -0.27 | -0.16 | 0.01 | -0.39 | -0.53 | -0.37 | -0.54 |
| AL391834.2 | 0.78 | 0.71 | 1.06 | 0.69 | 0.63 | 0.81 | 0.99 | 0.84 |
| AL391834.3 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL391839.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AL391839.3 | -1.91 | -1.94 | -1.93 | -1.94 | -1.90 | -1.93 | -1.95 | -1.92 |
| AL391840.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.05 | -2.05 | -2.03 |
| AL391840.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL391840.3 | 0.12 | 0.42 | 0.00 | 0.05 | 0.11 | 0.23 | 0.12 | 0.02 |
| AL391845.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL391845.2 | -0.90 | -0.49 | -0.96 | -0.54 | -0.82 | -0.85 | -0.98 | -0.93 |
| AL391863.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL391988.1 | 0.85 | 1.04 | 0.74 | 0.86 | 0.98 | 0.93 | 1.25 | 0.78 |
| AL392046.1 | -1.91 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| AL392086.3 | -2.30 | -2.30 | -2.29 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL392089.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL392172.1 | 5.16 | 4.71 | 3.63 | 4.43 | 4.14 | 3.84 | 3.78 | 4.03 |
| AL441883.1 | 1.54 | 1.52 | 1.26 | 1.42 | 1.17 | 1.02 | 1.24 | 1.08 |
| AL441963.1 | -1.75 | -1.78 | -1.78 | -1.75 | -1.76 | -1.80 | -1.71 | -1.76 |
| AL441992.1 | 5.75 | 4.95 | 4.82 | 5.47 | 4.77 | 5.78 | 5.18 | 4.04 |
| AL441992.2 | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.73 | -1.79 | -1.81 |
| AL442003.1 | -2.04 | -2.04 | -2.04 | | | | | |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL445931.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL445985.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL449106.1 | -1.74 | -1.73 | -1.68 | -1.74 | -1.74 | -1.70 | -1.70 | -1.71 |
| AL449283.1 | -1.94 | -1.94 | -1.86 | -1.91 | -1.94 | -1.95 | -1.95 | -1.96 |
| AL449363.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL449403.1 | -2.01 | -2.01 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 |
| AL449403.2 | -1.59 | -1.59 | -1.52 | -1.60 | -1.56 | -1.60 | -1.37 | -1.62 |
| AL450023.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL450063.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.83 | -1.84 | -1.82 |
| AL450124.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL450263.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL450263.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AL450267.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 | -2.25 | -2.26 |
| AL450306.1 | 2.80 | 2.86 | 2.63 | 3.40 | 3.34 | 2.84 | 2.60 | 3.13 |
| AL450309.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL450311.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AL450322.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| AL450322.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL450326.1 | 1.34 | 1.13 | 1.30 | 1.15 | 1.58 | 1.20 | 0.87 | 1.09 |
| AL450326.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL450344.1 | -2.25 | -2.25 | -2.21 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL450344.3 | -1.53 | -1.64 | -1.63 | -1.65 | -1.61 | -1.60 | -1.59 | -1.56 |
| AL450345.2 | -2.10 | -2.03 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL450384.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL450384.2 | 0.21 | 0.22 | 0.58 | 0.36 | 0.38 | 0.30 | 0.81 | 0.41 |
| AL450405.1 | 1.36 | 1.65 | 1.22 | 1.76 | 1.73 | 1.37 | 1.46 | 1.49 |
| AL450467.1 | -1.64 | -1.63 | -1.57 | -1.54 | -1.61 | -1.62 | -1.65 | -1.66 |
| AL450468.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL450487.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL450992.1 | 0.55 | 0.37 | 0.30 | 0.39 | 0.17 | 0.46 | 0.33 | 0.28 |
| AL450992.2 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.02 | -2.05 | -2.00 |
| AL450992.3 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| AL450998.1 | 1.71 | 1.47 | 1.32 | 1.77 | 1.78 | 1.36 | 1.14 | 1.08 |
| AL450998.2 | 3.09 | 2.56 | 2.32 | 2.76 | 2.88 | 2.61 | 2.73 | 2.81 |
| AL451007.1 | -0.39 | -0.50 | -0.49 | -0.51 | -0.43 | -0.46 | -0.51 | -0.33 |
| AL451007.2 | -1.70 | -1.74 | -1.78 | -1.61 | -1.76 | -1.78 | -1.79 | -1.81 |
| AL451007.3 | -2.04 | -2.01 | -2.04 | -2.02 | -2.03 | -2.05 | -2.02 | -2.06 |
| AL451042.1 | -1.09 | -0.94 | -1.07 | -1.04 | -0.95 | -1.14 | -1.17 | -1.12 |
| AL451042.2 | -0.84 | -0.83 | -0.81 | -0.92 | -0.83 | -0.82 | -0.77 | -0.81 |
| AL451050.1 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 | -2.14 | -2.15 | -2.16 |
| AL451050.2 | -0.08 | -0.50 | -0.49 | -0.43 | -0.42 | -0.38 | -0.51 | -0.34 |
| AL451062.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL451064.1 | -1.99 | -1.96 | -1.95 | -2.00 | -1.99 | -1.95 | -2.00 | -2.01 |
| AL451064.2 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| AL451069.1 | -0.88 | -0.96 | -0.94 | -0.89 | -0.12 | -0.93 | -0.97 | -0.98 |
| AL451069.2 | 0.81 | 0.54 | 0.63 | 0.66 | 0.57 | 0.50 | 0.77 | 0.64 |
| AL451070.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL451074.1 | -2.18 | -2.20 | -2.18 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AL451074.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| AL451074.3 | 2.55 | 2.24 | 2.04 | 2.70 | 3.12 | 2.30 | 2.10 | 2.61 |
| AL451074.4 | -1.99 | -1.99 | -1.98 | -2.00 | -1.96 | -2.00 | -2.00 | -2.01 |
| AL451074.5 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 | -2.13 | -2.15 | -2.16 |
| AL451081.2 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 | -1.90 | -1.86 | -1.87 |
| AL451085.1 | -1.96 | -1.99 | -1.95 | -1.96 | -1.99 | -2.00 | -1.96 | -2.01 |
| AL451085.2 | 2.33 | 1.91 | 1.53 | 2.04 | 1.59 | 1.94 | 1.56 | 1.81 |
| AL451123.1 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 | -2.15 | -2.13 | -2.16 |
| AL451123.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| AL451137.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL451139.1 | -0.67 | -0.51 | -0.58 | -0.60 | -0.51 | -0.58 | -0.68 | -0.63 |
| AL451165.2 | 4.78 | 4.24 | 3.65 | 3.91 | 4.29 | 4.65 | 3.95 | 3.69 |
| AL451166.1 | -1.64 | -1.69 | -1.57 | -1.64 | -1.69 | -1.70 | -1.64 | -1.66 |
| AL499602.1 | 1.69 | 1.79 | 1.92 | 1.60 | 1.69 | 1.87 | 2.04 | 2.08 |
| AL499604.1 | -1.08 | -1.08 | -1.06 | -1.02 | -1.00 | -1.02 | -1.09 | -1.10 |
| AL499616.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL499627.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.28 | -2.31 | -2.31 | -2.31 |
| AL512274.1 | 3.26 | 4.30 | 3.00 | 3.69 | 3.60 | 3.17 | 4.22 | 3.36 |
| AL512283.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL512288.1 | -1.74 | -1.69 | -1.73 | -1.65 | -1.69 | -1.70 | -1.74 | -1.71 |
| AL512303.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL512306.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL512306.3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL512326.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.24 |
| AL512326.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL512329.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL512329.2 | -0.81 | -0.88 | -0.87 | -0.67 | -0.88 | -0.89 | -0.51 | -0.64 |
| AL512343.1 | -1.54 | -1.53 | -1.58 | -1.54 | -1.56 | -1.52 | -1.60 | -1.56 |
| AL512343.2 | -0.73 | -1.00 | -0.83 | -1.01 | -0.88 | -0.91 | -1.01 | -0.90 |
| AL512353.1 | 2.07 | 1.32 | 1.74 | 1.59 | 1.76 | 1.37 | 1.63 | 1.55 |
| AL512358.2 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL512363.1 | -1.84 | -1.84 | -1.83 | -1.85 | -1.84 | -1.85 | -1.85 | -1.86 |
| AL512378.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL512380.2 | -0.58 | -0.66 | -0.65 | -0.44 | -0.58 | -0.41 | -0.60 | -0.56 |
| AL512383.1 | -1.20 | -1.11 | -1.03 | -1.13 | -1.08 | -1.17 | -1.00 | -1.21 |
| AL512408.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL512413.1 | -1.14 | -1.05 | -1.20 | -0.99 | -1.18 | -1.20 | -1.23 | -1.24 |
| AL512430.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL512430.3 | 0.16 | 0.39 | 0.03 | 0.29 | 0.48 | 0.16 | 0.21 | 0.04 |
| AL512504.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL512504.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL512506.1 | 0.67 | 0.84 | 0.80 | 1.00 | 0.87 | 0.69 | 1.14 | 1.01 |
| AL512506.2 | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -1.97 | -2.00 | -2.01 |
| AL512590.3 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL512593.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL512598.1 | 1.86 | 1.32 | 1.21 | 1.48 | 1.67 | 1.71 | 1.33 | 1.17 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL512599.1 | -1.09 | -1.01 | -1.14 | -1.17 | -1.05 | -1.05 | -1.17 | -1.12 |
| AL512604.2 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -1.97 |
| AL512604.3 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL512625.1 | 0.31 | 0.40 | 0.36 | 0.48 | 0.60 | 0.46 | 0.29 | 0.35 |
| AL512625.3 | 2.86 | 2.50 | 1.88 | 2.46 | 3.00 | 1.63 | 2.52 | 3.48 |
| AL512625.4 | -1.35 | -1.46 | -1.45 | -1.47 | -1.43 | -1.31 | -1.36 | -1.49 |
| AL512631.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL512633.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AL512635.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL512652.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.18 | -2.20 | -2.21 |
| AL512656.1 | -2.18 | -2.15 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL512662.2 | -1.84 | -1.84 | -1.79 | -1.80 | -1.84 | -1.85 | -1.84 | -1.78 |
| AL512770.1 | -1.74 | -1.74 | -1.68 | -1.74 | -1.71 | -1.73 | -1.70 | -1.76 |
| AL512791.1 | -1.69 | -1.64 | -1.68 | -1.69 | -1.66 | -1.70 | -1.60 | -1.66 |
| AL512791.2 | -0.94 | -0.93 | -0.92 | -0.95 | -0.73 | -0.99 | -0.95 | -1.03 |
| AL512844.1 | -1.08 | -1.14 | -1.13 | -1.08 | -1.04 | -1.07 | -1.09 | -1.11 |
| AL512844.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL513043.1 | -1.70 | -1.65 | -1.73 | -1.65 | -1.74 | -1.75 | -1.75 | -1.63 |
| AL513123.1 | -1.76 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.86 |
| AL513165.1 | 0.51 | 0.68 | 0.71 | 0.63 | 0.60 | 0.62 | 0.67 | 0.37 |
| AL513166.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL513175.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 | -2.24 |
| AL513175.2 | -1.79 | -1.78 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.76 |
| AL513190.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| AL513210.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL513217.1 | -1.31 | -1.37 | -1.29 | -1.38 | -1.24 | -1.32 | -1.32 | -1.24 |
| AL513218.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AL513218.2 | -0.52 | -0.56 | -0.69 | -0.44 | -0.67 | -0.62 | -0.53 | -0.67 |
| AL513302.1 | -1.25 | -1.37 | -1.36 | -1.38 | -1.34 | -1.33 | -1.21 | -1.39 |
| AL513303.1 | -1.29 | -0.99 | -0.80 | -1.22 | -1.21 | -1.30 | -1.29 | -1.31 |
| AL513318.2 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.02 | -2.05 |
| AL513320.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL513325.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL513327.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL513327.2 | -1.84 | -1.84 | -1.78 | -1.85 | -1.79 | -1.85 | -1.85 | -1.86 |
| AL513328.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL513329.1 | -1.54 | -1.59 | -1.46 | -1.54 | -1.56 | -1.52 | -1.54 | -1.56 |
| AL513331.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL513343.1 | -1.48 | -1.42 | -1.47 | -1.49 | -1.54 | -1.47 | -1.55 | -1.56 |
| AL513365.1 | 0.67 | 0.62 | 0.66 | 0.66 | 0.74 | 0.60 | 0.78 | 0.53 |
| AL513412.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL513477.1 | -1.08 | -0.99 | -0.98 | -1.01 | -1.07 | -1.02 | -1.08 | -1.09 |
| AL513477.2 | -0.27 | -0.43 | -0.31 | -0.13 | -0.27 | -0.22 | -0.16 | -0.39 |
| AL513479.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL513497.1 | 0.18 | 0.28 | 0.47 | 0.39 | 0.23 | 0.36 | 0.49 | 0.25 |
| AL513523.1 | -1.03 | -0.87 | -0.85 | -0.82 | -1.02 | -0.87 | -0.82 | -1.04 |
| AL513523.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL513533.1 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL513534.1 | -1.08 | -1.00 | -0.99 | -1.01 | -1.08 | -0.97 | -0.82 | -1.04 |
| AL513534.2 | -0.75 | -0.66 | -0.80 | -0.60 | -0.74 | -0.73 | -0.82 | -0.83 |
| AL513548.3 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL513550.1 | 1.86 | 1.41 | 1.51 | 1.91 | 1.48 | 1.72 | 1.76 | 1.72 |
| AL583722.1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.83 | -1.76 | -1.86 |
| AL583722.2 | 0.28 | 0.44 | 0.56 | 0.39 | 0.25 | 0.59 | 0.48 | 0.50 |
| AL583805.1 | -0.14 | 0.17 | -0.04 | 0.12 | 0.22 | 0.02 | -0.08 | 0.01 |
| AL583810.1 | -0.06 | -0.06 | 0.12 | 0.07 | 0.21 | 0.01 | 0.11 | -0.17 |
| AL583810.2 | -2.20 | -2.20 | -2.15 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AL583829.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL583834.1 | -0.83 | -0.67 | -0.81 | -0.76 | -0.83 | -0.74 | -0.76 | -0.62 |
| AL583856.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.89 | -1.95 | -1.96 |
| AL583856.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL583859.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL589644.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| AL589647.1 | -0.58 | -0.56 | -0.61 | -0.57 | -0.60 | -0.59 | -0.65 | -0.33 |
| AL589669.1 | 1.13 | 1.16 | 1.47 | 1.12 | 1.20 | 1.21 | 2.56 | 1.11 |
| AL589674.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL589739.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL589740.1 | -2.12 | -2.15 | -2.11 | -2.12 | -2.15 | -2.14 | -2.15 | -2.16 |
| AL589765.5 | -1.84 | -1.79 | -1.78 | -1.85 | -1.79 | -1.83 | -1.85 | -1.86 |
| AL589765.6 | -1.80 | -1.79 | -1.61 | -1.74 | -1.79 | -1.78 | -1.74 | -1.82 |
| AL589765.7 | -0.44 | -0.59 | -0.41 | -0.32 | -0.40 | -0.60 | -0.47 | -0.34 |
| AL589787.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL589794.2 | -1.50 | -1.49 | -1.48 | -1.44 | -1.49 | -1.51 | -1.50 | -1.52 |
| AL589826.1 | -1.45 | -1.44 | -1.43 | -1.27 | -1.41 | -1.40 | -1.39 | -1.41 |
| AL589826.2 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.86 |
| AL589843.1 | -0.66 | -0.80 | -0.54 | -0.88 | -0.84 | -0.89 | -0.81 | -0.52 |
| AL589843.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL589863.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL589863.2 | -1.74 | -1.73 | -1.73 | -1.74 | -1.73 | -1.75 | -1.65 | -1.76 |
| AL589872.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL589880.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.01 | -2.06 |
| AL589935.1 | -1.23 | -1.22 | -1.21 | -1.23 | -1.18 | -1.12 | -1.16 | -1.19 |
| AL589935.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL589986.2 | -1.43 | -1.49 | -1.34 | -1.50 | -1.49 | -1.50 | -1.43 | -1.52 |
| AL589993.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL590002.1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL590004.2 | -1.60 | -1.53 | -1.58 | -1.60 | -1.46 | -1.54 | -1.60 | -1.56 |
| AL590004.3 | 1.37 | 1.48 | 1.60 | 1.87 | 1.52 | 1.28 | 2.32 | 2.34 |
| AL590006.1 | -2.18 | -2.18 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| AL590009.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -1.96 | -2.01 |
| AL590062.1 | 2.23 | 1.57 | 1.40 | 1.74 | 1.35 | 1.80 | 1.35 | 1.76 |
| AL590064.1 | -0.92 | -0.99 | -0.90 | -0.85 | -0.77 | -0.94 | -1.00 | -1.01 |
| AL590065.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL590095.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL590096.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 | -2.14 | -2.15 | -2.13 |
| AL590101.1 | -2.05 | -2.04 | -1.97 | -2.01 | -2.03 | -2.05 | -2.05 | -2.06 |
| AL590128.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL590132.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| AL590133.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL590133.2 | 0.99 | 0.75 | 0.87 | 1.27 | 1.05 | 0.86 | 0.97 | 0.95 |
| AL590135.1 | -0.36 | -0.35 | -0.33 | -0.23 | -0.21 | -0.38 | -0.30 | -0.04 |
| AL590139.1 | -2.12 | -2.14 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL590235.1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL590286.1 | -1.99 | -1.95 | -1.98 | -2.00 | -1.97 | -1.96 | -2.00 | -1.97 |
| AL590326.1 | 2.11 | 1.34 | 1.41 | 1.44 | 1.52 | 1.91 | 1.43 | 1.08 |
| AL590365.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL590383.1 | -2.15 | -2.07 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AL590396.4 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -1.99 | -2.06 |
| AL590399.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 |
| AL590428.1 | -0.89 | -0.88 | -0.79 | -0.98 | -1.04 | -0.95 | -1.05 | -1.00 |
| AL590432.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL590438.1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 | -1.83 | -1.80 | -1.86 |
| AL590440.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL590550.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL590556.1 | -0.44 | -0.35 | -0.25 | -0.31 | -0.14 | -0.38 | -0.30 | -0.23 |
| AL590560.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL590560.2 | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.05 | -2.03 |
| AL590560.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL590609.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL590609.2 | -1.40 | -1.33 | -1.38 | -1.34 | -1.40 | -1.41 | -1.34 | -1.36 |
| AL590609.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL590617.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL590617.2 | 2.66 | 1.82 | 2.18 | 1.93 | 2.24 | 2.11 | 2.04 | 1.73 |
| AL590627.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| AL590632.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AL590639.1 | -0.84 | -0.91 | -0.97 | -0.72 | -0.77 | -0.87 | -0.99 | -0.89 |
| AL590640.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.85 | -1.86 | -1.90 | -1.87 |
| AL590644.1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.05 | -2.05 | -2.03 |
| AL590644.3 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.11 | -2.15 | -2.16 |
| AL590652.1 | 1.15 | 1.08 | 1.14 | 0.98 | 1.21 | 0.98 | 0.89 | 1.36 |
| AL590666.2 | -0.46 | -0.74 | -0.65 | -0.61 | -0.70 | -0.71 | -0.68 | -0.54 |
| AL590666.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL590666.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL590666.5 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.07 | -2.11 |
| AL590682.1 | 1.42 | 1.38 | 1.50 | 1.70 | 2.02 | 1.86 | 1.34 | 1.80 |
| AL590683.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL590704.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL590705.1 | -0.47 | -0.74 | -0.80 | -0.74 | -0.82 | -0.73 | -0.82 | -0.84 |
| AL590705.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL590708.1 | -1.03 | -1.10 | -1.16 | -1.18 | -1.13 | -0.96 | -1.18 | -1.19 |
| AL590714.1 | 0.34 | 0.02 | -0.12 | 0.14 | 0.30 | -0.08 | -0.01 | -0.17 |
| AL590723.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL590762.1 | 0.59 | 0.54 | 0.47 | 0.37 | 0.66 | 0.58 | 0.68 | 0.44 |
| AL590762.3 | -0.71 | -0.63 | -0.70 | -0.72 | -0.63 | -0.56 | -0.65 | -0.67 |
| AL590764.1 | -0.37 | -0.95 | -0.93 | -0.95 | -0.95 | -0.96 | -0.88 | -0.97 |
| AL590787.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL590822.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AL590822.3 | -1.85 | -1.85 | -1.88 | -1.89 | -1.87 | -1.88 | -1.89 | -1.91 |
| AL590867.2 | 4.43 | 4.59 | 3.50 | 4.83 | 5.42 | 4.22 | 4.01 | 4.50 |
| AL591030.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL591034.1 | -0.74 | -0.95 | -0.86 | -0.81 | -0.87 | -0.83 | -0.89 | -0.80 |
| AL591043.2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| AL591069.1 | -1.16 | -1.22 | -1.21 | -1.23 | -1.22 | -1.24 | -1.23 | -1.25 |
| AL591115.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AL591135.1 | -1.36 | -1.41 | -1.34 | -1.42 | -1.41 | -1.37 | -1.42 | -1.38 |
| AL591163.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL591178.1 | -1.26 | -1.25 | -1.24 | -1.27 | -0.81 | -1.24 | -1.19 | -1.28 |
| AL591473.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AL591499.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL591501.1 | -1.25 | -1.25 | -1.23 | -1.26 | -1.25 | -1.27 | -1.26 | -1.27 |
| AL591506.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AL591623.1 | -1.75 | -1.79 | -1.78 | -1.75 | -1.76 | -1.78 | -1.75 | -1.76 |
| AL591623.2 | -1.79 | -1.74 | -1.78 | -1.75 | -1.79 | -1.78 | -1.75 | -1.81 |
| AL591684.2 | -0.17 | -0.38 | -0.18 | -0.19 | -0.26 | -0.32 | -0.20 | -0.28 |
| AL591742.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| AL591742.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL591767.3 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL591806.1 | -2.01 | -2.04 | -2.04 | -2.01 | -2.03 | -2.04 | -2.05 | -2.06 |
| AL591845.1 | 1.18 | 1.19 | 1.54 | 1.30 | 1.26 | 1.44 | 1.33 | 1.40 |
| AL591845.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.96 |
| AL591846.1 | 1.63 | 1.81 | 1.98 | 1.87 | 1.87 | 2.53 | 2.05 | 2.42 |
| AL591846.2 | -1.10 | -1.17 | -1.16 | -1.18 | -0.88 | -1.19 | -1.18 | -1.26 |
| AL591848.3 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL591848.4 | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.90 | -1.94 | -1.96 |
| AL591866.1 | -2.04 | -2.01 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.00 |
| AL591895.1 | 2.83 | 3.04 | 2.44 | 2.84 | 2.98 | 3.00 | 2.90 | 3.12 |
| AL592045.1 | -1.27 | -1.20 | -1.26 | -1.08 | -1.13 | -1.25 | -1.28 | -0.99 |
| AL592071.1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.89 | -1.86 | -1.86 | -1.91 |
| AL592076.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.11 | -2.15 | -2.16 |
| AL592078.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL592114.1 | 1.44 | 1.77 | 1.28 | 1.84 | 1.54 | 1.61 | 1.58 | 1.67 |
| AL592114.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL592146.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AL592148.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.26 |
| AL592148.3 | 0.86 | 0.97 | 1.23 | 1.01 | 1.07 | 1.12 | 1.74 | 1.00 |
| AL592156.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| AL592166.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.13 |
| AL592211.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL592211.2 | 1.30 | 0.47 | 0.56 | 0.64 | 0.70 | 0.73 | 0.59 | 0.48 |
| AL592293.1 | -1.74 | -1.69 | -1.73 | -1.74 | -1.67 | -1.72 | -1.56 | -1.76 |
| AL592293.2 | 0.60 | 0.58 | 0.74 | 0.59 | 0.81 | 0.71 | 0.54 | 0.53 |
| AL592295.1 | 0.73 | 0.64 | 0.27 | 0.59 | 0.46 | 0.53 | 0.31 | 0.49 |
| AL592295.4 | -1.39 | -1.44 | -1.43 | -1.45 | -1.38 | -1.37 | -1.45 | -0.88 |
| AL592295.5 | 0.35 | 0.39 | 0.25 | 0.43 | 0.53 | 0.39 | 0.29 | 0.74 |
| AL592310.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL592424.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL592429.1 | -1.99 | -1.96 | -1.98 | -1.99 | -1.99 | -2.00 | -1.96 | -1.97 |
| AL592430.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -1.99 | -2.03 |
| AL592435.1 | 1.19 | 0.38 | 0.49 | 0.51 | 0.60 | 0.49 | 0.44 | 0.62 |
| AL592437.2 | -1.49 | -1.54 | -1.35 | -1.49 | -1.54 | -1.53 | -1.49 | -1.57 |
| AL592464.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| AL592466.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL592494.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL592494.2 | 1.93 | 1.47 | 1.60 | 1.82 | 1.65 | 1.63 | 1.35 | 1.27 |
| AL592546.2 | -1.90 | -1.94 | -1.93 | -1.91 | -1.92 | -1.95 | -1.95 | -1.91 |
| AL596087.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.18 | -2.22 |
| AL596087.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL596087.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL596094.1 | -1.46 | -1.40 | -1.39 | -1.34 | -1.34 | -1.39 | -1.47 | -1.37 |
| AL596202.1 | -0.12 | -0.10 | -0.15 | -0.12 | -0.22 | -0.25 | -0.01 | -0.36 |
| AL596214.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| AL596218.1 | -1.71 | -1.61 | -1.69 | -1.66 | -1.68 | -1.69 | -1.71 | -1.51 |
| AL596223.1 | -1.74 | -1.69 | -1.63 | -1.69 | -1.74 | -1.73 | -1.70 | -1.71 |
| AL596223.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL596244.1 | -1.06 | -1.05 | -1.20 | -0.99 | -1.13 | -1.02 | -1.15 | -1.24 |
| AL596247.1 | -1.59 | -1.41 | -1.52 | -1.59 | -1.53 | -1.54 | -1.54 | -1.61 |
| AL596257.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL596275.1 | -1.56 | -1.49 | -1.54 | -1.56 | -1.47 | -1.46 | -1.56 | -1.53 |
| AL596276.2 | -2.04 | -2.01 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AL596325.2 | -0.71 | -0.55 | -0.69 | -0.58 | -0.46 | -0.58 | -0.57 | -0.67 |
| AL596448.1 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.02 | -2.05 | -2.03 |
| AL603750.1 | 0.55 | 0.45 | 0.15 | 0.35 | 0.26 | 0.29 | 0.47 | 0.43 |
| AL603756.1 | 3.60 | 3.80 | 4.92 | 3.01 | 5.05 | 4.99 | 2.49 | 3.67 |
| AL603766.1 | 0.38 | 0.04 | 0.20 | 0.11 | 0.30 | 0.19 | 0.30 | 0.12 |
| AL603824.1 | -2.23 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AL603825.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL603832.1 | 0.03 | -0.26 | -0.23 | -0.34 | -0.22 | -0.19 | -0.35 | -0.10 |
| AL603839.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL603839.2 | -2.10 | -2.07 | -2.09 | -2.07 | -2.09 | -2.09 | -2.07 | -2.11 |
| AL603839.3 | 0.17 | 0.18 | 0.36 | 0.31 | 0.46 | 0.38 | 0.36 | 0.24 |
| AL603865.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AL603882.1 | -1.10 | -1.02 | -1.15 | -1.17 | -1.13 | -1.11 | -1.10 | -0.92 |
| AL603910.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL603914.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| AL604028.1 | 0.60 | 0.91 | 1.16 | 0.73 | 0.84 | 0.75 | 1.04 | 0.99 |
| AL604028.2 | -1.79 | -1.70 | -1.73 | -1.75 | -1.79 | -1.78 | -1.79 | -1.76 |
| AL606468.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| AL606468.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -1.99 | -2.05 |
| AL606489.2 | -1.59 | -1.53 | -1.52 | -1.59 | -1.58 | -1.57 | -1.43 | -1.61 |
| AL606490.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL606491.1 | -1.17 | -1.23 | -1.22 | -1.18 | -1.16 | -1.18 | -1.24 | -1.10 |
| AL606495.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL606500.1 | -2.05 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.06 |
| AL606537.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL606760.1 | 1.13 | 1.10 | 1.51 | 1.44 | 1.51 | 1.13 | 1.32 | 1.11 |
| AL606760.2 | -1.00 | -0.99 | -0.73 | -1.00 | -0.88 | -0.97 | -0.79 | -1.01 |
| AL606760.3 | -1.69 | -1.73 | -1.73 | -1.74 | -1.74 | -1.66 | -1.70 | -1.76 |
| AL606807.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.02 | -2.10 | -2.10 | -2.11 |
| AL606834.1 | 0.14 | 0.30 | 0.36 | 0.06 | 0.26 | 0.22 | 0.47 | 0.28 |
| AL606834.2 | -0.84 | -0.66 | -0.64 | -0.84 | -0.84 | -0.81 | -0.69 | -0.79 |
| AL606845.1 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL606970.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.92 |
| AL606970.3 | -2.01 | -2.04 | -2.01 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AL627171.1 | 0.14 | 0.08 | 0.15 | 0.10 | 0.19 | 0.20 | -0.02 | 0.16 |
| AL627171.2 | -0.44 | -0.58 | -0.56 | -0.43 | -0.29 | -0.40 | -0.51 | -0.54 |
| AL627223.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.07 | -2.10 | -2.07 | -2.11 |
| AL627232.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AL627308.2 | -1.69 | -1.69 | -1.62 | -1.69 | -1.53 | -1.67 | -1.64 | -1.71 |
| AL627309.5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.16 | -2.21 |
| AL627309.6 | -1.76 | -1.84 | -1.74 | -1.84 | -1.82 | -1.85 | -1.84 | -1.82 |
| AL627389.1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.74 | -1.80 | -1.66 | -1.76 |
| AL627402.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| AL627422.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL627422.2 | -1.17 | -1.30 | -1.03 | -1.31 | -1.23 | -1.22 | -1.31 | -1.21 |
| AL645465.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.01 | -2.05 | -2.03 |
| AL645504.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL645568.1 | 0.65 | 0.60 | 0.61 | 0.50 | 0.73 | 0.61 | 0.81 | 0.51 |
| AL645568.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| AL645568.3 | -1.94 | -1.90 | -1.93 | -1.94 | -1.94 | -1.91 | -1.95 | -1.96 |
| AL645608.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL645608.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL645608.3 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AL645608.7 | 0.71 | 0.51 | 0.89 | 0.57 | 0.40 | 0.56 | 0.62 | 0.37 |
| AL645608.8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL645728.1 | 0.33 | 0.34 | 0.73 | 0.53 | 0.41 | 0.33 | 0.39 | 0.34 |
| AL645728.2 | -1.08 | -1.15 | -1.06 | -1.09 | -1.04 | -1.07 | -1.16 | -1.06 |
| AL645924.2 | -1.76 | -1.80 | -1.79 | -1.76 | -1.80 | -1.81 | -1.81 | -1.67 |
| AL645929.1 | -0.65 | -0.86 | -0.85 | -0.73 | -0.71 | -0.72 | -0.80 | -0.82 |
| AL645929.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AL645929.3 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.04 | -2.02 | -2.00 |
| AL645933.2 | 0.85 | 0.81 | 0.62 | 1.00 | 0.55 | 0.62 | 0.54 | 0.62 |
| AL645933.3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL645939.1 | -1.41 | -1.41 | -1.40 | -1.42 | -1.32 | -1.28 | -1.36 | -1.38 |
| AL645939.5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AL645940.1 | -1.42 | -1.42 | -1.35 | -1.31 | -1.42 | -1.32 | -1.43 | -1.34 |
| AL645941.3 | -1.35 | -1.35 | -1.20 | -1.29 | -1.32 | -1.27 | -1.36 | -1.12 |
| AL645949.1 | -1.29 | -1.28 | -1.27 | -1.23 | -1.28 | -1.20 | -1.10 | -1.31 |
| AL645998.1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AL662791.1 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -1.99 | -2.06 |
| AL662795.2 | 2.38 | 2.65 | 2.58 | 2.35 | 2.32 | 2.77 | 3.61 | 3.12 |
| AL662797.1 | 0.63 | 0.58 | 0.39 | 0.42 | 0.48 | 0.60 | 0.34 | 0.57 |
| AL662844.3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL662844.4 | 0.14 | -0.07 | -0.04 | 0.03 | 0.04 | -0.11 | 0.05 | -0.01 |
| AL662884.3 | 1.60 | 1.83 | 1.84 | 1.92 | 2.04 | 1.92 | 1.74 | 2.13 |
| AL662884.4 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL662884.5 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL662890.1 | 1.64 | 2.16 | 1.68 | 2.10 | 1.91 | 2.13 | 1.48 | 1.38 |
| AL662907.1 | -1.70 | -1.63 | -1.62 | -1.70 | -1.66 | -1.62 | -1.71 | -1.72 |
| AL662907.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL662907.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL663023.1 | 0.51 | 0.37 | 0.62 | 0.59 | 0.36 | 0.33 | 0.34 | 0.30 |
| AL663058.1 | -1.52 | -1.52 | -1.51 | -1.47 | -1.49 | -1.48 | -1.53 | -1.45 |
| AL663070.1 | -0.04 | 0.05 | 0.06 | 0.53 | 0.25 | 0.18 | -0.05 | 0.14 |
| AL669818.1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.81 | -1.84 | -1.82 |
| AL669831.1 | -1.55 | -1.48 | -1.53 | -1.55 | -1.51 | -1.56 | -1.50 | -1.52 |
| AL669831.3 | 0.90 | 1.01 | 1.23 | 0.96 | 0.92 | 1.00 | 1.11 | 1.06 |
| AL669831.4 | -0.83 | -0.89 | -1.03 | -0.98 | -0.97 | -1.02 | -0.87 | -1.01 |
| AL669831.5 | -1.33 | -1.33 | -1.38 | -1.27 | -1.33 | -1.32 | -1.34 | -1.41 |
| AL669983.1 | 2.19 | 3.01 | 2.27 | 3.29 | 3.10 | 2.68 | 2.60 | 2.52 |
| AL670729.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL670729.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AL670729.3 | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| AL671277.1 | 1.02 | 1.17 | 1.01 | 0.91 | 1.10 | 1.05 | 0.99 | 0.73 |
| AL671277.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AL671710.1 | -0.08 | -0.23 | -0.12 | -0.09 | -0.23 | -0.15 | -0.10 | -0.14 |
| AL671883.2 | 0.19 | 0.12 | 0.06 | 0.18 | 0.27 | 0.26 | 0.03 | -0.01 |
| AL671883.3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL671986.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| AL672032.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AL672167.1 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL672207.1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.13 | -2.16 |
| AL672212.1 | -1.85 | -1.89 | -1.88 | -1.85 | -1.83 | -1.90 | -1.86 | -1.91 |
| AL683813.1 | 0.87 | 0.82 | 1.15 | 1.05 | 0.82 | 1.04 | 1.30 | 0.78 |
| AL683887.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL691403.2 | -1.37 | -1.37 | -1.36 | -1.38 | -1.37 | -1.45 | -1.44 | -1.46 |
| AL691432.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AL691432.2 | 2.52 | 2.48 | 1.65 | 2.48 | 1.93 | 2.02 | 1.88 | 1.89 |
| AL691432.4 | -0.84 | -0.75 | -0.74 | -0.63 | -0.80 | -0.84 | -0.63 | -0.74 |
| AL691447.2 | -0.84 | -1.17 | -1.16 | -1.18 | -1.17 | -1.19 | -1.18 | -0.86 |
| AL691449.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AL691482.3 | -1.54 | -1.53 | -1.52 | -1.48 | -1.53 | -1.46 | -1.49 | -1.56 |
| AL713852.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 |
| AL714022.1 | -1.49 | -1.49 | -1.48 | -1.50 | -1.35 | -1.48 | -1.50 | -1.41 |
| AL731533.2 | -0.58 | -0.66 | -0.38 | -0.67 | -0.33 | -0.60 | -0.60 | -0.62 |
| AL731537.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL731556.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AL731556.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL731563.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL731563.3 | -0.87 | -1.01 | -0.61 | -1.02 | -0.98 | -0.83 | -0.82 | -0.97 |
| AL731566.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.12 | -2.14 | -2.15 | -2.16 |
| AL731566.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AL731568.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AL731569.1 | 2.40 | 1.58 | 1.82 | 1.42 | 2.30 | 1.70 | 1.56 | 1.78 |
| AL731571.1 | -1.89 | -1.81 | -1.88 | -1.89 | -1.87 | -1.90 | -1.86 | -1.91 |
| AL731577.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AL731577.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.03 |
| AL731702.1 | -2.15 | -2.15 | -2.08 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| AL731769.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL731769.2 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.96 |
| AL732292.1 | -1.81 | -1.89 | -1.88 | -1.89 | -1.89 | -1.78 | -1.89 | -1.91 |
| AL732292.2 | -1.32 | -1.31 | -1.23 | -1.32 | -1.31 | -1.33 | -1.12 | -1.28 |
| AL732372.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.16 | -2.21 |
| AL732437.3 | -2.24 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AL732509.1 | -1.50 | -1.55 | -1.54 | -1.56 | -1.50 | -1.48 | -1.51 | -1.43 |
| AL772161.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| AL772284.1 | -1.80 | -1.79 | -1.59 | -1.85 | -1.84 | -1.85 | -1.85 | -1.82 |
| AL772337.3 | 0.13 | 0.06 | 0.58 | 0.12 | 0.13 | 0.22 | 0.17 | 0.00 |
| AL805961.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AL807752.1 | -1.01 | -1.15 | -0.93 | -1.09 | -1.12 | -1.13 | -1.16 | -1.12 |
| AL807752.2 | -1.74 | -1.74 | -1.68 | -1.64 | -1.74 | -1.67 | -1.70 | -1.76 |
| AL807752.3 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL807752.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL807752.5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AL807752.6 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AL807757.1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.06 | -2.07 | -2.11 |
| AL807757.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AL807761.2 | -1.69 | -1.68 | -1.68 | -1.69 | -1.66 | -1.67 | -1.69 | -1.71 |
| AL807776.1 | -2.15 | -2.10 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.16 |
| AL831711.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| AL844170.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL844892.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL844908.1 | -0.79 | -0.34 | -0.75 | -0.01 | -0.86 | -0.84 | -0.71 | -0.88 |
| AL844908.2 | -1.35 | -1.41 | -1.34 | -1.42 | -1.41 | -1.31 | -1.30 | -1.33 |
| AL845472.2 | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.12 | -2.16 |
| AL845552.1 | -1.59 | -1.64 | -1.63 | -1.53 | -1.64 | -1.62 | -1.48 | -1.66 |
| AL928646.1 | -1.69 | -1.69 | -1.62 | -1.69 | -1.66 | -1.70 | -1.49 | -1.71 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AL928654.1 | 0.26 | 0.02 | 0.05 | 0.00 | 0.12 | 0.10 | -0.08 | -0.17 |
| AL928654.2 | -1.79 | -1.79 | -1.73 | -1.79 | -1.76 | -1.69 | -1.79 | -1.76 |
| AL928654.4 | 1.02 | 1.24 | 1.10 | 0.94 | 1.02 | 1.05 | 1.61 | 0.86 |
| AL929091.1 | -0.95 | -0.94 | 0.27 | -0.86 | -0.85 | -0.96 | -0.87 | -0.77 |
| AL929236.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AL929410.2 | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| AL929472.2 | -0.92 | -0.92 | -0.91 | -0.85 | -0.80 | -0.80 | -0.93 | -0.83 |
| AL929472.3 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.23 |
| AL954705.1 | 1.75 | 2.30 | 2.65 | 2.24 | 2.02 | 2.20 | 2.52 | 1.55 |
| ALAD | 5.10 | 5.10 | 5.17 | 5.48 | 4.92 | 4.98 | 5.64 | 4.64 |
| ALAS1 | 8.02 | 6.14 | 6.52 | 6.51 | 7.58 | 6.83 | 6.62 | 7.47 |
| ALB | -1.04 | -0.94 | -1.01 | -1.04 | -1.03 | -1.05 | -0.01 | -0.91 |
| ALCAM | 4.70 | 5.50 | 7.29 | 5.37 | 5.04 | 6.53 | 6.73 | 5.58 |
| ALDH16A1 | 4.45 | 4.97 | 5.14 | 4.89 | 4.88 | 4.54 | 5.17 | 4.65 |
| ALDH18A1 | 6.01 | 6.49 | 5.99 | 6.51 | 6.46 | 6.07 | 6.43 | 5.64 |
| ALDH1A1 | 9.25 | 8.41 | 7.97 | 9.45 | 6.28 | 7.00 | 8.00 | 8.73 |
| ALDH1A2 | 4.48 | 3.14 | 3.73 | 3.42 | 3.46 | 3.19 | 5.83 | 2.98 |
| ALDH1A3 | 7.14 | 6.85 | 7.83 | 6.77 | 6.94 | 6.90 | 6.27 | 6.68 |
| ALDH1B1 | 4.30 | 5.12 | 4.44 | 4.97 | 4.62 | 4.31 | 4.40 | 3.67 |
| ALDH1L1 | 4.25 | 2.65 | 4.04 | 2.75 | 4.27 | 2.46 | 3.74 | 5.95 |
| ALDH1L1-AS1 | -1.89 | -1.85 | -1.88 | -1.89 | -1.87 | -1.88 | -1.90 | -1.83 |
| ALDH1L1-AS2 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -1.97 |
| ALDH1L2 | 1.83 | 1.95 | 2.26 | 1.64 | 3.36 | 2.91 | 3.55 | 4.19 |
| ALDH2 | 8.23 | 9.11 | 8.55 | 10.03 | 8.36 | 7.83 | 8.99 | 9.65 |
| ALDH3A1 | 9.17 | 9.67 | 9.14 | 9.78 | 10.10 | 7.25 | 10.12 | 11.57 |
| ALDH3A2 | 8.71 | 6.83 | 7.33 | 6.85 | 6.73 | 6.83 | 8.46 | 8.35 |
| ALDH3B1 | 6.02 | 5.97 | 4.94 | 5.74 | 5.32 | 5.02 | 5.65 | 6.66 |
| ALDH3B2 | 3.13 | 2.20 | 2.95 | 2.39 | 2.18 | 2.83 | 2.22 | 2.02 |
| ALDH4A1 | 3.25 | 3.02 | 3.37 | 2.90 | 3.08 | 3.01 | 3.60 | 2.56 |
| ALDH5A1 | 4.51 | 3.66 | 4.04 | 3.72 | 3.32 | 4.14 | 4.18 | 3.88 |
| ALDH6A1 | 4.12 | 4.24 | 4.55 | 4.20 | 4.72 | 4.68 | 4.07 | 5.02 |
| ALDH7A1 | 5.62 | 6.03 | 5.78 | 6.25 | 6.45 | 5.88 | 5.40 | 6.04 |
| ALDH7A1P1 | -1.64 | -1.63 | -1.57 | -1.64 | -1.63 | -1.70 | -1.70 | -1.66 |
| ALDH8A1 | -1.94 | -1.94 | -1.93 | -1.95 | -1.92 | -1.95 | -1.91 | -1.96 |
| ALDH9A1 | 6.29 | 6.44 | 6.05 | 6.44 | 6.51 | 6.48 | 6.41 | 6.21 |
| ALDOA | 3.72 | 3.23 | 3.75 | 3.03 | 3.37 | 3.17 | 3.30 | 3.68 |
| ALDOAP1 | -1.79 | -1.79 | -1.74 | -1.79 | -1.79 | -1.78 | -1.79 | -1.72 |
| ALDOAP2 | -1.44 | -1.38 | -1.43 | -1.50 | -1.44 | -1.42 | -1.51 | -1.47 |
| ALDOB | 2.94 | 2.67 | 2.49 | 2.66 | 3.06 | 2.05 | 4.27 | 2.59 |
| ALDOC | 7.33 | 6.73 | 7.43 | 6.47 | 7.84 | 6.86 | 7.66 | 7.14 |
| ALG1 | 5.12 | 5.13 | 4.83 | 5.56 | 4.54 | 4.12 | 4.66 | 4.79 |
| ALG10 | 2.62 | 2.07 | 2.06 | 2.00 | 2.31 | 2.10 | 2.14 | 1.99 |
| ALG10B | 3.22 | 3.29 | 3.51 | 3.10 | 3.06 | 3.61 | 3.64 | 2.92 |
| ALG11 | 3.20 | 3.44 | 3.34 | 3.47 | 3.63 | 2.82 | 3.57 | 3.99 |
| ALG12 | 5.64 | 5.37 | 4.90 | 5.53 | 4.92 | 4.75 | 5.41 | 5.09 |
| ALG13 | 5.19 | 5.59 | 5.04 | 5.83 | 5.34 | 4.94 | 5.52 | 4.58 |
| ALG14 | 4.75 | 4.71 | 3.97 | 4.94 | 4.78 | 4.72 | 4.43 | 4.92 |
| ALG1L | 1.87 | 1.35 | 0.92 | 1.45 | 1.16 | 1.48 | 1.02 | 2.50 |
| ALG1L10P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ALG1L2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.07 | -2.10 | -2.11 |
| ALG1L5P | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| ALG1L6P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| ALG2 | 5.88 | 6.06 | 5.56 | 6.47 | 5.74 | 5.75 | 5.98 | 6.27 |
| ALG3 | 7.75 | 7.00 | 7.22 | 7.52 | 7.25 | 6.66 | 6.60 | 7.43 |
| ALG3P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| ALG5 | 6.89 | 7.35 | 7.06 | 7.76 | 7.76 | 6.44 | 7.20 | 8.24 |
| ALG6 | 4.05 | 4.14 | 3.71 | 4.27 | 3.97 | 4.30 | 3.93 | 3.85 |
| ALG8 | 6.71 | 6.44 | 6.31 | 6.72 | 6.87 | 6.03 | 5.93 | 6.62 |
| ALG9 | 1.77 | 1.47 | 1.82 | 1.90 | 1.71 | 1.68 | 1.95 | 1.50 |
| ALG9-IT1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| ALKAL1 | 2.21 | 1.41 | 1.97 | 1.36 | 2.56 | 1.44 | 1.35 | 3.85 |
| ALKAL2 | -0.69 | -0.76 | -0.75 | -0.68 | -0.76 | -0.78 | -0.77 | -0.79 |
| ALKBH1 | 3.08 | 3.09 | 3.21 | 3.60 | 3.70 | 3.48 | 3.30 | 3.40 |
| ALKBH2 | 4.96 | 5.32 | 5.10 | 5.54 | 5.80 | 5.23 | 4.56 | 4.93 |
| ALKBH3 | 4.89 | 4.52 | 4.59 | 4.53 | 4.91 | 4.44 | 4.53 | 3.92 |
| ALKBH4 | 4.26 | 4.62 | 4.23 | 4.76 | 4.57 | 4.21 | 4.26 | 4.64 |
| ALKBH5 | 6.36 | 5.86 | 6.65 | 5.56 | 5.70 | 5.80 | 6.69 | 6.00 |
| ALKBH6 | 5.11 | 4.27 | 4.36 | 4.39 | 4.95 | 4.36 | 4.49 | 4.50 |
| ALKBH7 | 5.75 | 6.86 | 5.75 | 6.79 | 7.52 | 6.48 | 6.45 | 6.85 |
| ALKBH8 | 2.16 | 2.53 | 2.55 | 2.37 | 2.43 | 2.33 | 2.45 | 2.27 |
| ALLC | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ALMS1 | 2.80 | 3.10 | 3.15 | 2.76 | 2.54 | 2.67 | 3.24 | 2.54 |
| ALMS1-IT1 | 0.41 | 0.19 | 0.54 | 0.25 | 0.61 | 0.43 | 0.38 | 0.27 |
| ALMS1P1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| ALOX12 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.05 |
| ALOX12-AS1 | 2.86 | 2.63 | 3.06 | 2.37 | 2.78 | 2.87 | 2.61 | 3.18 |
| ALOX12B | 0.86 | 1.15 | 0.61 | 1.31 | 0.71 | 0.74 | 0.70 | 0.63 |
| ALOX12P2 | 1.28 | 1.43 | 1.37 | 1.72 | 1.22 | 0.91 | 1.00 | 1.05 |
| ALOX15 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 |
| ALOX15B | 1.62 | 2.10 | 1.80 | 1.75 | 1.72 | 1.59 | 1.88 | 4.15 |
| ALOX15P1 | -1.34 | -1.27 | -1.32 | -1.28 | -1.27 | -1.29 | -1.35 | -1.30 |
| ALOX5 | 3.77 | 5.30 | 4.56 | 5.22 | 3.38 | 4.22 | 5.36 | 4.74 |
| ALOX5AP | -1.47 | -1.35 | -1.57 | -1.47 | -1.55 | -1.59 | -1.59 | -1.31 |
| ALOXE3 | 0.07 | 0.17 | 0.28 | 0.22 | 0.24 | 0.29 | 0.41 | 0.39 |
| ALPG | 4.90 | 2.37 | 2.24 | 2.62 | 2.52 | 2.18 | 2.65 | 3.53 |
| ALPI | -0.07 | -0.59 | -0.56 | -0.60 | -0.56 | -0.65 | -0.68 | -0.70 |
| ALPK1 | 2.76 | 3.40 | 3.44 | 3.22 | 3.16 | 3.41 | 3.60 | 3.52 |
| ALPK2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 |
| ALPK3 | 1.96 | 1.78 | 2.01 | 1.57 | 2.27 | 3.39 | 1.99 | 1.90 |
| ALPL | -1.25 | -1.32 | -1.31 | -1.33 | -1.32 | -1.34 | -1.33 | -1.35 |
| ALPP | 4.22 | 1.78 | 2.04 | 2.30 | 2.02 | 2.37 | 1.60 | 5.95 |
| ALS2 | 4.31 | 4.02 | 4.37 | 4.09 | 3.94 | 4.03 | 4.03 | 3.80 |
| ALS2CL | 4.61 | 4.92 | 5.24 | 5.42 | 4.52 | 4.47 | 6.53 | 4.96 |
| ALX1 | -0.15 | -0.47 | -0.62 | -0.28 | -0.63 | -0.64 | -0.64 | -0.48 |

| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ALX3 | -0.82 | -1.14 | -1.20 | -1.22 | -1.14 | -1.23 | -1.23 | -1.07 |
| ALX4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| ALYREF | 8.00 | 7.26 | 7.48 | 7.13 | 7.62 | 8.10 | 6.57 | 7.42 |
| AMACR | 0.17 | 0.48 | 0.38 | 0.55 | 0.30 | 0.25 | 0.30 | 0.13 |
| AMBP | 1.34 | 1.54 | 1.51 | 1.40 | 2.13 | 1.28 | 2.86 | 1.36 |
| AMBRA1 | 3.89 | 3.92 | 4.48 | 3.66 | 3.97 | 3.44 | 3.80 | 3.66 |
| AMD1 | 7.33 | 7.35 | 6.69 | 7.63 | 6.67 | 6.84 | 7.20 | 6.83 |
| AMD1P3 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AMDHD1 | -1.37 | -1.36 | -1.41 | -1.43 | -1.42 | -1.35 | -1.43 | -1.35 |
| AMDHD2 | 3.10 | 2.66 | 3.36 | 2.78 | 2.69 | 2.79 | 2.79 | 2.92 |
| AMELX | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AMER1 | 1.05 | 0.78 | 0.80 | 0.75 | 1.06 | 0.89 | 1.14 | 0.92 |
| AMFR | 6.16 | 5.96 | 7.03 | 5.70 | 5.64 | 5.43 | 5.93 | 5.70 |
| AMH | 1.33 | 1.89 | 2.65 | 2.12 | 1.77 | 2.32 | 1.61 | 1.84 |
| AMHR2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AMIGO1 | 1.63 | 1.02 | 1.23 | 1.15 | 1.28 | 1.22 | 0.99 | 1.17 |
| AMIGO2 | 2.67 | 4.18 | 3.82 | 3.98 | 2.68 | 5.88 | 2.90 | 4.90 |
| AMMECR1 | 4.14 | 4.93 | 4.25 | 3.95 | 3.87 | 4.23 | 4.17 | 3.77 |
| AMMECR1L | 3.74 | 4.20 | 4.20 | 3.95 | 3.83 | 3.59 | 3.89 | 4.00 |
| AMN | 4.72 | 6.55 | 5.51 | 6.91 | 6.90 | 5.32 | 6.75 | 6.58 |
| AMN1 | 5.80 | 4.32 | 4.71 | 4.34 | 5.86 | 4.53 | 4.27 | 5.31 |
| AMOT | 3.24 | 3.56 | 4.30 | 3.43 | 2.84 | 2.38 | 3.84 | 2.42 |
| AMOTL1 | 3.93 | 4.57 | 4.17 | 4.02 | 4.09 | 3.35 | 3.41 | 3.98 |
| AMOTL2 | 5.06 | 4.30 | 5.38 | 4.33 | 4.27 | 5.29 | 5.97 | 6.07 |
| AMPD1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AMPD2 | 5.04 | 4.77 | 4.69 | 5.22 | 4.46 | 4.44 | 4.78 | 4.60 |
| AMPD3 | 2.51 | 2.87 | 2.54 | 2.90 | 2.38 | 2.67 | 2.98 | 3.36 |
| AMPH | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| AMT | -0.83 | -0.97 | -0.96 | -0.83 | -0.89 | -0.85 | -0.91 | -0.88 |
| AMTN | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AMY2B | -0.16 | -0.07 | 0.18 | -0.17 | -0.01 | -0.08 | -0.03 | -0.09 |
| AMZ1 | -1.28 | -1.55 | -1.54 | -1.56 | -1.50 | -1.56 | -1.51 | -1.48 |
| AMZ2 | 6.82 | 6.28 | 6.56 | 6.40 | 6.72 | 6.53 | 5.65 | 6.13 |
| AMZ2P1 | 3.39 | 3.35 | 3.29 | 3.38 | 3.86 | 3.41 | 3.62 | 3.44 |
| AMZ2P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| ANAPC1 | 3.77 | 3.63 | 3.60 | 3.72 | 3.84 | 3.59 | 3.44 | 3.83 |
| ANAPC10 | 4.78 | 4.93 | 4.44 | 5.08 | 5.20 | 5.48 | 4.79 | 6.14 |
| ANAPC10P1 | -1.59 | -1.69 | -1.73 | -1.69 | -1.74 | -1.75 | -1.70 | -1.71 |
| ANAPC11 | 10.28 | 9.40 | 9.51 | 9.38 | 10.06 | 10.02 | 8.96 | 9.89 |
| ANAPC13 | 7.62 | 5.73 | 6.29 | 5.98 | 6.98 | 7.02 | 6.25 | 7.69 |
| ANAPC15 | 6.13 | 5.36 | 5.72 | 5.57 | 5.86 | 5.77 | 5.57 | 5.85 |
| ANAPC16 | 9.15 | 8.49 | 7.81 | 8.43 | 8.77 | 8.36 | 8.07 | 8.12 |
| ANAPC2 | 2.27 | 2.18 | 2.43 | 2.25 | 1.92 | 2.06 | 2.28 | 2.11 |
| ANAPC4 | 3.79 | 4.58 | 4.63 | 4.51 | 3.92 | 4.41 | 4.80 | 4.38 |
| ANAPC5 | 6.20 | 6.54 | 6.96 | 6.71 | 6.34 | 6.40 | 6.52 | 6.95 |
| ANAPC7 | 4.62 | 5.07 | 5.04 | 5.21 | 4.87 | 5.10 | 5.10 | 5.32 |
| ANG | 4.41 | 5.81 | 4.63 | 6.23 | 6.35 | 4.98 | 6.04 | 3.89 |
| ANGEL1 | 2.72 | 3.24 | 3.23 | 3.09 | 3.33 | 3.14 | 3.28 | 2.94 |
| ANGEL2 | 3.92 | 4.17 | 3.92 | 4.11 | 4.26 | 4.16 | 4.12 | 4.40 |
| ANGPT1 | -1.15 | -1.21 | -1.20 | -1.15 | -1.21 | -1.23 | -1.15 | -0.38 |
| ANGPT2 | -0.12 | -0.11 | -0.08 | -0.15 | -0.19 | -0.02 | -0.28 | -0.19 |
| ANGPT4 | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| ANGPTL1 | -1.51 | -1.50 | -1.49 | -1.51 | -1.50 | -1.49 | -1.40 | -1.48 |
| ANGPTL2 | 4.23 | 1.88 | 2.04 | 1.93 | 2.70 | 2.08 | 1.88 | 2.83 |
| ANGPTL3 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| ANGPTL4 | 5.85 | 6.15 | 8.26 | 4.60 | 5.59 | 5.33 | 6.96 | 5.93 |
| ANGPTL6 | 1.37 | 0.74 | 1.09 | 0.62 | 0.65 | 0.60 | 0.96 | 0.50 |
| ANGPTL8 | -2.12 | -2.15 | -2.08 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| ANK1 | 2.93 | 5.79 | 2.99 | 6.53 | 3.29 | 3.84 | 4.56 | 3.22 |
| ANK2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| ANK3 | 4.06 | 4.29 | 4.05 | 3.88 | 4.53 | 4.11 | 5.31 | 3.20 |
| ANK3-DT | -1.89 | -1.89 | -1.88 | -1.89 | -1.85 | -1.90 | -1.86 | -1.91 |
| ANKAR | 1.56 | 1.79 | 1.73 | 1.90 | 2.01 | 1.53 | 2.00 | 2.03 |
| ANKDD1A | 0.83 | 0.78 | 0.50 | 1.06 | 0.83 | 0.72 | 0.74 | 0.75 |
| ANKDD1B | -1.10 | -1.10 | -1.01 | -1.04 | -1.06 | -1.05 | -0.97 | -1.06 |
| ANKEF1 | 3.68 | 4.04 | 3.51 | 3.68 | 3.46 | 3.45 | 3.22 | 3.38 |
| ANKFN1 | 1.28 | 1.28 | 0.83 | 1.45 | 0.65 | 0.91 | 0.70 | 0.59 |
| ANKFY1 | 4.36 | 4.21 | 4.98 | 4.34 | 3.95 | 4.46 | 5.09 | 3.96 |
| ANKH | 4.40 | 4.22 | 5.02 | 4.39 | 4.78 | 4.38 | 4.66 | 4.04 |
| ANKHD1 | 3.64 | 4.16 | 3.84 | 3.65 | 3.91 | 3.42 | 3.94 | 3.34 |
| ANKHD1-EIF4EBP | -0.16 | 0.00 | 0.40 | -0.08 | -0.11 | -0.07 | 0.29 | -0.02 |
| ANKIB1 | 4.45 | 5.80 | 5.82 | 5.40 | 4.83 | 5.76 | 5.67 | 5.64 |
| ANKK1 | -1.69 | -1.68 | -1.68 | -1.69 | -1.57 | -1.67 | -1.69 | -1.66 |
| ANKLE1 | -1.69 | -1.74 | -1.73 | -1.69 | -1.69 | -1.73 | -1.70 | -1.76 |
| ANKLE2 | 5.45 | 6.09 | 6.98 | 6.30 | 6.15 | 6.04 | 6.91 | 6.50 |
| ANKMY1 | 1.88 | 2.07 | 2.46 | 1.81 | 2.32 | 2.09 | 1.73 | 2.51 |
| ANKMY2 | 3.94 | 4.19 | 4.24 | 4.60 | 4.00 | 4.38 | 4.53 | 3.95 |
| ANKRA2 | 4.71 | 4.59 | 5.32 | 4.94 | 5.24 | 4.97 | 5.45 | 5.07 |
| ANKRD1 | 3.39 | 2.64 | 3.07 | 2.47 | 3.41 | 4.13 | 4.05 | 3.15 |
| ANKRD10 | 5.22 | 5.18 | 6.00 | 5.43 | 6.87 | 5.66 | 5.52 | 4.99 |
| ANKRD10-IT1 | 0.97 | 1.16 | 1.36 | 1.14 | 1.17 | 1.12 | 1.55 | 0.95 |
| ANKRD11 | 8.23 | 8.27 | 8.82 | 8.35 | 8.47 | 8.32 | 8.41 | 9.07 |
| ANKRD12 | 6.59 | 6.76 | 7.28 | 6.31 | 6.96 | 6.76 | 7.12 | 7.19 |
| ANKRD13A | 3.45 | 3.98 | 4.15 | 3.66 | 3.58 | 3.60 | 4.27 | 3.93 |
| ANKRD13B | 2.47 | 2.08 | 2.51 | 2.18 | 2.31 | 2.43 | 2.07 | 1.71 |
| ANKRD13C | 4.36 | 5.00 | 4.57 | 4.74 | 4.13 | 4.40 | 4.94 | 4.05 |
| ANKRD13D | 5.16 | 4.43 | 5.36 | 4.72 | 5.00 | 4.93 | 5.18 | 5.35 |
| ANKRD16 | 2.68 | 2.67 | 2.76 | 2.95 | 3.37 | 2.77 | 2.98 | 2.56 |
| ANKRD17 | 5.51 | 6.61 | 6.71 | 6.43 | 5.36 | 6.24 | 6.96 | 6.27 |
| ANKRD18A | 3.05 | 3.79 | 3.33 | 4.06 | 4.26 | 4.43 | 4.03 | 2.92 |
| ANKRD18B | 2.30 | 1.95 | 2.50 | 1.87 | 1.71 | 1.97 | 2.37 | 1.81 |
| ANKRD18CP | -0.28 | -0.05 | -0.50 | -0.10 | -0.47 | -0.35 | -0.52 | -0.47 |
| ANKRD18DP | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ANKRD18EP | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ANKRD19P | -1.58 | -1.57 | -1.51 | -1.58 | -1.63 | -1.64 | -1.58 | -1.65 |
| ANKRD2 | 1.02 | 0.65 | 0.78 | 0.63 | 0.56 | 0.68 | 0.70 | 0.50 |
| ANKRD20A1 | -2.10 | -2.06 | -2.02 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| ANKRD20A11P | -1.40 | -1.46 | -1.45 | -1.47 | -1.43 | -1.48 | -1.47 | -1.48 |
| ANKRD20A21P | -1.48 | -1.58 | -1.57 | -1.54 | -1.53 | -1.54 | -1.59 | -1.61 |
| ANKRD20A4 | -1.89 | -1.77 | -1.88 | -1.82 | -1.85 | -1.88 | -1.89 | -1.91 |
| ANKRD20A5P | 2.04 | 2.10 | 2.50 | 2.10 | 2.14 | 2.15 | 2.66 | 2.52 |
| ANKRD20A7P | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -1.99 | -2.05 | -2.06 |
| ANKRD20A8P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ANKRD20A9P | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ANKRD22 | 7.72 | 5.92 | 5.97 | 5.88 | 6.82 | 6.30 | 5.72 | 5.04 |
| ANKRD23 | -0.25 | -0.45 | -0.26 | -0.26 | -0.33 | -0.40 | -0.46 | -0.26 |
| ANKRD24 | -0.59 | -0.59 | -0.58 | -0.53 | -0.45 | -0.50 | -0.45 | -0.61 |
| ANKRD26 | 4.28 | 5.38 | 6.03 | 5.13 | 5.47 | 5.29 | 6.33 | 4.29 |
| ANKRD26P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ANKRD26P2 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| ANKRD26P4 | -2.10 | -2.06 | -2.06 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| ANKRD27 | 4.18 | 4.07 | 4.39 | 4.09 | 4.24 | 3.82 | 4.13 | 4.08 |
| ANKRD28 | 4.07 | 4.72 | 4.93 | 4.55 | 4.42 | 5.02 | 4.36 | 4.04 |
| ANKRD29 | 3.26 | 4.82 | 2.95 | 4.79 | 4.03 | 2.95 | 4.54 | 4.40 |
| ANKRD31 | -0.13 | 0.12 | -0.03 | 0.21 | 0.21 | 0.04 | 0.01 | -0.16 |
| ANKRD33 | -0.18 | -0.34 | -0.32 | -0.26 | -0.24 | -0.28 | -0.35 | -0.30 |
| ANKRD33B | -0.53 | -0.52 | -0.43 | -0.53 | -0.44 | -0.47 | -0.40 | -0.55 |
| ANKRD34A | 0.73 | 0.48 | 0.51 | 0.85 | 0.86 | 0.54 | 0.72 | 0.64 |
| ANKRD34B | -1.22 | -1.33 | -1.38 | -1.46 | -1.45 | -1.47 | -1.46 | -1.42 |
| ANKRD35 | -0.49 | -0.32 | -0.48 | -0.16 | -0.37 | -0.33 | -0.30 | -0.45 |
| ANKRD36 | 3.34 | 3.16 | 3.41 | 3.69 | 3.60 | 3.62 | 4.28 | 2.62 |
| ANKRD36B | 2.82 | 2.85 | 2.88 | 3.50 | 3.09 | 2.92 | 3.11 | 2.77 |
| ANKRD36BP1 | 3.84 | 3.35 | 3.02 | 3.69 | 3.49 | 3.79 | 3.11 | 3.61 |
| ANKRD36BP2 | -2.15 | -2.15 | -2.14 | -2.10 | -2.15 | -2.15 | -2.15 | -2.16 |
| ANKRD36C | 4.56 | 4.73 | 5.05 | 4.84 | 5.41 | 5.64 | 6.49 | 3.65 |
| ANKRD37 | 3.36 | 3.82 | 4.20 | 3.28 | 3.47 | 3.50 | 4.17 | 3.15 |
| ANKRD39 | 5.73 | 4.73 | 4.40 | 5.07 | 5.05 | 4.62 | 5.07 | 4.67 |
| ANKRD40 | 4.93 | 4.92 | 5.31 | 4.80 | 4.91 | 5.03 | 4.84 | 5.27 |
| ANKRD40CL | 2.22 | 1.85 | 1.79 | 2.78 | 2.05 | 1.63 | 1.85 | 1.60 |
| ANKRD42 | 3.06 | 3.46 | 3.40 | 3.16 | 2.99 | 2.85 | 3.35 | 3.37 |
| ANKRD44 | 0.87 | 0.74 | 0.93 | 0.72 | 0.74 | 0.69 | 1.29 | 0.89 |
| ANKRD44-IT1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| ANKRD45 | -1.99 | -1.99 | -1.98 | -1.99 | -1.96 | -1.98 | -2.00 | -2.01 |
| ANKRD46 | 3.85 | 3.87 | 4.26 | 3.81 | 4.25 | 3.95 | 3.54 | 3.85 |
| ANKRD49 | 5.85 | 5.53 | 5.86 | 5.54 | 5.89 | 5.15 | 5.55 | 5.75 |
| ANKRD50 | 3.64 | 5.48 | 4.82 | 5.44 | 3.65 | 4.77 | 4.60 | 4.56 |
| ANKRD52 | 4.54 | 4.55 | 4.57 | 4.68 | 3.84 | 4.62 | 4.84 | 3.93 |
| ANKRD53 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -1.94 |
| ANKRD54 | 6.34 | 5.30 | 4.37 | 5.58 | 4.84 | 5.24 | 5.26 | 4.92 |
| ANKRD6 | 0.79 | 0.18 | 0.63 | 0.17 | 0.33 | 0.23 | 0.32 | 0.20 |
| ANKRD61 | -2.01 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.02 | -2.06 |
| ANKRD62 | -0.96 | -1.10 | -1.08 | -0.98 | -1.17 | -1.15 | -1.18 | -1.14 |
| ANKRD65 | 2.38 | 1.71 | 1.77 | 1.43 | 2.08 | 2.43 | 2.47 | 1.70 |
| ANKRD7 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.05 |
| ANKRD9 | 6.57 | 6.28 | 6.48 | 6.30 | 6.68 | 6.51 | 6.76 | 6.47 |
| ANKS1A | 4.85 | 4.94 | 4.73 | 4.91 | 4.47 | 5.22 | 5.37 | 5.39 |
| ANKS1B | -1.89 | -1.89 | -1.88 | -1.81 | -1.89 | -1.90 | -1.90 | -1.91 |
| ANKS3 | 3.64 | 3.85 | 4.41 | 4.08 | 3.61 | 3.93 | 4.11 | 4.38 |
| ANKS4B | 2.43 | 3.55 | 2.93 | 4.02 | 2.74 | 2.16 | 3.60 | 2.18 |
| ANKS6 | 5.83 | 5.58 | 4.94 | 5.91 | 5.28 | 5.48 | 5.26 | 4.70 |
| ANKUB1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| ANKZF1 | 4.85 | 4.28 | 4.71 | 4.87 | 5.06 | 5.08 | 5.41 | 4.86 |
| ANLN | 6.57 | 6.36 | 6.92 | 5.92 | 5.74 | 6.69 | 6.16 | 6.53 |
| ANO1 | 5.57 | 7.37 | 7.65 | 6.83 | 6.42 | 5.98 | 7.05 | 7.58 |
| ANO1-AS1 | -1.29 | -1.35 | -1.40 | -1.35 | -1.35 | -1.39 | -1.42 | -1.33 |
| ANO10 | 6.37 | 5.44 | 4.99 | 5.06 | 5.03 | 4.62 | 5.71 | 5.00 |
| ANO2 | -2.07 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| ANO3 | -1.52 | -1.45 | -1.50 | -1.52 | -1.48 | -1.53 | -1.46 | -1.54 |
| ANO4 | 0.41 | 0.34 | 0.35 | 0.32 | 0.50 | 0.38 | 1.00 | 0.35 |
| ANO5 | 3.72 | 3.73 | 3.42 | 3.96 | 3.30 | 2.43 | 3.99 | 3.21 |
| ANO6 | 5.64 | 6.00 | 6.57 | 5.89 | 5.54 | 6.33 | 6.39 | 6.25 |
| ANO7 | 2.44 | 1.89 | 1.46 | 1.63 | 1.86 | 1.79 | 1.50 | 1.82 |
| ANO7L1 | 2.47 | 1.92 | 1.60 | 1.91 | 2.09 | 1.66 | 1.42 | 1.56 |
| ANO8 | 1.85 | 1.89 | 1.88 | 1.83 | 2.11 | 2.03 | 2.25 | 1.84 |
| ANO9 | 3.81 | 2.70 | 3.44 | 3.33 | 3.61 | 3.05 | 3.79 | 3.35 |
| ANOS1 | -0.64 | -0.15 | -0.24 | 0.43 | -0.72 | -0.73 | -0.64 | -0.75 |
| ANP32A | 6.69 | 6.96 | 7.12 | 6.81 | 7.46 | 7.15 | 6.71 | 7.15 |
| ANP32AP1 | -1.89 | -1.85 | -1.88 | -1.85 | -1.85 | -1.88 | -1.90 | -1.87 |
| ANP32B | 8.26 | 8.46 | 7.82 | 8.43 | 8.08 | 8.80 | 8.31 | 8.23 |
| ANP32BP1 | -0.59 | -0.72 | -0.78 | -0.66 | -0.72 | -0.74 | -0.80 | -0.71 |
| ANP32BP3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ANP32C | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| ANP32D | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| ANP32E | 6.43 | 6.45 | 5.95 | 6.17 | 6.31 | 7.26 | 6.17 | 6.99 |
| ANPEP | 3.22 | 3.21 | 3.46 | 3.28 | 4.00 | 2.96 | 5.86 | 3.71 |
| ANTXR1 | 1.46 | 1.59 | 1.24 | 1.93 | 1.46 | 0.92 | 0.90 | 0.98 |
| ANTXR2 | 4.31 | 5.66 | 5.08 | 5.78 | 4.44 | 5.68 | 4.92 | 5.23 |
| ANXA1 | 10.76 | 9.41 | 10.08 | 9.45 | 9.24 | 11.10 | 9.10 | 10.33 |
| ANXA10 | 6.17 | 7.25 | 7.99 | 6.53 | 8.61 | 6.43 | 6.90 | 8.35 |
| ANXA11 | 9.01 | 8.47 | 8.17 | 8.29 | 8.96 | 8.22 | 8.13 | 8.46 |
| ANXA13 | 2.45 | 4.42 | 2.73 | 4.95 | 2.86 | 2.59 | 4.87 | 2.68 |
| ANXA2 | 12.30 | 12.18 | 11.70 | 12.18 | 12.45 | 12.33 | 11.66 | 12.26 |
| ANXA2P1 | -1.29 | -1.28 | -1.34 | -1.36 | -1.35 | -1.27 | -1.36 | -1.22 |
| ANXA2P2 | 3.13 | 2.97 | 2.56 | 2.92 | 3.41 | 3.23 | 2.93 | 3.30 |
| ANXA2P3 | -1.11 | -1.24 | -1.16 | -1.25 | -1.13 | -1.19 | -1.25 | -1.26 |
| ANXA2R | 1.03 | 1.06 | 0.81 | 0.82 | 1.03 | 1.94 | 0.80 | 0.72 |
| ANXA3 | 8.22 | 8.53 | 8.09 | 8.20 | 7.61 | 8.14 | 8.55 | 8.68 |
| ANXA4 | 9.50 | 10.32 | 9.61 | 10.22 | 11.05 | 8.89 | 10.68 | 8.60 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ANXA5 | 8.74 | 9.36 | 8.97 | 9.93 | 9.53 | 9.53 | 9.62 | 10.00 |
| ANXA6 | 2.96 | 2.21 | 2.54 | 1.88 | 2.93 | 2.02 | 2.04 | 1.81 |
| ANXA7 | 8.08 | 7.44 | 7.21 | 7.46 | 7.86 | 7.67 | 7.19 | 7.62 |
| ANXA8 | -0.74 | -0.58 | -0.72 | -0.67 | -0.70 | -0.58 | -0.74 | -0.54 |
| ANXA8L1 | -1.91 | -1.85 | -1.89 | -1.86 | -1.90 | -1.92 | -1.91 | -1.93 |
| ANXA9 | 3.85 | 3.61 | 3.31 | 2.93 | 3.72 | 3.75 | 3.18 | 3.07 |
| AOAH | -1.95 | -1.94 | -1.93 | -1.95 | -1.92 | -1.93 | -1.95 | -1.96 |
| AOC1 | 5.49 | 6.99 | 5.84 | 6.43 | 6.38 | 5.22 | 5.22 | 5.08 |
| AOC2 | -0.23 | -0.14 | 0.13 | -0.16 | -0.10 | -0.17 | -0.08 | -0.19 |
| AOC3 | -1.23 | -1.30 | -1.29 | -1.31 | -1.19 | -1.15 | -1.31 | -1.21 |
| AOPEP | 8.25 | 7.68 | 6.62 | 8.04 | 6.77 | 6.83 | 6.03 | 5.19 |
| AOX1 | -0.21 | -0.12 | -0.19 | -0.21 | -0.12 | -0.12 | 0.57 | 0.03 |
| AOX2P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 |
| AP000223.1 | -1.99 | -1.96 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -2.01 |
| AP000229.1 | -1.79 | -1.69 | -1.78 | -1.79 | -1.74 | -1.80 | -1.79 | -1.81 |
| AP000238.1 | -2.12 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AP000240.1 | -1.19 | -1.12 | -1.10 | -1.20 | -1.19 | -1.10 | -1.06 | -1.21 |
| AP000251.1 | 6.95 | 7.38 | 7.29 | 7.60 | 7.12 | 7.02 | 8.53 | 6.60 |
| AP000253.1 | -0.37 | -0.58 | -0.36 | -0.32 | -0.40 | -0.53 | -0.46 | -0.49 |
| AP000254.1 | 0.00 | 0.01 | -0.06 | 0.38 | 0.08 | 0.05 | 0.18 | 0.18 |
| AP000255.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP000265.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AP000266.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AP000281.1 | -0.01 | 0.08 | 0.17 | -0.02 | 0.17 | 0.15 | 0.04 | 0.06 |
| AP000302.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP000311.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AP000317.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| AP000320.1 | 0.05 | 0.39 | 0.09 | 0.40 | 0.16 | 0.14 | -0.12 | 0.04 |
| AP000331.1 | -1.12 | -1.11 | -1.10 | -1.12 | -1.00 | -1.13 | -1.12 | -0.81 |
| AP000343.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| AP000344.1 | -1.26 | -1.12 | -1.25 | -1.20 | -1.08 | -1.24 | -1.27 | -1.22 |
| AP000345.2 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AP000346.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP000347.1 | 1.65 | 1.58 | 1.75 | 1.80 | 1.58 | 1.50 | 1.78 | 1.27 |
| AP000350.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| AP000350.5 | -0.04 | -0.18 | -0.06 | 0.02 | -0.03 | -0.14 | 0.01 | 0.07 |
| AP000350.6 | -0.59 | -0.50 | -0.56 | -0.67 | -0.62 | -0.54 | -0.18 | -0.51 |
| AP000350.7 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AP000354.1 | 0.63 | 0.52 | 0.40 | 0.49 | 0.44 | 0.46 | 0.34 | 0.76 |
| AP000356.1 | -2.23 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AP000356.3 | -1.52 | -1.51 | -1.50 | -1.52 | -1.48 | -1.53 | -1.52 | -1.54 |
| AP000357.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.00 | -2.02 | -2.05 | -2.06 |
| AP000357.2 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP000365.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| AP000424.1 | 0.80 | 0.47 | 1.58 | 0.45 | 0.51 | 0.56 | 0.45 | 0.47 |
| AP000426.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP000437.1 | -0.14 | -0.13 | -0.01 | -0.08 | -0.17 | -0.06 | 0.30 | -0.18 |
| AP000439.2 | 2.66 | 2.34 | 1.77 | 2.60 | 1.71 | 1.97 | 2.41 | 1.83 |
| AP000439.3 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP000442.1 | -0.67 | -1.06 | -1.05 | -1.07 | -0.95 | -1.04 | -1.07 | -1.02 |
| AP000442.2 | -0.69 | -0.68 | -0.67 | -0.43 | -0.48 | -0.59 | -0.48 | -0.59 |
| AP000446.1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP000487.1 | 1.79 | 1.10 | 1.36 | 1.69 | 1.68 | 1.29 | 1.21 | 1.47 |
| AP000487.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.24 |
| AP000547.3 | 0.63 | 0.56 | 0.67 | 0.70 | 0.60 | 0.60 | 1.04 | 0.56 |
| AP000553.1 | 0.30 | 0.17 | 0.24 | 0.46 | 0.21 | 0.19 | 0.14 | 0.15 |
| AP000553.2 | -0.73 | -0.87 | -0.68 | -0.87 | -0.75 | -0.77 | -0.80 | -0.82 |
| AP000553.3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP000560.1 | 0.73 | 0.61 | 0.89 | 0.65 | 0.83 | 0.61 | 0.62 | 0.46 |
| AP000563.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP000568.1 | -0.26 | -0.10 | -0.25 | -0.19 | -0.17 | -0.17 | -0.06 | -0.11 |
| AP000569.1 | -0.06 | -0.20 | -0.11 | 0.00 | -0.13 | -0.05 | -0.07 | -0.23 |
| AP000577.1 | -1.89 | -1.85 | -1.80 | -1.90 | -1.80 | -1.90 | -1.90 | -1.87 |
| AP000580.1 | -1.17 | -1.24 | -1.23 | -1.25 | -1.16 | -1.19 | -1.26 | -1.14 |
| AP000593.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP000593.4 | -1.64 | -1.64 | -1.63 | -1.64 | -1.68 | -1.67 | -1.69 | -1.62 |
| AP000619.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AP000640.1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.96 | -2.00 | -2.00 | -1.97 |
| AP000640.2 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 |
| AP000646.1 | -2.25 | -2.25 | -2.23 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AP000648.3 | -1.85 | -1.89 | -1.84 | -1.89 | -1.87 | -1.88 | -1.90 | -1.87 |
| AP000654.1 | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.16 | -2.15 | -2.17 |
| AP000662.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| AP000679.1 | -1.65 | -1.58 | -1.63 | -1.59 | -1.64 | -1.66 | -1.65 | -1.67 |
| AP000688.1 | -1.11 | -0.95 | -1.01 | -1.11 | -1.10 | -1.08 | -1.04 | -0.96 |
| AP000688.2 | 0.67 | 0.87 | 0.20 | 0.79 | 0.71 | 0.34 | 0.16 | 0.27 |
| AP000692.1 | -1.94 | -1.90 | -1.93 | -1.94 | -1.94 | -1.95 | -1.91 | -1.96 |
| AP000692.2 | -0.87 | -0.87 | -0.77 | -0.87 | -0.87 | -0.81 | -0.87 | -0.71 |
| AP000695.2 | -0.96 | -0.74 | -0.95 | -0.82 | -0.92 | -0.86 | -0.76 | -0.86 |
| AP000695.3 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP000696.1 | -1.52 | -1.52 | -1.56 | -1.58 | -1.57 | -1.59 | -1.58 | -1.30 |
| AP000704.1 | 1.53 | 0.96 | 1.24 | 1.01 | 1.10 | 1.00 | 0.91 | 0.97 |
| AP000708.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AP000753.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP000757.1 | -0.97 | -1.02 | -1.01 | -1.03 | -1.06 | -1.02 | -1.04 | -1.06 |
| AP000759.1 | 0.33 | -0.27 | -0.34 | -0.28 | -0.15 | -0.30 | -0.36 | -0.32 |
| AP000763.2 | -1.60 | -1.59 | -1.54 | -1.60 | -1.60 | -1.58 | -1.46 | -1.62 |
| AP000763.3 | -1.53 | -1.53 | -1.46 | -1.54 | -1.59 | -1.60 | -1.54 | -1.61 |
| AP000763.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP000766.1 | 0.69 | 0.85 | 0.84 | 0.94 | 0.81 | 0.72 | 0.98 | 0.67 |
| AP000769.1 | 6.81 | 3.61 | 6.21 | 3.73 | 4.91 | 4.80 | 4.57 | 5.77 |
| AP000769.2 | -1.84 | -1.84 | -1.79 | -1.84 | -1.84 | -1.85 | -1.76 | -1.82 |
| AP000769.4 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.02 |
| AP000777.2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AP000777.3 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.04 | -2.05 | -2.06 |
| AP000779.1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.15 | -2.13 | -2.13 |
| AP000781.1 | -1.60 | -1.59 | -1.58 | -1.60 | -1.53 | -1.61 | -1.54 | -1.63 |
| AP000781.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP000787.1 | 0.60 | 0.46 | 0.48 | 0.87 | 1.11 | 0.52 | 0.29 | 0.60 |
| AP000808.1 | -1.42 | -1.23 | -1.34 | -1.24 | -1.41 | -1.43 | -1.42 | -1.33 |
| AP000812.3 | -0.77 | -0.76 | -0.75 | -0.77 | -0.72 | -0.78 | -0.77 | -0.79 |
| AP000813.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| AP000820.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AP000829.1 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP000842.3 | -0.89 | -0.73 | -0.87 | -0.97 | -0.82 | -0.88 | -0.97 | -0.92 |
| AP000845.1 | -0.87 | -0.94 | -1.00 | -1.02 | -0.98 | -0.99 | -0.88 | -0.88 |
| AP000851.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.95 | -1.94 | -1.95 |
| AP000852.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AP000864.1 | -1.99 | -1.99 | -1.95 | -2.00 | -1.99 | -1.98 | -1.96 | -2.01 |
| AP000866.1 | 1.18 | 0.99 | 1.53 | 0.96 | 1.28 | 0.96 | 1.21 | 1.00 |
| AP000866.2 | 3.43 | 2.61 | 3.34 | 2.93 | 3.19 | 2.74 | 3.48 | 2.83 |
| AP000866.5 | 1.08 | 0.96 | 0.84 | 0.93 | 1.45 | 1.01 | 0.77 | 1.23 |
| AP000866.6 | -0.79 | -0.57 | -0.63 | -0.73 | -0.71 | -0.70 | -0.47 | -0.75 |
| AP000870.1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP000873.2 | 2.88 | 2.55 | 3.08 | 2.78 | 2.67 | 2.72 | 3.04 | 2.82 |
| AP000873.4 | -1.22 | -1.07 | -1.06 | -1.22 | -1.18 | -1.13 | -1.15 | -1.07 |
| AP000879.1 | 0.62 | 0.55 | 0.29 | 0.41 | 0.43 | 0.45 | 0.33 | 0.51 |
| AP000879.2 | -0.71 | -0.70 | -0.69 | -0.71 | -0.71 | -0.72 | -0.57 | -0.69 |
| AP000880.1 | -1.21 | -1.20 | -1.06 | -1.28 | -1.06 | -1.25 | -1.28 | -1.29 |
| AP000892.2 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.06 |
| AP000892.3 | -0.39 | -0.37 | -0.44 | -0.53 | -0.41 | -0.51 | -0.26 | -0.49 |
| AP000893.2 | -1.74 | -1.74 | -1.73 | -1.74 | -1.69 | -1.70 | -1.70 | -1.76 |
| AP000894.1 | -1.85 | -1.89 | -1.88 | -1.85 | -1.85 | -1.88 | -1.90 | -1.91 |
| AP000894.4 | 1.88 | 1.37 | 1.26 | 1.45 | 1.57 | 1.15 | 1.31 | 1.40 |
| AP000897.1 | -1.65 | -1.65 | -1.64 | -1.65 | -1.65 | -1.66 | -1.51 | -1.67 |
| AP000902.1 | 0.98 | 0.35 | 0.37 | 0.41 | 1.40 | 0.32 | 0.33 | 0.36 |
| AP000904.1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AP000907.3 | -1.54 | -1.59 | -1.63 | -1.69 | -1.68 | -1.63 | -1.64 | -1.66 |
| AP000911.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AP000911.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AP000919.1 | -1.15 | -1.21 | -1.00 | -1.15 | -1.14 | -1.16 | -1.16 | -1.18 |
| AP000919.2 | -1.64 | -1.64 | -1.52 | -1.65 | -1.55 | -1.63 | -1.59 | -1.61 |
| AP000919.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| AP000924.1 | -0.70 | -0.75 | -0.74 | -0.84 | -0.75 | -0.68 | -0.77 | -0.47 |
| AP000926.2 | 1.67 | 1.02 | 0.98 | 1.05 | 1.16 | 1.13 | 1.23 | 0.91 |
| AP000936.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AP000936.3 | 1.96 | 1.73 | 1.58 | 1.88 | 2.17 | 1.94 | 1.65 | 1.79 |
| AP000942.1 | -0.75 | -0.82 | -0.72 | -0.76 | -0.74 | -0.84 | -0.90 | -0.74 |
| AP000942.2 | -0.84 | -0.91 | -0.90 | -0.85 | -0.80 | -0.82 | -0.85 | -0.66 |
| AP000943.1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AP000943.2 | -0.23 | -0.64 | -0.45 | -0.52 | -0.80 | -0.77 | -0.80 | -0.76 |
| AP000943.3 | -1.84 | -1.84 | -1.79 | -1.84 | -1.82 | -1.85 | -1.85 | -1.82 |
| AP000943.4 | 0.20 | 0.09 | 0.02 | 0.00 | 0.15 | 0.14 | 0.28 | 0.07 |
| AP000944.2 | -0.50 | -0.69 | -0.82 | -0.84 | -0.70 | -0.69 | -0.70 | -0.75 |
| AP000944.4 | 0.99 | 0.45 | 0.66 | 0.43 | 0.60 | 0.37 | 0.63 | 0.50 |
| AP000974.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| AP000977.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP001000.1 | -0.29 | -0.50 | -0.41 | -0.51 | -0.31 | -0.42 | -0.51 | -0.31 |
| AP001001.1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| AP001011.1 | -1.60 | -1.79 | -1.78 | -1.79 | -1.79 | -1.80 | -1.80 | -1.81 |
| AP001020.2 | -1.16 | -1.16 | -1.01 | -1.17 | -1.12 | -1.11 | -0.91 | -1.12 |
| AP001024.1 | 4.82 | 4.72 | 4.10 | 4.79 | 5.39 | 4.47 | 4.37 | 4.86 |
| AP001025.1 | -1.64 | -1.69 | -1.68 | -1.69 | -1.66 | -1.65 | -1.69 | -1.71 |
| AP001029.2 | -0.97 | -0.82 | -0.88 | -0.98 | -0.97 | -1.06 | -1.06 | -0.86 |
| AP001029.3 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| AP001033.1 | -1.69 | -1.73 | -1.68 | -1.74 | -1.73 | -1.70 | -1.70 | -1.71 |
| AP001033.2 | 0.27 | 0.06 | 0.41 | 0.04 | 0.16 | 0.09 | 0.11 | 0.33 |
| AP001033.3 | -0.83 | -0.91 | -0.64 | -0.84 | -0.87 | -0.85 | -0.84 | -0.81 |
| AP001042.1 | 0.44 | -0.17 | 0.01 | -0.03 | 0.02 | -0.06 | 0.06 | -0.21 |
| AP001053.1 | -1.65 | -1.70 | -1.64 | -1.70 | -1.70 | -1.69 | -1.70 | -1.63 |
| AP001057.1 | -0.75 | -1.12 | -1.11 | -1.13 | -1.12 | -1.11 | -1.14 | -1.15 |
| AP001062.1 | 2.46 | 2.30 | 2.15 | 2.42 | 2.13 | 2.38 | 2.77 | 2.10 |
| AP001065.1 | -1.79 | -1.74 | -1.78 | -1.75 | -1.77 | -1.71 | -1.79 | -1.68 |
| AP001065.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP001085.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AP001086.1 | -0.16 | -0.15 | -0.20 | -0.17 | 0.04 | -0.26 | -0.10 | -0.13 |
| AP001094.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AP001094.2 | -1.60 | -1.59 | -1.53 | -1.60 | -1.59 | -1.58 | -1.44 | -1.62 |
| AP001094.3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| AP001107.1 | -0.89 | -0.95 | -1.02 | -1.04 | -0.92 | -0.97 | -0.97 | -0.93 |
| AP001107.2 | 1.29 | 1.18 | 1.48 | 1.25 | 1.17 | 1.25 | 1.06 | 1.44 |
| AP001107.4 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| AP001107.6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AP001107.7 | -1.26 | -1.31 | -1.37 | -1.39 | -1.35 | -1.33 | -1.33 | -1.40 |
| AP001107.9 | 2.91 | 2.98 | 2.14 | 3.54 | 3.20 | 2.30 | 2.86 | 2.32 |
| AP001120.5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP001148.1 | -0.72 | -0.72 | -0.56 | -0.44 | -0.72 | -0.63 | -0.34 | -0.68 |
| AP001160.1 | 1.28 | 0.73 | 0.90 | 1.17 | 1.21 | 1.03 | 1.04 | 1.14 |
| AP001160.2 | 1.36 | 1.39 | 1.15 | 1.44 | 1.27 | 1.53 | 1.20 | 1.63 |
| AP001160.3 | 3.32 | 2.64 | 2.66 | 3.13 | 2.66 | 2.79 | 2.89 | 3.01 |
| AP001160.4 | -1.51 | -1.56 | -1.44 | -1.57 | -1.53 | -1.55 | -1.51 | -1.38 |
| AP001178.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AP001189.4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AP001189.5 | -2.05 | -2.04 | -2.04 | -2.01 | -2.04 | -2.02 | -2.05 | -2.06 |
| AP001207.3 | -1.11 | -1.17 | -1.16 | -1.18 | -1.10 | -0.68 | -1.19 | -1.14 |
| AP001266.1 | -1.69 | -1.69 | -1.68 | -1.64 | -1.64 | -1.68 | -1.70 | -1.71 |
| AP001267.1 | 0.64 | 0.66 | 0.68 | 0.55 | 0.58 | 0.52 | 0.46 | 0.42 |
| AP001267.2 | -1.85 | -1.89 | -1.88 | -1.89 | -1.85 | -1.88 | -1.90 | -1.91 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AP001267.3 | 0.37 | 0.14 | -0.09 | 0.17 | 0.24 | 0.05 | -0.03 | -0.07 |
| AP001267.5 | -0.58 | -0.49 | -0.64 | -0.37 | -0.65 | -0.63 | -0.26 | -0.62 |
| AP001269.2 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP001269.4 | -0.20 | -0.39 | -0.20 | -0.40 | -0.23 | -0.33 | -0.07 | -0.25 |
| AP001273.1 | -0.14 | 0.22 | 0.20 | 0.00 | 0.12 | -0.05 | -0.02 | 0.11 |
| AP001282.1 | -1.85 | -1.80 | -1.88 | -1.90 | -1.89 | -1.90 | -1.90 | -1.91 |
| AP001318.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP001318.2 | 1.05 | 0.70 | 0.72 | 1.07 | 1.24 | 0.92 | 0.87 | 0.68 |
| AP001324.1 | 5.72 | 5.17 | 3.98 | 5.36 | 5.86 | 5.31 | 4.93 | 5.50 |
| AP001330.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AP001330.4 | -1.89 | -1.85 | -1.84 | -1.89 | -1.87 | -1.90 | -1.90 | -1.91 |
| AP001330.5 | -1.25 | -1.31 | -1.23 | -1.18 | -1.27 | -1.23 | -1.32 | -1.22 |
| AP001341.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP001347.1 | 0.91 | 0.35 | 0.44 | 0.25 | 0.50 | 0.92 | 0.33 | 0.61 |
| AP001350.1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| AP001350.2 | -1.06 | -1.05 | -0.97 | -1.06 | -0.98 | -1.00 | -0.86 | -0.92 |
| AP001351.1 | -0.93 | -1.28 | -1.33 | -1.35 | -1.31 | -1.36 | -1.36 | -1.26 |
| AP001363.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| AP001372.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AP001372.2 | 4.11 | 3.41 | 3.74 | 3.01 | 3.55 | 3.04 | 3.42 | 3.66 |
| AP001372.3 | -0.37 | -0.43 | -0.50 | -0.45 | -0.48 | -0.53 | -0.45 | -0.48 |
| AP001372.4 | -2.15 | -2.12 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.16 |
| AP001381.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP001412.1 | -1.44 | -1.55 | -1.54 | -1.50 | -1.50 | -1.57 | -1.56 | -1.58 |
| AP001429.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AP001432.1 | -1.44 | -1.37 | -1.48 | -1.27 | -1.49 | -1.48 | -1.50 | -1.46 |
| AP001437.1 | -1.37 | -1.54 | -1.47 | -1.43 | -1.42 | -1.56 | -1.55 | -1.57 |
| AP001437.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP001439.1 | -1.84 | -1.80 | -1.83 | -1.84 | -1.80 | -1.85 | -1.76 | -1.86 |
| AP001442.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| AP001453.1 | 0.10 | -0.03 | 0.07 | 0.01 | 0.08 | 0.00 | -0.05 | 0.03 |
| AP001453.2 | 3.98 | 3.76 | 4.05 | 3.97 | 3.68 | 4.02 | 4.20 | 5.30 |
| AP001453.4 | -0.98 | -1.04 | -1.10 | -1.12 | -1.02 | -1.10 | -1.05 | -1.08 |
| AP001462.1 | 1.06 | 1.15 | 1.13 | 0.89 | 1.26 | 1.14 | 0.90 | 1.22 |
| AP001468.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP001469.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AP001469.3 | 0.09 | 0.10 | -0.05 | 0.08 | 0.10 | 0.08 | 0.14 | 0.13 |
| AP001485.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP001496.2 | -1.79 | -1.79 | -1.69 | -1.79 | -1.76 | -1.78 | -1.75 | -1.76 |
| AP001496.3 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AP001505.1 | 2.79 | 2.33 | 2.94 | 2.25 | 2.12 | 2.75 | 2.92 | 2.57 |
| AP001525.1 | -0.40 | -0.39 | 0.30 | -0.40 | -0.17 | -0.28 | -0.41 | -0.44 |
| AP001527.2 | 0.47 | 0.27 | 0.47 | 0.51 | 0.31 | 0.28 | 0.17 | 0.24 |
| AP001528.1 | 0.61 | 0.48 | 0.07 | 0.19 | 0.02 | -0.01 | 0.04 | 0.12 |
| AP001528.2 | 0.04 | -0.16 | -0.23 | -0.18 | 0.04 | -0.12 | -0.26 | 0.24 |
| AP001528.3 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AP001554.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP001591.1 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.00 |
| AP001596.1 | -2.15 | -2.12 | -2.14 | -2.10 | -2.15 | -2.13 | -2.15 | -2.16 |
| AP001610.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AP001610.2 | -1.75 | -1.78 | -1.78 | -1.79 | -1.79 | -1.73 | -1.75 | -1.81 |
| AP001615.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AP001619.1 | -1.65 | -1.65 | -1.58 | -1.66 | -1.65 | -1.63 | -1.66 | -1.62 |
| AP001625.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| AP001626.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| AP001627.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| AP001628.1 | -1.84 | -1.79 | -1.83 | -1.84 | -1.82 | -1.85 | -1.80 | -1.86 |
| AP001636.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| AP001646.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP001767.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP001767.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AP001767.4 | -1.49 | -1.48 | -1.29 | -1.43 | -1.42 | -1.50 | -1.37 | -1.45 |
| AP001783.1 | -0.58 | -0.58 | -0.46 | -0.59 | -0.08 | -0.55 | -0.59 | -0.61 |
| AP001816.1 | 3.55 | 3.67 | 2.98 | 3.55 | 3.44 | 3.90 | 3.23 | 3.58 |
| AP001830.1 | 0.69 | 0.71 | 0.89 | 0.40 | 0.58 | 0.57 | 0.54 | 0.47 |
| AP001830.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AP001858.2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.03 |
| AP001885.2 | 1.67 | 1.15 | 1.16 | 0.97 | 1.32 | 1.26 | 1.11 | 1.12 |
| AP001885.3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP001889.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| AP001893.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AP001922.5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AP001972.1 | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.14 | -2.15 | -2.16 |
| AP001972.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP001972.3 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.95 | -1.92 |
| AP001981.2 | -0.02 | -0.15 | -0.20 | -0.25 | -0.24 | -0.29 | -0.32 | 0.25 |
| AP001992.1 | -0.43 | -0.27 | -0.17 | -0.36 | -0.14 | -0.31 | -0.36 | -0.27 |
| AP001993.1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.79 | -1.78 | -1.79 | -1.81 |
| AP001994.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AP001994.2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP001994.3 | -1.65 | -1.79 | -1.78 | -1.79 | -1.79 | -1.80 | -1.80 | -1.81 |
| AP001999.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| AP002026.1 | -1.30 | -1.30 | -1.41 | -1.43 | -1.39 | -1.38 | -1.43 | -1.39 |
| AP002336.1 | -0.75 | -0.58 | -0.58 | -0.46 | -0.74 | -0.72 | -0.54 | -0.76 |
| AP002336.3 | -2.04 | -2.01 | -2.04 | -2.02 | -2.03 | -2.04 | -2.02 | -2.06 |
| AP002353.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AP002358.1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| AP002360.1 | 5.27 | 3.39 | 3.90 | 3.51 | 4.11 | 3.72 | 3.42 | 2.99 |
| AP002364.1 | -1.79 | -1.74 | -1.74 | -1.71 | -1.79 | -1.78 | -1.79 | -1.76 |
| AP002381.1 | -1.69 | -1.74 | -1.73 | -1.74 | -1.66 | -1.75 | -1.75 | -1.71 |
| AP002381.2 | 2.26 | 1.64 | 1.56 | 1.91 | 1.61 | 1.68 | 1.33 | 1.35 |
| AP002387.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP002387.2 | 6.54 | 5.01 | 4.53 | 5.82 | 6.56 | 4.20 | 5.27 | 5.87 |
| AP002414.2 | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AP002414.4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| AP002433.1 | 1.13 | 0.73 | 0.67 | 0.70 | 0.87 | 0.81 | 0.69 | 0.84 |
| AP002433.2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.91 | -1.95 | -1.96 |
| AP002449.1 | 1.20 | 1.03 | 1.40 | 1.18 | 1.43 | 1.05 | 1.05 | 1.48 |
| AP002478.1 | 1.15 | 0.55 | 0.80 | 0.61 | 1.40 | 0.89 | 0.53 | 1.03 |
| AP002490.1 | -1.48 | -1.42 | -1.41 | -1.48 | -1.53 | -1.52 | -1.49 | -1.56 |
| AP002490.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AP002495.1 | 1.83 | 1.90 | 2.77 | 2.02 | 1.81 | 1.88 | 2.39 | 1.92 |
| AP002498.1 | 1.02 | 1.37 | 1.33 | 1.40 | 1.39 | 1.04 | 0.99 | 1.60 |
| AP002518.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP002748.3 | 3.50 | 1.86 | 2.36 | 2.29 | 2.52 | 2.24 | 2.03 | 2.33 |
| AP002761.1 | -1.74 | -1.69 | -1.73 | -1.74 | -1.71 | -1.70 | -1.70 | -1.71 |
| AP002761.3 | -1.64 | -1.69 | -1.68 | -1.70 | -1.67 | -1.71 | -1.65 | -1.62 |
| AP002761.4 | 3.19 | 4.56 | 3.52 | 3.27 | 2.91 | 3.45 | 3.62 | 3.35 |
| AP002762.1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP002762.2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AP002768.1 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AP002770.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| AP002784.1 | 2.11 | 2.06 | 2.25 | 1.93 | 1.96 | 2.25 | 1.73 | 2.22 |
| AP002784.2 | 0.65 | 0.73 | 0.70 | 0.64 | 0.66 | 0.93 | 0.77 | 1.06 |
| AP002791.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP002793.1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.09 | -2.14 | -2.15 | -2.16 |
| AP002800.1 | -1.01 | -0.77 | -0.91 | -0.94 | -0.96 | -0.98 | -1.01 | -0.85 |
| AP002807.1 | 1.76 | 1.79 | 2.32 | 1.67 | 1.98 | 2.10 | 2.27 | 1.99 |
| AP002812.1 | -1.69 | -1.64 | -1.68 | -1.59 | -1.61 | -1.70 | -1.69 | -1.71 |
| AP002812.2 | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.77 | -1.87 |
| AP002812.4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AP002812.5 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AP002813.1 | -1.11 | -1.17 | -1.16 | -1.11 | -1.03 | -1.19 | -1.11 | -0.84 |
| AP002815.1 | -2.29 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP002840.2 | -0.74 | -0.65 | -0.45 | -0.67 | -0.52 | -0.64 | -0.48 | -0.63 |
| AP002847.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.11 |
| AP002851.1 | 1.00 | 1.03 | 1.13 | 1.08 | 1.15 | 1.15 | 0.71 | 0.78 |
| AP002884.1 | 2.64 | 2.52 | 2.42 | 3.03 | 2.40 | 1.88 | 2.12 | 2.35 |
| AP002884.4 | -2.10 | -2.09 | -2.06 | -2.07 | -2.08 | -2.10 | -2.07 | -2.11 |
| AP002907.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AP002954.1 | 0.38 | 0.05 | 0.38 | 0.24 | 0.15 | 0.13 | 0.11 | 0.34 |
| AP002956.1 | -1.30 | -1.36 | -1.35 | -1.30 | -1.26 | -1.29 | -1.18 | -1.33 |
| AP002967.1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| AP002981.1 | -1.94 | -1.90 | -1.90 | -1.94 | -1.92 | -1.93 | -1.94 | -1.96 |
| AP002982.1 | -0.73 | -0.88 | -0.87 | -0.67 | -0.84 | -0.75 | -0.81 | -0.72 |
| AP002986.1 | 0.29 | -0.11 | -0.10 | -0.12 | 0.23 | 0.16 | -0.05 | 0.27 |
| AP002990.1 | -2.15 | -2.15 | -2.14 | -2.13 | -2.15 | -2.14 | -2.15 | -2.13 |
| AP002992.1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.02 | -2.03 | -2.05 | -2.07 |
| AP003031.1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP003032.1 | -2.04 | -1.98 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.00 |
| AP003032.2 | -1.94 | -1.94 | -1.90 | -1.94 | -1.92 | -1.95 | -1.94 | -1.89 |
| AP003040.1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.24 | -2.26 | -2.25 | -2.26 |
| AP003041.1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AP003057.1 | -1.89 | -1.81 | -1.88 | -1.89 | -1.87 | -1.90 | -1.89 | -1.91 |
| AP003059.1 | -1.80 | -1.84 | -1.83 | -1.80 | -1.84 | -1.81 | -1.84 | -1.82 |
| AP003063.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AP003064.1 | -2.05 | -2.04 | -2.00 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| AP003068.1 | -0.52 | -0.51 | -0.58 | -0.53 | -0.45 | -0.33 | -0.60 | -0.49 |
| AP003068.2 | 3.97 | 2.83 | 2.88 | 3.01 | 2.58 | 3.25 | 3.31 | 2.89 |
| AP003068.3 | -1.96 | -1.99 | -1.98 | -1.96 | -1.97 | -2.00 | -1.93 | -2.01 |
| AP003068.4 | 0.60 | 0.47 | 0.48 | 0.37 | 0.47 | 0.43 | 0.79 | 0.46 |
| AP003071.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP003071.5 | -1.59 | -1.59 | -1.47 | -1.54 | -1.59 | -1.55 | -1.43 | -1.56 |
| AP003084.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| AP003086.1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AP003086.3 | -1.91 | -1.94 | -1.90 | -1.91 | -1.94 | -1.93 | -1.87 | -1.96 |
| AP003108.1 | -0.73 | -1.07 | -1.05 | -1.07 | -1.03 | -1.08 | -1.08 | -1.09 |
| AP003108.2 | -0.46 | -0.53 | -0.61 | -0.34 | -0.38 | -0.49 | -0.49 | -0.58 |
| AP003108.3 | -1.04 | -1.10 | -0.95 | -1.04 | -1.03 | -1.05 | -1.11 | -1.06 |
| AP003108.4 | -0.60 | -0.67 | -0.64 | -0.60 | -0.70 | -0.72 | -0.49 | -0.71 |
| AP003108.5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP003117.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| AP003119.2 | -0.03 | 0.07 | 0.10 | 0.05 | 0.24 | 0.06 | 0.11 | -0.01 |
| AP003119.3 | 0.80 | 0.87 | 1.02 | 0.91 | 0.88 | 0.92 | 0.71 | 1.38 |
| AP003120.1 | -0.30 | -0.36 | -0.14 | -0.30 | -0.14 | 0.14 | -0.30 | 0.07 |
| AP003168.2 | -0.63 | -0.62 | -0.42 | -0.56 | -0.70 | -0.68 | -0.56 | -0.60 |
| AP003170.4 | -1.24 | -1.17 | -1.16 | -1.19 | -1.24 | -1.32 | -1.25 | -1.27 |
| AP003175.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AP003306.2 | -1.87 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |
| AP003307.1 | 3.36 | 2.79 | 2.70 | 2.51 | 2.51 | 2.69 | 2.15 | 2.39 |
| AP003327.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| AP003327.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP003351.1 | -2.30 | -2.30 | -2.30 | -2.28 | -2.30 | -2.31 | -2.30 | -2.31 |
| AP003352.1 | 3.77 | 4.02 | 3.80 | 3.63 | 3.90 | 3.86 | 3.27 | 3.91 |
| AP003354.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AP003357.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| AP003385.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP003390.1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP003392.1 | -1.54 | -1.48 | -1.47 | -1.49 | -1.54 | -1.52 | -1.55 | -1.56 |
| AP003392.3 | 2.48 | 2.92 | 2.63 | 2.60 | 2.94 | 2.29 | 2.52 | 2.90 |
| AP003392.4 | -0.70 | -0.66 | -0.80 | -0.82 | -0.89 | -0.83 | -0.82 | -0.91 |
| AP003392.5 | -1.86 | -1.94 | -1.89 | -1.95 | -1.88 | -1.95 | -1.95 | -1.96 |
| AP003392.6 | -0.51 | -0.66 | -0.64 | -0.53 | -0.54 | -0.57 | -0.66 | -0.45 |
| AP003393.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.15 | -2.20 | -2.20 | -2.19 |
| AP003396.1 | -0.44 | -0.65 | -0.47 | -0.66 | -0.61 | -0.49 | -0.66 | -0.67 |
| AP003396.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| AP003419.2 | -1.90 | -1.89 | -1.88 | -1.90 | -1.87 | -1.88 | -1.90 | -1.92 |
| AP003419.3 | -0.46 | -0.37 | -0.58 | -0.60 | -0.33 | -0.41 | -0.53 | -0.34 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AP003461.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP003465.1 | -1.94 | -1.94 | -1.90 | -1.91 | -1.92 | -1.95 | -1.94 | -1.89 |
| AP003467.2 | -0.06 | -0.38 | -0.45 | -0.32 | -0.34 | -0.44 | -0.47 | -0.37 |
| AP003469.4 | 1.47 | 1.15 | 1.91 | 1.43 | 1.55 | 1.55 | 1.54 | 1.41 |
| AP003472.1 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| AP003478.1 | -1.59 | -1.64 | -1.63 | -1.64 | -1.64 | -1.62 | -1.59 | -1.61 |
| AP003486.1 | 0.78 | 1.11 | 1.48 | 1.06 | 1.16 | 1.07 | 1.65 | 0.96 |
| AP003498.1 | -1.55 | -1.49 | -1.53 | -1.49 | -1.54 | -1.53 | -1.44 | -1.46 |
| AP003498.3 | 1.94 | 3.36 | 2.40 | 3.78 | 2.47 | 2.35 | 2.46 | 2.44 |
| AP003499.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP003555.1 | -1.84 | -1.75 | -1.83 | -1.80 | -1.84 | -1.85 | -1.80 | -1.82 |
| AP003555.2 | -0.27 | -0.40 | -0.38 | -0.42 | -0.57 | -0.44 | -0.58 | -0.24 |
| AP003555.3 | -1.64 | -1.48 | -1.58 | -1.59 | -1.64 | -1.65 | -1.65 | -1.61 |
| AP003559.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.09 | -2.10 | -2.11 |
| AP003680.1 | -1.84 | -1.84 | -1.83 | -1.85 | -1.82 | -1.83 | -1.80 | -1.86 |
| AP003692.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AP003716.1 | -1.03 | -1.23 | -1.22 | -1.17 | -1.16 | -1.08 | -1.25 | -1.02 |
| AP003717.4 | -0.06 | -0.49 | -0.17 | -0.43 | -0.26 | -0.44 | -0.50 | -0.45 |
| AP003721.1 | -1.75 | -1.74 | -1.73 | -1.75 | -1.74 | -1.70 | -1.75 | -1.71 |
| AP003733.1 | -1.59 | -1.58 | -1.63 | -1.54 | -1.61 | -1.65 | -1.65 | -1.66 |
| AP003733.4 | 1.33 | 0.81 | 1.20 | 1.01 | 1.29 | 1.19 | 1.31 | 1.33 |
| AP003774.4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 |
| AP003778.1 | -0.84 | -0.96 | -1.03 | -0.98 | -0.93 | -0.99 | -0.98 | -0.62 |
| AP003783.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| AP003969.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| AP003973.2 | -2.30 | -2.28 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP003973.4 | -2.20 | -2.20 | -2.16 | -2.20 | -2.20 | -2.21 | -2.20 | -2.21 |
| AP004147.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AP004243.1 | -1.95 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| AP004247.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP004290.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP004608.1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -1.97 | -2.00 |
| AP004609.3 | 3.14 | 2.54 | 2.09 | 2.48 | 2.48 | 2.54 | 2.20 | 2.20 |
| AP005018.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| AP005019.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| AP005060.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| AP005061.1 | -0.35 | -0.49 | -0.38 | -0.36 | -0.32 | -0.48 | -0.58 | -0.36 |
| AP005119.2 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.18 | -2.21 |
| AP005131.6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| AP005131.7 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| AP005136.2 | -1.37 | -1.36 | -1.28 | -1.37 | -1.33 | -1.35 | -1.37 | -1.39 |
| AP005136.3 | -1.84 | -1.80 | -1.83 | -1.84 | -1.82 | -1.85 | -1.80 | -1.82 |
| AP005205.2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| AP005212.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| AP005212.4 | 0.37 | 0.23 | 0.58 | 0.29 | 0.31 | 0.34 | 0.49 | 0.47 |
| AP005230.1 | -0.55 | -0.92 | -0.90 | -0.78 | -0.92 | -0.89 | -0.93 | -0.94 |
| AP005233.2 | 1.83 | 1.87 | 2.45 | 2.08 | 2.45 | 2.16 | 1.96 | 2.68 |
| AP005262.2 | -1.84 | -1.84 | -1.79 | -1.84 | -1.82 | -1.85 | -1.84 | -1.82 |
| AP005264.1 | -0.43 | -0.32 | -0.56 | -0.50 | -0.57 | -0.59 | -0.51 | 0.04 |
| AP005264.5 | -1.89 | -1.85 | -1.88 | -1.82 | -1.87 | -1.90 | -1.89 | -1.87 |
| AP005271.1 | -0.85 | -0.92 | -0.91 | -0.93 | -0.59 | -0.93 | -0.93 | -0.94 |
| AP005329.1 | 0.06 | 0.08 | 0.02 | -0.02 | 0.28 | 0.01 | -0.10 | 0.29 |
| AP005329.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| AP005329.3 | 3.39 | 2.95 | 3.05 | 3.05 | 3.34 | 2.66 | 2.86 | 3.11 |
| AP005403.1 | -0.61 | -0.61 | -0.58 | -0.69 | -0.64 | -0.67 | -0.69 | -0.46 |
| AP005431.1 | -0.09 | 0.00 | -0.16 | 0.02 | 0.20 | 0.05 | -0.18 | 0.01 |
| AP005432.1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.91 | -1.92 |
| AP005432.2 | -1.71 | -1.78 | -1.78 | -1.79 | -1.76 | -1.75 | -1.79 | -1.72 |
| AP005482.1 | 1.98 | 0.74 | 0.69 | 0.63 | 0.56 | 0.52 | 1.11 | 0.56 |
| AP005482.3 | 0.19 | 0.07 | 0.25 | 0.04 | 0.06 | 0.05 | 0.02 | 0.23 |
| AP005660.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP005717.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| AP005717.2 | -2.04 | -2.01 | -2.04 | -2.02 | -2.03 | -2.05 | -2.05 | -2.03 |
| AP005902.2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| AP006222.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AP006222.2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| AP006284.1 | 1.57 | 1.29 | 1.75 | 1.47 | 1.79 | 1.31 | 1.99 | 1.56 |
| AP006285.1 | -1.74 | -1.74 | -1.73 | -1.75 | -1.40 | -1.75 | -1.75 | -1.76 |
| AP006287.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.13 |
| AP006289.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| AP006296.1 | -1.69 | -1.58 | -1.68 | -1.64 | -1.66 | -1.57 | -1.69 | -1.71 |
| AP006333.1 | -1.14 | -1.14 | -1.13 | -1.09 | -1.00 | -1.16 | -1.22 | -1.17 |
| AP006545.1 | -0.95 | -0.94 | -0.93 | -0.96 | -0.90 | -1.00 | -0.95 | -0.98 |
| AP006545.2 | -2.25 | -2.25 | -2.23 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| AP006545.3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| AP006621.1 | -0.78 | -0.77 | -0.59 | -0.63 | -0.70 | -0.72 | -0.78 | -0.52 |
| AP006621.3 | 4.29 | 3.36 | 3.56 | 3.03 | 3.29 | 3.20 | 3.38 | 3.11 |
| AP006621.4 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -2.01 |
| AP006623.1 | 0.37 | 0.13 | 0.13 | 0.30 | 0.08 | 0.08 | 0.10 | 0.52 |
| AP006748.1 | -1.54 | -1.58 | -1.57 | -1.59 | -1.58 | -1.49 | -1.59 | -1.61 |
| AP007216.2 | -1.84 | -1.76 | -1.83 | -1.84 | -1.80 | -1.85 | -1.84 | -1.82 |
| AP1AR | 4.43 | 5.17 | 4.81 | 4.91 | 4.42 | 4.96 | 5.19 | 5.40 |
| AP1B1 | 6.28 | 6.02 | 5.79 | 5.94 | 5.04 | 5.79 | 6.57 | 5.88 |
| AP1G1 | 5.45 | 6.02 | 6.11 | 5.88 | 5.57 | 5.79 | 6.25 | 5.94 |
| AP1G2 | 4.56 | 5.74 | 5.12 | 6.03 | 5.56 | 5.46 | 5.35 | 4.71 |
| AP1M1 | 4.45 | 4.95 | 4.98 | 4.73 | 5.33 | 4.70 | 4.45 | 4.78 |
| AP1M2 | 7.09 | 7.70 | 7.01 | 7.65 | 7.62 | 7.45 | 7.29 | 7.24 |
| AP1S1 | 5.87 | 6.82 | 6.03 | 6.96 | 6.61 | 6.13 | 6.41 | 6.47 |
| AP1S2 | 4.57 | 3.38 | 4.03 | 3.47 | 3.43 | 4.84 | 3.32 | 2.69 |
| AP1S3 | 5.58 | 6.49 | 6.04 | 6.07 | 5.43 | 6.32 | 6.55 | 5.84 |
| AP2A1 | 4.49 | 5.76 | 5.28 | 5.70 | 5.00 | 4.93 | 5.66 | 4.95 |
| AP2A2 | 5.62 | 5.65 | 6.02 | 5.70 | 5.59 | 5.26 | 6.01 | 5.57 |
| AP2B1 | 7.51 | 8.03 | 8.05 | 7.72 | 7.63 | 8.45 | 7.80 | 7.35 |
| AP2M1 | 8.03 | 8.50 | 8.39 | 8.61 | 8.28 | 8.48 | 8.04 | 8.66 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AP2S1 | 9.55 | 8.84 | 8.35 | 9.09 | 8.85 | 8.90 | 8.61 | 8.83 |
| AP3B1 | 5.10 | 5.79 | 5.98 | 6.08 | 5.86 | 5.46 | 5.97 | 5.87 |
| AP3B2 | 0.05 | -0.26 | 0.03 | -0.27 | 0.40 | -0.24 | -0.27 | -0.29 |
| AP3D1 | 6.04 | 6.72 | 7.41 | 6.50 | 7.04 | 7.04 | 7.43 | 6.92 |
| AP3M1 | 5.16 | 4.89 | 4.80 | 4.87 | 4.82 | 4.73 | 5.07 | 4.87 |
| AP3M2 | 5.13 | 4.47 | 5.46 | 4.53 | 5.13 | 4.96 | 5.19 | 4.63 |
| AP3S1 | 6.02 | 6.13 | 5.90 | 5.99 | 6.86 | 5.97 | 5.76 | 5.97 |
| AP3S2 | 4.34 | 3.76 | 4.33 | 4.01 | 3.73 | 3.64 | 3.90 | 4.14 |
| AP4B1 | 4.38 | 4.32 | 4.23 | 4.26 | 4.29 | 3.76 | 3.84 | 3.62 |
| AP4B1-AS1 | -2.31 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 | -2.31 | -2.29 |
| AP4E1 | 3.97 | 4.26 | 4.21 | 3.80 | 3.73 | 3.90 | 4.65 | 4.00 |
| AP4M1 | 4.28 | 3.77 | 3.84 | 3.87 | 4.41 | 4.00 | 4.25 | 4.26 |
| AP4S1 | 1.40 | 1.68 | 1.44 | 1.63 | 1.74 | 1.78 | 1.48 | 1.40 |
| AP5B1 | 3.08 | 3.27 | 3.83 | 3.12 | 3.04 | 2.86 | 3.34 | 2.87 |
| AP5M1 | 4.04 | 5.55 | 4.44 | 5.12 | 4.78 | 4.75 | 5.65 | 4.43 |
| AP5S1 | 6.06 | 5.06 | 4.65 | 5.32 | 5.24 | 5.39 | 5.17 | 5.57 |
| AP5Z1 | 4.04 | 4.19 | 4.29 | 4.31 | 4.32 | 3.66 | 4.22 | 4.27 |
| APAF1 | 3.36 | 4.78 | 5.08 | 4.50 | 3.99 | 4.31 | 4.79 | 3.95 |
| APBA1 | -1.51 | -1.45 | -1.50 | -1.51 | -1.48 | -1.47 | -1.46 | -1.43 |
| APBA2 | -1.96 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.96 | -1.94 |
| APBB1 | 2.33 | 1.36 | 2.37 | 1.24 | 2.26 | 1.46 | 1.66 | 1.36 |
| APBB1IP | -0.05 | -0.04 | -0.02 | -0.05 | 0.08 | -0.06 | 0.37 | -0.01 |
| APBB2 | 2.72 | 3.59 | 3.27 | 3.98 | 2.97 | 4.03 | 4.17 | 4.44 |
| APBB3 | 1.52 | 1.56 | 1.64 | 1.47 | 1.77 | 1.63 | 1.84 | 1.72 |
| APC | 4.14 | 5.43 | 5.13 | 5.22 | 4.95 | 4.69 | 5.73 | 4.79 |
| APC2 | -1.29 | -1.34 | -1.39 | -1.35 | -1.40 | -1.36 | -1.35 | -1.37 |
| APCDD1 | 2.59 | 1.69 | 1.67 | 1.65 | 2.42 | 1.67 | 1.95 | 1.71 |
| APCDD1L | -1.90 | -1.90 | -1.89 | -1.90 | -1.90 | -1.90 | -1.90 | -1.66 |
| APCDD1L-DT | -1.23 | -1.31 | -1.29 | -1.24 | -1.31 | -1.29 | -1.32 | -0.16 |
| APCS | 1.68 | 1.73 | 2.00 | 2.04 | 1.70 | 1.71 | 4.78 | 2.70 |
| APEH | 7.57 | 7.21 | 6.79 | 7.20 | 6.69 | 6.78 | 7.22 | 6.68 |
| APEX1 | 8.07 | 7.53 | 6.98 | 7.76 | 7.91 | 8.04 | 7.25 | 7.50 |
| APEX2 | 4.80 | 4.74 | 5.05 | 4.45 | 4.90 | 4.75 | 4.73 | 4.50 |
| APH1A | 7.47 | 7.41 | 6.86 | 7.44 | 7.30 | 7.67 | 7.02 | 8.27 |
| APH1B | 3.13 | 3.23 | 3.42 | 2.91 | 4.83 | 3.56 | 3.04 | 3.43 |
| API5 | 6.06 | 5.79 | 5.98 | 5.74 | 5.78 | 5.67 | 6.12 | 5.83 |
| API5P1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| API5P2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| APIP | 5.95 | 6.68 | 5.86 | 7.29 | 6.98 | 5.75 | 6.30 | 5.45 |
| APLF | 0.72 | 0.73 | 0.94 | 0.79 | 1.22 | 0.81 | 0.96 | 1.01 |
| APLN | -1.40 | -1.33 | -1.39 | -1.41 | -1.21 | -1.32 | -1.41 | -1.42 |
| APLNR | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| APLP1 | 4.83 | 4.94 | 5.03 | 5.04 | 4.77 | 4.31 | 5.60 | 3.56 |
| APLP2 | 8.97 | 9.63 | 10.05 | 9.56 | 9.39 | 9.16 | 8.88 | 9.07 |
| APMAP | 7.24 | 6.84 | 7.50 | 7.04 | 7.55 | 7.02 | 6.39 | 6.50 |
| APOA1 | 0.78 | 0.34 | 0.45 | 0.52 | 0.62 | 0.46 | 0.46 | 0.21 |
| APOA1-AS | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| APOA2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| APOA4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| APOA5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.29 |
| APOB | -1.94 | -1.94 | -1.90 | -1.94 | -1.94 | -1.95 | -1.95 | -1.92 |
| APOBEC1 | 1.70 | 2.36 | 1.46 | 2.76 | 2.05 | 1.55 | 1.66 | 2.03 |
| APOBEC2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| APOBEC3A | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.00 |
| APOBEC3B | 0.47 | 0.14 | 0.55 | 0.27 | 0.33 | 0.32 | 0.12 | 0.40 |
| APOBEC3C | 5.51 | 7.01 | 5.49 | 6.90 | 6.23 | 6.60 | 5.99 | 7.06 |
| APOBEC3D | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| APOBEC3F | 2.94 | 3.24 | 2.58 | 2.51 | 2.99 | 3.54 | 2.87 | 3.22 |
| APOBEC3G | 3.66 | 3.40 | 3.13 | 3.41 | 3.82 | 5.26 | 2.42 | 5.05 |
| APOBEC3H | -0.90 | -0.74 | -0.73 | -0.31 | -0.86 | -0.65 | -0.83 | -0.69 |
| APOBR | -1.50 | -1.55 | -1.48 | -1.56 | -1.55 | -1.51 | -1.50 | -1.58 |
| APOC1 | 5.35 | 5.30 | 3.87 | 6.16 | 6.69 | 4.76 | 3.97 | 5.27 |
| APOC1P1 | -1.26 | -1.26 | -1.18 | -1.13 | -1.09 | -1.18 | -1.27 | -1.23 |
| APOC3 | -2.10 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| APOD | 1.78 | 1.75 | 1.64 | 1.89 | 2.81 | 3.42 | 1.52 | 2.21 |
| APOE | 5.18 | 2.96 | 3.30 | 3.17 | 3.59 | 4.76 | 3.81 | 4.09 |
| APOF | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| APOH | -0.13 | -0.12 | -0.11 | 0.22 | 0.00 | 0.10 | 0.32 | -0.15 |
| APOL1 | 6.77 | 7.30 | 8.87 | 6.81 | 6.87 | 6.69 | 8.05 | 5.93 |
| APOL2 | 5.75 | 5.40 | 6.34 | 5.24 | 4.75 | 4.90 | 5.78 | 4.75 |
| APOL3 | 3.08 | 3.19 | 2.95 | 2.88 | 2.68 | 3.13 | 2.27 | 2.66 |
| APOL4 | -0.61 | -0.61 | -0.41 | -0.54 | -0.57 | -0.55 | -0.33 | -0.63 |
| APOL6 | 5.82 | 6.41 | 6.36 | 5.99 | 5.91 | 6.43 | 7.13 | 6.87 |
| APOLD1 | 2.67 | 2.16 | 2.98 | 1.97 | 1.98 | 2.05 | 2.51 | 2.44 |
| APOM | 2.16 | 2.06 | 1.62 | 2.13 | 1.87 | 1.98 | 1.83 | 1.92 |
| APOO | 6.17 | 5.07 | 5.52 | 5.35 | 5.99 | 5.26 | 5.31 | 4.92 |
| APOOL | 5.29 | 5.12 | 5.02 | 5.09 | 4.96 | 5.04 | 5.61 | 4.69 |
| APOOP5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| APOPT1 | 6.01 | 6.38 | 5.83 | 6.51 | 7.05 | 6.93 | 6.01 | 5.73 |
| APP | 8.32 | 8.77 | 8.72 | 8.91 | 8.72 | 8.27 | 8.80 | 7.08 |
| APBP2 | 4.38 | 5.12 | 5.33 | 5.08 | 4.97 | 5.07 | 5.31 | 4.85 |
| APPL1 | 5.85 | 6.70 | 6.26 | 6.50 | 6.03 | 6.10 | 6.57 | 5.28 |
| APPL2 | 4.30 | 4.49 | 4.43 | 4.22 | 4.81 | 4.39 | 5.53 | 4.85 |
| APRT | 9.79 | 9.16 | 9.02 | 9.44 | 9.43 | 8.82 | 9.07 | 9.21 |
| APTR | 4.66 | 4.77 | 4.66 | 5.08 | 5.33 | 4.63 | 5.24 | 5.45 |
| APTX | 5.13 | 5.12 | 5.05 | 5.35 | 5.63 | 5.65 | 5.19 | 5.16 |
| AQP1 | 3.58 | 1.39 | 1.70 | 1.70 | 1.64 | 1.53 | 1.95 | 1.38 |
| AQP10 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AQP11 | 2.31 | 2.69 | 1.99 | 3.04 | 2.51 | 2.37 | 2.36 | 2.13 |
| AQP2 | -0.01 | -0.17 | -0.16 | -0.27 | 1.04 | -0.24 | 0.17 | 0.20 |
| AQP3 | 8.30 | 6.03 | 7.76 | 6.10 | 6.57 | 6.59 | 8.67 | 9.00 |
| AQP4-AS1 | -2.36 | -2.36 | -2.33 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AQP5 | 9.64 | 7.68 | 7.85 | 8.65 | 10.20 | 7.82 | 10.43 | 8.78 |
| AQP6 | 1.42 | 1.32 | 1.33 | 1.52 | 1.83 | 1.46 | 1.65 | 1.01 |

| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| AQP7 | 0.39 | 0.32 | 0.49 | 0.31 | 0.70 | 0.56 | 0.59 | 0.34 |
| AQR | 5.51 | 5.81 | 6.06 | 5.62 | 5.46 | 5.45 | 6.04 | 5.83 |
| AR | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| ARAF | 5.58 | 5.32 | 6.01 | 5.49 | 5.79 | 5.57 | 5.61 | 5.33 |
| ARAP1 | 4.70 | 4.84 | 5.65 | 4.51 | 4.78 | 4.70 | 5.06 | 5.24 |
| ARAP1-AS1 | -1.13 | -1.20 | -0.96 | -1.21 | -1.12 | -1.18 | -1.21 | -1.16 |
| ARAP2 | 3.83 | 4.95 | 5.07 | 4.82 | 4.29 | 5.09 | 5.40 | 4.93 |
| ARAP3 | 2.11 | 2.71 | 3.02 | 2.72 | 2.21 | 2.66 | 2.32 | 2.07 |
| ARC | 0.46 | 0.31 | 0.59 | 0.45 | 0.65 | 0.99 | 0.29 | 0.32 |
| ARCN1 | 6.68 | 7.03 | 6.82 | 6.81 | 6.97 | 7.03 | 6.78 | 7.36 |
| AREG | 7.09 | 7.67 | 8.42 | 7.27 | 8.56 | 9.49 | 8.98 | 9.38 |
| AREL1 | 4.06 | 4.38 | 4.88 | 4.26 | 4.53 | 4.46 | 4.78 | 4.17 |
| ARF1 | 9.70 | 9.62 | 9.07 | 9.74 | 10.10 | 9.83 | 9.04 | 10.37 |
| ARF3 | 7.52 | 7.44 | 7.61 | 7.40 | 7.34 | 7.84 | 7.31 | 7.75 |
| ARF4 | 8.12 | 7.98 | 7.29 | 8.20 | 8.83 | 8.32 | 7.60 | 8.93 |
| ARF4-AS1 | 2.55 | 1.91 | 1.90 | 2.20 | 2.28 | 2.09 | 1.64 | 2.06 |
| ARF4P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| ARF4P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| ARF5 | 4.02 | 4.21 | 3.69 | 4.40 | 4.39 | 4.21 | 3.81 | 4.56 |
| ARF6 | 6.79 | 7.26 | 7.25 | 7.22 | 7.43 | 7.93 | 7.14 | 7.19 |
| ARFGAP1 | 5.50 | 5.56 | 5.88 | 5.75 | 5.79 | 5.35 | 5.86 | 5.98 |
| ARFGAP2 | 5.83 | 5.55 | 5.74 | 5.23 | 5.43 | 5.36 | 5.27 | 5.89 |
| ARFGAP3 | 5.88 | 6.25 | 5.73 | 6.11 | 6.17 | 6.04 | 6.71 | 6.79 |
| ARFGEF1 | 5.83 | 6.57 | 6.72 | 6.26 | 5.67 | 6.75 | 6.69 | 6.83 |
| ARFGEF2 | 6.16 | 6.28 | 6.49 | 6.10 | 5.80 | 5.99 | 6.35 | 6.08 |
| ARFGEF3 | 5.79 | 5.80 | 6.48 | 5.52 | 5.70 | 5.72 | 6.83 | 5.22 |
| ARFIP1 | 5.14 | 5.78 | 5.38 | 5.68 | 5.15 | 5.83 | 5.54 | 5.65 |
| ARFIP2 | 6.03 | 5.99 | 6.07 | 6.20 | 6.66 | 5.64 | 6.01 | 5.88 |
| ARFRP1 | 5.75 | 5.22 | 5.41 | 5.26 | 5.47 | 5.33 | 5.30 | 5.04 |
| ARG2 | 2.18 | 1.61 | 1.81 | 1.98 | 2.22 | 2.32 | 2.13 | 2.38 |
| ARGFXP2 | -1.94 | -1.94 | -1.93 | -1.88 | -1.94 | -1.93 | -1.94 | -1.96 |
| ARGLU1 | 6.89 | 7.47 | 7.63 | 7.88 | 8.59 | 7.12 | 8.20 | 6.93 |
| ARHGAP1 | 5.18 | 6.03 | 6.10 | 5.92 | 5.30 | 5.20 | 5.59 | 5.86 |
| ARHGAP10 | 4.19 | 4.95 | 4.75 | 4.66 | 3.59 | 4.70 | 4.86 | 5.17 |
| ARHGAP11A | 5.41 | 4.94 | 5.57 | 5.28 | 5.25 | 5.93 | 5.04 | 5.88 |
| ARHGAP11B | -1.99 | -1.96 | -1.98 | -1.93 | -1.96 | -2.00 | -2.00 | -2.01 |
| ARHGAP12 | 5.48 | 5.92 | 5.98 | 6.02 | 6.18 | 6.09 | 6.45 | 6.32 |
| ARHGAP15 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| ARHGAP17 | 4.31 | 4.33 | 4.55 | 3.99 | 3.90 | 4.07 | 4.27 | 4.23 |
| ARHGAP18 | 7.65 | 6.00 | 6.56 | 6.07 | 6.06 | 6.97 | 6.12 | 5.65 |
| ARHGAP19 | 3.20 | 3.26 | 3.39 | 2.85 | 3.21 | 3.12 | 3.36 | 3.22 |
| ARHGAP20 | -0.32 | 0.58 | -0.30 | 0.04 | -0.32 | -0.29 | -0.33 | -0.35 |
| ARHGAP21 | 4.65 | 5.68 | 5.43 | 5.53 | 5.18 | 5.21 | 6.28 | 5.28 |
| ARHGAP22 | -0.33 | -0.03 | -0.29 | 0.27 | -0.09 | -0.39 | -0.42 | -0.43 |
| ARHGAP23 | 3.49 | 2.94 | 4.03 | 2.62 | 2.81 | 4.85 | 2.87 | 3.63 |
| ARHGAP24 | 2.62 | 3.46 | 3.34 | 3.78 | 2.61 | 2.17 | 2.83 | 2.88 |
| ARHGAP25 | -1.69 | -1.60 | -1.73 | -1.74 | -1.69 | -1.68 | -1.74 | -1.62 |
| ARHGAP26 | 5.14 | 5.88 | 6.15 | 5.92 | 5.32 | 5.61 | 6.24 | 5.00 |
| ARHGAP26-AS1 | -1.89 | -1.89 | -1.88 | -1.82 | -1.87 | -1.88 | -1.89 | -1.87 |
| ARHGAP26-IT1 | -1.99 | -1.99 | -1.91 | -2.00 | -1.97 | -1.98 | -2.00 | -2.01 |
| ARHGAP27 | 5.66 | 5.83 | 6.51 | 5.64 | 5.67 | 6.23 | 6.33 | 6.10 |
| ARHGAP27P1-BP1 | 1.90 | 2.23 | 2.72 | 2.48 | 2.14 | 2.16 | 3.19 | 2.50 |
| ARHGAP28 | -1.37 | -1.43 | -1.42 | -1.38 | -1.43 | -1.45 | -1.22 | -1.40 |
| ARHGAP29 | 6.91 | 4.81 | 6.29 | 4.44 | 5.94 | 7.33 | 6.37 | 5.57 |
| ARHGAP30 | -1.74 | -1.69 | -1.73 | -1.69 | -1.69 | -1.70 | -1.74 | -1.71 |
| ARHGAP31 | -0.94 | -0.93 | -0.84 | -0.86 | -0.90 | -0.78 | -0.87 | -0.60 |
| ARHGAP32 | 5.36 | 5.75 | 6.45 | 5.72 | 5.66 | 5.77 | 6.12 | 5.56 |
| ARHGAP33 | 0.95 | 1.10 | 0.85 | 0.92 | 0.86 | 0.91 | 1.05 | 0.89 |
| ARHGAP35 | 6.12 | 6.30 | 6.30 | 6.02 | 6.30 | 5.94 | 6.79 | 6.02 |
| ARHGAP39 | 2.04 | 2.23 | 2.38 | 2.39 | 2.12 | 2.33 | 2.30 | 2.25 |
| ARHGAP4 | 1.60 | 2.92 | 1.54 | 3.27 | 2.87 | 1.30 | 1.48 | 1.24 |
| ARHGAP40 | -0.74 | -0.50 | -0.54 | -0.13 | -0.65 | -0.54 | -0.67 | -0.64 |
| ARHGAP42 | 4.15 | 3.85 | 4.11 | 4.00 | 3.76 | 3.90 | 4.40 | 4.89 |
| ARHGAP44 | 3.17 | 2.81 | 4.04 | 2.87 | 2.93 | 2.52 | 4.05 | 2.01 |
| ARHGAP5 | 6.09 | 6.88 | 7.41 | 6.45 | 7.05 | 7.44 | 7.57 | 6.62 |
| ARHGAP5-AS1 | 3.46 | 3.27 | 3.68 | 3.31 | 3.54 | 3.40 | 3.08 | 2.87 |
| ARHGAP6 | 2.44 | 2.89 | 3.52 | 3.20 | 3.40 | 3.39 | 3.18 | 1.94 |
| ARHGAP8 | 3.07 | 2.70 | 2.81 | 3.13 | 2.63 | 3.05 | 3.49 | 2.47 |
| ARHGDIA | 8.06 | 7.93 | 7.76 | 8.03 | 7.72 | 7.92 | 7.62 | 7.51 |
| ARHGDIB | 5.56 | 5.89 | 6.17 | 5.36 | 5.85 | 5.47 | 4.04 | 6.79 |
| ARHGDIG | 0.45 | -0.01 | 0.01 | -0.02 | 0.65 | 0.12 | -0.02 | 0.33 |
| ARHGEF1 | 5.16 | 5.26 | 5.05 | 5.72 | 5.82 | 5.38 | 5.29 | 5.47 |
| ARHGEF10 | 2.63 | 3.12 | 3.86 | 3.20 | 2.90 | 2.93 | 3.86 | 2.57 |
| ARHGEF10L | 3.39 | 3.60 | 4.16 | 3.58 | 3.85 | 3.88 | 4.28 | 3.60 |
| ARHGEF11 | 3.72 | 4.19 | 4.09 | 3.85 | 3.98 | 3.67 | 4.34 | 3.96 |
| ARHGEF12 | 6.58 | 6.81 | 6.98 | 6.81 | 6.58 | 6.50 | 7.38 | 6.76 |
| ARHGEF15 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ARHGEF16 | 5.11 | 5.31 | 5.60 | 5.68 | 5.15 | 5.34 | 6.20 | 5.25 |
| ARHGEF17 | 2.05 | 2.03 | 1.85 | 1.96 | 1.84 | 2.04 | 2.35 | 1.81 |
| ARHGEF18 | 4.04 | 5.30 | 5.11 | 4.80 | 4.28 | 4.49 | 4.56 | 4.50 |
| ARHGEF19 | 4.86 | 4.02 | 3.98 | 3.70 | 3.76 | 4.32 | 3.13 | 3.61 |
| ARHGEF19-AS1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| ARHGEF2 | 4.29 | 4.49 | 4.53 | 5.09 | 4.65 | 4.70 | 4.94 | 4.61 |
| ARHGEF25 | -1.70 | -1.79 | -1.78 | -1.79 | -1.76 | -1.80 | -1.75 | -1.81 |
| ARHGEF26 | 2.94 | 2.54 | 3.50 | 2.57 | 2.73 | 2.97 | 4.10 | 2.38 |
| ARHGEF26-AS1 | -1.43 | -1.42 | -1.41 | -1.43 | -1.42 | -1.41 | -1.37 | -1.44 |
| ARHGEF28 | 3.49 | 4.29 | 4.84 | 4.10 | 3.92 | 4.38 | 5.07 | 4.32 |
| ARHGEF3 | 3.59 | 5.62 | 4.35 | 5.12 | 4.01 | 4.44 | 3.91 | 4.00 |
| ARHGEF33 | 0.22 | -0.33 | -0.13 | -0.18 | -0.29 | -0.35 | -0.12 | -0.12 |
| ARHGEF34P | -0.49 | -0.49 | -0.40 | -0.50 | -0.42 | -0.44 | -0.50 | 0.23 |
| ARHGEF35 | 0.48 | 0.51 | 0.68 | 0.61 | 0.56 | 0.39 | 0.54 | 0.30 |
| ARHGEF37 | 2.83 | 2.86 | 3.95 | 3.29 | 2.80 | 2.70 | 3.82 | 2.32 |
| ARHGEF38 | 3.96 | 4.62 | 4.09 | 4.77 | 3.64 | 4.49 | 4.60 | 3.50 |
| ARHGEF38-IT1 | 0.17 | -0.02 | -0.07 | -0.04 | -0.09 | -0.02 | -0.19 | -0.08 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ARHGEF39 | 3.66 | 3.84 | 4.63 | 4.36 | 4.96 | 4.62 | 4.02 | 4.03 |
| ARHGEF4 | 1.30 | 1.03 | 1.33 | 1.28 | 0.98 | 1.26 | 0.82 | 3.00 |
| ARHGEF40 | 3.58 | 4.06 | 4.56 | 4.24 | 3.89 | 3.67 | 4.71 | 3.28 |
| ARHGEF5 | 3.24 | 4.34 | 3.86 | 4.00 | 3.98 | 3.72 | 4.13 | 4.05 |
| ARHGEF6 | -1.79 | -1.84 | -1.78 | -1.85 | -1.84 | -1.86 | -1.85 | -1.71 |
| ARHGEF7 | 4.21 | 4.51 | 4.78 | 4.43 | 4.74 | 4.14 | 4.82 | 4.31 |
| ARHGEF9 | 4.20 | 2.96 | 5.21 | 2.84 | 4.98 | 4.25 | 4.92 | 4.10 |
| ARID1A | 5.03 | 5.24 | 6.23 | 4.99 | 5.66 | 5.88 | 6.27 | 4.76 |
| ARID1B | 5.18 | 5.60 | 5.98 | 5.21 | 5.10 | 5.71 | 6.17 | 5.13 |
| ARID2 | 4.57 | 5.08 | 5.37 | 4.97 | 4.44 | 5.31 | 5.28 | 4.78 |
| ARID3A | 1.99 | 1.96 | 2.73 | 1.97 | 2.76 | 2.99 | 2.32 | 3.08 |
| ARID3B | 1.76 | 1.80 | 2.08 | 1.74 | 1.93 | 1.96 | 2.04 | 2.22 |
| ARID3C | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| ARID4A | 4.65 | 5.48 | 5.40 | 5.42 | 5.85 | 5.71 | 5.70 | 5.32 |
| ARID4B | 6.53 | 6.64 | 6.63 | 6.44 | 6.88 | 7.22 | 6.70 | 6.78 |
| ARID5A | 3.15 | 2.24 | 2.39 | 2.26 | 2.91 | 2.08 | 2.29 | 2.24 |
| ARID5B | 6.04 | 4.81 | 5.00 | 4.97 | 6.01 | 5.17 | 5.80 | 5.59 |
| ARIH1 | 5.33 | 5.93 | 5.90 | 5.55 | 5.74 | 5.69 | 5.76 | 5.51 |
| ARIH2 | 7.01 | 6.57 | 6.22 | 6.35 | 6.19 | 6.20 | 6.50 | 6.22 |
| ARIH2OS | -0.63 | -0.70 | -0.77 | -0.65 | -0.62 | -0.65 | -0.72 | -0.74 |
| ARL1 | 6.58 | 7.06 | 6.76 | 7.23 | 7.42 | 6.99 | 6.86 | 8.05 |
| ARL10 | 1.29 | 1.32 | 1.66 | 1.35 | 1.68 | 1.30 | 1.64 | 1.08 |
| ARL11 | 0.04 | -0.30 | -0.29 | -0.23 | -0.26 | -0.32 | -0.24 | -0.11 |
| ARL13A | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ARL13B | 4.79 | 4.45 | 5.17 | 4.43 | 4.59 | 4.95 | 4.96 | 4.66 |
| ARL14 | 5.93 | 4.62 | 5.32 | 4.55 | 5.55 | 4.56 | 5.08 | 6.10 |
| ARL14EP | 5.96 | 5.42 | 5.09 | 5.48 | 5.84 | 5.25 | 5.50 | 5.54 |
| ARL14EPL | -1.77 | -1.89 | -1.80 | -1.89 | -1.89 | -1.88 | -1.90 | -1.87 |
| ARL15 | 1.91 | 2.52 | 2.12 | 2.67 | 2.23 | 1.98 | 2.44 | 2.15 |
| ARL16 | 6.09 | 4.83 | 5.25 | 5.13 | 5.94 | 5.96 | 5.17 | 5.61 |
| ARL17A | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| ARL17B | 1.54 | 1.27 | 1.08 | 1.46 | 1.15 | 1.11 | 1.97 | 1.43 |
| ARL2 | 7.74 | 6.32 | 6.71 | 6.35 | 7.52 | 6.85 | 6.34 | 6.07 |
| ARL2BP | 6.50 | 6.00 | 5.41 | 6.05 | 5.96 | 5.91 | 5.53 | 6.21 |
| ARL3 | 7.45 | 7.17 | 6.74 | 7.55 | 7.37 | 7.76 | 6.52 | 6.56 |
| ARL4A | 5.75 | 6.13 | 4.83 | 6.21 | 5.78 | 5.80 | 5.65 | 5.74 |
| ARL4AP2 | -1.34 | -1.33 | -1.32 | -1.41 | -1.33 | -1.35 | -1.28 | -1.36 |
| ARL4AP3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ARL4AP5 | -1.32 | -1.32 | -1.24 | -1.33 | -1.28 | -1.30 | -1.08 | -1.28 |
| ARL4C | 6.67 | 7.62 | 7.39 | 7.93 | 7.04 | 8.80 | 8.29 | 7.34 |
| ARL4D | 4.76 | 5.51 | 5.78 | 4.61 | 5.90 | 7.15 | 4.85 | 5.68 |
| ARL5A | 4.67 | 5.30 | 4.40 | 5.04 | 4.41 | 4.75 | 4.97 | 4.65 |
| ARL5AP4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| ARL5B | 4.50 | 5.14 | 5.27 | 4.98 | 4.84 | 5.04 | 5.77 | 4.64 |
| ARL6 | 2.50 | 2.11 | 2.59 | 2.37 | 2.46 | 2.79 | 2.67 | 2.59 |
| ARL6IP1 | 8.89 | 9.32 | 9.15 | 9.14 | 8.04 | 9.03 | 8.21 | 8.89 |
| ARL6IP1P1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| ARL6IP1P2 | 0.32 | -0.22 | -0.05 | 0.07 | -0.17 | -0.12 | -0.01 | -0.06 |
| ARL6IP1P3 | 0.05 | -0.08 | -0.12 | -0.02 | -0.23 | 0.07 | -0.04 | 0.01 |
| ARL6IP5 | 7.49 | 8.40 | 7.68 | 8.26 | 8.25 | 8.02 | 8.01 | 8.29 |
| ARL6IP6 | 5.72 | 4.79 | 5.02 | 4.95 | 5.51 | 5.09 | 4.87 | 5.50 |
| ARL8A | 5.76 | 5.74 | 5.56 | 6.04 | 5.79 | 5.83 | 5.41 | 5.95 |
| ARL8B | 5.93 | 6.13 | 5.84 | 5.71 | 5.59 | 5.74 | 5.75 | 5.93 |
| ARL9 | 0.59 | 1.44 | 0.54 | 1.61 | 0.69 | 1.09 | 0.79 | 0.81 |
| ARLNC1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.05 |
| ARMC1 | 5.20 | 5.41 | 6.01 | 5.13 | 5.20 | 5.86 | 5.60 | 5.49 |
| ARMC10 | 5.01 | 5.24 | 4.74 | 5.19 | 5.58 | 5.13 | 4.99 | 5.61 |
| ARMC10P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| ARMC12 | -0.82 | -0.65 | -0.72 | -0.67 | -0.74 | -0.63 | -0.74 | -0.72 |
| ARMC2 | 0.81 | 0.75 | 0.77 | 0.87 | 0.84 | 0.79 | 0.79 | 0.71 |
| ARMC3 | -0.87 | -0.70 | -0.76 | -0.71 | -0.70 | -0.38 | -0.87 | -0.88 |
| ARMC4P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| ARMC5 | 2.90 | 2.87 | 3.31 | 3.14 | 3.01 | 2.91 | 3.22 | 2.71 |
| ARMC6 | 4.58 | 4.92 | 4.61 | 4.98 | 4.40 | 4.59 | 4.43 | 4.38 |
| ARMC7 | 4.17 | 3.98 | 4.33 | 4.00 | 4.48 | 4.32 | 4.17 | 4.52 |
| ARMC8 | 5.06 | 4.53 | 5.17 | 4.29 | 4.63 | 4.64 | 4.95 | 4.98 |
| ARMC9 | 3.94 | 4.45 | 3.99 | 4.37 | 4.24 | 4.59 | 4.04 | 3.21 |
| ARMCX1 | 2.66 | 2.37 | 2.34 | 2.82 | 2.76 | 2.10 | 3.30 | 2.11 |
| ARMCX2 | 2.16 | 2.41 | 3.08 | 2.44 | 2.80 | 1.98 | 2.69 | 2.56 |
| ARMCX3 | 5.75 | 5.73 | 6.57 | 6.00 | 6.66 | 5.90 | 5.91 | 6.07 |
| ARMCX3-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ARMCX4 | 2.15 | 1.50 | 1.71 | 1.67 | 1.93 | 1.68 | 1.66 | 1.70 |
| ARMCX5 | 2.72 | 3.39 | 3.34 | 3.38 | 3.53 | 3.25 | 3.13 | 3.02 |
| ARMCX6 | -0.74 | -0.73 | -0.79 | -0.81 | -0.69 | -0.72 | -0.56 | -0.66 |
| ARMH1 | -0.99 | -0.98 | -0.89 | -0.91 | -0.83 | -0.90 | -0.81 | -0.94 |
| ARMH3 | 3.93 | 3.84 | 4.58 | 3.74 | 4.14 | 3.76 | 3.90 | 3.80 |
| ARMH4 | 0.16 | 1.67 | 0.28 | 1.08 | 0.26 | 0.18 | 0.64 | 0.12 |
| ARMT1 | 4.69 | 4.62 | 4.43 | 4.48 | 4.26 | 4.59 | 4.95 | 4.43 |
| ARNT | 3.79 | 3.91 | 3.55 | 3.92 | 3.53 | 3.89 | 4.34 | 4.04 |
| ARNT2 | 1.61 | 2.04 | 1.26 | 2.15 | 1.83 | 2.09 | 1.41 | 1.54 |
| ARNTL | 3.53 | 3.56 | 3.75 | 3.84 | 3.44 | 3.39 | 4.11 | 3.85 |
| ARNTL2 | 5.86 | 5.25 | 5.79 | 4.98 | 5.39 | 4.69 | 5.25 | 5.56 |
| ARPC1A | 7.30 | 7.65 | 7.43 | 7.62 | 8.17 | 7.94 | 7.46 | 8.30 |
| ARPC1B | 6.89 | 7.81 | 7.45 | 7.95 | 8.22 | 7.59 | 7.22 | 8.55 |
| ARPC2 | 9.29 | 9.62 | 8.88 | 9.65 | 9.23 | 10.06 | 8.90 | 9.75 |
| ARPC3 | 8.40 | 9.08 | 8.70 | 9.11 | 9.23 | 9.13 | 8.65 | 9.66 |
| ARPC3P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ARPC3P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ARPC3P5 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -1.97 | -2.00 | -1.97 |
| ARPC4 | 7.60 | 7.73 | 7.08 | 7.79 | 7.17 | 7.22 | 6.97 | 7.22 |
| ARPC4-TTLL3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.24 | -2.26 |
| ARPC5 | 8.29 | 8.30 | 7.57 | 8.25 | 8.26 | 8.48 | 8.28 | 8.66 |
| ARPC5L | 7.76 | 7.39 | 7.05 | 7.60 | 6.89 | 7.85 | 7.22 | 7.52 |
| ARPIN | 4.78 | 4.56 | 4.99 | 4.47 | 4.36 | 4.38 | 4.63 | 4.10 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ARPP19 | 7.55 | 7.13 | 7.00 | 6.93 | 7.29 | 7.12 | 7.25 | 7.35 |
| ARPP21 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ARRB1 | 4.68 | 3.81 | 4.88 | 3.71 | 4.17 | 4.01 | 4.51 | 3.37 |
| ARRB2 | 3.80 | 2.93 | 3.14 | 3.25 | 3.82 | 3.16 | 3.25 | 2.55 |
| ARRDC1 | 8.01 | 7.66 | 6.79 | 7.96 | 6.97 | 7.21 | 7.28 | 7.59 |
| ARRDC1-AS1 | 5.23 | 3.11 | 4.14 | 3.76 | 4.46 | 4.83 | 4.30 | 4.20 |
| ARRDC2 | 4.31 | 4.63 | 5.04 | 4.58 | 4.46 | 4.38 | 4.44 | 4.78 |
| ARRDC3 | 4.59 | 5.64 | 5.48 | 4.78 | 4.66 | 4.37 | 5.29 | 5.29 |
| ARRDC3-AS1 | 0.74 | 0.98 | 0.62 | 0.99 | 1.00 | 0.82 | 1.14 | 0.93 |
| ARRDC4 | 4.68 | 5.42 | 6.07 | 5.55 | 5.16 | 5.30 | 6.12 | 5.10 |
| ARRDC5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ARSA | 5.49 | 5.25 | 4.23 | 5.42 | 4.74 | 4.76 | 5.05 | 5.38 |
| ARSB | 1.87 | 2.27 | 1.62 | 1.92 | 1.77 | 1.65 | 1.41 | 1.50 |
| ARSD | 5.99 | 5.77 | 7.33 | 5.00 | 5.50 | 5.35 | 6.51 | 5.24 |
| ARSD-AS1 | -0.76 | -0.83 | -0.41 | -0.84 | -0.83 | -0.77 | -0.56 | -0.67 |
| ARSE | 2.10 | 3.10 | 2.91 | 3.67 | 3.47 | 1.96 | 2.86 | 1.80 |
| ARSEP1 | 0.13 | 0.57 | 0.34 | 0.79 | 0.60 | 0.18 | 0.34 | 0.02 |
| ARSG | 1.48 | 1.51 | 1.26 | 1.76 | 1.61 | 1.39 | 1.33 | 1.54 |
| ARSI | -0.98 | -0.89 | -0.96 | -0.91 | -0.64 | -0.96 | -0.85 | -0.94 |
| ARSJ | 2.77 | 2.83 | 3.81 | 2.67 | 2.57 | 4.78 | 4.64 | 2.70 |
| ARSK | 2.89 | 3.15 | 3.40 | 2.87 | 3.52 | 3.42 | 3.43 | 2.83 |
| ART3 | -1.43 | -1.43 | -1.48 | -1.50 | -1.49 | -1.42 | -1.50 | -1.51 |
| ART4 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -1.96 | -2.03 |
| ART5 | 1.67 | 0.43 | 0.46 | 0.32 | 0.42 | 0.49 | 0.46 | 0.28 |
| ARTN | 2.72 | 2.40 | 2.32 | 2.54 | 2.57 | 2.44 | 2.50 | 2.42 |
| ARV1 | 6.36 | 5.58 | 5.32 | 6.09 | 6.68 | 5.98 | 5.61 | 6.17 |
| ARVCF | 3.10 | 2.72 | 3.47 | 3.02 | 2.66 | 2.85 | 3.27 | 2.78 |
| ARX | -1.65 | -1.59 | -1.58 | -1.60 | -1.59 | -1.63 | -1.65 | -1.58 |
| AS3MT | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| ASAH1 | 7.22 | 7.50 | 7.59 | 7.58 | 7.15 | 7.42 | 7.01 | 7.12 |
| ASAH2 | -0.58 | -0.27 | -0.41 | -0.43 | -0.57 | -0.41 | -0.32 | -0.59 |
| ASAH2B | 2.36 | 2.36 | 2.13 | 2.29 | 2.42 | 2.51 | 2.60 | 2.28 |
| ASAP1 | 4.65 | 5.31 | 6.02 | 5.03 | 4.73 | 5.79 | 5.34 | 5.57 |
| ASAP1-IT2 | -1.16 | -1.15 | -0.99 | -1.16 | -1.18 | -1.20 | -1.03 | -1.19 |
| ASAP2 | 6.30 | 7.03 | 6.81 | 7.06 | 6.24 | 6.57 | 6.41 | 7.32 |
| ASAP3 | 1.97 | 1.81 | 1.78 | 2.06 | 1.83 | 2.26 | 2.59 | 2.40 |
| ASB1 | 4.43 | 4.42 | 4.08 | 4.13 | 4.06 | 4.66 | 3.80 | 4.24 |
| ASB12 | -1.94 | -1.94 | -1.89 | -1.95 | -1.94 | -1.89 | -1.95 | -1.96 |
| ASB13 | 3.80 | 4.18 | 4.31 | 4.37 | 4.40 | 3.95 | 4.27 | 4.09 |
| ASB14 | -2.04 | -2.01 | -2.04 | -2.02 | -2.04 | -2.04 | -2.02 | -2.06 |
| ASB16 | -0.45 | -0.44 | -0.59 | -0.33 | -0.56 | -0.52 | -0.41 | -0.39 |
| ASB16-AS1 | 3.14 | 3.21 | 3.40 | 3.10 | 3.25 | 3.43 | 2.75 | 3.31 |
| ASB2 | -0.91 | -1.12 | -1.11 | -1.13 | -0.97 | -1.14 | -1.14 | -1.15 |
| ASB3 | 3.93 | 4.12 | 3.77 | 3.84 | 4.60 | 4.23 | 3.95 | 4.52 |
| ASB4 | 2.66 | 0.88 | 1.02 | 1.11 | 0.97 | 1.04 | 0.93 | 1.00 |
| ASB5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| ASB6 | 4.36 | 4.73 | 4.33 | 4.95 | 4.12 | 4.50 | 4.30 | 4.45 |
| ASB7 | 3.48 | 3.83 | 3.91 | 3.66 | 3.60 | 3.46 | 3.45 | 3.46 |
| ASB8 | 4.98 | 5.03 | 5.03 | 4.95 | 4.88 | 5.30 | 5.27 | 5.19 |
| ASB9 | 2.11 | 1.43 | 1.54 | 1.98 | 1.57 | 1.25 | 0.94 | 1.14 |
| ASCC1 | 5.35 | 5.51 | 5.29 | 5.50 | 5.97 | 5.34 | 5.01 | 5.36 |
| ASCC2 | 5.55 | 5.28 | 4.95 | 5.12 | 5.08 | 4.94 | 5.20 | 5.63 |
| ASCC3 | 5.91 | 6.00 | 5.89 | 5.86 | 5.36 | 5.98 | 6.40 | 6.09 |
| ASCL2 | 3.49 | 2.94 | 1.55 | 2.88 | 1.62 | 1.49 | 1.66 | 1.55 |
| ASCL5 | -0.49 | -0.63 | -0.70 | -0.72 | -0.52 | -0.65 | -0.50 | -0.50 |
| ASF1A | 6.00 | 4.63 | 4.56 | 4.26 | 4.64 | 5.67 | 5.03 | 5.05 |
| ASF1B | 6.40 | 6.07 | 6.43 | 6.29 | 5.94 | 6.38 | 6.05 | 5.58 |
| ASGR1 | 0.54 | 0.27 | 0.36 | 0.25 | 0.26 | 0.55 | 0.45 | 0.27 |
| ASGR2 | -1.79 | -1.79 | -1.78 | -1.79 | -1.79 | -1.80 | -1.80 | -1.81 |
| ASH1L | 6.19 | 6.54 | 6.44 | 6.51 | 6.42 | 6.72 | 6.98 | 6.75 |
| ASH1L-AS1 | 3.12 | 2.31 | 1.98 | 2.05 | 2.65 | 2.27 | 2.10 | 2.34 |
| ASH1L-IT1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.07 | -2.11 |
| ASH2L | 5.17 | 4.96 | 5.43 | 4.77 | 4.59 | 5.22 | 5.03 | 4.74 |
| ASH2LP2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| ASIC1 | 3.19 | 1.83 | 2.82 | 2.23 | 2.81 | 2.36 | 2.71 | 1.85 |
| ASIC2 | -1.94 | -1.90 | -1.93 | -1.87 | -1.92 | -1.95 | -1.87 | -1.96 |
| ASIC3 | -0.78 | -0.93 | -0.84 | -0.80 | -0.70 | -0.84 | -0.67 | -0.89 |
| ASIC4 | -1.80 | -1.84 | -1.79 | -1.80 | -1.82 | -1.81 | -1.84 | -1.82 |
| ASIP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ASL | 6.21 | 6.22 | 5.30 | 6.17 | 6.13 | 5.82 | 6.09 | 5.72 |
| ASNA1 | 6.64 | 6.86 | 6.22 | 7.08 | 6.71 | 6.92 | 6.30 | 6.72 |
| ASNS | 0.08 | 0.25 | 0.26 | 0.15 | 0.58 | 0.20 | 0.71 | 0.50 |
| ASNSD1 | 4.74 | 4.86 | 4.14 | 4.63 | 4.59 | 4.59 | 4.57 | 4.11 |
| ASNSP1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ASPA | -1.64 | -1.54 | -1.63 | -1.49 | -1.64 | -1.65 | -1.65 | -1.61 |
| ASPG | -0.74 | -0.89 | -0.87 | -0.89 | -0.81 | -0.66 | -0.82 | -0.91 |
| ASPH | 8.87 | 9.05 | 9.37 | 8.91 | 9.95 | 9.27 | 8.80 | 10.47 |
| ASPHD1 | 6.45 | 6.30 | 6.20 | 6.60 | 6.73 | 6.45 | 5.24 | 6.01 |
| ASPHD2 | 4.55 | 4.53 | 3.81 | 4.68 | 4.41 | 3.46 | 5.25 | 4.43 |
| ASPM | 6.12 | 6.36 | 6.40 | 6.14 | 5.86 | 7.15 | 6.29 | 6.78 |
| ASPN | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| ASPRV1 | -0.90 | -0.80 | -0.87 | -0.89 | -0.84 | -0.91 | -0.82 | -0.92 |
| ASPSCR1 | 5.51 | 4.91 | 4.92 | 4.98 | 5.12 | 5.26 | 4.57 | 5.48 |
| ASRGL1 | 5.42 | 4.18 | 4.39 | 4.44 | 4.83 | 4.49 | 5.97 | 3.95 |
| ASS1 | 8.48 | 8.16 | 7.64 | 8.10 | 7.86 | 7.35 | 7.78 | 7.22 |
| ASS1P11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ASS1P12 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| ASS1P2 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -1.99 | -2.05 |
| ASS1P6 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ASS1P8 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ASS1P9 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.95 | -1.96 |
| ASTE1 | 2.44 | 2.41 | 2.48 | 2.27 | 2.38 | 2.36 | 2.63 | 2.63 |
| ASTN2 | 1.65 | 1.99 | 2.06 | 2.13 | 1.74 | 1.75 | 1.66 | 1.72 |
| ASXL1 | 5.35 | 5.06 | 5.57 | 5.08 | 5.35 | 5.15 | 5.10 | 5.39 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ASXL2 | 5.15 | 5.73 | 5.57 | 5.36 | 4.40 | 5.20 | 5.86 | 5.82 |
| ASXL3 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.90 | -1.89 | -1.91 |
| ATAD1 | 5.94 | 6.26 | 6.53 | 6.04 | 6.42 | 5.93 | 6.48 | 6.00 |
| ATAD2 | 6.48 | 5.95 | 7.27 | 6.10 | 5.85 | 6.77 | 6.54 | 6.41 |
| ATAD2B | 4.03 | 4.57 | 3.94 | 4.69 | 3.84 | 4.23 | 5.00 | 4.53 |
| ATAD3A | 6.16 | 5.57 | 6.02 | 5.80 | 5.20 | 5.88 | 5.52 | 5.69 |
| ATAD3B | 5.01 | 5.43 | 4.69 | 5.53 | 4.01 | 4.01 | 4.46 | 3.40 |
| ATAD3C | 1.89 | 1.42 | 1.36 | 2.00 | 1.96 | 1.80 | 2.03 | 1.28 |
| ATAD5 | 6.03 | 5.44 | 6.43 | 5.55 | 5.02 | 5.72 | 6.18 | 5.26 |
| ATAT1 | 3.30 | 2.39 | 2.98 | 2.67 | 2.76 | 3.76 | 3.40 | 3.18 |
| ATE1 | 5.25 | 5.34 | 4.40 | 5.41 | 5.36 | 5.07 | 5.30 | 4.86 |
| ATE1-AS1 | -1.08 | -1.20 | -1.19 | -1.14 | -1.16 | -1.10 | -1.21 | -1.06 |
| ATF1 | 4.62 | 4.74 | 4.41 | 4.52 | 4.62 | 5.06 | 4.65 | 5.21 |
| ATF2 | 4.51 | 4.73 | 4.92 | 4.63 | 4.88 | 4.41 | 4.97 | 5.00 |
| ATF3 | 2.98 | 3.05 | 4.18 | 2.81 | 4.75 | 3.65 | 3.68 | 3.86 |
| ATF4 | 6.60 | 7.61 | 7.20 | 7.67 | 7.80 | 7.44 | 7.94 | 8.54 |
| ATF4P3 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 |
| ATF4P4 | -1.33 | -1.20 | -1.32 | -1.34 | -1.23 | -1.31 | -1.28 | -1.14 |
| ATF5 | 3.81 | 4.76 | 4.02 | 4.63 | 3.67 | 3.82 | 4.16 | 3.44 |
| ATF6 | 5.76 | 6.53 | 6.03 | 6.26 | 5.80 | 6.18 | 6.19 | 6.70 |
| ATF6B | 5.10 | 4.60 | 5.01 | 5.02 | 4.44 | 5.19 | 4.71 | 5.45 |
| ATF7 | 5.14 | 5.23 | 4.65 | 5.19 | 4.85 | 5.05 | 4.80 | 5.08 |
| ATF7-NPFF | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ATF7IP | 5.97 | 5.86 | 6.62 | 5.80 | 6.28 | 5.97 | 6.48 | 5.54 |
| ATF7IP2 | 4.48 | 5.25 | 3.92 | 5.90 | 4.69 | 3.81 | 3.37 | 4.06 |
| ATG10 | 4.23 | 4.08 | 4.70 | 4.29 | 4.71 | 4.44 | 4.68 | 4.09 |
| ATG101 | 6.71 | 6.42 | 6.15 | 6.43 | 6.56 | 6.90 | 6.21 | 6.84 |
| ATG12 | 6.23 | 6.43 | 6.41 | 6.21 | 6.93 | 6.53 | 6.32 | 6.54 |
| ATG13 | 4.77 | 4.54 | 5.27 | 4.69 | 4.90 | 4.40 | 4.40 | 5.62 |
| ATG14 | 3.98 | 4.20 | 4.00 | 3.95 | 4.33 | 4.39 | 4.11 | 4.46 |
| ATG16L1 | 4.53 | 5.25 | 4.33 | 4.93 | 4.67 | 4.99 | 4.84 | 4.63 |
| ATG16L2 | 2.72 | 3.11 | 3.36 | 3.41 | 2.93 | 3.22 | 3.93 | 2.81 |
| ATG2A | 4.37 | 3.42 | 4.49 | 3.18 | 3.85 | 3.85 | 3.84 | 4.18 |
| ATG2B | 3.46 | 3.86 | 3.79 | 3.77 | 3.54 | 3.69 | 4.11 | 3.03 |
| ATG3 | 7.56 | 6.69 | 6.84 | 6.74 | 7.17 | 6.97 | 6.82 | 8.13 |
| ATG4A | 4.52 | 3.36 | 4.57 | 3.41 | 4.77 | 4.45 | 5.04 | 4.44 |
| ATG4B | 6.42 | 5.81 | 6.01 | 6.00 | 6.51 | 6.52 | 6.01 | 6.64 |
| ATG4C | 3.57 | 4.00 | 3.70 | 3.95 | 3.92 | 3.76 | 3.68 | 3.89 |
| ATG4D | 5.02 | 5.64 | 4.90 | 5.57 | 5.60 | 5.38 | 5.15 | 5.10 |
| ATG5 | 6.40 | 5.36 | 5.41 | 5.40 | 5.30 | 5.99 | 5.50 | 5.85 |
| ATG7 | 3.85 | 4.14 | 3.87 | 4.39 | 3.98 | 3.72 | 4.28 | 3.54 |
| ATG9A | -0.21 | -0.53 | -0.37 | -0.46 | -0.34 | -0.48 | -0.54 | -0.43 |
| ATG9B | 0.37 | 0.55 | 0.75 | 0.44 | 0.46 | 0.66 | 0.71 | 0.63 |
| ATIC | 7.38 | 7.06 | 6.78 | 7.21 | 7.26 | 7.64 | 6.39 | 6.96 |
| ATL1 | 1.78 | 2.24 | 1.96 | 2.20 | 1.72 | 1.86 | 2.06 | 2.11 |
| ATL2 | 5.28 | 5.23 | 5.35 | 5.08 | 5.40 | 5.09 | 5.03 | 5.02 |
| ATL3 | 5.99 | 5.94 | 6.28 | 5.78 | 5.74 | 6.16 | 6.84 | 6.45 |
| ATM | 5.30 | 5.68 | 6.11 | 5.75 | 5.97 | 5.46 | 5.93 | 5.78 |
| ATMIN | 5.68 | 6.02 | 5.49 | 5.62 | 5.05 | 5.26 | 5.29 | 5.44 |
| ATN1 | 4.79 | 5.00 | 4.75 | 4.61 | 5.23 | 4.22 | 4.94 | 5.07 |
| ATOH7 | -1.74 | -1.69 | -1.73 | -1.65 | -1.72 | -1.73 | -1.75 | -1.76 |
| ATOH8 | 0.46 | 0.56 | 0.49 | 0.54 | 0.51 | 0.47 | 1.38 | 0.41 |
| ATOX1 | 7.21 | 7.71 | 6.94 | 7.80 | 7.63 | 7.53 | 7.20 | 7.04 |
| ATP10A | 1.61 | 1.39 | 2.21 | 1.43 | 1.51 | 1.42 | 3.03 | 1.52 |
| ATP10B | 4.77 | 4.43 | 4.44 | 4.36 | 4.77 | 3.20 | 3.92 | 3.61 |
| ATP10D | 2.63 | 3.93 | 3.25 | 3.77 | 2.67 | 3.28 | 2.60 | 3.71 |
| ATP11A | 4.87 | 5.19 | 5.45 | 5.11 | 5.96 | 4.76 | 5.39 | 5.23 |
| ATP11B | 5.32 | 5.24 | 5.93 | 5.57 | 5.17 | 5.74 | 6.23 | 6.06 |
| ATP11C | 3.43 | 3.52 | 3.96 | 3.31 | 3.42 | 4.32 | 3.49 | 3.72 |
| ATP13A1 | 4.62 | 5.69 | 5.55 | 5.70 | 4.63 | 4.83 | 5.38 | 4.61 |
| ATP13A2 | 4.64 | 5.66 | 5.73 | 5.45 | 5.29 | 5.28 | 5.85 | 4.81 |
| ATP13A3 | 6.19 | 6.28 | 7.03 | 6.11 | 6.12 | 5.88 | 6.95 | 6.66 |
| ATP13A4 | -1.69 | -1.58 | -1.68 | -1.49 | -1.63 | -1.67 | -1.64 | -1.66 |
| ATP1A1 | 9.56 | 10.22 | 9.72 | 10.53 | 9.49 | 8.69 | 10.27 | 8.81 |
| ATP1A1-AS1 | 1.70 | 1.71 | 1.84 | 1.59 | 1.87 | 1.34 | 1.62 | 1.41 |
| ATP1A3 | 0.14 | 0.23 | 0.17 | 0.57 | 0.93 | 0.01 | 0.06 | -0.05 |
| ATP1B1 | 10.59 | 10.93 | 9.86 | 10.88 | 9.77 | 10.17 | 11.11 | 10.35 |
| ATP1B1P1 | -1.08 | -1.14 | -1.20 | -1.22 | -1.18 | -1.11 | -1.03 | -1.18 |
| ATP1B2 | 0.30 | -0.19 | -0.17 | -0.20 | 0.07 | -0.17 | -0.20 | -0.16 |
| ATP1B3 | 8.02 | 7.14 | 7.95 | 7.84 | 8.16 | 7.11 | 7.50 | 7.78 |
| ATP23 | 4.63 | 3.98 | 3.99 | 4.35 | 3.52 | 4.28 | 3.68 | 4.53 |
| ATP2A1 | -0.62 | -0.53 | -0.43 | -0.55 | -0.46 | -0.50 | -0.24 | -0.58 |
| ATP2A1-AS1 | 3.95 | 2.66 | 3.25 | 2.52 | 2.89 | 2.86 | 2.96 | 2.29 |
| ATP2A2 | 6.34 | 7.25 | 7.62 | 6.86 | 6.50 | 6.75 | 7.28 | 7.05 |
| ATP2A3 | 3.68 | 4.63 | 3.42 | 4.46 | 3.99 | 3.49 | 4.88 | 3.32 |
| ATP2B1 | 6.55 | 7.04 | 7.56 | 7.10 | 5.68 | 6.97 | 7.33 | 6.82 |
| ATP2B1-AS1 | 1.43 | 1.44 | 1.73 | 1.33 | 1.73 | 1.75 | 1.33 | 1.58 |
| ATP2B2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| ATP2B4 | 5.20 | 5.23 | 5.78 | 4.51 | 4.95 | 5.63 | 5.59 | 5.32 |
| ATP2C1 | 5.79 | 3.66 | 6.53 | 4.20 | 5.33 | 5.54 | 5.94 | 6.10 |
| ATP2C2 | 4.49 | 5.19 | 4.18 | 4.86 | 4.35 | 5.25 | 5.06 | 3.51 |
| ATP2C2-AS1 | -0.48 | -0.61 | -0.53 | -0.57 | -0.65 | -0.58 | -0.63 | -0.66 |
| ATP5F1A | 8.83 | 8.31 | 8.58 | 8.57 | 8.84 | 8.32 | 8.84 | 7.88 |
| ATP5F1AP2 | -1.79 | -1.74 | -1.78 | -1.79 | -1.77 | -1.78 | -1.80 | -1.72 |
| ATP5F1AP3 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| ATP5F1B | 9.77 | 9.55 | 9.57 | 9.66 | 9.96 | 10.07 | 9.48 | 9.68 |
| ATP5F1BP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| ATP5F1C | 8.75 | 8.91 | 8.50 | 9.19 | 9.43 | 9.01 | 8.96 | 8.82 |
| ATP5F1CP1 | 0.70 | 0.89 | 0.65 | 1.06 | 1.00 | 0.90 | 1.03 | 0.79 |
| ATP5F1D | 9.03 | 7.80 | 7.92 | 7.97 | 8.99 | 8.13 | 8.64 | 8.23 |
| ATP5F1E | 11.42 | 10.88 | 10.31 | 10.89 | 11.26 | 10.94 | 10.21 | 10.87 |
| ATP5F1EP2 | 3.66 | 3.18 | 2.98 | 3.28 | 3.58 | 3.30 | 2.95 | 3.23 |
| ATP5IF1 | 9.21 | 8.99 | 9.10 | 9.17 | 9.52 | 9.56 | 9.68 | 9.53 |
| ATP5MC1 | 10.04 | 8.71 | 8.91 | 8.84 | 9.37 | 9.01 | 8.59 | 8.80 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ATP5MC1P4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| ATP5MC1P5 | -0.33 | -0.39 | -0.59 | -0.53 | -0.49 | -0.52 | -0.61 | -0.51 |
| ATP5MC1P6 | -0.55 | -0.68 | -0.58 | -0.54 | -0.68 | -0.62 | -0.61 | -0.70 |
| ATP5MC1P7 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| ATP5MC1P8 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.12 | -2.16 |
| ATP5MC2 | 9.49 | 9.34 | 8.81 | 9.31 | 9.94 | 9.98 | 9.17 | 9.73 |
| ATP5MC2P1 | -1.64 | -1.63 | -1.58 | -1.64 | -1.63 | -1.57 | -1.64 | -1.61 |
| ATP5MC2P4 | -0.70 | -0.75 | -0.81 | -0.77 | -0.60 | -0.74 | -0.84 | -0.79 |
| ATP5MC3 | 10.55 | 10.11 | 9.16 | 10.28 | 10.47 | 9.92 | 9.87 | 10.05 |
| ATP5MD | 9.89 | 9.31 | 8.60 | 9.43 | 9.95 | 9.35 | 9.22 | 9.15 |
| ATP5MDP1 | 0.86 | 0.82 | 0.62 | 0.98 | 0.76 | 0.65 | 0.88 | 0.64 |
| ATP5ME | 9.81 | 10.07 | 9.39 | 9.99 | 9.54 | 9.63 | 9.79 | 9.41 |
| ATP5MF | 9.13 | 9.40 | 8.60 | 9.40 | 9.76 | 9.16 | 8.96 | 9.45 |
| ATP5MF-PTCD1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.00 | -2.00 | -1.99 | -2.06 |
| ATP5MFP1 | -0.96 | -1.10 | -0.95 | -1.11 | -1.07 | -1.05 | -1.12 | -1.13 |
| ATP5MFP4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ATP5MFP5 | -0.34 | -0.32 | -0.39 | -0.41 | -0.22 | -0.46 | -0.29 | -0.39 |
| ATP5MG | 10.37 | 9.96 | 9.66 | 9.99 | 10.50 | 9.81 | 9.44 | 9.89 |
| ATP5MGL | 0.71 | 0.89 | 0.78 | 0.85 | 0.88 | 0.69 | 1.10 | 0.86 |
| ATP5MGP2 | -0.10 | -0.23 | -0.04 | -0.24 | -0.20 | -0.13 | -0.26 | 0.07 |
| ATP5MGP3 | -0.76 | -0.60 | -0.67 | -0.62 | -0.68 | -0.70 | -0.62 | -0.55 |
| ATP5MGP4 | -1.99 | -1.99 | -1.98 | -2.00 | -1.96 | -2.00 | -2.00 | -1.97 |
| ATP5MGP5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| ATP5MGP6 | -2.15 | -2.15 | -2.11 | -2.12 | -2.15 | -2.15 | -2.12 | -2.16 |
| ATP5MPL | 9.36 | 9.63 | 8.78 | 9.70 | 10.11 | 9.50 | 8.96 | 9.13 |
| ATP5PB | 8.55 | 8.20 | 7.18 | 8.38 | 8.16 | 7.98 | 7.82 | 7.91 |
| ATP5PBP1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ATP5PBP7 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| ATP5PD | 9.46 | 9.25 | 8.98 | 9.22 | 9.68 | 9.25 | 9.00 | 9.30 |
| ATP5PDP1 | -1.41 | -1.41 | -1.40 | -1.35 | -1.41 | -1.36 | -1.35 | -1.38 |
| ATP5PDP2 | -1.26 | -1.12 | -1.24 | -1.20 | -1.15 | -1.18 | -1.20 | -1.28 |
| ATP5PDP3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| ATP5PDP4 | 1.48 | 1.47 | 1.24 | 1.36 | 1.53 | 1.44 | 1.28 | 1.35 |
| ATP5PF | 10.41 | 9.76 | 9.10 | 9.76 | 9.54 | 9.36 | 9.40 | 8.54 |
| ATP5PFP1 | -0.26 | -0.29 | -0.26 | -0.18 | -0.33 | -0.37 | -0.47 | -0.37 |
| ATP5PO | 9.60 | 9.33 | 8.52 | 9.52 | 9.39 | 9.02 | 8.96 | 9.20 |
| ATP6AP1 | 8.01 | 7.37 | 7.47 | 7.81 | 7.53 | 7.84 | 7.09 | 7.63 |
| ATP6AP1L | 1.56 | 1.79 | 1.92 | 1.69 | 2.41 | 1.98 | 2.26 | 2.06 |
| ATP6AP2 | 7.42 | 7.49 | 7.95 | 7.67 | 7.92 | 7.10 | 6.98 | 7.22 |
| ATP6V0A1 | 4.39 | 4.95 | 5.18 | 5.13 | 4.83 | 4.98 | 4.90 | 4.92 |
| ATP6V0A2 | 4.21 | 4.94 | 4.79 | 5.09 | 4.58 | 4.35 | 4.91 | 4.83 |
| ATP6V0A4 | -0.91 | -1.04 | -1.02 | -1.12 | -1.07 | -1.03 | -1.12 | -1.02 |
| ATP6V0B | 8.11 | 8.64 | 8.24 | 8.89 | 8.69 | 8.52 | 8.26 | 8.63 |
| ATP6V0C | -0.60 | -0.67 | -0.65 | -0.67 | -0.59 | -0.61 | -0.53 | -0.47 |
| ATP6V0CP4 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| ATP6V0D1 | 7.46 | 7.29 | 7.00 | 7.64 | 6.75 | 6.96 | 7.01 | 7.54 |
| ATP6V0D2 | -2.15 | -2.15 | -2.09 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| ATP6V0E1 | 8.15 | 8.40 | 8.16 | 8.64 | 8.49 | 8.05 | 8.05 | 7.99 |
| ATP6V0E1P3 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ATP6V0E2 | 5.48 | 6.25 | 6.24 | 6.73 | 6.58 | 5.88 | 5.87 | 5.05 |
| ATP6V0E2-AS1 | 0.43 | 0.31 | 0.34 | 0.36 | 0.50 | 0.44 | 0.41 | 0.17 |
| ATP6V1A | 5.83 | 5.91 | 6.74 | 5.54 | 5.68 | 6.03 | 6.74 | 6.54 |
| ATP6V1B1 | -1.17 | -1.09 | -1.22 | -1.11 | -1.20 | -1.25 | -1.25 | -0.76 |
| ATP6V1B1-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| ATP6V1B2 | 4.50 | 5.25 | 5.53 | 4.92 | 4.45 | 5.08 | 5.11 | 4.58 |
| ATP6V1C1 | 5.85 | 5.33 | 6.45 | 4.98 | 5.40 | 6.00 | 5.29 | 6.62 |
| ATP6V1C2 | 3.64 | 2.92 | 2.88 | 3.12 | 2.95 | 3.11 | 2.90 | 3.31 |
| ATP6V1D | 5.94 | 6.39 | 6.18 | 6.38 | 6.88 | 6.73 | 6.76 | 7.07 |
| ATP6V1E1 | 7.53 | 7.18 | 6.48 | 7.10 | 6.86 | 7.44 | 7.00 | 7.86 |
| ATP6V1E1P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| ATP6V1E2 | 4.58 | 3.98 | 4.43 | 3.93 | 4.30 | 3.44 | 3.89 | 3.82 |
| ATP6V1F | 7.76 | 8.06 | 7.59 | 8.43 | 8.75 | 8.12 | 7.89 | 8.36 |
| ATP6V1FNB | -0.84 | -0.92 | -0.82 | -0.68 | -0.79 | -0.90 | -0.85 | -0.81 |
| ATP6V1G1 | 8.92 | 8.80 | 7.90 | 8.86 | 8.03 | 9.00 | 8.29 | 8.93 |
| ATP6V1G2 | -1.74 | -1.73 | -1.73 | -1.74 | -1.71 | -1.65 | -1.65 | -1.71 |
| ATP6V1G3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.13 |
| ATP6V1H | 5.74 | 6.14 | 6.56 | 5.84 | 5.53 | 6.03 | 5.76 | 6.61 |
| ATP7A | 3.84 | 4.09 | 4.98 | 4.32 | 4.03 | 4.37 | 4.43 | 4.02 |
| ATP7B | 2.53 | 3.48 | 3.29 | 3.92 | 3.62 | 2.77 | 4.41 | 2.80 |
| ATP8A1 | 1.68 | 2.06 | 1.55 | 1.83 | 1.60 | 1.63 | 1.77 | 1.95 |
| ATP8A2 | -1.69 | -1.63 | -1.68 | -1.64 | -1.66 | -1.67 | -1.70 | -1.71 |
| ATP8B1 | 5.62 | 6.14 | 6.51 | 5.78 | 6.81 | 5.33 | 7.33 | 5.46 |
| ATP8B2 | -0.78 | -0.69 | -0.76 | -0.78 | -0.54 | -0.71 | -0.70 | -0.68 |
| ATP8B3 | 1.95 | 1.47 | 1.53 | 1.56 | 1.93 | 1.64 | 1.63 | 1.76 |
| ATP8B4 | -1.69 | -1.73 | -1.73 | -1.70 | -1.73 | -1.75 | -1.74 | -1.67 |
| ATP8B5P | -0.13 | -0.35 | -0.34 | -0.29 | -0.08 | -0.23 | -0.14 | -0.32 |
| ATP9A | 3.79 | 4.27 | 5.24 | 3.68 | 3.90 | 4.29 | 4.02 | 4.04 |
| ATP9B | 3.53 | 4.21 | 3.88 | 4.49 | 3.40 | 3.40 | 4.05 | 4.01 |
| ATPAF1 | 6.46 | 6.13 | 5.83 | 6.00 | 6.08 | 6.34 | 5.77 | 5.76 |
| ATPAF2 | 4.90 | 4.47 | 5.00 | 4.84 | 4.67 | 4.67 | 4.84 | 4.79 |
| ATPCKMT | 4.94 | 4.65 | 4.68 | 5.24 | 5.25 | 4.75 | 4.67 | 4.71 |
| ATR | 4.97 | 4.47 | 5.78 | 4.94 | 5.10 | 5.17 | 5.73 | 5.33 |
| ATRAID | 8.88 | 8.62 | 7.73 | 9.04 | 8.13 | 8.16 | 7.73 | 8.79 |
| ATRIIP | 2.92 | 2.99 | 3.13 | 3.34 | 2.69 | 2.83 | 3.17 | 2.50 |
| ATRN | 5.14 | 4.97 | 5.20 | 4.62 | 4.70 | 4.52 | 4.94 | 4.11 |
| ATRN1 | -0.87 | -1.01 | -1.00 | -0.88 | -1.01 | -1.02 | -0.95 | -1.03 |
| ATRX | 6.87 | 7.54 | 8.57 | 7.12 | 7.30 | 7.33 | 7.79 | 6.86 |
| ATXN1 | 4.51 | 4.27 | 4.75 | 3.32 | 4.70 | 4.12 | 4.79 | 4.89 |
| ATXN10 | 7.16 | 6.53 | 6.34 | 6.73 | 6.28 | 6.71 | 6.31 | 6.95 |
| ATXN1L | 3.86 | 4.00 | 3.92 | 3.75 | 3.38 | 3.32 | 3.79 | 4.06 |
| ATXN2 | 5.07 | 6.06 | 6.25 | 5.76 | 5.28 | 5.95 | 6.26 | 5.94 |
| ATXN2-AS | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.03 |
| ATXN2L | 5.23 | 5.42 | 5.72 | 5.18 | 5.04 | 5.40 | 5.69 | 5.73 |
| ATXN3 | 4.80 | 5.10 | 4.85 | 4.94 | 5.26 | 5.22 | 5.05 | 4.68 |

| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ATXN7L1 | 2.70 | 3.14 | 2.92 | 2.42 | 2.94 | 2.80 | 2.93 | 3.00 |
| ATXN7L2 | 1.47 | 1.23 | 1.35 | 1.59 | 1.50 | 1.45 | 1.24 | 1.56 |
| ATXN7L3 | 4.35 | 4.82 | 5.00 | 4.60 | 4.53 | 4.67 | 4.97 | 4.69 |
| ATXN7L3B | 5.78 | 7.30 | 6.64 | 7.61 | 6.21 | 6.22 | 6.82 | 6.55 |
| ATXN8OS | -2.05 | -2.04 | -2.04 | -2.05 | -1.99 | -2.05 | -2.01 | -2.06 |
| AUH | 4.77 | 4.22 | 4.23 | 4.12 | 4.44 | 4.29 | 3.97 | 3.95 |
| AUNIP | 3.57 | 2.73 | 3.46 | 2.95 | 3.05 | 3.34 | 2.66 | 3.31 |
| AUP1 | 7.95 | 7.81 | 7.63 | 8.13 | 7.64 | 7.62 | 7.47 | 8.04 |
| AURKA | 7.21 | 6.24 | 6.38 | 6.06 | 6.14 | 7.22 | 5.98 | 6.96 |
| AURKAIP1 | 9.18 | 8.61 | 8.02 | 8.58 | 8.56 | 8.60 | 8.18 | 8.20 |
| AURKAP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AURKAP2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| AURKB | 6.22 | 4.92 | 6.06 | 5.30 | 5.86 | 6.17 | 5.88 | 5.95 |
| AURKC | -0.35 | -0.35 | -0.16 | -0.28 | -0.35 | -0.26 | -0.09 | -0.14 |
| AUTS2 | 4.14 | 5.18 | 5.07 | 5.13 | 4.58 | 4.25 | 5.47 | 3.94 |
| AUXG01000058.1 | -0.78 | -0.44 | -0.68 | -0.55 | -0.69 | -0.69 | -0.63 | -0.79 |
| AVEN | 4.35 | 4.23 | 4.33 | 4.23 | 4.61 | 3.99 | 3.90 | 5.23 |
| AVIL | -0.60 | -0.43 | -0.31 | -0.47 | -0.52 | -0.54 | -0.53 | -0.56 |
| AVL9 | 5.15 | 5.48 | 5.47 | 5.17 | 5.42 | 5.43 | 5.27 | 5.57 |
| AVP11 | 7.22 | 6.70 | 5.27 | 5.97 | 5.65 | 5.45 | 5.22 | 5.86 |
| AVPR1A | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AVPR1B | -2.12 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.12 | -2.16 |
| AVPR2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 | -2.20 | -2.21 |
| AWAT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| AXDND1 | 1.38 | 1.51 | 1.84 | 1.91 | 1.67 | 1.49 | 2.00 | 2.04 |
| AXIN1 | 5.34 | 4.65 | 5.12 | 4.97 | 4.74 | 4.77 | 4.81 | 5.50 |
| AXIN2 | 4.55 | 4.06 | 3.38 | 3.86 | 3.06 | 3.75 | 4.20 | 3.48 |
| AXL | 2.51 | 2.06 | 2.16 | 1.86 | 2.03 | 4.09 | 1.86 | 2.86 |
| AZGP1 | 8.04 | 6.84 | 5.70 | 7.35 | 5.94 | 6.71 | 7.00 | 5.37 |
| AZGP1P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| AZI2 | 5.58 | 5.37 | 5.13 | 5.24 | 5.19 | 5.45 | 5.39 | 5.57 |
| AZIN1 | 6.50 | 6.79 | 7.38 | 6.23 | 6.93 | 6.84 | 6.62 | 7.03 |
| AZIN1-AS1 | 2.07 | 2.15 | 2.63 | 1.98 | 2.72 | 2.48 | 1.70 | 2.49 |
| AZIN2 | 0.23 | 0.16 | 0.03 | 0.06 | -0.02 | 0.16 | 0.32 | 0.22 |
| AZU1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| B2M | 12.48 | 12.23 | 11.99 | 12.43 | 13.04 | 12.25 | 12.02 | 11.87 |
| B3GALNT1 | 2.16 | 2.32 | 2.46 | 2.12 | 2.35 | 2.90 | 2.04 | 3.26 |
| B3GALNT1P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| B3GALNT2 | 4.85 | 4.91 | 4.97 | 5.09 | 5.02 | 5.11 | 5.19 | 5.10 |
| B3GALT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| B3GALT2 | -1.21 | -1.12 | -1.19 | -1.21 | -1.16 | -1.22 | -1.08 | -1.23 |
| B3GALT4 | 4.37 | 4.30 | 3.92 | 4.60 | 3.75 | 4.76 | 4.29 | 5.82 |
| B3GALT5 | 4.17 | 7.53 | 6.05 | 6.95 | 4.54 | 5.13 | 6.17 | 6.35 |
| B3GALT5-AS1 | 2.29 | 4.80 | 2.86 | 4.57 | 2.57 | 3.10 | 2.37 | 3.68 |
| B3GALT6 | 5.93 | 5.34 | 5.34 | 5.17 | 5.97 | 5.45 | 4.94 | 5.22 |
| B3GAT1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| B3GAT2 | -0.92 | -0.84 | -0.83 | -0.85 | -0.81 | -0.83 | -0.85 | -0.83 |
| B3GAT3 | 5.52 | 4.94 | 5.87 | 5.25 | 5.83 | 5.37 | 5.13 | 5.74 |
| B3GLCT | 3.05 | 2.63 | 2.41 | 2.79 | 2.61 | 2.45 | 2.72 | 2.91 |
| B3GNT10 | 1.50 | 1.03 | 0.96 | 0.99 | 1.05 | 1.05 | 1.01 | 0.85 |
| B3GNT2 | 6.73 | 7.11 | 6.49 | 6.46 | 6.75 | 6.19 | 6.71 | 6.65 |
| B3GNT3 | 6.18 | 6.18 | 6.30 | 6.17 | 6.90 | 6.03 | 6.67 | 6.45 |
| B3GNT4 | 2.04 | 2.24 | 2.16 | 2.23 | 2.32 | 1.75 | 2.24 | 1.70 |
| B3GNT5 | 4.49 | 5.23 | 5.90 | 4.66 | 4.56 | 4.83 | 5.33 | 5.66 |
| B3GNT6 | 0.98 | 1.64 | 1.23 | 1.25 | 1.32 | 1.17 | 0.78 | 1.07 |
| B3GNT7 | 3.74 | 4.01 | 3.76 | 3.68 | 5.97 | 4.72 | 4.12 | 4.41 |
| B3GNT8 | -0.56 | -0.47 | -0.45 | -0.57 | -0.20 | -0.50 | -0.49 | -0.59 |
| B3GNT9 | 4.13 | 4.38 | 3.67 | 4.63 | 3.74 | 3.88 | 3.90 | 4.04 |
| B3GNTL1 | 3.48 | 3.02 | 2.87 | 2.90 | 3.65 | 3.57 | 2.72 | 3.63 |
| B3GNTL1P1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| B4GALNT1 | 0.63 | -0.22 | -0.02 | 0.03 | -0.14 | -0.25 | -0.24 | -0.19 |
| B4GALNT3 | 3.05 | 3.24 | 2.86 | 3.36 | 2.85 | 2.72 | 3.23 | 4.26 |
| B4GALNT4 | 4.56 | 2.82 | 3.82 | 2.83 | 3.31 | 3.05 | 3.40 | 3.12 |
| B4GALT1 | 6.40 | 7.40 | 7.40 | 6.94 | 6.91 | 7.04 | 7.41 | 8.17 |
| B4GALT1-AS1 | 2.28 | 2.53 | 1.99 | 2.71 | 2.57 | 2.13 | 2.78 | 2.68 |
| B4GALT2 | 5.08 | 5.72 | 5.48 | 5.67 | 5.32 | 5.04 | 5.06 | 4.96 |
| B4GALT3 | 6.25 | 5.65 | 5.53 | 5.74 | 6.49 | 6.31 | 5.25 | 6.75 |
| B4GALT4 | 5.14 | 4.54 | 5.62 | 4.43 | 6.04 | 4.98 | 5.60 | 5.77 |
| B4GALT5 | 7.56 | 5.86 | 6.73 | 5.60 | 6.49 | 6.21 | 6.04 | 5.79 |
| B4GALT6 | 2.47 | 2.59 | 3.34 | 2.50 | 2.67 | 3.58 | 3.28 | 2.52 |
| B4GALT7 | 5.08 | 5.16 | 4.83 | 5.19 | 5.28 | 4.89 | 4.64 | 5.17 |
| B4GAT1 | 4.11 | 4.03 | 4.22 | 4.70 | 4.51 | 4.29 | 4.29 | 4.37 |
| B9D1 | 5.72 | 4.09 | 4.67 | 4.28 | 4.81 | 4.65 | 4.30 | 4.92 |
| B9D2 | 3.50 | 3.28 | 3.10 | 3.30 | 3.37 | 3.67 | 3.30 | 2.95 |
| BAALC-AS1 | 1.03 | 0.81 | 1.08 | 0.97 | 0.86 | 0.74 | 0.63 | 0.86 |
| BAALC-AS2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| BAAT | 2.10 | 2.16 | 1.80 | 2.08 | 2.18 | 1.93 | 4.01 | 2.01 |
| BABAM1 | 6.38 | 6.56 | 5.78 | 6.84 | 6.68 | 6.38 | 6.14 | 6.44 |
| BABAM2 | 5.80 | 5.51 | 5.10 | 5.36 | 5.01 | 5.18 | 4.98 | 5.62 |
| BACE1 | 3.23 | 3.73 | 3.44 | 3.80 | 3.65 | 3.30 | 3.90 | 3.00 |
| BACE1-AS | 1.74 | 1.45 | 2.05 | 1.91 | 1.90 | 1.81 | 1.92 | 1.84 |
| BACE2 | 6.81 | 8.12 | 7.63 | 8.40 | 8.26 | 6.82 | 8.69 | 7.12 |
| BACE2-IT1 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BACH1 | 5.08 | 4.84 | 5.04 | 4.64 | 4.70 | 4.72 | 5.34 | 4.56 |
| BACH1-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| BACH1-IT1 | -1.85 | -1.89 | -1.88 | -1.90 | -1.89 | -1.88 | -1.85 | -1.91 |
| BACH1-IT2 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -1.98 | -2.06 |
| BACH2 | -1.43 | -1.48 | -1.42 | -1.49 | -1.43 | -1.33 | -1.44 | -1.51 |
| BAD | 7.36 | 6.34 | 6.82 | 6.47 | 6.91 | 6.92 | 6.68 | 7.40 |
| BAG1 | 5.99 | 7.47 | 6.16 | 7.77 | 6.99 | 6.16 | 6.40 | 8.09 |
| BAG2 | 5.64 | 4.42 | 3.92 | 4.14 | 4.31 | 4.96 | 3.60 | 5.43 |
| BAG3 | 5.90 | 5.75 | 5.65 | 5.84 | 5.94 | 5.96 | 5.56 | 5.66 |
| BAG4 | 5.13 | 4.87 | 5.40 | 4.90 | 4.89 | 5.31 | 4.82 | 4.88 |
| BAG5 | 4.92 | 5.85 | 5.49 | 5.83 | 5.61 | 5.86 | 5.78 | 5.70 |

| | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| BAG6 | 6.44 | 6.32 | 6.93 | 6.32 | 5.94 | 7.10 | 7.04 | 7.20 |
| BAHCC1 | 3.09 | 3.00 | 3.44 | 2.63 | 2.62 | 2.86 | 3.51 | 3.44 |
| BAHD1 | 4.11 | 4.01 | 4.31 | 3.82 | 4.16 | 3.81 | 3.92 | 4.56 |
| BAIAP2 | 6.39 | 5.61 | 6.45 | 5.93 | 6.19 | 6.37 | 6.18 | 6.55 |
| BAIAP2-DT | 3.29 | 2.82 | 2.98 | 3.16 | 3.11 | 3.26 | 3.76 | 3.52 |
| BAIAP2L1 | 5.84 | 6.48 | 6.77 | 6.51 | 7.17 | 6.81 | 6.87 | 7.45 |
| BAIAP2L2 | 5.39 | 5.18 | 4.34 | 5.73 | 4.97 | 4.48 | 6.12 | 4.27 |
| BAIAP3 | 1.86 | 1.61 | 2.20 | 1.71 | 1.58 | 2.03 | 1.56 | 2.32 |
| BAK1 | 5.63 | 5.74 | 4.96 | 5.82 | 4.67 | 5.41 | 4.91 | 5.43 |
| BAK1P1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| BAMBI | 5.17 | 5.61 | 4.40 | 5.03 | 4.78 | 6.44 | 4.94 | 3.99 |
| BANF1 | 7.56 | 6.82 | 6.72 | 6.59 | 7.39 | 7.25 | 6.41 | 7.46 |
| BANF1P3 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.08 |
| BANK1 | 2.70 | 3.19 | 2.81 | 3.23 | 2.00 | 3.19 | 3.04 | 2.62 |
| BANP | 4.55 | 3.93 | 4.17 | 4.30 | 4.34 | 4.49 | 4.31 | 4.44 |
| BAP1 | 4.35 | 4.64 | 4.84 | 4.68 | 4.15 | 4.42 | 4.59 | 4.68 |
| BARD1 | 5.77 | 5.95 | 6.31 | 5.74 | 5.42 | 6.17 | 6.05 | 5.46 |
| BARX1 | 2.27 | 0.86 | 1.09 | 1.01 | 0.91 | 0.81 | 1.00 | 0.77 |
| BARX1-DT | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BARX2 | 4.29 | 3.81 | 4.08 | 4.32 | 4.82 | 3.19 | 3.77 | 2.41 |
| BASP1 | 1.93 | 1.70 | 2.23 | 2.12 | 2.32 | 1.76 | 2.36 | 1.88 |
| BASP1-AS1 | -1.54 | -1.53 | -1.58 | -1.54 | -1.59 | -1.55 | -1.54 | -1.62 |
| BATF | 4.34 | 5.85 | 4.17 | 5.60 | 4.89 | 4.97 | 3.25 | 4.91 |
| BATF2 | 2.05 | 1.37 | 1.91 | 1.50 | 2.78 | 1.79 | 1.40 | 1.90 |
| BATF3 | -1.33 | -1.26 | -1.31 | -1.33 | -1.16 | -1.16 | -1.34 | -1.35 |
| BAX | 7.34 | 8.60 | 7.00 | 8.79 | 7.16 | 6.95 | 7.64 | 6.97 |
| BAZ1A | 5.68 | 6.70 | 7.02 | 6.43 | 6.65 | 7.06 | 6.82 | 6.43 |
| BAZ1B | 6.91 | 7.18 | 7.35 | 7.04 | 6.85 | 6.90 | 7.08 | 6.74 |
| BAZ2A | 6.27 | 6.44 | 7.23 | 6.43 | 6.61 | 7.33 | 7.22 | 6.95 |
| BAZ2B | 5.66 | 6.00 | 6.15 | 5.48 | 5.55 | 6.30 | 6.61 | 5.93 |
| BBC3 | 6.53 | 5.59 | 5.25 | 5.93 | 5.87 | 4.99 | 6.09 | 6.45 |
| BBIP1 | 6.18 | 5.47 | 4.94 | 5.39 | 6.00 | 6.01 | 5.16 | 5.21 |
| BBOF1 | 1.80 | 1.49 | 1.78 | 1.53 | 2.12 | 1.82 | 1.51 | 1.81 |
| BBOX1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| BBOX1-AS1 | 0.52 | -0.19 | -0.18 | -0.20 | -0.19 | -0.17 | -0.20 | 0.13 |
| BBS1 | 0.75 | 0.41 | 0.57 | 0.66 | 0.63 | 0.63 | 0.67 | 0.59 |
| BBS10 | 2.11 | 2.61 | 2.85 | 2.87 | 2.70 | 2.61 | 2.59 | 2.60 |
| BBS12 | 1.47 | 1.62 | 1.24 | 1.47 | 1.31 | 1.54 | 1.53 | 1.36 |
| BBS2 | 3.93 | 3.78 | 4.96 | 4.30 | 4.53 | 4.37 | 4.60 | 3.64 |
| BBS4 | 4.04 | 3.93 | 3.98 | 3.95 | 4.07 | 4.00 | 4.10 | 4.14 |
| BBS5 | 0.93 | 1.17 | 1.00 | 1.19 | 1.06 | 1.00 | 0.99 | 0.79 |
| BBS7 | 3.78 | 4.00 | 3.84 | 4.13 | 3.39 | 4.02 | 3.94 | 3.82 |
| BBS9 | 1.20 | 1.48 | 1.53 | 1.38 | 1.54 | 1.27 | 1.33 | 1.34 |
| BBX | 6.85 | 6.62 | 8.13 | 6.16 | 6.94 | 7.21 | 7.25 | 7.61 |
| BCAM | 5.36 | 3.39 | 3.34 | 3.50 | 3.58 | 3.57 | 4.23 | 3.31 |
| BCAN | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| BCAP29 | 6.06 | 6.79 | 6.22 | 6.24 | 6.82 | 6.48 | 6.44 | 6.78 |
| BCAP31 | 8.76 | 8.40 | 8.85 | 8.61 | 8.82 | 9.08 | 7.79 | 9.08 |
| BCAR1 | 6.55 | 6.51 | 7.06 | 6.53 | 6.03 | 6.28 | 6.70 | 6.60 |
| BCAR3 | 5.02 | 5.39 | 5.16 | 4.94 | 4.98 | 4.97 | 5.10 | 5.91 |
| BCAS1 | 3.58 | 5.19 | 4.45 | 5.27 | 4.34 | 3.85 | 4.47 | 4.59 |
| BCAS2 | 6.77 | 6.26 | 6.10 | 6.61 | 6.50 | 6.48 | 5.81 | 6.51 |
| BCAS2P2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| BCAS3 | 2.63 | 2.89 | 3.06 | 2.73 | 2.72 | 2.92 | 2.38 | 3.18 |
| BCAS4 | 5.09 | 3.56 | 4.33 | 3.51 | 4.77 | 4.13 | 3.20 | 3.56 |
| BCAT1 | 4.47 | 4.32 | 5.68 | 3.53 | 2.87 | 4.90 | 2.84 | 4.32 |
| BCAT2 | 6.43 | 5.44 | 5.48 | 5.51 | 5.93 | 5.60 | 5.59 | 5.81 |
| BCCIP | 8.00 | 7.34 | 6.98 | 7.39 | 7.77 | 7.67 | 6.74 | 7.18 |
| BCDIN3D | 4.51 | 4.09 | 3.93 | 4.01 | 4.55 | 3.99 | 4.13 | 3.89 |
| BCDIN3D-AS1 | -0.38 | -0.43 | -0.35 | -0.52 | -0.24 | -0.49 | -0.25 | -0.26 |
| BCHE | -2.10 | -2.06 | -1.99 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| BCKDHA | -1.84 | -1.79 | -1.83 | -1.84 | -1.82 | -1.85 | -1.76 | -1.86 |
| BCKDHB | 3.91 | 4.37 | 3.49 | 4.35 | 3.83 | 3.64 | 3.92 | 4.48 |
| BCKDK | 6.51 | 6.02 | 6.20 | 6.23 | 6.47 | 6.12 | 6.18 | 6.37 |
| BCL10 | 5.80 | 5.98 | 5.94 | 5.96 | 6.03 | 6.09 | 6.30 | 6.39 |
| BCL11A | 0.24 | 0.82 | 0.20 | 0.41 | 0.21 | 0.10 | 0.59 | 0.10 |
| BCL11B | 3.07 | 4.13 | 3.91 | 3.95 | 3.35 | 3.49 | 4.09 | 3.01 |
| BCL2 | 0.35 | 0.57 | 0.86 | 0.50 | 0.41 | 0.33 | 0.98 | 0.24 |
| BCL2A1 | 0.18 | -0.15 | 0.04 | -0.16 | -0.15 | 0.19 | -0.03 | -0.12 |
| BCL2L1 | 8.20 | 8.03 | 8.28 | 8.09 | 8.18 | 8.15 | 8.78 | 8.22 |
| BCL2L10 | 1.47 | 1.82 | 0.84 | 1.83 | 0.94 | 0.81 | 0.93 | 0.74 |
| BCL2L11 | 3.91 | 3.61 | 3.82 | 3.34 | 3.57 | 3.70 | 3.18 | 3.71 |
| BCL2L12 | 7.01 | 5.96 | 5.55 | 6.01 | 6.04 | 6.13 | 5.43 | 6.28 |
| BCL2L13 | 6.09 | 5.27 | 4.58 | 5.20 | 5.08 | 5.18 | 5.42 | 5.40 |
| BCL2L14 | 3.92 | 3.52 | 3.64 | 3.43 | 4.27 | 3.03 | 3.19 | 3.49 |
| BCL2L15 | 5.53 | 6.06 | 5.21 | 5.81 | 4.84 | 4.91 | 5.43 | 4.88 |
| BCL2L2 | 4.23 | 5.03 | 4.87 | 5.19 | 5.08 | 4.47 | 4.78 | 5.25 |
| BCL2L2-PABPN1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| BCL3 | 7.00 | 6.55 | 6.38 | 6.09 | 7.48 | 6.49 | 7.04 | 7.00 |
| BCL6 | 4.18 | 3.86 | 4.96 | 3.92 | 5.00 | 4.63 | 4.76 | 5.01 |
| BCL6B | -1.81 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.91 |
| BCL7A | 4.24 | 4.67 | 3.93 | 4.58 | 3.98 | 4.35 | 4.83 | 3.82 |
| BCL7B | 6.71 | 6.73 | 5.74 | 6.65 | 6.57 | 6.26 | 5.95 | 6.91 |
| BCL7C | 7.31 | 7.17 | 6.27 | 6.74 | 6.65 | 6.63 | 6.18 | 6.93 |
| BCL9 | 3.85 | 3.51 | 3.21 | 3.64 | 3.28 | 3.79 | 3.36 | 4.04 |
| BCL9L | 5.54 | 5.93 | 6.11 | 5.63 | 5.67 | 5.55 | 6.16 | 6.03 |
| BCLAF1 | 6.09 | 6.55 | 6.63 | 6.45 | 5.56 | 6.39 | 6.71 | 5.95 |
| BCLAF1P1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| BCLAF1P2 | -0.99 | -0.90 | -0.97 | -0.91 | -0.90 | -0.86 | -0.99 | -1.00 |
| BCLAF3 | 5.00 | 4.04 | 5.06 | 4.51 | 4.46 | 4.19 | 4.63 | 3.82 |
| BCO1 | 1.85 | 2.10 | 1.85 | 2.01 | 1.67 | 1.54 | 1.45 | 1.88 |
| BCO2 | 0.70 | 0.53 | 0.90 | 0.43 | 0.60 | 0.77 | 0.84 | 0.52 |
| BCOR | 4.51 | 3.97 | 4.42 | 3.53 | 3.84 | 3.98 | 4.57 | 3.49 |
| BCORL1 | 3.05 | 2.62 | 3.38 | 2.90 | 2.78 | 2.57 | 3.02 | 2.66 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| BCORP1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.73 | -1.75 | -1.74 | -1.76 |
| BCR | 4.87 | 5.38 | 5.14 | 5.17 | 4.38 | 4.58 | 5.01 | 5.66 |
| BCS1L | 5.87 | 4.82 | 5.17 | 4.89 | 5.33 | 5.57 | 4.81 | 4.89 |
| BCYRN1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.07 | -2.11 |
| BDH1 | 5.45 | 4.94 | 5.23 | 5.17 | 5.05 | 4.60 | 5.00 | 4.96 |
| BDH2 | 4.18 | 5.19 | 4.78 | 4.84 | 4.33 | 5.11 | 5.04 | 5.80 |
| BDH2P1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 |
| BDKRB1 | 0.75 | 1.00 | 0.78 | 1.14 | 1.16 | 1.22 | 1.02 | 0.98 |
| BDKRB2 | 1.99 | 2.89 | 2.64 | 2.67 | 2.93 | 3.03 | 3.26 | 2.69 |
| BDNF | 2.62 | 2.75 | 2.90 | 2.23 | 2.50 | 4.49 | 2.60 | 2.79 |
| BDNF-AS | 2.43 | 1.89 | 2.25 | 1.97 | 2.39 | 2.17 | 2.45 | 2.68 |
| BDP1 | 6.13 | 7.16 | 7.44 | 7.00 | 6.95 | 6.87 | 7.44 | 6.26 |
| BDP1P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BEAN1 | 1.02 | 1.10 | 0.90 | 1.13 | 1.04 | 1.55 | 0.86 | 1.64 |
| BECN1 | 6.10 | 6.64 | 6.64 | 6.86 | 6.60 | 6.94 | 6.62 | 6.88 |
| BEGAIN | -1.02 | -1.01 | -1.15 | -1.17 | -1.05 | -0.91 | -1.17 | -1.18 |
| BEND3 | 2.14 | 2.01 | 2.12 | 2.00 | 2.19 | 2.11 | 2.25 | 1.99 |
| BEND3P3 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| BEND5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| BEND6 | -1.02 | -1.02 | -1.01 | -0.70 | -1.02 | -0.78 | -1.03 | -0.78 |
| BEND7 | 3.17 | 4.12 | 3.39 | 3.85 | 3.91 | 2.85 | 3.95 | 3.55 |
| BEST1 | 6.93 | 5.48 | 5.47 | 5.46 | 5.81 | 6.00 | 5.37 | 7.03 |
| BEST2 | -1.70 | -1.70 | -1.69 | -1.57 | -1.68 | -1.71 | -1.71 | -1.59 |
| BEST3 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| BEST4 | 0.67 | 0.26 | 0.37 | 0.66 | 0.59 | 0.56 | 0.24 | 0.51 |
| BET1 | 5.37 | 4.97 | 4.89 | 5.18 | 6.35 | 5.48 | 5.18 | 6.26 |
| BET1L | 5.31 | 5.57 | 5.61 | 5.48 | 5.84 | 5.31 | 5.53 | 6.22 |
| BEX1 | -0.28 | -0.51 | -0.50 | -0.44 | -0.51 | -0.49 | -0.45 | -0.54 |
| BEX2 | 4.12 | 3.42 | 3.87 | 4.11 | 4.10 | 2.53 | 3.25 | 3.67 |
| BEX3 | 7.62 | 6.28 | 7.44 | 6.56 | 8.08 | 7.29 | 6.24 | 7.72 |
| BEX4 | 3.26 | 2.59 | 2.25 | 2.38 | 2.09 | 2.15 | 3.08 | 3.04 |
| BEX5 | 3.07 | 4.34 | 3.37 | 4.52 | 4.11 | 2.57 | 2.79 | 2.05 |
| BFAR | 5.92 | 5.94 | 5.92 | 5.88 | 5.22 | 5.36 | 5.47 | 5.61 |
| BFSP1 | 2.48 | 2.92 | 1.94 | 3.21 | 2.67 | 2.83 | 1.96 | 2.69 |
| BFSP2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BGN | -0.80 | -0.95 | -0.94 | -0.96 | -0.79 | -0.89 | -0.88 | -0.81 |
| BHLHA15 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -2.00 | -2.00 | -1.91 |
| BHLHA9 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BHLHB9 | 1.36 | 1.27 | 1.17 | 1.23 | 1.19 | 1.11 | 1.19 | 1.26 |
| BHLHE40 | 6.12 | 6.74 | 7.76 | 5.98 | 6.82 | 6.02 | 7.15 | 6.12 |
| BHLHE40-AS1 | 5.54 | 4.92 | 5.85 | 4.56 | 5.34 | 5.35 | 6.22 | 3.41 |
| BHLHE41 | 4.65 | 5.46 | 6.62 | 4.79 | 5.85 | 5.15 | 5.62 | 7.24 |
| BHMT | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BHMT2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| BICC1 | 3.24 | 2.55 | 3.39 | 2.89 | 2.90 | 4.16 | 5.75 | 3.82 |
| BICD1 | 4.69 | 4.24 | 4.32 | 4.65 | 4.18 | 3.85 | 4.35 | 3.63 |
| BICD2 | 3.92 | 4.08 | 4.41 | 4.36 | 3.59 | 4.26 | 4.73 | 3.73 |
| BICDL1 | 4.26 | 4.12 | 4.84 | 4.21 | 4.57 | 3.99 | 4.86 | 4.61 |
| BICDL2 | 5.78 | 5.40 | 5.41 | 5.66 | 5.15 | 5.68 | 5.86 | 6.13 |
| BICRA | 2.76 | 3.29 | 3.13 | 2.67 | 3.21 | 2.96 | 3.28 | 2.97 |
| BICRAL | 3.02 | 3.13 | 3.23 | 3.06 | 3.27 | 3.44 | 3.62 | 3.34 |
| BID | 8.41 | 7.14 | 6.76 | 7.01 | 7.32 | 8.28 | 5.88 | 7.33 |
| BIK | 6.73 | 7.44 | 6.59 | 7.07 | 6.46 | 7.18 | 6.14 | 5.66 |
| BIN1 | 7.12 | 7.61 | 7.12 | 7.61 | 7.49 | 6.78 | 7.06 | 6.26 |
| BIN2 | 0.12 | 0.30 | 0.12 | 0.31 | -0.02 | -0.19 | 0.00 | 0.00 |
| BIN3 | 4.90 | 5.16 | 6.27 | 5.41 | 5.52 | 5.81 | 5.88 | 5.61 |
| BIRC2 | 5.82 | 5.81 | 6.13 | 5.68 | 5.93 | 5.72 | 5.91 | 5.79 |
| BIRC3 | 9.16 | 7.11 | 8.77 | 6.52 | 7.05 | 6.91 | 7.20 | 7.84 |
| BIRC5 | 8.64 | 7.19 | 7.40 | 7.25 | 7.40 | 8.43 | 6.48 | 6.97 |
| BIRC6 | 5.99 | 6.65 | 6.50 | 6.42 | 5.51 | 6.15 | 7.00 | 6.28 |
| BIRC6-AS2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| BIRC7 | -2.18 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| BISPR | 2.43 | 2.68 | 2.79 | 2.96 | 3.21 | 2.64 | 2.00 | 2.65 |
| BIVM | 3.24 | 3.81 | 3.51 | 3.43 | 3.34 | 3.00 | 4.02 | 3.01 |
| BLACAT1 | 3.56 | 2.97 | 3.06 | 3.03 | 2.73 | 3.25 | 2.78 | 2.91 |
| BLCAP | 6.30 | 6.75 | 6.35 | 6.77 | 6.54 | 6.58 | 6.08 | 6.78 |
| BLM | 5.27 | 4.02 | 4.94 | 4.12 | 3.86 | 4.40 | 4.44 | 4.25 |
| BLMH | 5.01 | 4.95 | 5.28 | 4.91 | 4.44 | 4.66 | 4.51 | 3.59 |
| BLNK | 3.32 | 4.13 | 3.59 | 4.57 | 4.27 | 3.82 | 4.67 | 3.14 |
| BLOC1S1 | 8.18 | 7.89 | 7.49 | 8.21 | 7.54 | 8.54 | 7.82 | 7.61 |
| BLOC1S2 | 6.81 | 6.78 | 5.45 | 7.12 | 6.66 | 6.21 | 6.05 | 5.71 |
| BLOC1S3 | 3.69 | 3.53 | 3.32 | 3.39 | 3.85 | 3.24 | 2.99 | 3.37 |
| BLOC1S4 | 5.59 | 5.60 | 5.75 | 5.56 | 5.86 | 6.39 | 5.46 | 6.20 |
| BLOC1S5 | 4.41 | 3.73 | 3.64 | 3.61 | 4.05 | 3.84 | 3.92 | 5.02 |
| BLOC1S6 | 5.58 | 5.76 | 5.31 | 5.73 | 5.41 | 5.50 | 5.82 | 5.44 |
| BLVRA | 7.01 | 6.85 | 6.18 | 6.69 | 6.85 | 6.85 | 5.83 | 6.45 |
| BLVRB | 8.97 | 8.21 | 7.47 | 8.04 | 7.89 | 7.62 | 7.39 | 7.53 |
| BLZF1 | 4.70 | 4.88 | 4.77 | 4.71 | 4.87 | 5.33 | 5.09 | 5.07 |
| BLZF2P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| BMERB1 | 2.17 | 2.26 | 2.48 | 2.80 | 2.74 | 2.42 | 2.59 | 2.14 |
| BMF | 1.17 | 1.04 | 1.18 | 0.78 | 1.08 | 1.07 | 0.77 | 1.15 |
| BMI1 | 3.71 | 4.17 | 4.37 | 4.20 | 4.34 | 4.17 | 3.88 | 4.42 |
| BMP1 | 2.97 | 3.51 | 4.01 | 3.69 | 3.46 | 3.93 | 3.64 | 3.52 |
| BMP2 | 3.46 | 3.81 | 4.80 | 3.62 | 4.12 | 3.49 | 4.93 | 4.78 |
| BMP2K | 3.58 | 4.30 | 3.84 | 4.05 | 3.35 | 3.78 | 4.23 | 3.40 |
| BMP3 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| BMP4 | 6.98 | 8.65 | 7.31 | 8.73 | 8.09 | 8.60 | 6.97 | 7.91 |
| BMP6 | 0.89 | 0.63 | 0.78 | 0.81 | 0.84 | 0.80 | 0.67 | 0.97 |
| BMP7 | 2.82 | 6.82 | 3.54 | 6.61 | 5.86 | 5.53 | 3.62 | 2.78 |
| BMP8A | 0.39 | -0.22 | -0.12 | -0.15 | -0.22 | -0.16 | 0.05 | -0.12 |
| BMP8B | 2.05 | 2.46 | 1.65 | 2.30 | 1.68 | 1.87 | 2.03 | 1.59 |
| BMPER | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| BMPR1A | 3.31 | 3.79 | 3.54 | 3.51 | 3.21 | 3.10 | 3.22 | 3.14 |
| BMPR1AP1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| BMPR1B | 0.54 | 0.29 | 0.30 | 0.43 | 0.29 | 0.76 | 0.93 | 0.76 |
| BMPR1B-DT | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| BMPR2 | 4.69 | 6.19 | 5.23 | 5.70 | 4.64 | 5.23 | 5.84 | 5.03 |
| BMS1 | 6.11 | 6.25 | 6.23 | 6.43 | 6.47 | 6.13 | 6.18 | 5.97 |
| BMS1P1 | -0.35 | -0.03 | -0.18 | -0.20 | -0.35 | -0.22 | 0.27 | -0.38 |
| BMS1P10 | -0.57 | -0.32 | -0.40 | -0.58 | 0.07 | -0.55 | -0.50 | -0.60 |
| BMS1P12 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| BMS1P2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| BMS1P4 | 0.73 | 0.83 | 0.76 | 0.86 | 0.96 | 1.05 | 1.18 | 0.89 |
| BMS1P8 | -2.15 | -2.14 | -2.14 | -2.13 | -2.13 | -2.14 | -2.15 | -2.13 |
| BMT2 | 2.39 | 2.72 | 2.91 | 2.51 | 2.48 | 2.81 | 2.78 | 2.58 |
| BMX | -1.79 | -1.74 | -1.78 | -1.53 | -1.76 | -1.78 | -1.79 | -1.76 |
| BNC1 | 0.75 | 0.69 | 0.83 | 0.66 | 0.64 | 0.58 | 0.98 | 0.50 |
| BNIP1 | 4.27 | 3.97 | 4.23 | 4.53 | 4.94 | 4.39 | 3.91 | 4.05 |
| BNIP2 | 5.89 | 4.87 | 5.21 | 4.80 | 5.52 | 5.75 | 5.27 | 6.22 |
| BNIP3 | 5.68 | 3.90 | 4.36 | 4.09 | 7.71 | 3.62 | 7.46 | 4.63 |
| BNIP3L | 6.78 | 7.30 | 8.19 | 7.11 | 7.38 | 7.94 | 8.04 | 7.11 |
| BNIP3P1 | -0.88 | -1.03 | -0.94 | -1.04 | -0.84 | -1.04 | -0.55 | -0.99 |
| BNIP3P16 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BNIP3P5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| BNIPL | -0.52 | -0.43 | -0.41 | -0.45 | -0.32 | -0.24 | -0.45 | -0.26 |
| BOC | -1.89 | -1.89 | -1.88 | -1.85 | -1.89 | -1.90 | -1.90 | -1.87 |
| BOD1 | 4.96 | 5.16 | 5.74 | 5.19 | 5.98 | 5.43 | 4.51 | 5.51 |
| BOD1L1 | 6.10 | 6.09 | 7.27 | 6.18 | 6.27 | 6.86 | 7.35 | 6.86 |
| BOK | 5.08 | 5.49 | 5.37 | 5.53 | 5.45 | 5.78 | 4.98 | 5.12 |
| BOK-AS1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.96 | -1.98 | -2.00 | -1.97 |
| BOLA1 | 5.63 | 5.51 | 4.80 | 5.91 | 5.57 | 5.43 | 5.35 | 5.27 |
| BOLA2-SMG1P6 | -2.12 | -2.15 | -2.14 | -2.13 | -2.15 | -2.14 | -2.15 | -2.16 |
| BOLA2B | 0.88 | 0.78 | 0.50 | 0.69 | 0.77 | 0.77 | 0.73 | 0.60 |
| BOLA2P1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| BOLA2P2 | -1.33 | -1.39 | -1.24 | -1.33 | -1.36 | -1.37 | -1.40 | -1.41 |
| BOLA2P3 | -0.73 | -0.56 | -0.63 | -0.66 | -0.52 | -0.71 | -0.74 | -0.57 |
| BOLA3 | 8.74 | 7.55 | 7.09 | 7.61 | 8.28 | 7.45 | 7.36 | 7.31 |
| BOLA3-AS1 | 3.80 | 1.50 | 1.70 | 1.53 | 2.49 | 1.56 | 1.66 | 1.74 |
| BOLA3P1 | -1.48 | -1.54 | -1.07 | -1.55 | -1.44 | -1.52 | -1.55 | -1.57 |
| BOLA3P3 | -0.96 | -1.10 | -1.09 | -1.04 | -0.96 | -1.02 | -1.04 | -1.07 |
| BOLA3P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BOP1 | 6.53 | 5.49 | 6.58 | 5.99 | 6.10 | 6.01 | 5.28 | 5.79 |
| BORA | 2.94 | 3.08 | 3.27 | 2.82 | 2.78 | 2.77 | 2.83 | 3.80 |
| BORCS5 | 3.97 | 3.24 | 3.40 | 3.41 | 3.70 | 3.43 | 3.65 | 4.02 |
| BORCS6 | 4.00 | 4.01 | 3.95 | 4.25 | 4.12 | 3.88 | 4.22 | 4.05 |
| BORCS7 | 5.89 | 5.88 | 5.15 | 6.21 | 5.34 | 5.58 | 5.69 | 4.54 |
| BORCS8 | 4.48 | 4.02 | 4.10 | 4.37 | 4.08 | 4.05 | 4.10 | 4.00 |
| BPESC1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BPGM | 3.86 | 4.46 | 3.88 | 4.42 | 4.20 | 4.00 | 4.36 | 4.68 |
| BPHL | 5.46 | 4.23 | 4.35 | 4.46 | 5.07 | 4.46 | 5.22 | 4.63 |
| BPI | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 |
| BPIFA1 | -1.76 | -1.84 | -1.83 | -1.84 | -1.75 | -1.85 | -1.84 | -1.86 |
| BPIFA2 | 1.58 | 2.43 | 1.40 | 1.56 | 4.34 | 1.58 | 1.44 | 1.18 |
| BPIFB1 | 5.01 | 7.92 | 5.78 | 7.53 | 7.96 | 4.49 | 4.50 | 4.00 |
| BPIFB2 | -1.94 | -1.94 | -1.93 | -1.95 | -1.74 | -1.95 | -1.95 | -1.96 |
| BPIFB4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| BPIFB6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| BPNT1 | 5.21 | 5.72 | 5.13 | 5.75 | 5.72 | 5.66 | 5.25 | 6.04 |
| BPTF | 6.44 | 7.30 | 7.50 | 6.86 | 6.58 | 7.19 | 7.27 | 6.60 |
| BRAF | 4.01 | 3.59 | 4.18 | 3.98 | 4.22 | 4.33 | 4.95 | 4.62 |
| BRAP | 4.44 | 4.57 | 4.98 | 4.73 | 4.72 | 4.60 | 4.48 | 4.85 |
| BRAT1 | 5.72 | 5.48 | 5.87 | 5.84 | 5.71 | 5.51 | 5.50 | 5.34 |
| BRCA1 | 4.54 | 5.17 | 6.20 | 5.05 | 4.59 | 5.55 | 5.85 | 4.91 |
| BRCA2 | 5.02 | 5.16 | 5.93 | 5.32 | 4.84 | 4.98 | 6.13 | 5.30 |
| BRCC3 | 5.48 | 5.10 | 5.26 | 5.55 | 4.94 | 5.86 | 5.48 | 5.69 |
| BRCC3P1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| BRD1 | 4.93 | 4.92 | 4.43 | 4.74 | 4.31 | 4.73 | 5.12 | 5.39 |
| BRD2 | 6.90 | 7.49 | 7.59 | 7.08 | 7.02 | 7.83 | 7.64 | 8.24 |
| BRD3 | 6.89 | 6.82 | 6.69 | 6.69 | 6.44 | 6.74 | 6.88 | 6.14 |
| BRD3OS | 4.43 | 4.11 | 4.30 | 4.13 | 3.47 | 4.09 | 3.42 | 3.39 |
| BRD4 | 6.99 | 7.62 | 7.76 | 7.44 | 7.29 | 7.49 | 7.57 | 7.12 |
| BRD7 | 6.90 | 6.84 | 7.06 | 6.81 | 6.62 | 6.70 | 6.99 | 6.75 |
| BRD7P2 | -0.31 | -0.15 | -0.30 | -0.24 | -0.31 | -0.33 | -0.12 | -0.29 |
| BRD7P4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| BRD7P5 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| BRD8 | 5.43 | 5.06 | 5.91 | 5.47 | 6.14 | 5.93 | 5.50 | 5.35 |
| BRD9 | 6.09 | 6.54 | 6.37 | 6.68 | 6.26 | 6.49 | 6.07 | 6.90 |
| BRDT | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| BRF1 | 3.27 | 3.93 | 4.25 | 3.86 | 3.82 | 3.68 | 4.05 | 3.37 |
| BRF2 | 4.09 | 3.80 | 4.33 | 3.68 | 3.66 | 4.79 | 3.50 | 4.18 |
| BRI3 | 8.05 | 8.13 | 7.35 | 7.89 | 8.26 | 8.23 | 7.62 | 9.39 |
| BRI3BP | 6.72 | 7.54 | 8.08 | 7.32 | 7.12 | 6.75 | 7.86 | 6.05 |
| BRI3P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| BRICD5 | 2.66 | 2.40 | 2.43 | 2.35 | 1.98 | 2.50 | 2.87 | 2.17 |
| BRINP1 | -2.15 | -2.15 | -2.08 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| BRIP1 | 3.16 | 3.29 | 3.90 | 3.18 | 2.84 | 3.55 | 3.75 | 2.57 |
| BRIX1 | 7.52 | 6.93 | 6.72 | 6.95 | 7.32 | 7.00 | 6.28 | 7.29 |
| BRIX1P1 | -2.18 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| BRK1 | 9.36 | 8.84 | 7.78 | 9.12 | 8.78 | 8.56 | 8.39 | 7.80 |
| BRMS1 | 6.46 | 6.52 | 5.68 | 6.37 | 6.10 | 5.95 | 5.39 | 6.55 |
| BRMS1L | 3.61 | 3.79 | 3.61 | 3.99 | 3.37 | 3.75 | 3.48 | 3.67 |
| BROX | 6.34 | 6.53 | 6.05 | 6.19 | 6.39 | 6.55 | 6.51 | 6.76 |
| BRPF1 | 3.51 | 3.85 | 3.83 | 3.80 | 3.59 | 3.59 | 3.54 | 3.43 |
| BRPF3 | 4.01 | 3.53 | 4.11 | 3.44 | 3.50 | 4.32 | 3.77 | 4.71 |
| BRSK1 | 1.46 | 1.72 | 1.40 | 2.06 | 1.61 | 1.26 | 2.17 | 1.14 |
| BRSK2 | 1.64 | 1.48 | 1.61 | 1.43 | 1.85 | 1.53 | 1.97 | 1.50 |
| BRWD1 | 5.92 | 6.15 | 6.11 | 5.96 | 5.33 | 5.47 | 6.67 | 6.14 |
| BRWD1-AS1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| BRWD1-AS2 | 0.05 | -0.24 | -0.23 | -0.25 | 0.03 | -0.23 | -0.26 | -0.28 |
| BRWD1-IT1 | -1.47 | -1.59 | -1.46 | -1.54 | -1.56 | -1.57 | -1.54 | -1.62 |
| BRWD3 | 4.21 | 4.65 | 5.12 | 4.42 | 4.31 | 4.78 | 5.08 | 4.00 |
| BSC12 | -0.66 | -0.73 | -0.64 | -0.67 | -0.69 | -0.65 | -0.67 | -0.64 |
| BSDC1 | 4.81 | 4.81 | 5.93 | 5.01 | 5.47 | 5.43 | 6.08 | 5.30 |
| BSG | 9.42 | 9.05 | 9.63 | 9.27 | 10.25 | 9.37 | 9.19 | 9.32 |
| BSN | -1.64 | -1.68 | -1.68 | -1.69 | -1.61 | -1.65 | -1.69 | -1.71 |
| BSN-DT | -1.38 | -1.49 | -1.48 | -1.50 | -1.46 | -1.51 | -1.50 | -1.51 |
| BSND | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| BSPRY | 6.12 | 5.55 | 5.48 | 5.67 | 5.24 | 6.07 | 5.67 | 4.72 |
| BST1 | 1.37 | 1.49 | 1.75 | 1.45 | 1.49 | 1.82 | 1.71 | 1.39 |
| BST2 | 5.39 | 8.68 | 8.05 | 9.17 | 8.26 | 8.48 | 5.39 | 7.04 |
| BTAF1 | 5.01 | 4.95 | 4.92 | 4.81 | 5.05 | 4.87 | 5.48 | 4.35 |
| BTBD1 | 4.30 | 3.92 | 3.84 | 3.68 | 4.17 | 4.11 | 4.14 | 4.20 |
| BTBD10 | 4.68 | 5.44 | 5.07 | 5.07 | 4.92 | 5.01 | 5.09 | 5.45 |
| BTBD10P1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BTBD10P2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 |
| BTBD11 | 1.72 | 2.28 | 2.42 | 2.08 | 2.05 | 2.22 | 2.13 | 1.52 |
| BTBD16 | 2.90 | 2.05 | 2.11 | 2.77 | 5.08 | 2.28 | 2.06 | 3.81 |
| BTBD17 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| BTBD19 | -0.47 | -0.54 | -0.29 | -0.48 | -0.43 | -0.42 | -0.41 | -0.51 |
| BTBD2 | 5.08 | 4.82 | 5.74 | 4.88 | 5.11 | 5.13 | 5.23 | 5.15 |
| BTBD3 | 4.38 | 4.71 | 4.55 | 4.53 | 4.74 | 4.86 | 4.57 | 4.45 |
| BTBD6 | 2.90 | 2.94 | 4.60 | 2.93 | 2.95 | 2.64 | 5.12 | 2.82 |
| BTBD7 | 4.53 | 6.28 | 5.54 | 5.90 | 5.41 | 5.87 | 6.24 | 5.54 |
| BTBD7P1 | -0.74 | -0.66 | -0.59 | -0.47 | -0.81 | -0.72 | -0.82 | -0.67 |
| BTBD8 | 2.72 | 2.52 | 3.09 | 2.27 | 2.62 | 2.54 | 3.00 | 2.90 |
| BTBD9 | 3.04 | 2.52 | 3.17 | 2.52 | 2.72 | 2.97 | 3.20 | 2.76 |
| BTC | 2.33 | 2.78 | 2.47 | 2.91 | 2.52 | 2.92 | 2.35 | 2.82 |
| BTD | 4.92 | 4.86 | 4.52 | 4.88 | 5.21 | 4.46 | 4.75 | 4.34 |
| BTF3 | 9.36 | 9.72 | 9.14 | 9.97 | 10.41 | 9.83 | 9.20 | 9.60 |
| BTF3L4 | 6.42 | 6.11 | 5.61 | 6.18 | 6.21 | 6.83 | 5.95 | 6.62 |
| BTF3L4P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| BTF3L4P2 | -1.74 | -1.74 | -1.73 | -1.70 | -1.72 | -1.75 | -1.75 | -1.67 |
| BTF3P10 | -1.89 | -1.89 | -1.88 | -1.90 | -1.85 | -1.90 | -1.81 | -1.91 |
| BTF3P12 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.07 | -2.11 |
| BTF3P13 | -1.96 | -1.99 | -1.95 | -1.92 | -1.99 | -1.98 | -2.00 | -1.97 |
| BTF3P14 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BTF3P2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 |
| BTF3P4 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| BTF3P5 | -0.87 | -1.07 | -1.06 | -1.01 | -0.93 | -1.02 | -1.08 | -0.87 |
| BTF3P7 | -1.29 | -1.29 | -1.28 | -1.23 | -1.25 | -1.24 | -1.11 | -1.26 |
| BTF3P8 | -1.69 | -1.63 | -1.62 | -1.69 | -1.63 | -1.65 | -1.70 | -1.71 |
| BTF3P9 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| BTG1 | 7.45 | 8.29 | 7.93 | 8.04 | 8.07 | 8.45 | 8.07 | 7.79 |
| BTG2 | 4.28 | 4.78 | 3.52 | 4.61 | 4.08 | 3.00 | 4.53 | 3.06 |
| BTG3 | 6.99 | 5.87 | 6.18 | 5.61 | 5.85 | 6.28 | 6.25 | 5.71 |
| BTG3-AS1 | 0.31 | 0.23 | 0.40 | 0.30 | 0.59 | 0.35 | 0.72 | 0.25 |
| BTLA | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| BTN1A1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| BTN2A1 | 4.26 | 4.41 | 4.69 | 4.73 | 4.42 | 4.92 | 4.46 | 4.86 |
| BTN2A2 | 2.90 | 2.65 | 2.70 | 2.86 | 2.51 | 3.09 | 2.72 | 2.81 |
| BTN2A3P | 0.96 | 0.84 | 0.71 | 1.10 | 0.84 | 1.08 | 1.03 | 1.03 |
| BTN3A1 | 2.43 | 2.44 | 2.21 | 2.51 | 2.79 | 2.96 | 2.97 | 3.07 |
| BTN3A2 | 3.37 | 3.31 | 3.36 | 3.40 | 3.52 | 3.82 | 3.58 | 3.94 |
| BTN3A3 | 1.86 | 2.06 | 2.72 | 2.35 | 2.40 | 2.93 | 2.78 | 2.48 |
| BTNL3 | -0.28 | -0.10 | -0.17 | 0.28 | -0.27 | -0.30 | -0.05 | -0.31 |
| BTNL8 | 2.07 | 3.01 | 2.33 | 3.82 | 3.39 | 1.98 | 3.97 | 2.23 |
| BTNL9 | 2.04 | 2.74 | 1.95 | 2.83 | 2.18 | 1.83 | 3.48 | 1.80 |
| BTRC | 4.24 | 3.70 | 3.79 | 3.87 | 3.89 | 3.73 | 4.37 | 3.31 |
| BUB1 | 5.59 | 5.19 | 5.33 | 5.32 | 5.34 | 5.92 | 5.00 | 5.60 |
| BUB1B | 5.28 | 4.56 | 5.26 | 4.52 | 4.80 | 5.25 | 4.82 | 4.91 |
| BUB3 | 7.93 | 7.50 | 7.27 | 7.42 | 7.92 | 7.95 | 7.38 | 7.03 |
| BUB3P1 | -2.12 | -2.09 | -2.14 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| BUD13 | 4.48 | 4.13 | 4.12 | 4.29 | 4.29 | 4.26 | 4.32 | 4.31 |
| BUD23 | 8.23 | 7.78 | 7.65 | 8.28 | 8.10 | 7.58 | 7.50 | 8.45 |
| BUD31 | 7.56 | 7.70 | 7.31 | 7.83 | 8.08 | 7.75 | 7.49 | 8.48 |
| BUD31P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BVES | -0.40 | -0.62 | -0.61 | -0.56 | -0.62 | -0.60 | -0.63 | -0.28 |
| BVES-AS1 | -1.24 | -1.61 | -1.54 | -1.62 | -1.61 | -1.63 | -1.51 | -1.64 |
| BX005266.2 | -2.12 | -2.15 | -2.14 | -2.15 | -2.11 | -2.15 | -2.15 | -2.16 |
| BX088723.1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| BX248409.1 | 0.81 | 0.97 | 0.83 | 0.85 | 1.17 | 0.72 | 0.71 | 1.22 |
| BX255925.1 | -1.79 | -1.79 | -1.78 | -1.80 | -1.79 | -1.80 | -1.70 | -1.81 |
| BX255925.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| BX255925.3 | 5.10 | 5.10 | 4.65 | 5.14 | 4.44 | 4.72 | 4.76 | 4.63 |
| BX284668.2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| BX284668.4 | -2.05 | -2.01 | -2.00 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| BX284668.5 | 5.27 | 4.90 | 4.21 | 4.66 | 5.49 | 4.96 | 3.88 | 4.49 |
| BX284668.6 | -0.98 | -1.17 | -1.16 | -1.19 | -1.14 | -1.13 | -1.26 | -1.27 |
| BX293535.1 | -1.54 | -1.47 | -1.46 | -1.48 | -1.51 | -1.46 | -1.55 | -1.56 |
| BX321878.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| BX322234.1 | 1.32 | 1.08 | 1.26 | 0.97 | 1.04 | 0.80 | 0.90 | 0.83 |
| BX322234.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| BX322559.1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 | -1.85 | -1.84 | -1.82 |
| BX322562.1 | 1.95 | 0.80 | 0.92 | 1.00 | 1.40 | 1.38 | 0.84 | 0.72 |
| BX322639.1 | -0.01 | -0.20 | 0.40 | -0.14 | -0.16 | -0.22 | -0.22 | -0.05 |
| BX322650.1 | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 | -1.98 | -1.96 | -2.01 |
| BX322784.1 | -0.60 | -0.67 | -0.66 | -0.68 | -0.52 | -0.43 | -0.68 | -0.63 |
| BX323046.2 | -1.96 | -1.99 | -1.98 | -1.96 | -1.95 | -2.00 | -1.96 | -2.01 |
| BX323845.2 | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.75 | -1.79 | -1.76 |
| BX323845.3 | -1.43 | -1.54 | -1.53 | -1.54 | -1.51 | -1.50 | -1.44 | -1.51 |
| BX324167.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| BX470102.1 | -1.02 | -1.08 | -1.07 | -0.90 | -0.86 | -1.06 | -0.96 | -1.11 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| BX470102.2 | 1.10 | 1.13 | 0.84 | 1.09 | 1.28 | 1.53 | 1.07 | 1.62 |
| BX537318.1 | 2.37 | 1.60 | 1.64 | 1.74 | 2.13 | 2.12 | 1.57 | 2.01 |
| BX539320.1 | -1.65 | -1.73 | -1.73 | -1.74 | -1.74 | -1.75 | -1.74 | -1.76 |
| BX546450.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| BX546450.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| BX571818.1 | 0.76 | 1.03 | 0.80 | 0.83 | 0.97 | 0.81 | 1.62 | 0.77 |
| BX640514.2 | 0.63 | -0.05 | 0.04 | -0.07 | 0.03 | 0.18 | -0.07 | 0.33 |
| BX649601.1 | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.16 |
| BX649632.1 | -1.23 | -1.35 | -1.34 | -1.36 | -1.35 | -1.28 | -1.24 | -1.38 |
| BX664615.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| BX664615.2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| BX664718.2 | -1.91 | -1.94 | -1.90 | -1.94 | -1.94 | -1.91 | -1.94 | -1.96 |
| BX679664.1 | 2.11 | 2.03 | 1.53 | 1.97 | 2.51 | 1.91 | 1.57 | 1.96 |
| BX679664.3 | 2.68 | 2.81 | 2.52 | 2.82 | 3.16 | 2.61 | 2.60 | 2.61 |
| BX842242.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| BX842570.1 | -1.24 | -1.30 | -1.16 | -1.18 | -1.21 | -1.26 | -1.09 | -1.27 |
| BX890604.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| BX890604.2 | 3.57 | 3.55 | 3.39 | 3.50 | 2.93 | 3.22 | 3.53 | 2.96 |
| BYSL | 5.03 | 4.73 | 4.35 | 4.50 | 4.62 | 5.39 | 3.94 | 5.04 |
| BZW1 | 6.24 | 6.88 | 6.47 | 6.47 | 6.70 | 6.44 | 6.72 | 7.49 |
| BZW1P1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 |
| BZW1P2 | 0.68 | 0.62 | 0.73 | 0.67 | 0.72 | 0.72 | 0.66 | 1.03 |
| BZW2 | 6.57 | 6.83 | 6.18 | 6.87 | 7.43 | 7.08 | 6.38 | 7.02 |
| C10orf143 | 1.93 | 1.87 | 2.15 | 2.07 | 2.10 | 1.95 | 1.96 | 1.67 |
| C10orf25 | 0.32 | 0.28 | 0.06 | 0.23 | 0.47 | 0.19 | 0.27 | 0.28 |
| C10orf55 | -1.50 | -1.55 | -1.54 | -1.51 | -1.53 | -1.51 | -1.51 | -1.43 |
| C10orf67 | -1.64 | -1.69 | -1.68 | -1.46 | -1.69 | -1.70 | -1.69 | -1.71 |
| C10orf82 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.93 | -2.00 |
| C10orf88 | 2.93 | 2.64 | 2.58 | 2.69 | 2.95 | 2.87 | 3.03 | 2.91 |
| C10orf90 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| C10orf91 | -1.59 | -1.53 | -1.57 | -1.48 | -1.56 | -1.57 | -1.59 | -1.61 |
| C10orf95 | 3.73 | 3.41 | 2.42 | 3.36 | 3.53 | 2.95 | 2.49 | 2.63 |
| C10orf99 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| C11orf1 | 6.36 | 6.32 | 5.98 | 6.48 | 6.81 | 5.62 | 5.14 | 6.03 |
| C11orf24 | 7.12 | 6.34 | 6.57 | 6.89 | 6.55 | 6.45 | 6.46 | 6.94 |
| C11orf44 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| C11orf45 | 0.27 | 0.29 | 0.32 | 0.11 | 0.64 | 0.27 | 0.11 | 0.08 |
| C11orf49 | 5.79 | 5.41 | 5.95 | 5.44 | 6.02 | 5.92 | 5.37 | 5.52 |
| C11orf52 | -1.59 | -1.64 | -1.63 | -1.65 | -1.59 | -1.63 | -1.65 | -1.67 |
| C11orf53 | 2.69 | 4.42 | 2.39 | 4.60 | 6.39 | 2.26 | 2.71 | 2.48 |
| C11orf54 | 6.24 | 5.49 | 5.62 | 5.76 | 6.15 | 5.91 | 6.48 | 6.71 |
| C11orf58 | 8.78 | 8.15 | 8.05 | 8.25 | 8.38 | 8.37 | 7.76 | 8.71 |
| C11orf65 | 0.94 | 1.04 | 1.23 | 1.00 | 1.22 | 0.92 | 1.05 | 0.96 |
| C11orf68 | 5.72 | 4.59 | 4.91 | 4.74 | 5.50 | 5.28 | 4.38 | 5.52 |
| C11orf71 | 4.35 | 3.83 | 3.72 | 3.70 | 4.84 | 3.91 | 3.34 | 3.66 |
| C11orf72 | -1.74 | -1.74 | -1.78 | -1.79 | -1.74 | -1.80 | -1.80 | -1.81 |
| C11orf74 | 5.47 | 4.74 | 5.45 | 4.67 | 5.41 | 4.65 | 4.49 | 4.84 |
| C11orf80 | 2.04 | 1.53 | 1.69 | 1.76 | 1.97 | 1.61 | 1.56 | 1.50 |
| C11orf86 | 3.17 | 2.04 | 2.58 | 2.32 | 3.10 | 1.93 | 2.83 | 2.44 |
| C11orf88 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| C11orf91 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| C11orf94 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| C11orf95 | 1.67 | 1.01 | 1.46 | 1.12 | 1.24 | 1.29 | 0.97 | 1.07 |
| C11orf96 | 1.01 | 0.85 | 0.97 | 0.82 | 1.20 | 0.72 | 0.94 | 1.23 |
| C11orf97 | -1.49 | -1.58 | -1.58 | -1.64 | -1.63 | -1.57 | -1.64 | -1.61 |
| C11orf98 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| C12orf10 | 6.33 | 5.50 | 5.85 | 5.70 | 6.38 | 6.45 | 5.73 | 5.90 |
| C12orf29 | 5.04 | 4.92 | 5.03 | 5.09 | 5.35 | 5.48 | 4.86 | 5.12 |
| C12orf4 | 3.48 | 3.55 | 3.57 | 3.57 | 2.98 | 2.92 | 3.59 | 3.38 |
| C12orf43 | 4.75 | 5.08 | 5.18 | 4.95 | 4.52 | 4.72 | 4.28 | 4.71 |
| C12orf45 | 5.73 | 6.00 | 5.66 | 5.99 | 6.15 | 5.93 | 4.89 | 5.65 |
| C12orf49 | 4.85 | 5.73 | 5.67 | 6.05 | 5.30 | 5.78 | 5.50 | 5.62 |
| C12orf50 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| C12orf54 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| C12orf56 | 2.28 | 1.54 | 1.74 | 1.57 | 1.61 | 2.27 | 3.17 | 1.88 |
| C12orf57 | 6.98 | 7.40 | 6.59 | 7.78 | 9.62 | 6.83 | 6.76 | 7.77 |
| C12orf60 | 2.44 | 2.18 | 2.30 | 1.90 | 3.49 | 2.01 | 2.12 | 2.24 |
| C12orf65 | 5.75 | 5.84 | 5.85 | 5.75 | 5.96 | 5.85 | 5.66 | 5.93 |
| C12orf66 | 2.94 | 3.59 | 3.59 | 3.38 | 3.60 | 3.17 | 2.95 | 3.05 |
| C12orf73 | 4.62 | 4.80 | 4.62 | 4.54 | 5.25 | 5.20 | 4.60 | 5.45 |
| C12orf74 | -0.67 | -0.67 | -0.81 | -0.76 | -0.78 | -0.70 | -0.83 | -0.78 |
| C12orf75 | 8.27 | 8.08 | 8.22 | 8.63 | 9.09 | 8.60 | 8.77 | 7.77 |
| C12orf76 | 4.53 | 4.85 | 4.13 | 5.14 | 4.82 | 4.84 | 4.25 | 4.64 |
| C12orf80 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| C12orf81 | -0.77 | -0.73 | -0.79 | -0.70 | -0.88 | -0.90 | -0.89 | -0.91 |
| C13orf46 | -1.03 | -1.02 | -1.01 | -0.90 | -1.02 | -1.11 | -0.90 | -0.76 |
| C14orf119 | 6.79 | 7.11 | 6.26 | 7.18 | 7.29 | 7.34 | 6.46 | 6.93 |
| C14orf132 | 0.98 | 0.87 | 0.60 | 0.82 | 0.83 | 0.99 | 0.48 | 0.63 |
| C14orf178 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 | -2.14 | -2.13 | -2.16 |
| C14orf28 | 2.03 | 2.21 | 2.31 | 2.78 | 2.58 | 2.32 | 2.23 | 2.17 |
| C14orf93 | 2.68 | 3.08 | 2.85 | 2.93 | 3.17 | 3.01 | 3.02 | 2.95 |
| C15orf39 | 4.54 | 4.95 | 4.97 | 4.43 | 4.66 | 4.93 | 4.36 | 4.26 |
| C15orf40 | 6.24 | 5.68 | 5.71 | 6.19 | 5.88 | 5.63 | 5.85 | 5.99 |
| C15orf41 | 2.82 | 3.48 | 3.18 | 3.49 | 3.70 | 2.91 | 2.95 | 2.92 |
| C15orf48 | 6.19 | 5.56 | 7.61 | 5.23 | 6.98 | 7.14 | 6.53 | 6.62 |
| C15orf56 | -1.61 | -1.73 | -1.73 | -1.74 | -1.71 | -1.70 | -1.74 | -1.71 |
| C15orf61 | 6.71 | 5.88 | 5.71 | 5.94 | 6.77 | 6.09 | 5.59 | 5.87 |
| C15orf62 | 0.19 | -0.04 | 0.15 | 0.24 | 0.01 | 0.02 | 0.03 | 0.10 |
| C15orf65 | 2.96 | 2.92 | 2.71 | 3.00 | 3.39 | 2.59 | 2.90 | 3.69 |
| C16orf46 | 0.74 | 0.71 | 0.67 | 0.65 | 0.73 | 0.67 | 0.52 | 0.70 |
| C16orf54 | 0.49 | 2.10 | 1.27 | 1.77 | 0.64 | 2.00 | 0.47 | 0.43 |
| C16orf58 | 5.36 | 5.17 | 5.47 | 4.93 | 5.34 | 4.96 | 4.91 | 5.82 |
| C16orf70 | 4.03 | 4.07 | 3.73 | 3.87 | 3.83 | 3.67 | 3.91 | 3.84 |
| C16orf71 | -0.14 | 0.06 | -0.02 | -0.01 | -0.02 | -0.07 | -0.08 | -0.06 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| C16orf72 | 5.08 | 5.07 | 5.04 | 4.79 | 4.57 | 4.87 | 4.99 | 5.25 |
| C16orf74 | 5.25 | 3.88 | 4.33 | 3.57 | 4.62 | 5.21 | 3.45 | 4.75 |
| C16orf86 | 2.15 | 1.57 | 1.57 | 1.59 | 2.54 | 1.48 | 1.51 | 1.75 |
| C16orf87 | 5.71 | 5.41 | 5.09 | 5.29 | 5.22 | 5.27 | 5.13 | 5.56 |
| C16orf89 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| C16orf90 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| C16orf91 | 6.25 | 5.31 | 5.19 | 5.76 | 4.98 | 5.59 | 5.13 | 6.13 |
| C16orf95 | 0.89 | 0.69 | 0.80 | 0.99 | 1.01 | 0.74 | 0.72 | 0.89 |
| C17orf100 | 1.75 | 1.79 | 2.29 | 1.97 | 2.18 | 1.71 | 1.94 | 2.09 |
| C17orf107 | -0.19 | -0.10 | -0.16 | -0.13 | -0.14 | -0.16 | 0.09 | 0.11 |
| C17orf113 | 0.09 | 0.02 | 0.06 | 0.08 | 0.13 | 0.01 | 0.07 | 0.17 |
| C17orf50 | -1.35 | -1.40 | -1.33 | -1.35 | -1.28 | -1.39 | -1.42 | -1.43 |
| C17orf51 | 3.23 | 2.75 | 2.91 | 2.80 | 2.56 | 2.29 | 2.48 | 1.75 |
| C17orf53 | 1.35 | 1.43 | 2.00 | 1.88 | 1.66 | 1.89 | 1.44 | 1.55 |
| C17orf58 | 4.23 | 3.74 | 3.66 | 3.65 | 4.22 | 4.38 | 3.99 | 3.95 |
| C17orf64 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -1.97 |
| C17orf67 | 3.47 | 2.74 | 2.67 | 3.02 | 3.36 | 3.02 | 2.47 | 2.48 |
| C17orf75 | 5.23 | 4.07 | 4.81 | 4.05 | 4.79 | 5.03 | 4.22 | 4.90 |
| C17orf77 | -1.94 | -1.94 | -1.93 | -1.91 | -1.88 | -1.89 | -1.95 | -1.96 |
| C17orf80 | 4.89 | 4.75 | 4.63 | 4.62 | 4.52 | 4.69 | 4.48 | 4.58 |
| C17orf82 | -0.14 | -0.27 | -0.35 | -0.29 | -0.21 | 0.07 | -0.29 | -0.32 |
| C17orf97 | 2.67 | 3.70 | 3.87 | 3.36 | 2.58 | 2.76 | 3.35 | 2.60 |
| C17orf98 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| C17orf99 | -2.21 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| C18orf21 | 3.98 | 3.90 | 4.11 | 3.99 | 4.16 | 4.52 | 4.12 | 3.74 |
| C18orf25 | 4.02 | 3.67 | 4.54 | 3.33 | 3.88 | 3.72 | 4.16 | 3.60 |
| C18orf32 | 2.37 | 2.53 | 2.52 | 2.21 | 2.34 | 2.41 | 2.75 | 2.35 |
| C18orf54 | 2.16 | 1.79 | 2.73 | 1.70 | 1.83 | 2.41 | 2.36 | 1.85 |
| C18orf65 | -1.50 | -1.43 | -1.42 | -1.50 | -1.46 | -1.51 | -1.50 | -1.52 |
| C19orf12 | 4.06 | 3.76 | 3.08 | 3.49 | 4.06 | 3.45 | 3.26 | 3.76 |
| C19orf18 | 0.45 | 0.32 | 0.80 | 0.72 | 0.48 | 0.50 | 0.30 | 0.40 |
| C19orf24 | 6.47 | 5.70 | 5.75 | 5.89 | 6.55 | 6.37 | 5.76 | 6.50 |
| C19orf25 | 5.89 | 5.08 | 5.60 | 5.22 | 5.54 | 5.66 | 5.45 | 5.41 |
| C19orf33 | 8.13 | 8.23 | 7.15 | 8.01 | 8.66 | 8.01 | 7.97 | 8.91 |
| C19orf38 | -0.68 | -0.51 | -0.66 | -0.68 | -0.60 | -0.59 | -0.54 | -0.70 |
| C19orf44 | 1.80 | 1.83 | 2.48 | 2.06 | 2.06 | 2.13 | 1.99 | 1.75 |
| C19orf47 | 4.18 | 3.68 | 3.49 | 3.94 | 3.37 | 3.31 | 3.66 | 3.27 |
| C19orf48 | 7.17 | 7.29 | 6.62 | 7.45 | 7.68 | 7.02 | 6.50 | 6.65 |
| C19orf53 | 8.25 | 8.39 | 7.49 | 8.57 | 8.77 | 8.50 | 7.77 | 8.20 |
| C19orf54 | 2.16 | 2.48 | 2.46 | 2.19 | 2.70 | 2.22 | 2.52 | 2.14 |
| C19orf57 | 1.41 | 1.38 | 1.29 | 1.87 | 1.24 | 1.48 | 1.64 | 1.17 |
| C19orf66 | 5.12 | 4.49 | 4.73 | 4.72 | 4.80 | 4.76 | 4.54 | 4.17 |
| C19orf67 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| C19orf73 | 2.54 | 2.35 | 1.83 | 2.12 | 2.47 | 2.12 | 2.26 | 2.01 |
| C19orf81 | 0.80 | 0.64 | 0.86 | 0.77 | 1.10 | 0.63 | 0.61 | 0.56 |
| C19orf84 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -1.99 | -2.05 | -2.06 |
| C1D | 5.98 | 4.94 | 4.75 | 4.78 | 5.94 | 5.03 | 5.11 | 6.12 |
| C1DP1 | -0.80 | -0.87 | -0.85 | -0.87 | -0.80 | -0.78 | -0.61 | -0.77 |
| C1GALT1 | 7.21 | 7.72 | 6.30 | 7.50 | 6.73 | 6.21 | 6.94 | 7.11 |
| C1GALT1C1 | 6.49 | 6.44 | 6.66 | 6.93 | 6.56 | 5.98 | 6.05 | 6.66 |
| C1GALT1C1L | 0.41 | 0.27 | 0.31 | 0.38 | 0.63 | 0.39 | 0.17 | 0.31 |
| C1GALT1P1 | -1.50 | -1.49 | -1.48 | -1.45 | -1.49 | -1.42 | -1.39 | -1.52 |
| C1GALT1P2 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.07 | -2.11 |
| C1orf105 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -1.97 | -1.96 | -2.01 |
| C1orf109 | 4.14 | 3.92 | 3.58 | 3.76 | 4.04 | 3.97 | 3.72 | 4.00 |
| C1orf112 | 3.38 | 3.36 | 3.77 | 3.02 | 3.02 | 3.43 | 3.17 | 2.98 |
| C1orf115 | 4.09 | 3.80 | 4.09 | 3.38 | 4.30 | 2.97 | 4.74 | 3.38 |
| C1orf116 | 6.70 | 7.06 | 6.87 | 6.59 | 7.09 | 6.53 | 7.31 | 7.80 |
| C1orf122 | 7.75 | 7.48 | 7.40 | 7.85 | 7.46 | 7.75 | 6.76 | 7.61 |
| C1orf131 | 6.67 | 6.73 | 5.98 | 6.63 | 6.54 | 6.32 | 6.16 | 6.55 |
| C1orf141 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| C1orf143 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| C1orf158 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| C1orf159 | 4.59 | 3.95 | 4.23 | 3.87 | 3.79 | 4.27 | 3.98 | 4.31 |
| C1orf162 | -1.64 | -1.63 | -1.68 | -1.69 | -1.61 | -1.67 | -1.64 | -1.71 |
| C1orf167 | -0.98 | -0.89 | -0.96 | -0.98 | -0.83 | -0.95 | -0.91 | -0.93 |
| C1orf174 | 6.09 | 4.60 | 4.83 | 5.07 | 5.94 | 5.69 | 5.27 | 5.46 |
| C1orf189 | 6.92 | 2.23 | 2.57 | 2.71 | 2.25 | 2.04 | 2.33 | 1.95 |
| C1orf194 | -1.39 | -1.38 | -1.07 | -1.39 | -1.31 | -1.33 | -1.32 | -1.41 |
| C1orf195 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| C1orf198 | 5.49 | 5.06 | 4.99 | 4.96 | 5.37 | 5.74 | 5.28 | 4.80 |
| C1orf21 | 6.80 | 5.74 | 4.97 | 6.17 | 5.35 | 5.13 | 5.52 | 3.89 |
| C1orf210 | 5.65 | 5.62 | 4.66 | 5.81 | 5.62 | 5.17 | 5.76 | 5.45 |
| C1orf216 | 1.85 | 1.87 | 2.05 | 2.14 | 1.76 | 1.89 | 1.98 | 1.96 |
| C1orf220 | -0.94 | -0.94 | -0.92 | -0.81 | -0.82 | -0.88 | -0.80 | -0.56 |
| C1orf226 | 3.30 | 3.07 | 3.13 | 3.20 | 3.29 | 3.21 | 3.21 | 2.60 |
| C1orf229 | -1.70 | -1.79 | -1.78 | -1.79 | -1.76 | -1.75 | -1.75 | -1.76 |
| C1orf35 | 6.74 | 6.44 | 6.68 | 6.37 | 6.63 | 6.92 | 6.47 | 6.97 |
| C1orf43 | 7.68 | 7.63 | 7.01 | 7.90 | 8.08 | 7.95 | 7.31 | 8.23 |
| C1orf50 | 1.23 | 1.26 | 1.32 | 1.27 | 1.21 | 1.42 | 1.26 | 1.21 |
| C1orf52 | 6.09 | 5.36 | 5.47 | 5.35 | 5.50 | 5.68 | 5.54 | 5.73 |
| C1orf53 | 4.07 | 4.84 | 3.28 | 4.95 | 4.40 | 4.41 | 3.61 | 4.89 |
| C1orf54 | 1.09 | 1.11 | 1.02 | 1.19 | 0.85 | 1.36 | 0.92 | 1.45 |
| C1orf56 | 5.91 | 5.67 | 5.42 | 5.77 | 5.61 | 5.95 | 5.07 | 6.09 |
| C1orf61 | 0.80 | 0.31 | 0.93 | 0.37 | 0.58 | 0.36 | 0.38 | 0.33 |
| C1orf74 | 2.65 | 2.58 | 2.53 | 2.11 | 2.52 | 2.94 | 2.42 | 2.71 |
| C1orf94 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| C1QBP | 8.20 | 6.94 | 7.71 | 7.29 | 7.99 | 7.82 | 7.73 | 7.73 |
| C1QL1 | 0.51 | 0.08 | 0.01 | -0.02 | 0.23 | 0.04 | 0.13 | 0.02 |
| C1QL3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| C1QL4 | -1.61 | -1.73 | -1.73 | -1.74 | -1.73 | -1.75 | -1.70 | -1.76 |
| C1QTNF1 | 2.57 | 3.65 | 2.91 | 3.14 | 4.19 | 3.09 | 3.46 | 2.72 |
| C1QTNF1-AS1 | 1.38 | 0.79 | 1.00 | 0.85 | 0.87 | 0.95 | 1.05 | 0.85 |
| C1QTNF12 | 0.86 | 0.96 | 1.04 | 0.91 | 0.96 | 1.19 | 1.03 | 0.88 |

| | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| C1QTNF2 | -0.25 | -0.39 | -0.47 | -0.24 | -0.30 | -0.33 | -0.27 | -0.50 |
| C1QTNF3 | -1.27 | -1.20 | -1.26 | -1.09 | -1.16 | -1.16 | -1.15 | -1.24 |
| C1QTNF3-AMACR | -2.15 | -2.07 | -2.14 | -2.07 | -2.15 | -2.15 | -2.15 | -2.16 |
| C1QTNF4 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 | -1.84 | -1.86 | -1.83 |
| C1QTNF6 | 2.06 | 2.29 | 1.55 | 2.01 | 1.96 | 1.84 | 1.95 | 2.52 |
| C1R | 2.93 | 2.07 | 2.91 | 2.06 | 2.85 | 1.81 | 1.99 | 2.03 |
| C1RL | 4.58 | 4.35 | 4.67 | 4.27 | 4.85 | 3.84 | 4.62 | 4.24 |
| C1RL-AS1 | 2.87 | 3.32 | 3.42 | 3.74 | 3.41 | 2.72 | 3.50 | 3.38 |
| C1S | 2.43 | 1.22 | 1.53 | 1.25 | 1.46 | 1.28 | 1.30 | 2.07 |
| C2 | 2.02 | 1.29 | 1.34 | 1.17 | 1.20 | 1.51 | 1.17 | 2.26 |
| C20orf144 | -1.89 | -1.85 | -1.84 | -1.85 | -1.82 | -1.90 | -1.90 | -1.91 |
| C20orf194 | 2.82 | 2.88 | 3.06 | 2.97 | 3.02 | 2.82 | 3.64 | 2.73 |
| C20orf202 | -1.99 | -1.95 | -1.95 | -1.96 | -1.97 | -1.98 | -1.96 | -2.01 |
| C20orf204 | 0.88 | 0.46 | 0.43 | 0.70 | 0.23 | 0.59 | 0.22 | 0.43 |
| C20orf27 | 8.37 | 6.67 | 6.73 | 6.95 | 6.87 | 6.98 | 5.85 | 6.31 |
| C20orf85 | -1.19 | -1.18 | -1.17 | -1.11 | -1.18 | -0.65 | -1.19 | -0.57 |
| C20orf96 | 2.89 | 2.47 | 2.73 | 2.51 | 2.49 | 2.33 | 2.43 | 2.30 |
| C21orf58 | 5.05 | 4.20 | 5.36 | 4.62 | 3.81 | 4.93 | 5.57 | 3.71 |
| C21orf62 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| C21orf62-AS1 | 0.95 | 0.99 | 1.07 | 0.80 | 0.95 | 1.00 | 1.26 | 0.86 |
| C21orf91 | 3.62 | 3.71 | 3.05 | 3.03 | 2.64 | 3.27 | 3.16 | 2.38 |
| C22orf15 | -2.00 | -2.04 | -2.04 | -2.01 | -2.05 | -2.06 | -2.05 | -1.98 |
| C22orf23 | -1.28 | -1.27 | -1.19 | -1.21 | -1.20 | -1.19 | -1.21 | -1.23 |
| C22orf24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| C22orf31 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| C22orf39 | 7.24 | 6.32 | 5.71 | 6.35 | 6.09 | 6.29 | 5.94 | 6.45 |
| C22orf46 | 3.66 | 2.62 | 3.04 | 2.82 | 2.83 | 3.17 | 2.91 | 2.75 |
| C2CD2 | 3.69 | 3.47 | 4.06 | 3.68 | 3.40 | 4.83 | 3.98 | 3.81 |
| C2CD2L | 3.25 | 3.51 | 3.62 | 3.28 | 3.23 | 2.97 | 3.90 | 3.37 |
| C2CD3 | 3.57 | 3.40 | 3.82 | 3.85 | 3.30 | 3.44 | 3.51 | 3.53 |
| C2CD4A | 2.72 | 2.03 | 2.12 | 2.11 | 2.34 | 1.91 | 2.55 | 2.31 |
| C2CD4B | 3.49 | 2.32 | 2.69 | 2.38 | 2.80 | 2.24 | 4.06 | 2.30 |
| C2CD4C | -0.08 | -0.22 | -0.21 | -0.23 | -0.07 | -0.18 | 0.16 | -0.34 |
| C2CD4D | 1.21 | 0.83 | 1.02 | 1.18 | 1.41 | 1.61 | 0.79 | 0.97 |
| C2CD4D-AS1 | -1.99 | -1.99 | -1.98 | -1.93 | -1.99 | -1.94 | -1.96 | -2.01 |
| C2CD5 | 3.66 | 3.20 | 4.32 | 3.47 | 4.55 | 3.22 | 4.38 | 3.03 |
| C2CD6 | -0.21 | -0.40 | -0.48 | -0.42 | -0.26 | -0.50 | -0.50 | -0.51 |
| C2orf15 | 2.85 | 2.95 | 2.44 | 2.97 | 2.75 | 2.41 | 2.57 | 2.82 |
| C2orf16 | -1.84 | -1.84 | -1.74 | -1.85 | -1.82 | -1.83 | -1.75 | -1.86 |
| C2orf40 | -2.00 | -1.99 | -1.99 | -2.00 | -1.97 | -2.01 | -2.00 | -1.97 |
| C2orf42 | 2.87 | 2.24 | 2.73 | 3.15 | 3.08 | 2.40 | 3.00 | 2.25 |
| C2orf49 | 5.99 | 5.42 | 5.15 | 5.58 | 6.11 | 5.63 | 5.42 | 5.99 |
| C2orf50 | -1.75 | -1.79 | -1.78 | -1.75 | -1.76 | -1.75 | -1.79 | -1.76 |
| C2orf68 | 6.11 | 5.15 | 5.44 | 5.01 | 5.74 | 5.35 | 5.35 | 5.39 |
| C2orf69 | 4.66 | 4.45 | 4.82 | 4.27 | 4.51 | 4.47 | 4.64 | 4.28 |
| C2orf70 | 2.13 | 1.77 | 1.20 | 1.69 | 1.67 | 1.64 | 1.19 | 1.28 |
| C2orf72 | 3.88 | 3.99 | 3.38 | 4.06 | 3.46 | 2.80 | 3.66 | 2.87 |
| C2orf73 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 | -2.25 | -2.26 |
| C2orf74 | -0.06 | -0.21 | -0.02 | 0.00 | -0.09 | -0.16 | -0.22 | -0.06 |
| C2orf76 | 4.52 | 4.27 | 3.75 | 4.61 | 4.85 | 4.70 | 3.99 | 4.85 |
| C2orf78 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| C2orf80 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| C2orf81 | 0.95 | 1.19 | 0.80 | 0.86 | 1.34 | 1.43 | 0.99 | 0.61 |
| C2orf88 | 2.55 | 2.26 | 2.09 | 2.45 | 2.35 | 2.09 | 3.04 | 2.02 |
| C2orf91 | -1.82 | -1.94 | -1.89 | -1.95 | -1.90 | -1.95 | -1.95 | -1.96 |
| C2orf92 | 0.01 | 0.01 | -0.03 | 0.06 | -0.06 | 0.01 | 0.13 | 0.01 |
| C3 | 6.87 | 5.60 | 5.57 | 4.89 | 4.49 | 5.69 | 5.69 | 6.49 |
| C3orf14 | 4.68 | 4.14 | 3.16 | 4.15 | 5.28 | 3.95 | 3.95 | 4.28 |
| C3orf18 | 0.79 | 0.81 | 0.92 | 0.77 | 1.03 | 0.77 | 0.69 | 0.51 |
| C3orf33 | 3.30 | 2.90 | 2.86 | 3.17 | 2.90 | 2.61 | 2.82 | 3.17 |
| C3orf35 | 0.81 | 1.04 | 0.90 | 1.10 | 0.92 | 0.83 | 1.51 | 0.67 |
| C3orf38 | 3.97 | 4.13 | 3.99 | 4.19 | 4.14 | 4.45 | 3.99 | 4.22 |
| C3orf52 | 3.33 | 3.31 | 4.31 | 3.44 | 3.91 | 4.10 | 3.92 | 4.01 |
| C3orf62 | 2.47 | 2.62 | 2.48 | 2.95 | 2.40 | 2.27 | 2.59 | 2.32 |
| C3orf67 | 1.53 | 1.20 | 2.20 | 1.31 | 1.87 | 1.88 | 1.37 | 1.20 |
| C3orf67-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| C3orf70 | 1.34 | 1.78 | 0.81 | 2.08 | 1.50 | 0.86 | 1.02 | 0.71 |
| C3orf80 | -1.07 | -1.06 | -0.90 | -1.07 | -1.13 | -1.05 | -1.07 | -1.15 |
| C3orf85 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.89 | -1.83 |
| C3orf86 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.17 |
| C3P1 | -0.51 | -1.04 | -1.03 | -1.05 | -1.04 | -1.06 | -1.06 | -1.07 |
| C4BPA | 1.08 | 1.47 | 0.67 | 2.26 | 0.76 | 0.75 | 0.94 | 0.81 |
| C4BPB | 4.81 | 5.27 | 3.50 | 5.26 | 4.07 | 3.60 | 3.68 | 5.42 |
| C4orf19 | 5.28 | 5.88 | 4.91 | 5.82 | 4.84 | 4.30 | 5.40 | 4.17 |
| C4orf3 | 7.94 | 8.66 | 8.01 | 8.48 | 8.19 | 8.55 | 8.75 | 8.33 |
| C4orf33 | 3.06 | 3.74 | 3.46 | 3.76 | 3.22 | 3.50 | 4.09 | 4.75 |
| C4orf36 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| C4orf45 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| C4orf46 | 3.39 | 3.37 | 3.57 | 3.43 | 3.17 | 4.04 | 3.56 | 3.50 |
| C4orf47 | 1.01 | 0.82 | 0.99 | 0.72 | 0.99 | 1.26 | 1.29 | 1.08 |
| C4orf48 | 9.22 | 8.74 | 8.26 | 8.55 | 8.12 | 8.45 | 6.58 | 7.35 |
| C4orf54 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| C5 | 1.24 | 2.37 | 1.55 | 2.28 | 1.35 | 1.62 | 1.83 | 1.26 |
| C5AR1 | 0.74 | 0.20 | 0.28 | 0.18 | 0.15 | 0.41 | 0.24 | 0.20 |
| C5AR2 | -2.01 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 |
| C5orf15 | 5.48 | 5.74 | 6.41 | 5.67 | 5.80 | 5.36 | 5.65 | 4.90 |
| C5orf17 | 1.09 | 0.81 | 0.74 | 0.70 | 1.09 | 2.25 | 0.93 | 0.71 |
| C5orf22 | 4.62 | 4.63 | 4.29 | 4.55 | 4.56 | 4.11 | 4.41 | 5.05 |
| C5orf24 | 4.99 | 5.79 | 5.71 | 5.49 | 5.33 | 5.50 | 5.73 | 5.06 |
| C5orf30 | 3.91 | 4.32 | 4.54 | 4.25 | 3.85 | 3.70 | 4.50 | 3.88 |
| C5orf34 | 2.52 | 2.14 | 2.67 | 2.10 | 2.26 | 2.65 | 2.20 | 2.58 |
| C5orf38 | -1.74 | -1.74 | -1.73 | -1.75 | -1.71 | -1.75 | -1.75 | -1.77 |
| C5orf46 | -1.41 | -1.40 | -1.33 | -1.41 | -1.40 | -1.36 | -1.41 | -1.43 |
| C5orf47 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.37 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| C5orf49 | 0.00 | 0.10 | 0.28 | 0.06 | 0.19 | 0.20 | 0.13 | 0.40 |
| C5orf51 | 4.87 | 4.93 | 4.53 | 4.85 | 4.84 | 4.62 | 4.89 | 5.05 |
| C5orf56 | 3.24 | 3.09 | 3.32 | 3.55 | 4.44 | 3.74 | 3.65 | 3.01 |
| C5orf63 | 4.02 | 4.05 | 3.73 | 4.05 | 4.56 | 3.83 | 3.77 | 3.87 |
| C5orf64 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| C5orf66 | 0.03 | 0.27 | 0.23 | 0.10 | 0.16 | 0.15 | 0.02 | 0.18 |
| C5orf66-AS1 | -0.68 | -0.67 | -0.65 | -0.62 | -0.75 | -0.77 | -0.69 | -0.50 |
| C6 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 |
| C6orf120 | 4.65 | 3.71 | 4.22 | 3.76 | 3.91 | 4.41 | 4.75 | 4.27 |
| C6orf132 | 6.09 | 6.77 | 6.30 | 6.43 | 5.83 | 6.01 | 6.84 | 6.32 |
| C6orf136 | 5.82 | 4.62 | 5.11 | 4.94 | 5.46 | 6.06 | 5.85 | 6.18 |
| C6orf141 | 4.04 | 3.82 | 4.38 | 4.24 | 3.94 | 4.15 | 4.64 | 4.72 |
| C6orf15 | 2.00 | 1.80 | 1.66 | 1.89 | 1.96 | 5.30 | 2.14 | 2.08 |
| C6orf163 | -0.49 | -0.63 | -0.47 | -0.63 | -0.59 | -0.51 | -0.19 | -0.65 |
| C6orf201 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| C6orf203 | 6.38 | 5.20 | 5.08 | 5.42 | 5.56 | 5.70 | 5.62 | 5.18 |
| C6orf222 | 0.72 | 0.56 | 1.02 | 0.54 | 0.77 | 0.71 | 0.77 | 0.62 |
| C6orf223 | 5.22 | 5.41 | 6.10 | 5.37 | 6.29 | 5.29 | 6.12 | 5.50 |
| C6orf226 | 5.39 | 4.63 | 3.85 | 4.44 | 4.64 | 5.14 | 4.13 | 4.54 |
| C6orf47 | 5.44 | 5.26 | 5.04 | 5.36 | 4.58 | 5.32 | 5.22 | 5.56 |
| C6orf47-AS1 | -0.59 | -0.73 | -0.72 | -0.67 | -0.69 | -0.61 | -0.74 | -0.64 |
| C6orf52 | 1.74 | 1.55 | 1.35 | 1.35 | 1.56 | 1.38 | 1.42 | 1.83 |
| C6orf58 | 0.81 | 1.14 | 2.36 | 1.13 | 0.60 | 0.59 | 0.56 | 0.77 |
| C6orf62 | 6.15 | 6.82 | 6.59 | 6.44 | 5.60 | 6.93 | 6.54 | 6.64 |
| C6orf89 | 6.45 | 5.83 | 6.70 | 5.36 | 6.02 | 6.50 | 6.28 | 6.80 |
| C6orf99 | 1.61 | 1.10 | 1.78 | 1.22 | 1.25 | 1.87 | 1.06 | 1.52 |
| C7 | -1.75 | -1.70 | -1.83 | -1.80 | -1.77 | -1.85 | -1.85 | -1.86 |
| C7orf25 | -0.58 | -0.57 | -0.48 | -0.50 | -0.42 | -0.55 | -0.51 | -0.48 |
| C7orf26 | 4.45 | 4.21 | 4.65 | 4.69 | 4.43 | 4.05 | 4.23 | 4.38 |
| C7orf31 | -0.54 | -0.47 | -0.53 | -0.62 | -0.54 | -0.60 | -0.55 | -0.36 |
| C7orf50 | 8.24 | 7.25 | 6.95 | 7.32 | 6.98 | 7.28 | 6.41 | 7.35 |
| C7orf57 | -0.68 | -0.68 | -0.51 | -0.76 | -0.72 | -0.52 | -0.70 | -0.46 |
| C7orf61 | 0.07 | -0.25 | 0.06 | -0.19 | -0.17 | -0.02 | -0.12 | -0.22 |
| C7orf65 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| C7orf71 | -0.97 | -0.96 | -1.03 | -1.05 | -0.96 | -1.06 | -1.05 | -1.06 |
| C8A | -0.27 | -0.26 | -0.25 | -0.27 | -0.26 | -0.21 | 0.31 | -0.30 |
| C8B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| C8G | 0.95 | 0.90 | 1.02 | 0.80 | 0.78 | 0.84 | 1.50 | 0.80 |
| C8orf17 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| C8orf31 | 2.09 | 1.65 | 1.53 | 1.96 | 2.00 | 2.33 | 1.44 | 2.54 |
| C8orf33 | 6.69 | 6.49 | 6.72 | 6.51 | 6.03 | 6.95 | 5.98 | 7.14 |
| C8orf34 | -1.23 | -1.02 | -1.22 | -1.24 | -1.23 | -1.18 | -1.24 | -1.19 |
| C8orf37 | 1.45 | 1.84 | 1.68 | 1.50 | 1.49 | 1.59 | 1.76 | 1.51 |
| C8orf37-AS1 | -1.58 | -1.52 | -1.57 | -1.53 | -1.44 | -1.54 | -1.59 | -1.38 |
| C8orf48 | -1.99 | -1.93 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -2.01 |
| C8orf49 | -1.19 | -1.26 | -1.03 | -1.27 | -1.19 | -1.21 | -1.27 | -1.28 |
| C8orf58 | 2.11 | 2.33 | 2.66 | 2.30 | 2.37 | 2.41 | 2.77 | 2.40 |
| C8orf74 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| C8orf76 | 5.61 | 5.01 | 5.50 | 5.28 | 5.70 | 5.47 | 4.65 | 5.72 |
| C8orf82 | 6.52 | 5.75 | 5.77 | 5.79 | 5.73 | 6.43 | 5.84 | 6.85 |
| C8orf88 | 0.84 | 0.43 | 0.36 | 0.32 | 0.43 | 0.39 | 0.55 | 1.66 |
| C9 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.06 | -2.07 | -2.10 |
| C9orf106 | -1.47 | -1.47 | -1.46 | -1.48 | -1.47 | -1.43 | -1.42 | -1.44 |
| C9orf116 | 3.33 | 3.12 | 3.24 | 3.21 | 2.35 | 3.30 | 3.08 | 3.24 |
| C9orf129 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| C9orf135 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| C9orf147 | -0.47 | -0.87 | -0.77 | -0.73 | -0.79 | -0.81 | -0.88 | -0.89 |
| C9orf152 | 4.90 | 5.26 | 4.14 | 5.45 | 4.88 | 3.85 | 4.47 | 3.75 |
| C9orf153 | -1.29 | -1.34 | -1.03 | -1.29 | -1.35 | -1.17 | -1.23 | -1.37 |
| C9orf16 | 10.29 | 8.49 | 8.05 | 8.35 | 8.72 | 9.13 | 7.67 | 7.99 |
| C9orf163 | -0.96 | -1.17 | -1.01 | -1.05 | -1.10 | -1.15 | -1.18 | -1.13 |
| C9orf170 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| C9orf24 | 2.07 | 1.62 | 1.74 | 1.83 | 2.56 | 2.30 | 1.73 | 1.59 |
| C9orf40 | 5.21 | 4.12 | 4.59 | 4.18 | 4.64 | 5.08 | 4.06 | 4.35 |
| C9orf43 | -0.60 | -0.59 | -0.49 | -0.52 | -0.45 | -0.54 | -0.34 | -0.50 |
| C9orf50 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.12 | -2.16 |
| C9orf57 | -2.01 | -2.04 | -2.00 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| C9orf64 | 4.64 | 4.69 | 3.98 | 4.81 | 4.06 | 4.46 | 4.95 | 4.53 |
| C9orf66 | -0.91 | -0.83 | -0.96 | -0.91 | -0.98 | -0.92 | -0.92 | -1.00 |
| C9orf72 | 2.50 | 3.02 | 2.83 | 3.00 | 2.96 | 3.01 | 4.06 | 2.55 |
| C9orf78 | 7.78 | 7.16 | 6.71 | 7.22 | 6.72 | 7.37 | 6.47 | 6.98 |
| C9orf85 | 5.29 | 4.53 | 4.41 | 4.51 | 4.85 | 5.22 | 4.66 | 4.91 |
| CA1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| CA11 | 4.73 | 4.74 | 4.42 | 4.74 | 5.42 | 4.54 | 3.89 | 4.02 |
| CA12 | 5.23 | 6.58 | 8.43 | 6.37 | 5.73 | 5.30 | 6.61 | 4.24 |
| CA13 | 3.43 | 4.74 | 3.91 | 4.59 | 3.80 | 4.12 | 4.77 | 3.17 |
| CA14 | 0.56 | 0.57 | 0.66 | 0.70 | 1.03 | 0.50 | 0.61 | 1.52 |
| CA2 | 6.80 | 6.92 | 6.97 | 8.43 | 7.50 | 4.94 | 6.84 | 7.24 |
| CA3 | -0.63 | -0.71 | -0.69 | -0.55 | -0.66 | -0.55 | -0.29 | -0.60 |
| CA3-AS1 | 1.69 | 1.38 | 1.49 | 1.66 | 1.57 | 1.03 | 1.58 | 1.37 |
| CA4 | 1.09 | 0.82 | 0.95 | 0.87 | 0.94 | 0.81 | 0.94 | 0.88 |
| CA5A | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| CA5B | 2.21 | 2.00 | 2.34 | 1.81 | 1.96 | 2.26 | 2.48 | 2.17 |
| CA5BP1 | 2.14 | 1.58 | 2.48 | 1.53 | 2.15 | 1.74 | 1.70 | 1.36 |
| CA7 | -1.89 | -1.89 | -1.88 | -1.85 | -1.83 | -1.86 | -1.90 | -1.91 |
| CA8 | 1.94 | 1.31 | 0.78 | 1.21 | 0.71 | 0.70 | 0.64 | 0.86 |
| CA9 | 4.95 | 5.81 | 8.35 | 5.54 | 8.69 | 5.61 | 8.76 | 4.10 |
| CAAP1 | 5.19 | 5.31 | 4.98 | 5.51 | 5.11 | 5.30 | 5.48 | 5.20 |
| CAB39 | 5.84 | 6.28 | 6.34 | 5.93 | 5.90 | 6.18 | 6.39 | 6.39 |
| CAB39L | 3.41 | 3.41 | 3.18 | 3.48 | 4.01 | 3.06 | 3.40 | 4.36 |
| CABIN1 | 5.34 | 5.46 | 5.67 | 6.07 | 5.22 | 5.32 | 5.87 | 5.27 |
| CABLES1 | 3.37 | 5.10 | 4.44 | 4.79 | 3.76 | 4.37 | 3.52 | 5.42 |
| CABLES2 | 3.53 | 2.93 | 3.45 | 3.24 | 3.02 | 2.77 | 2.51 | 2.98 |
| CABP1 | 0.39 | 0.26 | 0.15 | 0.18 | 0.63 | 0.12 | 0.27 | 0.18 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CABP4 | 2.83 | 1.89 | 2.94 | 2.04 | 2.70 | 2.63 | 2.26 | 3.18 |
| CABP7 | -1.61 | -1.54 | -1.60 | -1.55 | -1.61 | -1.59 | -1.56 | -1.41 |
| CABYR | 2.67 | 1.93 | 2.26 | 1.87 | 2.02 | 2.53 | 1.64 | 3.77 |
| CACFD1 | 4.84 | 4.63 | 4.59 | 4.70 | 4.55 | 4.50 | 5.44 | 4.90 |
| CACHD1 | -0.73 | -0.71 | -0.62 | -0.73 | -0.63 | -0.78 | -0.81 | -0.82 |
| CACNA1A | 0.21 | 0.17 | 0.02 | 0.07 | 0.06 | -0.06 | -0.01 | -0.11 |
| CACNA1C | 0.17 | 0.16 | 0.48 | 0.26 | 0.34 | -0.03 | -0.03 | -0.12 |
| CACNA1C-AS2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -2.00 | -1.97 |
| CACNA1D | 2.43 | 3.05 | 2.87 | 3.03 | 2.27 | 2.53 | 3.57 | 2.18 |
| CACNA1E | 0.01 | 0.19 | -0.06 | 0.16 | -0.03 | -0.06 | 0.08 | -0.05 |
| CACNA1F | -0.30 | -0.43 | -0.48 | -0.37 | -0.36 | -0.40 | -0.46 | -0.55 |
| CACNA1G | 0.28 | -0.18 | -0.18 | 0.01 | -0.23 | -0.29 | -0.21 | -0.30 |
| CACNA1G-AS1 | -1.83 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.95 | -1.96 |
| CACNA1H | -0.20 | -0.19 | -0.07 | -0.04 | -0.15 | -0.21 | 0.45 | -0.23 |
| CACNA1I | -0.84 | -0.91 | -0.67 | -0.84 | -0.91 | -0.92 | -0.63 | -0.93 |
| CACNA2D1 | -1.07 | -1.07 | -1.06 | -1.08 | -1.00 | -0.92 | -1.08 | -0.60 |
| CACNA2D2 | -0.68 | -0.87 | -0.93 | -0.96 | -0.81 | -1.04 | -0.90 | -0.93 |
| CACNA2D3 | -1.00 | -0.99 | -0.98 | -1.00 | -0.95 | -1.01 | -0.86 | -0.90 |
| CACNA2D4 | 1.76 | 1.71 | 1.97 | 1.93 | 4.54 | 3.13 | 1.62 | 1.48 |
| CACNB1 | 1.80 | 1.57 | 2.06 | 1.44 | 1.72 | 2.05 | 1.89 | 1.69 |
| CACNB2 | -1.71 | -1.65 | -1.64 | -1.71 | -1.67 | -1.69 | -1.71 | -1.73 |
| CACNB3 | 3.76 | 4.00 | 4.16 | 4.17 | 3.39 | 4.00 | 3.63 | 3.79 |
| CACNB4 | 0.88 | 1.40 | 0.79 | 1.48 | 1.06 | 0.74 | 1.00 | 0.61 |
| CACNG1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.02 | -2.05 | -2.06 |
| CACNG4 | 0.89 | 1.68 | 1.26 | 1.14 | 1.05 | 1.86 | 1.19 | 0.73 |
| CACNG6 | -0.75 | -0.75 | -0.64 | -0.75 | -0.66 | 0.02 | -0.68 | -0.52 |
| CACNG7 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.07 | -2.11 |
| CACNG8 | 1.09 | 1.68 | 1.33 | 1.82 | 1.36 | 1.36 | 1.08 | 1.07 |
| CACTIN | 3.06 | 3.13 | 3.74 | 3.42 | 3.41 | 3.65 | 3.36 | 3.81 |
| CACTIN-AS1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| CACUL1 | 6.22 | 6.46 | 6.25 | 6.42 | 6.41 | 6.61 | 6.06 | 6.21 |
| CACYBP | 8.16 | 7.23 | 7.48 | 7.31 | 7.68 | 8.20 | 6.93 | 7.56 |
| CACYBPP2 | 0.11 | -0.18 | 0.05 | -0.19 | -0.14 | 0.06 | -0.19 | -0.04 |
| CAD | 4.24 | 4.49 | 4.73 | 4.70 | 3.85 | 4.16 | 4.38 | 4.27 |
| CADM1 | 3.31 | 3.67 | 2.89 | 3.66 | 2.24 | 2.22 | 3.43 | 2.20 |
| CADM2 | -0.86 | -1.00 | -0.60 | -1.01 | -1.00 | -0.89 | -1.01 | -0.91 |
| CADM4 | 4.01 | 3.39 | 3.53 | 3.14 | 3.59 | 3.28 | 3.47 | 3.36 |
| CADPS | 1.60 | 3.28 | 1.86 | 3.60 | 1.62 | 1.60 | 1.65 | 1.16 |
| CADPS2 | 3.54 | 4.50 | 4.22 | 4.54 | 4.45 | 4.29 | 4.73 | 4.59 |
| CAGE1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.91 | -1.92 |
| CAHM | 1.00 | 0.57 | 0.87 | 0.47 | 0.70 | 0.88 | 0.68 | 0.81 |
| CALB1 | 5.22 | 3.51 | 6.08 | 3.86 | 3.63 | 3.37 | 4.36 | 4.19 |
| CALB2 | 4.61 | 2.65 | 3.04 | 2.61 | 5.71 | 3.31 | 3.58 | 3.70 |
| CALCA | -1.79 | -1.79 | -1.78 | -1.79 | -1.79 | -1.80 | -1.79 | -1.81 |
| CALCB | -1.64 | -1.63 | -1.57 | -1.59 | -1.58 | -1.65 | -1.54 | -1.66 |
| CALCOCO1 | 4.06 | 3.87 | 4.43 | 3.86 | 3.79 | 4.34 | 4.41 | 4.26 |
| CALCOCO2 | 7.13 | 6.82 | 6.90 | 6.74 | 6.98 | 7.10 | 6.97 | 6.67 |
| CALCR | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 |
| CALCRL | 0.54 | 0.47 | 0.77 | 0.53 | 0.46 | 0.51 | 0.61 | 0.73 |
| CALD1 | 5.54 | 6.46 | 5.41 | 6.11 | 5.53 | 5.47 | 7.15 | 5.39 |
| CALHM2 | 3.49 | 3.16 | 3.62 | 3.10 | 3.38 | 2.86 | 2.16 | 2.51 |
| CALHM3 | 1.29 | 1.16 | 2.28 | 1.27 | 3.03 | 1.39 | 0.95 | 1.62 |
| CALHM6 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 |
| CALM1 | 10.13 | 10.75 | 10.14 | 10.78 | 10.36 | 10.30 | 10.04 | 9.40 |
| CALM1P1 | -1.05 | -0.96 | -1.03 | -1.06 | -1.04 | -1.10 | -1.13 | -1.14 |
| CALM1P2 | -1.64 | -1.54 | -1.68 | -1.64 | -1.64 | -1.68 | -1.65 | -1.71 |
| CALM2 | 11.46 | 10.82 | 10.33 | 11.27 | 11.59 | 10.84 | 10.52 | 10.90 |
| CALM2P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| CALM2P2 | 0.00 | -0.07 | -0.14 | -0.01 | 0.13 | -0.09 | -0.03 | 0.00 |
| CALM2P3 | -0.09 | -0.23 | -0.23 | -0.11 | -0.28 | -0.24 | -0.05 | -0.28 |
| CALM2P4 | -1.79 | -1.79 | -1.78 | -1.75 | -1.79 | -1.78 | -1.75 | -1.81 |
| CALM3 | 7.57 | 7.46 | 7.22 | 7.17 | 7.75 | 7.21 | 7.52 | 7.48 |
| CALML3-AS1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.89 | -1.95 | -1.96 |
| CALML4 | 2.17 | 2.31 | 1.78 | 2.36 | 2.11 | 1.78 | 2.79 | 2.24 |
| CALML5 | -1.89 | -1.88 | -1.88 | -1.89 | -1.89 | -1.89 | -1.89 | -1.71 |
| CALML6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| CALR | 9.02 | 9.40 | 9.35 | 9.78 | 9.52 | 9.03 | 9.27 | 9.36 |
| CALR4P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| CALU | 7.17 | 8.35 | 8.08 | 8.20 | 8.58 | 8.01 | 7.88 | 8.75 |
| CALY | 0.83 | 0.12 | 0.05 | 0.18 | 0.04 | 0.05 | 0.10 | 0.06 |
| CAMK1 | 5.99 | 4.28 | 3.52 | 4.53 | 4.33 | 3.81 | 3.77 | 2.76 |
| CAMK1D | 1.51 | 1.18 | 1.21 | 1.06 | 1.02 | 0.85 | 1.37 | 0.78 |
| CAMK2A | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| CAMK2B | -1.84 | -1.84 | -1.79 | -1.84 | -1.84 | -1.83 | -1.84 | -1.86 |
| CAMK2D | 4.65 | 6.01 | 4.66 | 5.76 | 5.11 | 6.19 | 6.15 | 5.78 |
| CAMK2G | 5.73 | 5.40 | 5.40 | 5.13 | 5.35 | 5.15 | 5.20 | 5.41 |
| CAMK2N1 | 8.29 | 8.04 | 8.64 | 8.01 | 8.30 | 8.93 | 8.74 | 9.02 |
| CAMK2N2 | 0.05 | 0.06 | 0.42 | 0.40 | 0.36 | 0.22 | 0.12 | 0.08 |
| CAMK4 | -1.64 | -1.68 | -1.58 | -1.69 | -1.66 | -1.63 | -1.69 | -1.71 |
| CAMKK1 | 1.36 | 1.15 | 1.06 | 1.09 | 1.21 | 0.99 | 1.15 | 0.71 |
| CAMKK2 | 4.19 | 6.02 | 5.76 | 5.79 | 4.95 | 4.67 | 5.42 | 5.30 |
| CAMKMT | 3.96 | 4.17 | 3.44 | 4.30 | 5.06 | 3.85 | 4.07 | 3.99 |
| CAMKV | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| CAMLG | 5.86 | 6.39 | 6.05 | 6.59 | 7.00 | 6.27 | 6.14 | 5.53 |
| CAMP | -1.79 | -1.64 | -1.78 | -1.75 | -1.79 | -1.73 | -1.80 | -1.81 |
| CAMSAP1 | 3.48 | 4.37 | 4.51 | 4.07 | 3.68 | 4.21 | 4.06 | 3.81 |
| CAMSAP2 | 4.69 | 5.19 | 5.44 | 5.12 | 4.92 | 5.86 | 5.69 | 5.63 |
| CAMSAP3 | 4.40 | 4.98 | 4.99 | 4.97 | 4.13 | 4.25 | 5.00 | 4.44 |
| CAMTA1 | 9.20 | 7.80 | 7.95 | 8.05 | 8.53 | 8.23 | 7.63 | 8.32 |
| CAMTA1-DT | 1.73 | 1.10 | 1.15 | 1.24 | 1.26 | 0.95 | 1.18 | 1.16 |
| CAMTA1-IT1 | -1.06 | -0.98 | -1.04 | -0.99 | -0.91 | -0.88 | -1.07 | -0.86 |
| CAMTA2 | 4.52 | 4.89 | 5.18 | 5.01 | 5.25 | 4.80 | 5.99 | 4.97 |
| CAND1 | 5.74 | 6.45 | 7.02 | 6.15 | 5.95 | 7.07 | 6.54 | 6.23 |
| CAND2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.03 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CANT1 | 6.39 | 7.43 | 6.96 | 7.20 | 6.82 | 7.13 | 7.04 | 6.53 |
| CANX | 8.10 | 9.05 | 9.24 | 9.12 | 9.25 | 8.30 | 9.11 | 8.54 |
| CAP1 | 7.26 | 8.61 | 8.33 | 8.07 | 7.90 | 8.06 | 8.14 | 7.85 |
| CAP2 | 1.99 | 1.77 | 1.60 | 2.30 | 1.78 | 1.71 | 1.98 | 1.99 |
| CAP2P1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| CAPG | 8.08 | 8.19 | 7.60 | 8.42 | 7.83 | 7.53 | 6.91 | 8.33 |
| CAPN1 | 7.06 | 6.92 | 7.49 | 6.68 | 7.35 | 7.42 | 7.26 | 7.46 |
| CAPN10 | 4.20 | 4.35 | 4.23 | 4.07 | 4.30 | 4.60 | 4.03 | 4.52 |
| CAPN10-DT | 1.69 | 1.30 | 1.75 | 1.39 | 1.55 | 1.44 | 1.57 | 1.62 |
| CAPN12 | 4.15 | 3.91 | 4.15 | 4.46 | 5.73 | 3.92 | 5.18 | 3.78 |
| CAPN13 | -0.54 | -0.54 | 0.15 | -0.40 | -0.03 | -0.55 | -0.55 | -0.32 |
| CAPN14 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| CAPN15 | 4.59 | 4.88 | 5.35 | 5.02 | 4.07 | 4.47 | 5.00 | 4.63 |
| CAPN2 | 8.32 | 8.51 | 8.41 | 8.20 | 7.71 | 8.34 | 8.68 | 9.17 |
| CAPN3 | -2.30 | -2.30 | -2.29 | -2.29 | -2.30 | -2.31 | -2.31 | -2.30 |
| CAPN5 | 5.40 | 5.73 | 6.45 | 5.43 | 6.36 | 5.52 | 6.71 | 5.87 |
| CAPN6 | 1.45 | 3.24 | 3.72 | 4.82 | 3.56 | 1.58 | 1.50 | 1.30 |
| CAPN7 | 5.32 | 5.54 | 4.72 | 5.30 | 5.37 | 5.32 | 5.58 | 5.25 |
| CAPN8 | 6.30 | 6.02 | 5.76 | 6.48 | 6.14 | 5.15 | 6.47 | 6.88 |
| CAPN9 | 1.10 | 1.36 | 0.93 | 1.37 | 1.54 | 1.46 | 1.34 | 1.26 |
| CAPNS1 | 7.93 | 8.59 | 8.00 | 8.28 | 8.29 | 8.02 | 8.17 | 7.66 |
| CAPNS2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| CAPRIN1 | 6.74 | 6.89 | 7.09 | 6.84 | 6.54 | 6.87 | 6.85 | 7.24 |
| CAPRIN2 | 3.76 | 4.99 | 4.99 | 5.51 | 4.86 | 3.77 | 4.57 | 4.97 |
| CAPS | 5.19 | 4.02 | 5.51 | 3.93 | 4.75 | 8.14 | 4.81 | 6.66 |
| CAPS2 | 1.74 | 2.34 | 2.24 | 1.72 | 1.75 | 1.93 | 1.64 | 1.91 |
| CAPSL | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 |
| CAPZA1 | 7.56 | 7.31 | 6.91 | 7.29 | 7.06 | 7.28 | 7.23 | 7.48 |
| CAPZA2 | 7.09 | 7.49 | 7.29 | 7.47 | 7.51 | 7.28 | 7.56 | 7.73 |
| CAPZA3 | -2.23 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| CAPZB | 7.54 | 7.19 | 7.71 | 7.29 | 8.02 | 8.12 | 8.14 | 7.35 |
| CARD10 | 4.69 | 5.00 | 4.04 | 5.06 | 4.74 | 5.09 | 5.14 | 4.47 |
| CARD11 | 3.70 | 4.91 | 4.32 | 4.75 | 4.09 | 3.90 | 3.86 | 4.78 |
| CARD14 | 1.36 | 1.19 | 1.25 | 1.28 | 1.04 | 1.56 | 1.20 | 0.99 |
| CARD16 | 3.05 | 3.66 | 3.27 | 2.97 | 2.03 | 2.23 | 2.05 | 3.56 |
| CARD18 | -1.74 | -1.73 | -1.73 | -1.74 | -1.73 | -1.75 | -1.74 | -1.41 |
| CARD19 | 7.09 | 6.72 | 6.49 | 7.18 | 6.15 | 6.79 | 6.36 | 6.20 |
| CARD6 | 2.74 | 4.08 | 3.48 | 3.71 | 2.90 | 2.99 | 3.89 | 3.86 |
| CARD8 | 3.35 | 3.31 | 3.03 | 3.61 | 3.96 | 3.25 | 3.53 | 3.42 |
| CARD8-AS1 | 1.09 | 1.37 | 0.94 | 1.35 | 1.18 | 1.21 | 0.87 | 0.88 |
| CARD9 | -1.55 | -1.55 | -1.54 | -1.56 | -1.52 | -1.54 | -1.56 | -1.47 |
| CARF | 1.93 | 1.83 | 2.68 | 2.20 | 2.21 | 1.90 | 2.42 | 2.06 |
| CARHSP1 | 7.92 | 6.81 | 7.33 | 6.83 | 6.49 | 7.16 | 7.49 | 6.63 |
| CARM1 | 5.00 | 5.66 | 5.69 | 5.61 | 5.20 | 5.54 | 5.78 | 5.43 |
| CARMIL1 | 5.32 | 5.77 | 5.33 | 6.07 | 4.66 | 5.61 | 5.65 | 5.68 |
| CARMIL2 | 1.94 | 1.06 | 0.92 | 0.95 | 1.41 | 1.18 | 0.78 | 0.87 |
| CARMIL3 | -1.45 | -1.38 | -1.43 | -1.39 | -1.29 | -1.37 | -1.34 | -1.41 |
| CARMN | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -1.98 | -1.96 | -1.97 |
| CARNMT1 | 4.26 | 4.86 | 4.47 | 4.56 | 4.21 | 4.77 | 4.70 | 4.78 |
| CARNMT1-AS1 | -2.01 | -2.04 | -2.00 | -2.01 | -2.04 | -2.05 | -2.05 | -2.06 |
| CARNS1 | 0.91 | 0.69 | 0.81 | 0.83 | 0.85 | 0.83 | 1.30 | 0.68 |
| CARS | 4.73 | 5.37 | 5.81 | 5.43 | 6.11 | 5.77 | 6.05 | 5.92 |
| CARS2 | 5.32 | 5.88 | 5.97 | 6.16 | 6.79 | 5.27 | 5.57 | 4.24 |
| CARTPT | -1.54 | -1.53 | -1.46 | -1.54 | -1.54 | -1.55 | -0.74 | -1.56 |
| CASC1 | -0.66 | -0.49 | -0.47 | -0.58 | -0.50 | -0.35 | -0.40 | -0.62 |
| CASC11 | -1.14 | -1.13 | -1.19 | -1.15 | -1.13 | -1.19 | -1.21 | -1.12 |
| CASC15 | -0.23 | -0.14 | -0.03 | -0.16 | -0.18 | 0.00 | -0.08 | -0.01 |
| CASC16 | -1.75 | -1.78 | -1.78 | -1.71 | -1.79 | -1.78 | -1.75 | -1.81 |
| CASC19 | 5.59 | 5.94 | 7.75 | 5.89 | 5.82 | 5.64 | 6.74 | 5.18 |
| CASC2 | 2.06 | 2.14 | 1.95 | 2.53 | 2.62 | 2.16 | 2.40 | 1.77 |
| CASC20 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| CASC3 | 5.19 | 4.58 | 5.55 | 4.71 | 5.13 | 5.47 | 4.89 | 5.40 |
| CASC4 | 6.81 | 7.46 | 6.70 | 7.51 | 6.89 | 6.54 | 6.96 | 7.32 |
| CASC4P1 | -0.88 | -0.88 | -0.94 | -0.75 | -0.92 | -0.90 | -0.96 | -0.86 |
| CASC8 | 5.43 | 7.00 | 5.66 | 7.15 | 6.76 | 5.81 | 4.88 | 5.82 |
| CASC9 | 2.16 | 1.64 | 1.79 | 1.82 | 1.51 | 3.26 | 1.41 | 4.40 |
| CASD1 | 3.29 | 3.63 | 2.70 | 3.71 | 3.64 | 3.73 | 3.68 | 3.92 |
| CASK | 5.25 | 6.34 | 6.73 | 6.33 | 5.18 | 5.81 | 6.15 | 5.40 |
| CASK-AS1 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.00 |
| CASKIN1 | 0.19 | 0.19 | 0.12 | 0.24 | 0.27 | 0.26 | 0.38 | 0.31 |
| CASKIN2 | 3.86 | 3.57 | 3.78 | 3.38 | 3.24 | 3.16 | 3.42 | 3.17 |
| CASP1 | 2.99 | 2.72 | 2.96 | 2.75 | 1.91 | 2.30 | 2.30 | 2.59 |
| CASP10 | 4.04 | 3.14 | 3.19 | 3.52 | 3.69 | 3.43 | 3.80 | 3.53 |
| CASP14 | -1.15 | -0.43 | -1.05 | -1.02 | -1.11 | -0.86 | -1.16 | -1.17 |
| CASP16P | -1.55 | -1.54 | -1.53 | -1.55 | -1.51 | -1.56 | -1.50 | -1.57 |
| CASP17P | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| CASP2 | 4.00 | 4.81 | 4.82 | 4.35 | 4.51 | 4.76 | 4.86 | 4.74 |
| CASP3 | 4.68 | 5.02 | 5.17 | 5.06 | 4.56 | 5.16 | 5.45 | 5.33 |
| CASP4 | 6.16 | 6.23 | 6.01 | 6.19 | 6.58 | 6.05 | 6.38 | 7.04 |
| CASP5 | -1.22 | -1.21 | -1.20 | -1.23 | -1.22 | -1.23 | -1.10 | -1.18 |
| CASP6 | 5.04 | 5.92 | 5.59 | 6.22 | 4.81 | 6.03 | 5.38 | 5.73 |
| CASP7 | 5.07 | 5.04 | 4.68 | 4.90 | 5.00 | 4.66 | 4.79 | 4.30 |
| CASP8 | 5.21 | 5.20 | 5.23 | 5.27 | 4.98 | 4.97 | 4.48 | 4.95 |
| CASP8AP2 | 6.43 | 5.16 | 5.99 | 5.04 | 5.28 | 5.88 | 6.18 | 5.16 |
| CASP9 | 3.86 | 3.35 | 3.81 | 3.32 | 3.72 | 4.03 | 3.44 | 3.97 |
| CASR | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| CASS4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| CAST | 7.69 | 9.34 | 9.37 | 8.99 | 8.71 | 8.77 | 9.34 | 8.58 |
| CASTOR1 | 3.19 | 2.23 | 2.31 | 2.46 | 2.61 | 2.50 | 2.60 | 3.04 |
| CASTOR2 | -0.47 | -0.54 | -0.44 | -0.48 | -0.50 | -0.45 | -0.48 | -0.29 |
| CASTOR3 | 2.39 | 2.37 | 2.38 | 2.45 | 2.36 | 2.55 | 2.99 | 2.41 |
| CASZ1 | 4.48 | 4.84 | 4.94 | 4.53 | 4.57 | 4.52 | 5.66 | 3.89 |
| CAT | 6.50 | 6.53 | 6.18 | 6.84 | 6.58 | 6.42 | 6.06 | 6.47 |
| CATIP | -1.74 | -1.73 | -1.73 | -1.70 | -1.74 | -1.75 | -1.70 | -1.76 |

| | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CATIP-AS1 | 1.36 | 0.76 | 1.17 | 1.06 | 0.94 | 0.88 | 0.66 | 0.74 |
| CATSPER1 | -0.54 | -0.53 | -0.36 | -0.54 | -0.44 | -0.04 | -0.47 | -0.38 |
| CATSPER2 | 1.26 | 1.35 | 1.63 | 1.24 | 1.39 | 1.48 | 2.21 | 1.28 |
| CATSPER2P1 | 3.13 | 2.61 | 3.08 | 2.69 | 3.68 | 2.46 | 2.96 | 3.10 |
| CATSPER3 | -1.54 | -1.59 | -1.53 | -1.54 | -1.56 | -1.50 | -1.55 | -1.56 |
| CATSPERB | 0.59 | 0.44 | 0.55 | 0.62 | 0.52 | 0.48 | 0.76 | 0.62 |
| CATSPERD | -1.84 | -1.84 | -1.83 | -1.72 | -1.80 | -1.83 | -1.80 | -1.86 |
| CATSPERE | -1.08 | -1.15 | -1.22 | -1.24 | -1.19 | -1.04 | -1.24 | -1.26 |
| CATSPERG | -0.54 | -0.44 | -0.59 | -0.61 | -0.53 | -0.52 | -0.62 | -0.63 |
| CAV1 | 5.27 | 6.53 | 6.28 | 5.74 | 5.82 | 7.28 | 6.84 | 8.74 |
| CAV2 | 6.36 | 7.24 | 6.88 | 7.05 | 6.75 | 7.68 | 7.86 | 8.61 |
| CAVIN1 | 5.71 | 6.10 | 5.93 | 6.02 | 5.76 | 5.31 | 6.13 | 5.09 |
| CAVIN2 | 0.16 | 0.18 | 0.21 | 0.07 | 0.13 | 0.10 | 0.15 | 0.11 |
| CAVIN3 | 7.28 | 8.17 | 6.85 | 8.46 | 5.93 | 7.06 | 6.30 | 6.98 |
| CAVIN4 | -1.41 | -1.40 | -1.39 | -1.29 | -1.34 | -1.36 | -1.41 | -1.37 |
| CBARP | 1.03 | 0.74 | 0.69 | 0.64 | 0.77 | 0.92 | 0.76 | 1.00 |
| CBFA2T2 | 4.14 | 4.38 | 4.82 | 4.15 | 4.56 | 4.36 | 4.65 | 4.45 |
| CBFA2T3 | -0.37 | -0.61 | -0.40 | -0.54 | -0.61 | -0.55 | -0.62 | -0.64 |
| CBFB | 5.67 | 5.85 | 6.24 | 5.94 | 5.58 | 5.85 | 5.91 | 5.81 |
| CBL | 4.47 | 4.60 | 4.97 | 4.33 | 4.58 | 4.46 | 4.25 | 4.47 |
| CBLB | 3.40 | 3.52 | 4.06 | 3.01 | 3.05 | 3.88 | 4.06 | 3.94 |
| CBLC | 6.50 | 5.89 | 5.31 | 6.00 | 6.18 | 5.63 | 5.98 | 6.20 |
| CBLL1 | 3.96 | 4.70 | 4.55 | 4.31 | 4.61 | 4.35 | 4.66 | 4.82 |
| CBLN1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CBLN3 | -0.73 | -0.64 | -0.62 | -0.58 | -0.61 | -0.63 | -0.73 | -0.68 |
| CBR1 | 9.67 | 9.09 | 8.10 | 9.51 | 7.96 | 8.02 | 8.67 | 9.36 |
| CBR3 | 3.65 | 3.16 | 2.61 | 3.08 | 2.31 | 2.72 | 2.21 | 3.03 |
| CBR3-AS1 | 1.58 | 1.16 | 1.13 | 1.36 | 1.11 | 1.08 | 1.34 | 0.91 |
| CBR4 | 5.02 | 5.20 | 5.45 | 5.34 | 5.37 | 5.29 | 5.88 | 5.32 |
| CBSL | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| CBWD1 | 5.30 | 5.34 | 4.44 | 5.63 | 5.35 | 5.70 | 4.48 | 4.17 |
| CBWD2 | 3.61 | 3.67 | 3.32 | 3.61 | 3.55 | 3.54 | 3.38 | 3.76 |
| CBWD3 | -1.19 | -1.19 | -1.18 | -1.27 | -1.22 | -1.12 | -1.20 | -1.07 |
| CBWD4P | -0.80 | -1.08 | -1.07 | -1.01 | -1.01 | -1.09 | -0.95 | -1.10 |
| CBWD5 | 2.45 | 2.75 | 2.19 | 2.71 | 2.99 | 2.85 | 2.48 | 2.66 |
| CBWD6 | 0.81 | 0.70 | 0.50 | 0.54 | 0.72 | 0.55 | 0.82 | 0.59 |
| CBX1 | 7.13 | 6.63 | 7.06 | 6.45 | 6.56 | 7.45 | 6.25 | 6.58 |
| CBX1P1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.01 | -2.02 | -2.05 | -2.06 |
| CBX1P2 | -1.64 | -1.58 | -1.62 | -1.59 | -1.58 | -1.60 | -1.59 | -1.66 |
| CBX2 | 3.03 | 1.95 | 2.42 | 2.07 | 2.22 | 2.04 | 1.87 | 1.90 |
| CBX3 | 9.10 | 8.72 | 8.55 | 8.58 | 8.82 | 9.01 | 8.32 | 9.11 |
| CBX3P1 | -2.04 | -2.04 | -1.98 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| CBX3P3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| CBX3P5 | -1.54 | -1.54 | -1.53 | -1.54 | -1.54 | -1.52 | -1.38 | -1.51 |
| CBX3P9 | -1.06 | -1.19 | -1.11 | -1.13 | -1.12 | -1.17 | -1.13 | -1.05 |
| CBX4 | 5.79 | 5.56 | 6.02 | 5.41 | 5.60 | 5.47 | 5.45 | 5.25 |
| CBX5 | 7.58 | 7.30 | 7.84 | 7.04 | 6.79 | 8.49 | 7.39 | 7.38 |
| CBX5P1 | -2.15 | -2.14 | -2.14 | -2.10 | -2.15 | -2.14 | -2.15 | -2.16 |
| CBX6 | 8.58 | 8.41 | 7.41 | 8.74 | 7.88 | 8.80 | 7.67 | 7.18 |
| CBX7 | 3.30 | 2.96 | 3.19 | 3.01 | 3.21 | 3.14 | 3.32 | 3.21 |
| CBX8 | 3.95 | 3.25 | 3.96 | 3.41 | 3.74 | 3.62 | 3.28 | 3.37 |
| CBY1 | 6.06 | 6.03 | 5.61 | 6.04 | 5.11 | 6.03 | 5.61 | 5.32 |
| CC2D1A | 4.41 | 5.10 | 4.94 | 4.94 | 4.40 | 4.59 | 5.24 | 4.42 |
| CC2D1B | 3.31 | 3.44 | 3.51 | 3.40 | 2.78 | 3.23 | 3.42 | 2.76 |
| CC2D2A | 2.61 | 3.51 | 3.47 | 3.72 | 2.25 | 3.45 | 2.46 | 3.03 |
| CC2D2B | -1.28 | -1.34 | -1.26 | -1.22 | -1.20 | -1.36 | -1.28 | -1.37 |
| CCAR1 | 6.37 | 6.91 | 6.74 | 6.68 | 6.48 | 6.56 | 6.74 | 6.10 |
| CCAR2 | 4.71 | 4.86 | 6.05 | 4.51 | 4.67 | 5.11 | 5.18 | 4.91 |
| CCBE1 | -0.83 | -0.81 | -0.80 | -0.83 | -0.89 | -0.84 | -0.76 | -0.47 |
| CCDC102A | 2.11 | 1.94 | 1.84 | 2.23 | 1.83 | 2.22 | 1.49 | 2.06 |
| CCDC102B | -1.03 | -0.94 | -0.93 | -1.03 | -0.85 | -0.94 | -0.96 | -0.92 |
| CCDC106 | 3.44 | 2.35 | 2.49 | 2.33 | 3.54 | 2.69 | 2.84 | 2.91 |
| CCDC107 | 5.72 | 5.79 | 5.26 | 6.13 | 6.58 | 6.01 | 5.81 | 5.50 |
| CCDC110 | 1.32 | 0.99 | 1.11 | 1.34 | 1.31 | 1.10 | 1.52 | 1.12 |
| CCDC112 | 4.77 | 4.82 | 4.99 | 4.88 | 5.44 | 4.79 | 4.11 | 3.97 |
| CCDC113 | 3.60 | 3.19 | 2.93 | 2.78 | 2.99 | 3.38 | 3.01 | 3.12 |
| CCDC114 | -1.07 | -1.06 | -0.97 | -1.07 | -0.91 | -0.77 | -1.00 | -1.02 |
| CCDC115 | 5.64 | 4.98 | 5.01 | 5.57 | 5.76 | 5.41 | 4.91 | 6.00 |
| CCDC116 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.96 |
| CCDC117 | 4.61 | 4.12 | 4.01 | 4.10 | 3.95 | 3.96 | 4.74 | 4.08 |
| CCDC12 | 7.20 | 7.22 | 6.53 | 7.43 | 7.17 | 7.17 | 6.78 | 6.90 |
| CCDC120 | 3.00 | 3.02 | 3.22 | 3.34 | 3.18 | 2.98 | 3.31 | 2.72 |
| CCDC121 | 1.35 | 1.27 | 1.25 | 1.15 | 1.09 | 0.98 | 1.14 | 1.00 |
| CCDC122 | 3.06 | 4.05 | 3.02 | 3.81 | 3.31 | 3.24 | 3.35 | 4.42 |
| CCDC124 | 7.20 | 7.31 | 7.16 | 7.07 | 7.43 | 7.19 | 6.74 | 7.16 |
| CCDC125 | 3.74 | 4.52 | 4.44 | 4.74 | 4.69 | 4.62 | 4.62 | 4.22 |
| CCDC126 | 4.07 | 3.23 | 2.81 | 3.16 | 3.62 | 3.15 | 3.24 | 3.24 |
| CCDC127 | 5.66 | 4.85 | 5.24 | 5.12 | 5.54 | 4.97 | 5.01 | 5.04 |
| CCDC13 | -1.32 | -1.31 | -1.30 | -1.32 | -1.18 | -1.24 | -1.32 | -1.28 |
| CCDC130 | 4.76 | 4.40 | 4.46 | 4.71 | 4.90 | 4.54 | 4.81 | 4.25 |
| CCDC134 | 2.75 | 2.59 | 2.66 | 2.81 | 2.45 | 2.26 | 2.59 | 2.35 |
| CCDC136 | 0.78 | 1.11 | 1.43 | 1.26 | 2.33 | 0.99 | 0.68 | 1.01 |
| CCDC137 | 6.78 | 6.16 | 6.50 | 6.23 | 5.84 | 5.99 | 5.71 | 6.29 |
| CCDC138 | 3.83 | 3.63 | 3.73 | 3.44 | 3.90 | 3.90 | 3.73 | 3.51 |
| CCDC14 | 5.23 | 4.74 | 5.72 | 5.12 | 4.71 | 5.79 | 6.15 | 5.49 |
| CCDC140 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| CCDC141 | 0.07 | 0.08 | 0.19 | 0.15 | 1.22 | 0.09 | 0.64 | 0.17 |
| CCDC142 | 2.34 | 2.12 | 2.59 | 2.09 | 1.85 | 2.26 | 2.18 | 1.89 |
| CCDC144A | -0.96 | -0.87 | -0.78 | -0.68 | -0.95 | -0.96 | -0.96 | -0.97 |
| CCDC144B | 3.87 | 3.31 | 4.21 | 3.53 | 2.40 | 2.09 | 4.18 | 2.85 |
| CCDC144CP | 0.29 | 0.56 | 0.15 | 0.26 | 0.18 | 0.34 | 0.41 | 0.28 |
| CCDC144NL-AS1 | -1.11 | -1.10 | -1.09 | -1.11 | -1.14 | -1.16 | -1.12 | -0.99 |
| CCDC146 | 1.87 | 2.49 | 2.25 | 2.35 | 2.03 | 3.10 | 3.05 | 2.41 |
| CCDC148 | 1.44 | 1.12 | 1.38 | 1.64 | 1.45 | 2.04 | 1.42 | 1.12 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CCDC149 | 3.11 | 3.48 | 3.21 | 3.95 | 3.68 | 3.36 | 3.50 | 3.58 |
| CCDC15 | 2.14 | 2.19 | 3.09 | 2.07 | 2.33 | 2.51 | 2.96 | 2.32 |
| CCDC15-DT | -1.27 | -1.26 | -1.19 | -1.40 | -1.36 | -1.38 | -1.40 | -1.27 |
| CCDC150 | 1.80 | 1.85 | 2.34 | 2.21 | 1.78 | 1.89 | 2.23 | 1.48 |
| CCDC151 | 1.95 | 0.94 | 1.07 | 1.27 | 0.94 | 0.95 | 0.90 | 0.91 |
| CCDC152 | 5.61 | 2.58 | 5.01 | 2.47 | 3.49 | 5.47 | 2.51 | 3.39 |
| CCDC153 | 2.67 | 2.35 | 3.47 | 2.84 | 4.63 | 3.72 | 2.72 | 3.49 |
| CCDC154 | -1.35 | -1.34 | -1.33 | -1.35 | -1.28 | -1.22 | -1.36 | -1.31 |
| CCDC155 | -2.25 | -2.25 | -2.23 | -2.25 | -2.23 | -2.26 | -2.25 | -2.26 |
| CCDC157 | 1.65 | 1.57 | 1.33 | 1.85 | 1.24 | 1.42 | 1.60 | 1.57 |
| CCDC158 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.83 | -1.80 | -1.82 |
| CCDC159 | 2.65 | 2.45 | 2.65 | 2.80 | 2.67 | 2.73 | 2.93 | 3.30 |
| CCDC160 | 0.29 | 0.81 | 0.50 | 0.74 | 0.30 | 0.60 | 0.56 | 0.73 |
| CCDC162P | -0.44 | -0.58 | -0.47 | -0.23 | -0.19 | -0.56 | -0.59 | -0.61 |
| CCDC163 | 1.46 | 1.04 | 1.24 | 1.23 | 1.76 | 1.39 | 1.34 | 1.58 |
| CCDC167 | 7.04 | 6.23 | 6.11 | 6.21 | 6.58 | 6.69 | 5.96 | 7.42 |
| CCDC168 | -1.85 | -1.89 | -1.84 | -1.89 | -1.87 | -1.90 | -1.85 | -1.87 |
| CCDC169 | 0.43 | 0.31 | 0.09 | 0.42 | 0.30 | 0.05 | 0.14 | 0.67 |
| CCDC17 | -0.76 | -0.67 | -0.72 | -0.68 | -0.75 | -0.74 | -0.83 | -0.78 |
| CCDC170 | 0.99 | 1.81 | 1.13 | 1.71 | 1.03 | 1.03 | 0.81 | 1.10 |
| CCDC171 | 2.02 | 1.84 | 2.98 | 2.09 | 2.14 | 1.91 | 2.44 | 2.03 |
| CCDC173 | -1.75 | -1.74 | -1.78 | -1.79 | -1.79 | -1.71 | -1.79 | -1.81 |
| CCDC174 | 5.87 | 5.64 | 5.65 | 5.71 | 5.80 | 5.65 | 5.56 | 5.18 |
| CCDC175 | -0.95 | -1.02 | -0.93 | -0.69 | -0.95 | -0.97 | -0.89 | -1.04 |
| CCDC177 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.29 | -2.31 |
| CCDC178 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| CCDC18 | 4.43 | 4.80 | 5.37 | 4.88 | 4.29 | 5.26 | 4.59 | 3.91 |
| CCDC18-AS1 | 5.02 | 3.93 | 4.55 | 4.27 | 5.02 | 4.52 | 4.98 | 4.88 |
| CCDC180 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CCDC181 | 2.16 | 1.58 | 1.96 | 1.61 | 1.57 | 3.59 | 1.80 | 1.90 |
| CCDC183 | 1.13 | 1.27 | 0.86 | 1.73 | 1.08 | 1.07 | 1.51 | 0.96 |
| CCDC183-AS1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.79 | -1.68 | -1.82 |
| CCDC184 | -1.14 | -1.20 | -1.32 | -1.34 | -1.26 | -1.35 | -1.34 | -1.35 |
| CCDC186 | 6.64 | 6.90 | 6.55 | 6.75 | 7.48 | 6.92 | 7.03 | 6.75 |
| CCDC187 | -1.69 | -1.63 | -1.68 | -1.69 | -1.61 | -1.62 | -1.69 | -1.71 |
| CCDC188 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| CCDC189 | 2.46 | 2.20 | 2.84 | 2.06 | 2.06 | 2.46 | 2.94 | 2.20 |
| CCDC190 | -2.15 | -2.15 | -2.07 | -2.15 | -2.15 | -2.15 | -2.15 | -2.09 |
| CCDC191 | 2.48 | 2.45 | 3.29 | 2.40 | 2.59 | 2.95 | 2.98 | 3.10 |
| CCDC192 | 1.04 | 0.91 | 0.82 | 0.96 | 1.00 | 1.21 | 0.67 | 0.74 |
| CCDC194 | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 | -1.97 | -2.00 | -2.01 |
| CCDC196 | -2.15 | -2.15 | -2.14 | -2.12 | -2.08 | -2.15 | -2.15 | -2.16 |
| CCDC198 | 1.76 | 2.16 | 2.52 | 2.86 | 2.72 | 1.85 | 2.46 | 1.60 |
| CCDC200 | -1.85 | -1.89 | -1.88 | -1.86 | -1.87 | -1.90 | -1.89 | -1.87 |
| CCDC201 | -1.45 | -1.38 | -1.37 | -1.39 | -1.41 | -1.46 | -1.33 | -1.41 |
| CCDC22 | 4.34 | 4.05 | 4.58 | 4.15 | 4.62 | 4.41 | 4.12 | 3.82 |
| CCDC24 | 4.04 | 3.78 | 4.16 | 4.03 | 4.36 | 3.95 | 3.90 | 3.77 |
| CCDC25 | 7.46 | 7.01 | 7.60 | 7.08 | 6.63 | 7.53 | 7.17 | 6.52 |
| CCDC26 | -2.12 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| CCDC27 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| CCDC28A | 6.01 | 5.53 | 5.43 | 5.63 | 5.70 | 5.87 | 5.66 | 6.36 |
| CCDC28B | 4.83 | 4.19 | 4.39 | 4.41 | 4.38 | 4.93 | 4.21 | 3.60 |
| CCDC3 | -1.75 | -1.79 | -1.78 | -1.70 | -1.79 | -1.80 | -1.75 | -1.81 |
| CCDC30 | 1.67 | 2.19 | 1.82 | 1.90 | 2.01 | 2.02 | 2.71 | 1.86 |
| CCDC32 | 5.66 | 4.99 | 4.48 | 4.96 | 5.38 | 4.89 | 5.39 | 5.32 |
| CCDC33 | 2.09 | 1.69 | 1.98 | 1.48 | 1.90 | 2.23 | 1.59 | 1.78 |
| CCDC34 | 6.10 | 5.67 | 6.34 | 5.48 | 5.34 | 5.77 | 5.60 | 5.43 |
| CCDC36 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CCDC39-AS1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| CCDC40 | 1.37 | 1.53 | 1.58 | 1.64 | 1.65 | 2.05 | 1.69 | 1.53 |
| CCDC43 | 5.33 | 5.68 | 5.69 | 5.91 | 5.81 | 6.19 | 5.66 | 5.78 |
| CCDC47 | 7.42 | 7.27 | 7.58 | 7.47 | 7.62 | 7.20 | 7.25 | 7.44 |
| CCDC50 | 6.05 | 6.28 | 6.59 | 6.35 | 6.12 | 6.58 | 7.24 | 6.67 |
| CCDC51 | 6.04 | 5.64 | 5.20 | 5.93 | 5.67 | 5.19 | 5.10 | 5.08 |
| CCDC57 | 5.81 | 5.93 | 4.76 | 6.27 | 5.18 | 5.48 | 4.59 | 5.07 |
| CCDC58 | 6.47 | 5.08 | 5.49 | 5.02 | 5.63 | 5.61 | 5.48 | 6.01 |
| CCDC58P1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CCDC58P3 | -1.47 | -1.47 | -1.46 | -1.48 | -1.44 | -1.43 | -1.48 | -1.34 |
| CCDC59 | 5.91 | 6.15 | 5.97 | 6.18 | 6.11 | 6.52 | 5.93 | 7.01 |
| CCDC6 | 5.53 | 6.92 | 5.70 | 6.46 | 6.13 | 6.15 | 6.48 | 5.82 |
| CCDC61 | 5.39 | 4.98 | 4.29 | 5.36 | 5.27 | 5.01 | 4.74 | 4.80 |
| CCDC62 | -1.18 | -1.17 | -1.16 | -1.18 | -1.21 | -1.15 | -1.19 | -1.27 |
| CCDC63 | -2.30 | -2.30 | -2.28 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| CCDC65 | -1.74 | -1.64 | -1.73 | -1.74 | -1.73 | -1.70 | -1.74 | -1.71 |
| CCDC66 | 3.97 | 4.74 | 4.46 | 5.07 | 4.58 | 4.87 | 4.77 | 4.18 |
| CCDC68 | 4.71 | 4.39 | 4.26 | 4.65 | 4.09 | 4.02 | 6.13 | 3.38 |
| CCDC69 | 1.89 | 2.16 | 2.30 | 2.35 | 1.72 | 1.82 | 1.56 | 1.67 |
| CCDC7 | 1.67 | 2.50 | 2.50 | 2.62 | 2.15 | 2.22 | 2.24 | 1.77 |
| CCDC70 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| CCDC71 | 3.65 | 3.32 | 2.99 | 3.45 | 3.03 | 3.23 | 3.04 | 3.23 |
| CCDC71L | 4.14 | 4.47 | 4.48 | 4.61 | 4.05 | 4.64 | 4.13 | 5.36 |
| CCDC73 | 0.31 | 0.04 | 0.36 | 0.24 | 0.31 | 0.25 | 0.17 | 0.18 |
| CCDC74A | 2.81 | 1.93 | 2.09 | 2.01 | 2.08 | 2.46 | 2.09 | 2.07 |
| CCDC74B | -0.17 | -0.53 | -0.44 | -0.19 | -0.45 | -0.51 | -0.54 | -0.44 |
| CCDC74BP1 | -1.49 | -1.43 | -1.35 | -1.50 | -1.43 | -1.44 | -1.38 | -1.46 |
| CCDC75P1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| CCDC77 | 4.00 | 3.07 | 3.58 | 3.41 | 3.00 | 3.24 | 3.12 | 3.01 |
| CCDC78 | 0.18 | -0.07 | -0.12 | -0.17 | -0.15 | -0.14 | -0.03 | -0.05 |
| CCDC8 | -1.59 | -1.68 | -1.68 | -1.69 | -1.68 | -1.67 | -1.55 | -1.71 |
| CCDC80 | 3.08 | 2.29 | 2.85 | 2.21 | 2.10 | 2.83 | 2.13 | 3.79 |
| CCDC81 | -1.64 | -1.69 | -1.62 | -1.69 | -1.63 | -1.70 | -1.54 | -1.71 |
| CCDC82 | 5.34 | 5.08 | 5.01 | 4.93 | 4.99 | 5.14 | 5.35 | 5.13 |
| CCDC84 | 4.99 | 4.89 | 5.06 | 4.75 | 4.59 | 4.70 | 5.07 | 3.77 |
| CCDC85A | -1.79 | -1.78 | -1.78 | -1.79 | -1.78 | -1.80 | -1.71 | -1.80 |

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|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| CCDC85B | 7.54 | 7.60 | 7.14 | 7.72 | 7.36 | 7.61 | 6.07 | 7.06 |
| CCDC85C | 4.16 | 5.03 | 4.95 | 5.02 | 4.55 | 4.91 | 5.09 | 4.20 |
| CCDC86 | 6.31 | 5.76 | 5.56 | 5.85 | 5.67 | 5.65 | 4.82 | 5.89 |
| CCDC87 | -1.74 | -1.69 | -1.73 | -1.74 | -1.71 | -1.75 | -1.75 | -1.76 |
| CCDC88A | 5.71 | 6.11 | 5.43 | 5.99 | 5.83 | 5.79 | 5.84 | 5.41 |
| CCDC88B | 4.31 | 4.06 | 3.91 | 4.37 | 4.87 | 3.69 | 4.41 | 4.52 |
| CCDC88C | 4.46 | 4.47 | 4.93 | 4.83 | 5.00 | 6.81 | 4.39 | 4.31 |
| CCDC89 | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| CCDC9 | 3.97 | 4.03 | 3.65 | 3.90 | 4.46 | 3.72 | 3.89 | 3.96 |
| CCDC90B | 6.27 | 6.51 | 5.94 | 6.51 | 6.54 | 6.19 | 6.29 | 6.69 |
| CCDC91 | 5.31 | 5.29 | 5.12 | 5.16 | 6.25 | 4.66 | 4.89 | 5.69 |
| CCDC92 | 3.95 | 4.05 | 3.69 | 4.54 | 4.44 | 4.44 | 3.93 | 3.69 |
| CCDC93 | 5.05 | 5.13 | 5.22 | 5.32 | 5.18 | 5.15 | 5.11 | 4.99 |
| CCDC96 | 1.79 | 1.78 | 1.93 | 1.66 | 1.71 | 1.89 | 2.16 | 1.89 |
| CCDC97 | 4.54 | 4.23 | 3.98 | 4.25 | 4.02 | 4.01 | 4.00 | 3.59 |
| CCDC9B | 2.75 | 3.23 | 3.35 | 3.36 | 2.63 | 3.10 | 3.27 | 3.35 |
| CCER2 | -2.04 | -2.01 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.06 |
| CCHCR1 | 4.63 | 3.64 | 4.07 | 4.23 | 3.66 | 4.28 | 4.43 | 4.46 |
| CCK | 5.27 | 4.79 | 5.11 | 4.93 | 5.68 | 6.01 | 7.66 | 4.62 |
| CCL15 | 1.77 | 2.50 | 1.71 | 3.35 | 1.83 | 1.59 | 1.87 | 1.67 |
| CCL16 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CCL17 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.96 | -2.01 |
| CCL2 | 2.53 | 1.92 | 2.06 | 1.92 | 1.78 | 1.77 | 2.42 | 2.10 |
| CCL20 | 10.10 | 6.21 | 6.89 | 6.52 | 8.95 | 6.43 | 7.41 | 6.93 |
| CCL22 | 1.48 | 0.68 | 0.79 | 0.56 | 0.54 | 0.50 | 0.69 | 1.08 |
| CCL24 | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| CCL26 | 0.24 | 0.10 | 0.13 | 0.07 | 0.84 | 0.50 | -0.01 | 0.03 |
| CCL28 | 6.33 | 3.93 | 3.69 | 4.31 | 4.10 | 3.49 | 4.61 | 3.05 |
| CCL3 | -2.36 | -2.36 | -2.32 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CCL5 | 6.34 | 3.45 | 3.70 | 3.34 | 2.82 | 2.78 | 2.75 | 3.03 |
| CCL7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CCL8 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| CCM2 | 7.05 | 6.16 | 6.17 | 6.39 | 6.52 | 6.39 | 6.27 | 6.33 |
| CCM2L | -1.44 | -1.74 | -1.68 | -1.69 | -1.74 | -1.73 | -1.75 | -1.76 |
| CCN1 | 5.12 | 4.73 | 4.79 | 4.30 | 4.00 | 5.34 | 5.62 | 4.91 |
| CCN2 | 3.70 | 3.71 | 3.55 | 3.65 | 3.19 | 3.88 | 4.73 | 3.69 |
| CCN3 | 3.20 | 2.51 | 2.61 | 2.82 | 1.87 | 2.52 | 1.71 | 2.04 |
| CCN4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CCN5 | -1.99 | -1.96 | -1.95 | -1.99 | -1.97 | -1.95 | -2.00 | -2.01 |
| CCN6 | 1.37 | 0.88 | 0.92 | 0.75 | 0.97 | 1.08 | 0.75 | 3.12 |
| CCNA1 | 2.18 | 0.97 | 1.11 | 0.94 | 0.92 | 0.86 | 1.09 | 0.93 |
| CCNA2 | 6.03 | 6.27 | 6.01 | 6.26 | 5.64 | 6.54 | 6.06 | 7.29 |
| CCNB1 | 7.21 | 7.19 | 7.84 | 7.23 | 7.49 | 8.17 | 6.30 | 7.58 |
| CCNB1IP1 | 5.52 | 6.00 | 4.94 | 6.18 | 6.61 | 5.74 | 5.56 | 5.53 |
| CCNB2 | 7.34 | 6.07 | 6.45 | 6.40 | 6.68 | 7.14 | 5.78 | 7.31 |
| CCNB2P1 | -2.20 | -2.17 | -2.15 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| CCNB3 | -0.87 | -0.85 | -0.99 | -0.89 | -0.89 | -0.89 | -1.02 | -1.03 |
| CCNC | 6.71 | 5.52 | 6.31 | 5.67 | 5.88 | 6.44 | 6.66 | 6.53 |
| CCND1 | 10.11 | 9.88 | 9.48 | 9.77 | 8.91 | 9.74 | 10.66 | 9.87 |
| CCND2 | 0.91 | 0.83 | 0.86 | 0.89 | 0.88 | 0.81 | 0.97 | 0.62 |
| CCND2-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| CCND3 | 7.49 | 7.26 | 7.12 | 7.38 | 6.62 | 7.83 | 6.40 | 7.58 |
| CCNDBP1 | 6.47 | 5.63 | 5.43 | 5.40 | 6.38 | 5.79 | 5.32 | 5.94 |
| CCNE1 | 4.09 | 4.41 | 4.44 | 4.58 | 4.03 | 3.86 | 4.03 | 3.54 |
| CCNE2 | 4.01 | 3.61 | 4.94 | 3.61 | 3.42 | 4.10 | 4.19 | 4.00 |
| CCNF | 4.23 | 4.25 | 4.75 | 3.91 | 3.21 | 4.17 | 4.30 | 4.14 |
| CCNG1 | 5.20 | 7.31 | 6.43 | 6.98 | 7.16 | 6.41 | 7.27 | 5.43 |
| CCNG2 | 3.91 | 5.32 | 5.61 | 4.91 | 4.19 | 6.02 | 5.11 | 6.40 |
| CCNH | 6.03 | 5.32 | 5.96 | 5.53 | 6.95 | 6.45 | 5.85 | 6.09 |
| CCNHP1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 |
| CCNI | 7.91 | 9.27 | 8.84 | 8.88 | 8.29 | 9.33 | 9.12 | 9.31 |
| CCNI2 | 1.78 | 1.47 | 1.33 | 1.60 | 1.86 | 2.03 | 1.27 | 1.25 |
| CCNJ | 2.62 | 2.31 | 2.26 | 2.75 | 2.25 | 2.65 | 2.53 | 2.29 |
| CCNJL | 1.73 | 1.97 | 1.99 | 1.70 | 2.78 | 3.03 | 1.56 | 2.39 |
| CCNK | 5.31 | 5.93 | 5.61 | 6.09 | 5.67 | 5.91 | 5.81 | 6.02 |
| CCNL1 | 5.87 | 6.31 | 6.78 | 6.17 | 6.32 | 6.42 | 7.19 | 6.75 |
| CCNL2 | 5.98 | 5.65 | 6.18 | 6.22 | 5.96 | 5.99 | 6.74 | 6.05 |
| CCNL2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| CCNO | 3.86 | 4.53 | 4.27 | 4.61 | 5.54 | 4.68 | 3.96 | 4.54 |
| CCNQ | 5.83 | 6.12 | 5.62 | 6.04 | 5.64 | 6.06 | 5.09 | 6.28 |
| CCNT1 | 5.54 | 5.65 | 6.09 | 5.52 | 5.47 | 6.27 | 5.82 | 5.58 |
| CCNT2 | 5.23 | 5.25 | 5.02 | 5.18 | 5.21 | 5.24 | 5.52 | 5.41 |
| CCNT2-AS1 | 0.73 | 0.68 | 0.71 | 0.86 | 1.02 | 0.74 | 1.08 | 0.82 |
| CCNY | 5.63 | 6.43 | 6.88 | 6.39 | 6.32 | 6.03 | 7.10 | 6.11 |
| CCNYL1 | 4.43 | 4.31 | 4.10 | 4.05 | 4.24 | 4.53 | 3.95 | 4.23 |
| CCNYL2 | -0.79 | -1.12 | -1.11 | -1.13 | -1.13 | -1.14 | -1.14 | -1.15 |
| CCP110 | 4.65 | 3.84 | 5.22 | 3.58 | 4.36 | 4.55 | 5.19 | 3.92 |
| CCPG1 | 4.72 | 5.05 | 4.81 | 4.74 | 4.80 | 4.35 | 5.19 | 5.45 |
| CCR1 | -1.79 | -1.78 | -1.74 | -1.79 | -1.79 | -1.63 | -1.79 | -1.81 |
| CCR10 | -0.96 | -1.09 | -0.93 | -0.96 | -1.02 | -0.95 | -1.11 | -1.12 |
| CCR9 | -1.53 | -1.63 | -1.62 | -1.64 | -1.55 | -1.64 | -1.59 | -1.45 |
| CCRL2 | 2.89 | 2.68 | 2.50 | 2.39 | 2.53 | 2.64 | 2.50 | 3.13 |
| CCS | 5.80 | 5.20 | 5.51 | 5.37 | 5.41 | 5.14 | 5.62 | 5.60 |
| CCSAP | 4.33 | 4.29 | 3.95 | 4.00 | 4.06 | 4.46 | 4.39 | 3.97 |
| CCSER1 | 1.13 | 1.61 | 1.33 | 1.54 | 1.59 | 1.67 | 1.47 | 1.79 |
| CCSER2 | 5.58 | 5.35 | 5.32 | 5.37 | 5.33 | 5.38 | 5.66 | 4.98 |
| CCT2 | 8.73 | 8.52 | 8.51 | 8.54 | 7.99 | 9.33 | 8.12 | 7.98 |
| CCT3 | 8.99 | 8.48 | 8.55 | 8.52 | 8.91 | 9.31 | 8.27 | 8.48 |
| CCT4 | 8.54 | 7.98 | 8.18 | 7.99 | 8.72 | 8.52 | 7.90 | 8.24 |
| CCT4P2 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| CCT5 | 9.04 | 8.57 | 8.87 | 8.60 | 8.76 | 8.78 | 8.26 | 8.69 |
| CCT5P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| CCT5P2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.19 |
| CCT6A | 8.73 | 8.19 | 8.03 | 8.03 | 8.49 | 8.59 | 7.90 | 8.11 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CCT6B | 1.46 | 1.92 | 1.65 | 1.78 | 1.82 | 1.42 | 1.67 | 1.69 |
| CCT6P1 | 0.10 | 0.25 | 0.06 | 0.09 | 0.13 | 0.03 | -0.07 | 0.29 |
| CCT6P2 | -1.34 | -1.27 | -1.33 | -1.28 | -1.31 | -1.29 | -1.35 | -1.31 |
| CCT6P3 | -0.23 | -0.28 | -0.24 | -0.50 | -0.34 | -0.48 | -0.36 | -0.40 |
| CCT7 | 8.75 | 8.22 | 8.35 | 8.20 | 8.86 | 8.48 | 7.91 | 8.13 |
| CCT7P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CCT8 | 8.47 | 7.86 | 7.66 | 7.84 | 7.90 | 7.43 | 7.61 | 7.17 |
| CCT8P1 | 0.49 | 0.58 | 0.26 | 0.54 | 0.22 | 0.35 | 0.28 | 0.23 |
| CCZ1 | 6.34 | 5.10 | 5.97 | 5.40 | 5.91 | 5.73 | 5.29 | 5.26 |
| CCZ1B | 5.50 | 5.20 | 3.42 | 4.99 | 4.96 | 4.54 | 4.06 | 5.84 |
| CD101 | -1.84 | -1.79 | -1.79 | -1.80 | -1.84 | -1.81 | -1.84 | -1.86 |
| CD109 | 3.88 | 5.57 | 4.11 | 5.25 | 4.65 | 6.41 | 3.73 | 4.23 |
| CD14 | 3.06 | 4.35 | 3.55 | 4.48 | 3.82 | 3.76 | 3.83 | 2.91 |
| CD151 | 8.40 | 8.83 | 9.14 | 9.20 | 8.89 | 8.12 | 8.57 | 9.08 |
| CD160 | -2.07 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.10 | -2.11 |
| CD163L1 | 6.91 | 5.30 | 5.48 | 5.06 | 3.55 | 3.32 | 3.59 | 4.72 |
| CD164 | 8.36 | 7.45 | 8.09 | 7.84 | 7.92 | 7.74 | 8.25 | 7.93 |
| CD164L2 | 1.24 | 0.99 | 1.19 | 1.03 | 1.19 | 0.99 | 1.98 | 0.81 |
| CD177 | -0.02 | -0.40 | -0.37 | -0.34 | -0.49 | -0.43 | -0.42 | 0.72 |
| CD180 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| CD19 | -2.02 | -2.04 | -2.04 | -2.04 | -2.04 | -2.05 | -2.05 | -2.05 |
| CD1D | -0.33 | -0.32 | -0.05 | -0.33 | -0.28 | -0.30 | -0.04 | -0.35 |
| CD200 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.13 | -2.16 |
| CD200R1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| CD200R1L-AS1 | -2.29 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| CD207 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CD22 | -0.45 | -0.58 | -0.42 | -0.52 | -0.50 | -0.43 | -0.44 | -0.55 |
| CD226 | -2.00 | -1.99 | -1.94 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| CD24 | 8.56 | 8.45 | 8.50 | 9.04 | 8.41 | 8.25 | 10.11 | 7.28 |
| CD247 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.79 | -1.80 | -1.82 |
| CD248 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| CD24P4 | -1.48 | -1.58 | -1.58 | -1.54 | -1.59 | -1.60 | -1.60 | -1.61 |
| CD27 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| CD27-AS1 | 3.70 | 3.85 | 3.47 | 3.61 | 3.53 | 3.29 | 2.93 | 4.01 |
| CD274 | 0.58 | 0.60 | 0.92 | 0.72 | 0.83 | 0.99 | 0.79 | 0.52 |
| CD276 | 5.54 | 5.88 | 6.16 | 5.48 | 4.84 | 5.35 | 4.90 | 5.65 |
| CD2AP | 7.71 | 7.47 | 7.32 | 7.38 | 7.22 | 8.13 | 8.00 | 8.35 |
| CD2BP2 | 5.60 | 5.92 | 6.00 | 6.18 | 6.11 | 5.95 | 5.63 | 6.12 |
| CD300A | -0.62 | -0.61 | -0.60 | -0.62 | -0.24 | -0.53 | -0.49 | -0.63 |
| CD300C | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| CD300LF | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| CD302 | 3.80 | 2.98 | 3.22 | 3.01 | 2.98 | 3.11 | 2.71 | 3.34 |
| CD320 | 6.53 | 7.29 | 6.92 | 7.86 | 7.35 | 6.64 | 6.54 | 6.22 |
| CD34 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| CD36 | -1.16 | -1.22 | -1.14 | -1.10 | -1.18 | -1.17 | -1.09 | -1.19 |
| CD37 | -0.55 | -0.71 | -0.54 | -0.48 | -0.58 | -0.68 | -0.71 | -0.54 |
| CD38 | -0.45 | -0.51 | -0.66 | -0.68 | -0.63 | -0.22 | -0.68 | -0.63 |
| CD3D | -0.77 | -0.68 | -0.75 | -0.77 | -0.08 | -0.70 | -0.48 | -0.66 |
| CD3EAP | 5.65 | 5.39 | 5.10 | 5.57 | 5.00 | 4.95 | 4.58 | 5.18 |
| CD3G | -1.75 | -1.75 | -1.65 | -1.75 | -1.72 | -1.74 | -1.75 | -1.68 |
| CD4 | -0.80 | -0.95 | -0.85 | -0.96 | -0.95 | -0.82 | -0.96 | -0.47 |
| CD40 | 5.03 | 2.79 | 4.85 | 3.09 | 4.86 | 5.02 | 3.40 | 4.32 |
| CD44 | 8.73 | 8.00 | 8.41 | 8.43 | 8.75 | 8.16 | 8.99 | 7.62 |
| CD44-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CD46 | 8.44 | 8.06 | 8.19 | 8.13 | 8.71 | 8.58 | 8.67 | 9.03 |
| CD46P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CD47 | 8.47 | 6.71 | 7.88 | 6.97 | 7.91 | 7.60 | 7.33 | 6.92 |
| CD5 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| CD52 | -0.89 | -0.89 | -0.87 | -0.89 | -0.76 | -0.22 | -0.82 | -0.91 |
| CD53 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| CD55 | 7.84 | 6.32 | 6.36 | 6.32 | 8.64 | 6.55 | 6.66 | 8.00 |
| CD58 | 7.74 | 7.19 | 6.80 | 8.03 | 7.92 | 7.27 | 7.23 | 7.51 |
| CD59 | 8.90 | 8.69 | 9.15 | 9.28 | 8.94 | 8.16 | 9.58 | 9.34 |
| CD5L | -1.80 | -1.75 | -1.83 | -1.84 | -1.82 | -1.83 | -1.80 | -1.86 |
| CD6 | -0.93 | -1.18 | -1.16 | -1.05 | -1.07 | -1.06 | -1.12 | -1.14 |
| CD63 | 9.95 | 10.82 | 10.06 | 11.08 | 10.34 | 10.89 | 10.32 | 10.78 |
| CD68 | 3.21 | 3.36 | 3.01 | 2.64 | 2.95 | 2.81 | 3.67 | 3.47 |
| CD69 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -2.01 |
| CD7 | -0.27 | -0.42 | -0.41 | -0.43 | -0.38 | -0.19 | -0.11 | -0.17 |
| CD70 | 4.18 | 4.35 | 5.72 | 4.71 | 7.69 | 6.06 | 6.46 | 4.17 |
| CD72 | 0.39 | 0.25 | 0.27 | 0.32 | 0.63 | 0.29 | 0.45 | 0.33 |
| CD74 | 10.33 | 10.22 | 10.01 | 10.34 | 9.27 | 9.23 | 8.13 | 7.10 |
| CD79A | -0.95 | -1.08 | -1.07 | -0.88 | -0.85 | -0.91 | -1.09 | -0.99 |
| CD79B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| CD81 | 9.25 | 8.70 | 9.18 | 8.83 | 8.77 | 7.40 | 8.83 | 8.46 |
| CD81-AS1 | -2.20 | -2.20 | -2.19 | -2.21 | -2.20 | -2.21 | -2.21 | -2.22 |
| CD82 | 7.29 | 7.92 | 7.83 | 7.76 | 7.21 | 7.37 | 7.53 | 7.75 |
| CD83 | 1.35 | 0.72 | 1.18 | 0.69 | 0.92 | 0.80 | 0.81 | 0.87 |
| CD86 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| CD8A | -1.72 | -1.71 | -1.71 | -1.72 | -1.71 | -1.68 | -1.72 | -1.69 |
| CD8B | 0.34 | -0.28 | -0.27 | -0.29 | -0.28 | -0.30 | -0.29 | 0.08 |
| CD8B2 | -0.33 | -1.18 | -1.17 | -1.19 | -1.18 | -1.17 | -1.20 | -1.21 |
| CD9 | 11.12 | 9.06 | 9.75 | 8.98 | 10.57 | 9.69 | 9.17 | 10.80 |
| CD96 | -1.03 | -1.17 | -1.16 | -1.11 | -1.17 | -1.09 | -1.11 | -1.08 |
| CD99L2 | 2.62 | 2.86 | 3.01 | 3.31 | 3.02 | 3.03 | 3.35 | 2.61 |
| CDA | 6.51 | 5.42 | 5.99 | 5.43 | 5.88 | 7.43 | 6.92 | 6.40 |
| CDADC1 | 3.46 | 3.73 | 3.47 | 3.81 | 4.12 | 3.42 | 3.54 | 3.98 |
| CDAN1 | 2.97 | 2.99 | 2.92 | 2.64 | 2.71 | 2.63 | 2.30 | 3.07 |
| CDC123 | 7.16 | 7.46 | 6.87 | 7.65 | 7.83 | 7.45 | 6.85 | 7.34 |
| CDC14A | 1.89 | 2.34 | 2.20 | 2.29 | 1.77 | 1.96 | 2.12 | 1.64 |
| CDC14B | 4.20 | 4.32 | 4.37 | 4.18 | 3.83 | 4.17 | 4.75 | 4.56 |
| CDC14C | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| CDC16 | 4.59 | 5.54 | 5.34 | 5.62 | 5.91 | 4.94 | 5.34 | 5.77 |
| CDC20 | 6.97 | 7.05 | 6.99 | 6.84 | 6.52 | 7.87 | 6.10 | 6.83 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CDC20B | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 |
| CDC20P1 | -1.25 | -1.11 | -1.23 | -1.19 | -1.25 | -1.14 | -1.26 | -1.21 |
| CDC23 | 4.34 | 4.65 | 5.42 | 4.70 | 4.81 | 4.71 | 4.74 | 4.77 |
| CDC25A | 3.50 | 3.40 | 3.25 | 3.15 | 2.84 | 3.24 | 3.23 | 2.64 |
| CDC25B | 7.48 | 5.42 | 6.61 | 5.68 | 5.52 | 6.02 | 5.49 | 5.38 |
| CDC25C | 3.79 | 3.40 | 4.09 | 3.53 | 3.91 | 4.12 | 3.42 | 3.68 |
| CDC26 | 1.07 | 0.89 | 0.67 | 0.97 | 0.96 | 1.00 | 0.78 | 0.93 |
| CDC27 | 5.61 | 5.96 | 5.96 | 5.75 | 5.71 | 6.19 | 6.06 | 5.70 |
| CDC34 | 6.48 | 5.90 | 6.37 | 5.94 | 7.10 | 6.97 | 6.44 | 6.80 |
| CDC37 | 7.35 | 7.95 | 7.46 | 8.28 | 7.60 | 7.71 | 7.83 | 7.66 |
| CDC37L1 | 4.90 | 5.56 | 5.13 | 5.39 | 4.60 | 5.40 | 5.36 | 5.17 |
| CDC37L1-DT | 1.74 | 2.23 | 1.76 | 2.16 | 2.01 | 2.12 | 2.19 | 1.60 |
| CDC40 | 5.97 | 5.77 | 5.59 | 5.68 | 5.40 | 5.76 | 5.79 | 5.34 |
| CDC42 | 7.71 | 7.70 | 8.06 | 7.71 | 8.19 | 8.23 | 8.44 | 8.02 |
| CDC42-IT1 | -0.67 | -0.59 | -0.65 | -0.46 | -0.67 | -0.55 | -0.46 | -0.58 |
| CDC42BPA | 6.31 | 7.51 | 7.38 | 7.15 | 6.56 | 7.79 | 6.86 | 7.30 |
| CDC42BPB | 5.59 | 7.13 | 7.04 | 6.93 | 6.56 | 7.20 | 7.24 | 6.81 |
| CDC42BPG | 3.73 | 3.41 | 4.43 | 3.91 | 3.52 | 3.66 | 4.34 | 4.02 |
| CDC42EP1 | 8.02 | 7.62 | 6.57 | 7.83 | 7.80 | 7.10 | 7.36 | 7.04 |
| CDC42EP2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| CDC42EP3 | 4.71 | 5.75 | 4.57 | 5.14 | 3.87 | 5.80 | 3.87 | 4.56 |
| CDC42EP4 | 6.14 | 5.95 | 6.39 | 5.59 | 5.90 | 5.76 | 5.86 | 6.08 |
| CDC42EP5 | 7.02 | 5.75 | 4.77 | 5.64 | 5.23 | 5.49 | 4.48 | 6.05 |
| CDC42P2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CDC42P6 | -0.02 | -0.17 | -0.15 | -0.18 | -0.01 | -0.01 | -0.18 | -0.13 |
| CDC42SE1 | 5.90 | 6.25 | 5.50 | 6.42 | 5.51 | 6.28 | 5.93 | 6.34 |
| CDC42SE2 | 5.32 | 5.90 | 6.07 | 6.24 | 5.98 | 5.62 | 5.86 | 5.68 |
| CDC45 | 5.84 | 4.27 | 4.95 | 4.58 | 4.03 | 5.04 | 4.84 | 4.43 |
| CDC5L | 6.53 | 6.75 | 6.50 | 6.47 | 6.30 | 7.13 | 6.70 | 7.01 |
| CDC6 | 6.56 | 5.42 | 5.89 | 5.50 | 5.40 | 6.09 | 5.79 | 5.49 |
| CDC7 | 3.75 | 3.77 | 3.42 | 3.77 | 3.19 | 3.43 | 3.86 | 2.86 |
| CDC73 | 6.25 | 6.10 | 6.01 | 6.15 | 6.25 | 6.61 | 6.31 | 6.83 |
| CDCA2 | 5.42 | 5.48 | 6.45 | 5.02 | 4.75 | 6.00 | 5.19 | 4.97 |
| CDCA3 | 6.44 | 5.57 | 5.66 | 5.61 | 4.85 | 5.57 | 5.17 | 5.61 |
| CDCA4 | 4.74 | 5.14 | 4.70 | 4.84 | 4.91 | 5.44 | 4.14 | 4.72 |
| CDCA5 | 5.96 | 4.60 | 6.00 | 4.51 | 5.21 | 5.44 | 5.07 | 5.41 |
| CDCA7 | 6.28 | 5.33 | 5.67 | 6.12 | 5.26 | 4.74 | 5.49 | 5.46 |
| CDCA7L | 5.02 | 4.99 | 5.15 | 4.76 | 4.90 | 5.10 | 4.07 | 4.35 |
| CDCA8 | 5.58 | 5.85 | 5.64 | 5.78 | 5.80 | 6.53 | 5.38 | 5.52 |
| CDCP1 | 6.98 | 7.31 | 7.43 | 6.93 | 7.43 | 7.61 | 7.00 | 6.68 |
| CDH1 | 7.48 | 7.97 | 8.41 | 7.83 | 7.51 | 7.38 | 8.42 | 7.95 |
| CDH11 | 0.65 | 0.89 | 0.83 | 2.45 | 0.72 | 0.71 | 1.07 | 0.55 |
| CDH12 | 0.52 | 2.05 | 0.49 | 2.51 | 0.40 | 0.30 | 0.32 | 0.43 |
| CDH13 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| CDH15 | -1.11 | -1.24 | -1.09 | -1.12 | -1.11 | -1.19 | -1.26 | -1.21 |
| CDH16 | 0.46 | 0.49 | 0.25 | 0.52 | 0.75 | 0.25 | 0.79 | 0.38 |
| CDH17 | 3.84 | 5.39 | 3.96 | 5.70 | 4.40 | 3.92 | 5.80 | 3.55 |
| CDH18 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CDH19 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| CDH2 | 0.62 | 0.63 | 0.94 | 0.61 | 0.68 | 1.25 | 0.83 | 0.70 |
| CDH22 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| CDH23 | 2.84 | 1.76 | 1.67 | 1.70 | 1.56 | 1.43 | 1.51 | 1.28 |
| CDH24 | 2.65 | 2.70 | 2.54 | 2.61 | 2.65 | 3.15 | 3.03 | 2.67 |
| CDH26 | -0.29 | -0.44 | -0.43 | -0.45 | -0.36 | -0.01 | -0.45 | -0.05 |
| CDH3 | 5.56 | 5.61 | 6.09 | 5.60 | 5.49 | 5.84 | 5.76 | 4.82 |
| CDH4 | -0.42 | -0.50 | -0.49 | -0.51 | -0.50 | -0.48 | -0.03 | -0.53 |
| CDH5 | -1.37 | -1.37 | -1.35 | -1.38 | -1.33 | -1.39 | -1.38 | -1.40 |
| CDH6 | 1.37 | 1.50 | 1.74 | 1.43 | 1.44 | 1.39 | 2.08 | 1.16 |
| CDH8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| CDHR1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.16 | -2.20 | -2.20 | -2.21 |
| CDHR2 | 1.62 | 1.66 | 1.85 | 1.44 | 1.56 | 1.51 | 3.27 | 1.60 |
| CDHR3 | 0.95 | 1.02 | 0.91 | 1.71 | 1.20 | 1.17 | 1.18 | 0.86 |
| CDHR4 | -2.00 | -1.99 | -1.99 | -2.00 | -1.95 | -1.94 | -2.00 | -2.02 |
| CDHR5 | 2.83 | 3.97 | 2.69 | 3.85 | 3.52 | 3.02 | 4.09 | 2.49 |
| CDIP1 | 4.63 | 4.59 | 3.14 | 4.39 | 3.34 | 2.85 | 4.38 | 3.18 |
| CDIPT | 6.95 | 6.52 | 6.56 | 6.55 | 6.88 | 6.34 | 6.05 | 6.59 |
| CDIPTOSP | 1.85 | 0.63 | 0.75 | 0.61 | 0.91 | 0.87 | 0.76 | 0.98 |
| CDK1 | 8.11 | 7.08 | 7.49 | 7.00 | 7.50 | 7.83 | 7.11 | 7.24 |
| CDK10 | 6.04 | 5.22 | 5.89 | 5.87 | 5.47 | 5.58 | 5.80 | 5.77 |
| CDK11A | 2.32 | 2.11 | 1.82 | 2.06 | 2.21 | 2.11 | 2.72 | 2.36 |
| CDK11B | 5.44 | 5.03 | 4.81 | 5.23 | 5.33 | 5.32 | 5.09 | 5.07 |
| CDK12 | 6.37 | 6.37 | 6.41 | 6.37 | 6.12 | 6.24 | 6.34 | 6.18 |
| CDK13 | 5.10 | 5.56 | 5.61 | 5.49 | 5.46 | 5.23 | 5.99 | 5.41 |
| CDK14 | 2.30 | 2.00 | 2.08 | 1.94 | 1.95 | 2.17 | 3.73 | 2.10 |
| CDK15 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| CDK16 | 6.92 | 6.36 | 6.82 | 6.06 | 6.51 | 6.32 | 6.40 | 6.30 |
| CDK17 | 3.07 | 3.94 | 4.25 | 3.49 | 3.38 | 3.57 | 3.80 | 3.52 |
| CDK18 | 4.01 | 3.81 | 3.68 | 3.76 | 4.36 | 3.80 | 4.47 | 3.72 |
| CDK19 | 4.07 | 4.22 | 4.40 | 4.04 | 3.65 | 4.29 | 4.55 | 4.00 |
| CDK2 | 5.19 | 4.58 | 5.05 | 4.61 | 4.30 | 5.49 | 4.81 | 4.62 |
| CDK20 | 2.07 | 2.07 | 2.13 | 2.24 | 2.16 | 2.55 | 2.12 | 1.78 |
| CDK2AP1 | 7.01 | 8.19 | 7.18 | 8.38 | 7.74 | 7.16 | 7.26 | 8.62 |
| CDK2AP2 | 8.51 | 7.49 | 7.54 | 7.54 | 8.50 | 7.70 | 7.58 | 7.99 |
| CDK4 | 8.08 | 7.30 | 7.37 | 7.59 | 7.25 | 7.97 | 6.44 | 6.63 |
| CDK5 | 4.32 | 5.15 | 4.83 | 5.31 | 5.32 | 5.00 | 4.87 | 5.62 |
| CDK5P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| CDK5R1 | 1.05 | 0.93 | 1.46 | 0.94 | 1.15 | 1.48 | 0.87 | 0.94 |
| CDK5R2 | 0.04 | -0.02 | 0.24 | -0.11 | 0.06 | -0.03 | -0.19 | -0.21 |
| CDK5RAP1 | 5.15 | 4.82 | 5.10 | 4.91 | 5.05 | 4.97 | 4.93 | 4.84 |
| CDK5RAP2 | 5.83 | 6.10 | 6.02 | 6.32 | 5.45 | 5.99 | 6.33 | 5.94 |
| CDK5RAP3 | 2.35 | 1.94 | 2.07 | 1.94 | 2.33 | 2.31 | 2.23 | 2.10 |
| CDK6 | 6.33 | 7.72 | 6.42 | 7.90 | 6.13 | 5.55 | 7.16 | 5.75 |
| CDK7 | 5.57 | 5.87 | 5.92 | 6.06 | 6.87 | 6.36 | 5.82 | 6.11 |
| CDK8 | 3.13 | 3.97 | 3.55 | 3.44 | 3.82 | 3.12 | 3.80 | 3.62 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CDK8P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| CDK9 | 7.07 | 6.20 | 6.03 | 6.43 | 5.89 | 6.32 | 6.01 | 6.11 |
| CDKAL1 | 3.71 | 3.26 | 3.67 | 3.23 | 3.26 | 3.41 | 3.48 | 3.90 |
| CDKL1 | 1.35 | 1.70 | 1.50 | 1.40 | 1.47 | 1.61 | 1.62 | 1.29 |
| CDKL2 | 1.25 | 0.78 | 1.12 | 0.89 | 1.16 | 1.09 | 0.68 | 0.64 |
| CDKL3 | 1.18 | 1.05 | 1.00 | 1.39 | 1.41 | 1.76 | 0.94 | 1.27 |
| CDKL4 | -1.74 | -1.73 | -1.73 | -1.74 | -1.74 | -1.65 | -1.74 | -1.71 |
| CDKL5 | 3.51 | 3.00 | 3.44 | 2.74 | 3.13 | 2.75 | 3.67 | 2.99 |
| CDKN1A | 6.81 | 8.03 | 6.74 | 7.70 | 6.56 | 7.22 | 8.66 | 7.70 |
| CDKN1B | 4.64 | 3.97 | 4.68 | 3.70 | 4.27 | 3.98 | 4.51 | 4.57 |
| CDKN1C | 4.20 | 3.89 | 4.08 | 3.59 | 4.04 | 4.62 | 4.50 | 5.29 |
| CDKN2A | 3.51 | 3.63 | 7.76 | 3.58 | 6.10 | 7.47 | 4.25 | 3.66 |
| CDKN2AIP | 3.68 | 4.20 | 3.86 | 4.19 | 4.29 | 4.17 | 4.09 | 4.33 |
| CDKN2AIPNL | 6.06 | 5.33 | 5.73 | 5.50 | 5.59 | 6.15 | 4.73 | 4.55 |
| CDKN2B | 1.95 | 2.88 | 3.56 | 2.97 | 3.97 | 2.99 | 2.43 | 1.92 |
| CDKN2B-AS1 | 1.44 | 1.66 | 2.17 | 1.77 | 1.75 | 1.76 | 1.48 | 1.38 |
| CDKN2C | 3.46 | 4.20 | 4.19 | 4.23 | 4.30 | 4.37 | 4.31 | 4.83 |
| CDKN2D | 4.91 | 4.86 | 5.17 | 4.51 | 5.10 | 5.11 | 4.60 | 4.33 |
| CDKN3 | 7.25 | 6.98 | 6.96 | 6.98 | 7.01 | 7.92 | 6.10 | 6.85 |
| CDNF | 0.22 | 0.09 | -0.06 | 0.05 | 0.15 | -0.02 | 0.37 | 0.23 |
| CDO1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.96 | -1.97 |
| CDON | 1.65 | 1.50 | 1.92 | 1.51 | 1.56 | 1.24 | 1.43 | 1.67 |
| CDPF1 | 4.50 | 3.50 | 3.57 | 3.77 | 3.96 | 3.70 | 3.67 | 3.98 |
| CDR2L | 6.30 | 5.92 | 5.90 | 6.01 | 5.56 | 5.10 | 5.87 | 5.23 |
| CDRT1 | -1.06 | -1.05 | -0.96 | -1.06 | -0.90 | -1.03 | -1.00 | -1.02 |
| CDRT4 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| CDS1 | 4.52 | 6.44 | 5.73 | 6.12 | 5.13 | 5.77 | 6.55 | 5.64 |
| CDS2 | 4.82 | 4.88 | 5.21 | 5.20 | 5.15 | 4.79 | 4.63 | 4.13 |
| CDSN | 0.03 | -0.20 | -0.11 | -0.21 | 0.32 | 0.09 | -0.07 | 0.00 |
| CDT1 | 6.13 | 5.46 | 5.75 | 5.80 | 5.31 | 5.66 | 5.10 | 5.14 |
| CDV3 | 7.08 | 6.22 | 7.01 | 6.19 | 7.02 | 6.85 | 6.82 | 7.41 |
| CDX1 | 1.94 | 0.76 | 0.69 | 0.73 | 0.71 | 0.66 | 0.72 | 0.99 |
| CDX2 | 3.14 | 3.89 | 2.63 | 3.63 | 3.74 | 2.40 | 3.26 | 3.10 |
| CDYL | 5.38 | 5.04 | 4.58 | 4.67 | 4.70 | 4.46 | 5.07 | 6.25 |
| CDYL2 | 2.97 | 2.23 | 2.42 | 1.89 | 1.95 | 2.52 | 1.81 | 2.23 |
| CEACAM1 | 6.42 | 6.58 | 6.50 | 6.15 | 7.18 | 6.16 | 6.59 | 6.84 |
| CEACAM19 | 1.32 | 1.67 | 1.32 | 1.49 | 1.41 | 1.73 | 1.58 | 1.37 |
| CEACAM21 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| CEACAM22P | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| CEACAM3 | 1.46 | 1.66 | 1.55 | 1.53 | 1.69 | 1.48 | 1.92 | 2.39 |
| CEACAM5 | 5.53 | 5.62 | 6.52 | 5.67 | 8.07 | 7.44 | 8.08 | 9.49 |
| CEACAM6 | 8.53 | 11.53 | 10.91 | 11.37 | 9.84 | 9.70 | 11.23 | 11.09 |
| CEACAM7 | 2.98 | 2.52 | 3.19 | 2.97 | 2.86 | 2.59 | 3.42 | 4.72 |
| CEACAM8 | -1.69 | -1.69 | -1.68 | -1.69 | -1.69 | -1.70 | -1.70 | -1.71 |
| CEBPA | 3.48 | 3.92 | 3.31 | 4.34 | 3.91 | 2.95 | 3.32 | 2.45 |
| CEBPA-DT | 0.40 | 0.05 | 0.06 | 0.39 | 0.41 | 0.17 | 0.11 | 0.19 |
| CEBPB | 8.69 | 7.40 | 7.83 | 7.24 | 7.39 | 8.10 | 6.95 | 8.58 |
| CEBPB-AS1 | -0.79 | -1.00 | -0.98 | -0.94 | -1.00 | -0.94 | -0.87 | -0.90 |
| CEBPD | 7.02 | 6.88 | 7.06 | 6.63 | 7.93 | 6.18 | 6.66 | 7.78 |
| CEBPG | 6.87 | 6.64 | 6.05 | 6.87 | 6.93 | 6.51 | 6.70 | 6.58 |
| CEBPZ | 7.33 | 7.33 | 6.93 | 7.20 | 6.33 | 7.19 | 6.89 | 7.25 |
| CEBPZOS | 6.92 | 6.75 | 5.64 | 7.03 | 6.20 | 6.47 | 6.58 | 7.13 |
| CECR2 | -1.86 | -1.99 | -1.98 | -1.86 | -1.99 | -2.00 | -2.00 | -2.01 |
| CEL | -1.99 | -1.99 | -1.95 | -2.00 | -1.96 | -1.98 | -2.00 | -2.01 |
| CELA3A | -1.99 | -1.99 | -1.98 | -2.00 | -1.96 | -2.00 | -1.96 | -2.01 |
| CELA3B | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| CELF1 | 6.44 | 6.85 | 7.68 | 6.63 | 6.79 | 6.70 | 7.13 | 6.47 |
| CELF2 | 1.08 | 1.21 | 1.37 | 1.25 | 1.20 | 1.20 | 1.65 | 1.12 |
| CELF2-AS2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| CELF3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CELF4 | 0.28 | 0.20 | 0.32 | 0.18 | 0.20 | 0.28 | 0.60 | 0.40 |
| CELF5 | -0.86 | -0.85 | -0.91 | -0.49 | -0.89 | -0.91 | -0.86 | -0.89 |
| CELP | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| CELSR1 | 3.50 | 3.67 | 4.08 | 3.53 | 2.90 | 4.20 | 2.76 | 3.60 |
| CELSR2 | 3.96 | 3.60 | 3.90 | 3.15 | 3.14 | 2.90 | 3.57 | 2.64 |
| CELSR3 | 1.70 | 2.22 | 1.68 | 2.37 | 2.18 | 1.78 | 1.41 | 1.85 |
| CEMIP | 5.48 | 7.89 | 7.30 | 7.90 | 6.85 | 5.59 | 7.10 | 6.29 |
| CEMIP2 | 5.96 | 6.38 | 5.46 | 6.42 | 5.37 | 5.71 | 6.61 | 5.49 |
| CEMP1 | -2.04 | -2.04 | -2.01 | -2.02 | -2.04 | -2.05 | -2.05 | -2.00 |
| CEND1 | -0.40 | -0.67 | -0.51 | -0.60 | -0.67 | -0.58 | -0.68 | -0.70 |
| CENPA | 5.42 | 4.92 | 4.85 | 4.99 | 4.46 | 5.60 | 4.10 | 5.33 |
| CENPB | 7.01 | 6.61 | 6.57 | 6.43 | 6.13 | 6.14 | 6.56 | 5.64 |
| CENPBD1 | 4.50 | 3.10 | 3.76 | 3.34 | 3.91 | 3.55 | 3.43 | 3.04 |
| CENPBD1P1 | 5.13 | 5.09 | 4.22 | 4.87 | 3.86 | 4.74 | 5.01 | 4.62 |
| CENPC | 4.34 | 5.02 | 5.36 | 5.47 | 4.55 | 5.03 | 5.43 | 5.51 |
| CENPCP1 | -1.59 | -1.63 | -1.63 | -1.59 | -1.58 | -1.62 | -1.59 | -1.66 |
| CENPE | 5.29 | 6.22 | 6.56 | 6.20 | 4.89 | 6.64 | 6.49 | 6.02 |
| CENPF | 7.53 | 7.62 | 7.84 | 7.34 | 7.24 | 8.84 | 7.26 | 7.76 |
| CENPH | 5.66 | 5.33 | 5.76 | 5.27 | 5.96 | 5.91 | 5.66 | 5.50 |
| CENPI | 2.48 | 2.86 | 3.12 | 2.83 | 2.30 | 2.60 | 2.77 | 2.33 |
| CENPJ | 3.62 | 3.84 | 4.22 | 4.31 | 4.33 | 3.85 | 4.04 | 4.37 |
| CENPK | 5.78 | 6.03 | 6.33 | 6.17 | 5.89 | 6.27 | 5.99 | 5.93 |
| CENPL | 3.99 | 3.00 | 3.60 | 3.18 | 3.61 | 3.97 | 3.34 | 3.83 |
| CENPM | 7.34 | 5.97 | 6.16 | 6.46 | 5.59 | 6.27 | 5.97 | 5.85 |
| CENPN | 7.26 | 5.65 | 6.29 | 5.56 | 5.87 | 6.79 | 5.56 | 6.14 |
| CENPO | 3.93 | 3.35 | 3.25 | 3.34 | 3.06 | 3.73 | 3.09 | 3.60 |
| CENPP | 3.91 | 3.36 | 3.27 | 3.35 | 3.07 | 3.46 | 3.25 | 2.96 |
| CENPQ | 5.20 | 4.27 | 4.46 | 4.25 | 4.00 | 4.98 | 4.59 | 4.98 |
| CENPS | 6.51 | 5.66 | 5.21 | 6.00 | 5.39 | 5.75 | 5.76 | 4.99 |
| CENPS-CORT | -1.21 | -1.13 | -1.19 | -1.01 | -1.17 | -1.16 | -1.22 | -1.23 |
| CENPT | 4.22 | 3.80 | 4.10 | 4.00 | 3.96 | 3.79 | 3.80 | 4.11 |
| CENPU | 6.14 | 6.34 | 6.03 | 6.25 | 5.89 | 6.39 | 6.36 | 6.71 |
| CENPUP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CENPUP2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |

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|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| CENPV | 7.47 | 5.57 | 5.82 | 5.64 | 6.08 | 6.08 | 6.13 | 6.06 |
| CENPW | 7.66 | 6.12 | 6.93 | 6.03 | 6.22 | 7.07 | 6.17 | 6.25 |
| CENPX | 9.02 | 8.28 | 8.06 | 8.38 | 7.98 | 8.13 | 7.65 | 7.92 |
| CEP104 | 5.06 | 4.70 | 5.31 | 5.01 | 4.95 | 5.02 | 5.30 | 4.71 |
| CEP112 | 2.43 | 2.74 | 2.54 | 2.72 | 2.32 | 2.68 | 2.29 | 1.68 |
| CEP120 | 2.89 | 2.66 | 3.31 | 2.76 | 2.95 | 2.81 | 3.09 | 2.61 |
| CEP126 | 4.09 | 4.19 | 4.97 | 4.57 | 3.73 | 4.23 | 4.10 | 4.38 |
| CEP128 | 2.39 | 2.69 | 3.11 | 2.94 | 2.69 | 2.93 | 2.91 | 2.23 |
| CEP131 | 3.13 | 3.48 | 3.85 | 3.29 | 3.17 | 3.51 | 3.56 | 3.06 |
| CEP135 | 3.07 | 3.31 | 3.56 | 3.49 | 3.00 | 3.68 | 3.76 | 3.15 |
| CEP152 | 4.60 | 4.22 | 5.22 | 4.48 | 4.50 | 4.90 | 5.08 | 4.71 |
| CEP162 | 2.80 | 2.86 | 3.23 | 2.66 | 2.52 | 2.71 | 3.31 | 2.62 |
| CEP164 | 5.40 | 5.62 | 5.89 | 5.75 | 5.68 | 5.57 | 5.52 | 5.08 |
| CEP164P1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.93 | -1.95 | -1.88 |
| CEP170 | 2.87 | 2.87 | 3.25 | 2.96 | 3.29 | 3.84 | 2.79 | 3.09 |
| CEP170B | 4.94 | 5.47 | 5.71 | 5.47 | 4.87 | 5.10 | 5.70 | 4.97 |
| CEP170P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| CEP19 | 3.12 | 2.73 | 2.48 | 2.90 | 2.51 | 2.41 | 2.30 | 2.43 |
| CEP192 | 4.08 | 4.69 | 4.93 | 4.52 | 4.55 | 4.56 | 4.99 | 5.45 |
| CEP250 | 3.99 | 4.11 | 4.74 | 4.10 | 4.08 | 4.71 | 4.46 | 3.97 |
| CEP290 | 4.83 | 5.96 | 6.48 | 5.64 | 5.50 | 5.70 | 6.20 | 4.77 |
| CEP295 | 5.63 | 5.45 | 6.24 | 5.60 | 5.22 | 5.56 | 5.46 | 5.45 |
| CEP295NL | -0.79 | -0.92 | -0.83 | -0.85 | -0.92 | -0.90 | -0.69 | -0.94 |
| CEP350 | 6.76 | 6.75 | 6.38 | 6.41 | 6.64 | 6.93 | 6.98 | 6.74 |
| CEP41 | 3.80 | 3.89 | 4.04 | 3.44 | 3.94 | 4.03 | 3.63 | 3.93 |
| CEP44 | 3.59 | 3.85 | 4.22 | 4.02 | 3.74 | 4.16 | 4.58 | 4.36 |
| CEP55 | 6.90 | 6.13 | 6.18 | 5.58 | 5.96 | 6.67 | 5.74 | 6.03 |
| CEP57 | 5.69 | 5.51 | 5.76 | 5.61 | 5.83 | 5.81 | 6.28 | 6.11 |
| CEP57L1 | 4.36 | 3.49 | 4.01 | 3.32 | 3.84 | 4.48 | 4.27 | 3.65 |
| CEP57L1P1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.05 |
| CEP63 | 5.40 | 4.20 | 5.43 | 4.55 | 5.21 | 5.01 | 5.04 | 5.92 |
| CEP68 | 3.20 | 3.00 | 3.34 | 3.36 | 3.26 | 2.86 | 2.76 | 2.79 |
| CEP70 | 5.27 | 4.23 | 4.57 | 3.95 | 5.06 | 5.41 | 5.19 | 5.13 |
| CEP72 | 2.86 | 3.29 | 3.19 | 3.29 | 3.61 | 2.93 | 2.98 | 2.97 |
| CEP76 | 3.64 | 3.09 | 3.42 | 3.10 | 3.42 | 3.32 | 3.45 | 4.38 |
| CEP78 | 4.99 | 4.79 | 5.38 | 5.01 | 4.20 | 5.01 | 5.32 | 3.40 |
| CEP83 | 3.63 | 3.97 | 4.01 | 4.34 | 4.13 | 3.97 | 4.07 | 3.59 |
| CEP83-DT | -0.88 | -0.79 | -0.78 | -0.81 | -0.76 | -0.63 | -0.74 | -0.78 |
| CEP85 | 4.13 | 3.59 | 4.51 | 3.48 | 4.15 | 4.40 | 4.04 | 3.67 |
| CEP85L | 2.47 | 2.64 | 2.72 | 2.45 | 2.35 | 2.89 | 2.84 | 2.51 |
| CEP89 | 5.03 | 5.21 | 4.75 | 4.90 | 5.14 | 5.42 | 4.80 | 4.31 |
| CEP95 | 4.51 | 4.42 | 4.92 | 4.74 | 4.48 | 4.60 | 4.74 | 4.64 |
| CEP97 | 3.78 | 3.51 | 4.08 | 3.63 | 3.49 | 4.32 | 4.06 | 3.45 |
| CEPT1 | 5.44 | 5.40 | 5.90 | 5.51 | 5.52 | 5.58 | 5.73 | 5.47 |
| CERCAM | 5.17 | 3.57 | 3.24 | 3.31 | 3.07 | 3.84 | 2.59 | 2.46 |
| CERK | 4.59 | 4.69 | 5.07 | 4.64 | 4.50 | 4.58 | 5.21 | 4.78 |
| CERKL | -0.34 | -0.25 | -0.01 | -0.21 | -0.37 | -0.14 | -0.35 | -0.38 |
| CERNA1 | 0.32 | 0.21 | 0.10 | 0.21 | 0.14 | 0.23 | 0.06 | 0.02 |
| CERNA3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| CERS1 | -1.01 | -1.29 | -1.28 | -1.30 | -1.29 | -1.31 | -1.30 | -1.25 |
| CERS2 | 7.31 | 7.09 | 6.76 | 7.23 | 7.39 | 7.39 | 7.38 | 7.34 |
| CERS4 | 0.82 | 0.40 | 0.24 | 0.21 | 0.32 | 0.27 | 0.20 | 0.24 |
| CERS5 | 4.65 | 3.88 | 4.45 | 4.28 | 4.10 | 4.69 | 4.33 | 4.41 |
| CERS6 | 6.04 | 7.07 | 6.72 | 6.35 | 5.98 | 6.56 | 6.51 | 4.70 |
| CERS6-AS1 | -0.31 | -0.30 | -0.27 | -0.16 | -0.19 | -0.12 | -0.24 | -0.42 |
| CES1 | 1.18 | 1.11 | 1.37 | 1.06 | 1.11 | 0.97 | 1.55 | 1.10 |
| CES1P1 | -0.42 | -0.41 | 0.01 | -0.42 | -0.41 | -0.35 | -0.34 | -0.45 |
| CES2 | 5.74 | 7.17 | 6.35 | 7.55 | 6.29 | 5.60 | 9.02 | 5.92 |
| CES3 | -0.12 | 0.10 | -0.07 | 0.02 | 0.27 | -0.28 | -0.06 | -0.29 |
| CES4A | 1.24 | 0.78 | 0.64 | 1.01 | 1.00 | 0.85 | 1.04 | 0.90 |
| CES5A | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| CES5AP1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.02 | -2.08 |
| CETN2 | 7.41 | 6.79 | 7.03 | 7.18 | 7.35 | 7.88 | 6.88 | 7.58 |
| CETN3 | 5.48 | 5.89 | 5.92 | 5.68 | 6.49 | 6.29 | 5.93 | 5.51 |
| CETN4P | 0.68 | 1.28 | 0.83 | 0.74 | 0.96 | 0.88 | 0.79 | 1.19 |
| CFAP126 | -0.03 | -0.01 | 0.00 | 0.03 | -0.06 | 0.84 | -0.04 | 0.61 |
| CFAP157 | -0.39 | -0.53 | -0.60 | -0.62 | -0.53 | -0.52 | -0.55 | -0.47 |
| CFAP20 | 6.38 | 5.68 | 5.62 | 5.49 | 5.73 | 6.13 | 5.47 | 5.91 |
| CFAP206 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| CFAP221 | 0.31 | 0.57 | 0.34 | 0.39 | 0.40 | 0.33 | 1.11 | 0.40 |
| CFAP298 | 6.78 | 6.59 | 6.22 | 6.67 | 6.37 | 6.72 | 6.27 | 6.92 |
| CFAP299 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CFAP300 | 3.23 | 3.10 | 3.85 | 3.34 | 3.16 | 3.90 | 3.34 | 3.26 |
| CFAP36 | 7.10 | 6.96 | 6.74 | 7.29 | 7.69 | 7.29 | 6.94 | 6.06 |
| CFAP410 | 0.93 | 0.55 | 0.83 | 0.91 | 0.55 | 0.67 | 0.73 | 0.85 |
| CFAP43 | 0.32 | 0.34 | 0.35 | 0.17 | 0.52 | 0.60 | 0.24 | 0.14 |
| CFAP44 | 2.50 | 2.38 | 3.66 | 3.14 | 2.56 | 3.37 | 4.05 | 2.43 |
| CFAP45 | 1.13 | 0.94 | 1.43 | 1.26 | 1.20 | 1.72 | 0.90 | 1.36 |
| CFAP46 | 0.99 | 1.50 | 1.12 | 1.52 | 1.16 | 1.08 | 1.02 | 0.88 |
| CFAP47 | -1.99 | -1.96 | -1.84 | -1.96 | -1.99 | -2.00 | -1.96 | -1.97 |
| CFAP52 | -1.96 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.99 | -1.97 |
| CFAP53 | 1.05 | 0.92 | 1.08 | 0.81 | 1.06 | 1.09 | 0.94 | 1.00 |
| CFAP54 | -1.42 | -1.47 | -1.23 | -1.43 | -1.45 | -1.46 | -1.49 | -1.50 |
| CFAP57 | -1.45 | -1.45 | -1.44 | -1.39 | -1.41 | -1.40 | -1.46 | -1.41 |
| CFAP58 | -1.99 | -1.99 | -1.98 | -2.00 | -1.96 | -1.97 | -2.00 | -1.97 |
| CFAP58-DT | -2.22 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| CFAP61 | -2.10 | -2.03 | -2.06 | -2.04 | -2.08 | -2.10 | -2.10 | -2.11 |
| CFAP65 | 3.72 | 2.57 | 2.19 | 3.07 | 3.04 | 2.55 | 2.04 | 2.13 |
| CFAP69 | 1.10 | 1.63 | 1.40 | 1.24 | 1.20 | 1.49 | 1.81 | 1.43 |
| CFAP70 | 1.69 | 1.54 | 1.66 | 1.65 | 1.84 | 1.51 | 1.60 | 1.36 |
| CFAP73 | 0.13 | 0.30 | 0.23 | 0.27 | 0.45 | 0.21 | 0.33 | 0.50 |
| CFAP74 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| CFAP77 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.94 | -2.00 | -2.01 |
| CFAP97 | 6.70 | 6.65 | 6.29 | 6.43 | 5.85 | 6.47 | 6.42 | 6.78 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CFAP97D1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CFAP97D2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| CFAP99 | -1.01 | -0.92 | -0.91 | -0.86 | -0.96 | -0.92 | -1.01 | -0.91 |
| CFB | 3.81 | 3.03 | 4.00 | 3.22 | 3.29 | 3.11 | 4.04 | 2.95 |
| CFD | 4.14 | 3.18 | 3.65 | 3.51 | 3.50 | 3.93 | 3.47 | 3.09 |
| CFDP1 | 6.54 | 6.87 | 7.11 | 6.56 | 7.18 | 7.25 | 7.03 | 7.36 |
| CFH | 2.64 | 3.37 | 2.82 | 2.91 | 2.43 | 2.95 | 2.93 | 4.22 |
| CFHR3 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| CFI | 1.36 | 1.87 | 1.43 | 1.59 | 1.43 | 1.62 | 1.68 | 1.98 |
| CFL1 | 10.96 | 10.05 | 10.68 | 10.17 | 10.77 | 10.79 | 10.59 | 11.05 |
| CFL1P1 | 0.85 | 1.09 | 0.97 | 1.14 | 1.74 | 1.03 | 1.06 | 1.03 |
| CFL1P2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.05 | -2.08 |
| CFL2 | 3.62 | 3.95 | 3.26 | 3.93 | 4.05 | 4.44 | 3.65 | 3.15 |
| CFLAR | 7.44 | 6.76 | 6.62 | 6.79 | 6.71 | 6.77 | 7.11 | 6.91 |
| CFLAR-AS1 | 0.04 | 0.21 | 0.06 | -0.04 | 0.05 | 0.09 | 0.10 | 0.00 |
| CFP | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| CFTR | 2.15 | 2.48 | 2.21 | 2.33 | 1.95 | 1.92 | 4.35 | 3.03 |
| CGA | -1.18 | -1.48 | -1.47 | -1.49 | -1.39 | -1.44 | -1.43 | -1.45 |
| CGAS | 5.35 | 4.40 | 4.36 | 4.26 | 4.35 | 5.12 | 3.29 | 4.68 |
| CGB2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| CGB3 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| CGB7 | -1.84 | -1.79 | -1.83 | -1.80 | -1.77 | -1.85 | -1.84 | -1.86 |
| CGGBP1 | 6.29 | 6.58 | 6.31 | 6.62 | 6.01 | 6.77 | 6.68 | 6.32 |
| CGN | 4.86 | 5.32 | 5.74 | 5.45 | 5.24 | 5.61 | 5.73 | 5.52 |
| CGNL1 | 1.71 | 1.50 | 2.17 | 1.60 | 2.39 | 2.32 | 2.22 | 1.74 |
| CGREF1 | 4.35 | 4.79 | 3.43 | 5.71 | 4.47 | 2.88 | 3.44 | 3.27 |
| CGRRF1 | 4.42 | 4.27 | 4.04 | 4.45 | 4.51 | 4.60 | 3.82 | 3.93 |
| CH25H | -1.76 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.86 |
| CHAC1 | 4.11 | 4.01 | 3.79 | 3.67 | 4.44 | 3.92 | 5.59 | 5.65 |
| CHAC2 | 5.10 | 4.66 | 3.86 | 4.81 | 4.99 | 4.43 | 4.33 | 4.01 |
| CHADL | 1.98 | 2.30 | 1.27 | 2.40 | 1.60 | 1.60 | 1.27 | 2.11 |
| CHAF1A | 5.99 | 6.25 | 6.45 | 6.19 | 5.47 | 5.91 | 6.25 | 5.48 |
| CHAF1B | 5.28 | 4.34 | 4.73 | 4.23 | 3.86 | 3.83 | 4.42 | 3.67 |
| CHAMP1 | 4.52 | 4.58 | 4.28 | 4.49 | 5.15 | 4.42 | 4.64 | 5.06 |
| CHCHD1 | 7.31 | 7.28 | 6.59 | 7.27 | 7.44 | 7.15 | 6.96 | 6.63 |
| CHCHD10 | 9.13 | 8.40 | 7.81 | 8.20 | 8.22 | 7.49 | 8.59 | 8.18 |
| CHCHD2 | 10.14 | 9.48 | 9.23 | 9.64 | 9.99 | 9.80 | 9.48 | 10.21 |
| CHCHD2P2 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.81 | -1.84 | -1.82 |
| CHCHD2P6 | -1.45 | -1.31 | -1.43 | -1.45 | -1.34 | -1.43 | -1.45 | -1.41 |
| CHCHD2P8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CHCHD2P9 | -2.10 | -2.09 | -2.09 | -2.10 | -2.06 | -2.10 | -2.10 | -2.11 |
| CHCHD3 | 6.31 | 6.57 | 6.03 | 6.70 | 6.48 | 6.35 | 6.02 | 6.37 |
| CHCHD3P3 | -1.84 | -1.75 | -1.83 | -1.84 | -1.82 | -1.85 | -1.76 | -1.82 |
| CHCHD4 | 5.94 | 5.36 | 5.16 | 5.46 | 5.28 | 5.39 | 4.57 | 4.79 |
| CHCHD5 | 6.55 | 6.48 | 5.75 | 6.65 | 6.39 | 6.53 | 5.97 | 6.51 |
| CHCHD6 | 5.33 | 4.23 | 5.27 | 4.56 | 5.65 | 4.96 | 4.84 | 5.61 |
| CHCHD7 | 6.95 | 6.66 | 6.88 | 6.71 | 7.78 | 7.32 | 6.08 | 7.54 |
| CHD1 | 6.08 | 6.32 | 7.10 | 6.56 | 6.79 | 6.72 | 6.86 | 6.22 |
| CHD1L | 1.02 | 1.11 | 0.91 | 1.20 | 1.04 | 1.20 | 1.48 | 0.80 |
| CHD2 | 5.96 | 6.44 | 7.09 | 6.41 | 6.39 | 6.53 | 6.90 | 6.61 |
| CHD3 | 4.78 | 5.33 | 6.41 | 5.18 | 5.21 | 5.38 | 5.54 | 6.12 |
| CHD4 | 5.65 | 6.37 | 7.11 | 5.84 | 5.99 | 6.43 | 6.56 | 6.32 |
| CHD5 | 0.13 | 0.14 | 0.24 | 0.13 | 0.92 | 0.67 | 0.54 | 0.29 |
| CHD6 | 5.88 | 5.47 | 5.85 | 5.42 | 5.71 | 5.83 | 5.22 | 5.53 |
| CHD7 | 5.30 | 5.42 | 6.45 | 5.34 | 5.96 | 5.80 | 5.53 | 5.78 |
| CHD8 | 5.77 | 5.78 | 6.26 | 5.92 | 5.96 | 6.17 | 6.22 | 5.56 |
| CHD9 | 5.84 | 6.26 | 6.52 | 6.18 | 5.73 | 6.22 | 6.74 | 6.00 |
| CHDH | 4.58 | 5.38 | 5.00 | 5.57 | 4.73 | 4.46 | 5.14 | 3.50 |
| CHEK1 | 5.29 | 4.76 | 5.13 | 4.94 | 4.79 | 5.12 | 5.24 | 4.43 |
| CHEK2 | 5.34 | 4.51 | 3.84 | 4.61 | 4.21 | 4.59 | 4.53 | 4.89 |
| CHERP | 4.80 | 5.52 | 5.50 | 5.33 | 5.10 | 5.25 | 5.08 | 5.26 |
| CHFR | 3.00 | 3.74 | 3.78 | 3.78 | 3.64 | 3.40 | 4.22 | 3.84 |
| CHGB | -1.30 | -1.36 | -1.35 | -1.31 | -1.36 | -1.35 | -1.31 | -1.28 |
| CHI3L1 | 1.82 | 1.60 | 1.85 | 1.72 | 1.77 | 2.21 | 3.72 | 2.01 |
| CHI3L2 | -1.16 | -1.38 | -1.37 | -1.39 | -1.35 | -1.40 | -1.33 | -1.26 |
| CHIC1 | 2.15 | 2.57 | 2.58 | 2.49 | 2.32 | 1.79 | 2.68 | 2.03 |
| CHIC2 | 5.16 | 4.79 | 4.87 | 5.17 | 4.95 | 5.08 | 4.87 | 5.53 |
| CHID1 | 6.87 | 6.90 | 7.17 | 7.02 | 7.48 | 6.93 | 6.66 | 7.54 |
| CHKA | 6.09 | 5.81 | 6.35 | 5.12 | 5.78 | 6.07 | 5.49 | 7.06 |
| CHKB | 1.66 | 1.52 | 1.45 | 1.94 | 1.42 | 1.77 | 1.95 | 1.95 |
| CHKB-DT | 4.27 | 3.03 | 2.60 | 3.00 | 2.79 | 2.52 | 3.14 | 2.71 |
| CHL1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| CHM | 4.61 | 5.06 | 4.84 | 4.76 | 3.84 | 4.49 | 4.72 | 4.05 |
| CHML | 3.99 | 4.24 | 4.37 | 3.46 | 3.26 | 4.18 | 3.89 | 5.29 |
| CHMP1A | 6.78 | 6.22 | 6.69 | 6.02 | 6.45 | 6.31 | 6.48 | 6.82 |
| CHMP1B | 6.76 | 6.65 | 6.86 | 6.67 | 7.27 | 6.67 | 6.85 | 8.36 |
| CHMP1B-AS1 | 2.09 | 2.01 | 2.00 | 2.19 | 2.59 | 2.27 | 2.23 | 2.97 |
| CHMP1B2P | -0.14 | -0.14 | 0.37 | -0.15 | 0.57 | -0.12 | -0.08 | 0.32 |
| CHMP2A | 8.21 | 7.67 | 7.63 | 7.62 | 8.40 | 7.68 | 8.00 | 8.65 |
| CHMP2B | 7.55 | 7.95 | 7.76 | 7.72 | 7.73 | 8.53 | 8.30 | 8.13 |
| CHMP3 | 7.15 | 7.56 | 6.55 | 7.50 | 6.91 | 6.99 | 6.72 | 7.38 |
| CHMP4A | 3.30 | 3.41 | 2.99 | 3.65 | 3.77 | 3.56 | 3.38 | 3.54 |
| CHMP4B | 6.92 | 6.98 | 6.94 | 6.98 | 6.76 | 6.68 | 6.86 | 7.41 |
| CHMP4BP1 | -1.16 | -1.28 | -1.34 | -1.23 | -1.32 | -1.27 | -1.23 | -1.37 |
| CHMP4C | 5.91 | 5.70 | 6.13 | 5.87 | 5.94 | 5.87 | 6.02 | 6.53 |
| CHMP5 | 7.58 | 6.87 | 7.16 | 7.01 | 7.94 | 7.94 | 7.11 | 8.56 |
| CHMP6 | 4.94 | 4.54 | 4.81 | 4.65 | 4.33 | 4.50 | 4.55 | 4.69 |
| CHMP7 | 4.76 | 4.67 | 6.32 | 4.34 | 4.59 | 5.19 | 5.32 | 4.77 |
| CHN1 | 0.56 | 0.23 | 0.70 | 0.44 | 0.48 | 0.24 | 0.36 | 0.37 |
| CHN2 | 1.93 | 1.17 | 1.36 | 1.41 | 1.55 | 1.13 | 1.17 | 1.36 |
| CHODL | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| CHORDC1 | 5.88 | 5.30 | 5.93 | 5.43 | 5.53 | 5.88 | 4.89 | 5.47 |
| CHORDC2P | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| CHP1 | 7.48 | 8.04 | 7.18 | 8.01 | 8.01 | 6.95 | 8.14 | 7.93 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| CHP2 | -1.89 | -1.81 | -1.88 | -1.86 | -1.89 | -1.88 | -1.89 | -1.87 |
| CHPF | 6.68 | 7.63 | 7.19 | 7.76 | 7.59 | 7.02 | 6.48 | 7.05 |
| CHPF2 | 4.16 | 5.19 | 4.74 | 5.42 | 4.59 | 4.25 | 4.61 | 4.90 |
| CHPT1 | 6.89 | 7.33 | 7.00 | 7.45 | 7.16 | 5.99 | 6.98 | 6.75 |
| CHRA1 | 6.48 | 5.98 | 6.52 | 6.07 | 6.41 | 6.55 | 6.08 | 6.98 |
| CHRD | -1.27 | -1.26 | -1.32 | -1.41 | -1.30 | -1.41 | -1.34 | -1.31 |
| CHRD1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| CHRD2 | 0.79 | 0.36 | 0.29 | 0.18 | 0.24 | 0.54 | 0.40 | 0.15 |
| CHRFAM7A | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| CHRM1 | -2.10 | -2.03 | -2.09 | -2.01 | -2.06 | -2.10 | -2.10 | -2.11 |
| CHRM3 | 3.45 | 4.65 | 3.03 | 4.77 | 2.22 | 4.05 | 3.28 | 2.06 |
| CHRM3-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CHRM3-AS2 | -1.74 | -1.73 | -1.68 | -1.70 | -1.73 | -1.68 | -1.74 | -1.76 |
| CHRM4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CHRNA10 | -0.63 | -0.54 | -0.54 | -0.63 | -0.55 | -0.58 | -0.50 | -0.66 |
| CHRNA3 | -1.97 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| CHRNA5 | 5.18 | 5.31 | 5.21 | 5.47 | 4.86 | 5.00 | 4.72 | 4.32 |
| CHRNA6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| CHRNA7 | -1.09 | -0.93 | -1.07 | -0.49 | -1.04 | -1.10 | -1.09 | -0.92 |
| CHRNA9 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| CHRNA1 | 2.91 | 2.27 | 2.66 | 2.29 | 2.69 | 2.40 | 2.68 | 3.06 |
| CHRNA2 | -2.15 | -2.12 | -2.14 | -2.10 | -2.15 | -2.14 | -2.15 | -2.16 |
| CHRNA4 | -1.40 | -1.33 | -1.49 | -1.40 | -1.42 | -1.49 | -1.52 | -1.53 |
| CHRNA | -2.20 | -2.20 | -2.17 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| CHRNAE | -0.73 | -0.72 | -0.61 | -0.67 | -0.80 | -0.71 | -0.68 | -0.76 |
| CHRNA | -2.20 | -2.18 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| CHST1 | -0.48 | -0.56 | -0.46 | -0.41 | -0.48 | -0.58 | -0.43 | -0.52 |
| CHST10 | 1.24 | 1.33 | 1.22 | 1.35 | 1.52 | 0.99 | 0.79 | 1.05 |
| CHST11 | 2.73 | 4.02 | 4.35 | 3.53 | 2.90 | 4.23 | 2.89 | 4.47 |
| CHST12 | 5.10 | 4.71 | 4.53 | 4.89 | 5.24 | 4.77 | 3.80 | 4.77 |
| CHST13 | 0.84 | -0.16 | -0.24 | -0.26 | 0.25 | -0.27 | -0.19 | 0.01 |
| CHST14 | 4.08 | 3.98 | 3.70 | 3.71 | 3.49 | 3.18 | 3.08 | 3.42 |
| CHST15 | 4.30 | 4.06 | 4.46 | 3.95 | 4.42 | 5.16 | 3.82 | 4.19 |
| CHST2 | 3.95 | 2.39 | 2.34 | 2.36 | 1.96 | 1.91 | 2.14 | 2.53 |
| CHST3 | 2.94 | 2.55 | 2.22 | 2.94 | 2.77 | 3.00 | 2.85 | 2.07 |
| CHST4 | 3.92 | 3.80 | 4.23 | 3.33 | 4.57 | 3.57 | 5.24 | 3.16 |
| CHST5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| CHST6 | 2.52 | 3.40 | 2.44 | 3.42 | 3.03 | 2.73 | 2.01 | 3.70 |
| CHST7 | 3.64 | 2.61 | 2.42 | 2.86 | 3.11 | 2.96 | 2.42 | 2.54 |
| CHST8 | -0.71 | -0.70 | -0.68 | -0.71 | -0.65 | -0.72 | -0.71 | -0.66 |
| CHST9 | -1.57 | -1.56 | -1.50 | -1.57 | -1.56 | -1.55 | -1.46 | -1.59 |
| CHSY1 | 3.79 | 4.36 | 4.34 | 4.16 | 4.29 | 3.71 | 3.97 | 3.51 |
| CHSY3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.03 |
| CHTF18 | 4.42 | 3.72 | 5.15 | 3.97 | 3.71 | 4.22 | 4.58 | 4.02 |
| CHTF8 | -0.35 | -0.35 | -0.34 | -0.20 | -0.30 | -0.14 | -0.21 | 0.00 |
| CHTOP | 7.17 | 6.79 | 6.54 | 6.67 | 7.09 | 7.12 | 6.55 | 7.22 |
| CHUK | 5.55 | 5.08 | 4.88 | 5.31 | 5.01 | 5.08 | 5.36 | 4.87 |
| CHURC1 | 5.05 | 6.19 | 5.37 | 6.15 | 6.14 | 6.62 | 5.83 | 4.93 |
| CIAO1 | 6.28 | 5.64 | 5.79 | 5.89 | 6.32 | 6.14 | 5.73 | 6.27 |
| CIAO2A | 8.02 | 7.38 | 7.25 | 7.70 | 7.87 | 7.17 | 7.07 | 7.70 |
| CIAO2B | 9.13 | 8.02 | 8.27 | 8.10 | 8.46 | 8.35 | 8.51 | 8.30 |
| CIAO3 | 5.85 | 5.07 | 5.33 | 5.06 | 4.75 | 4.85 | 5.12 | 5.38 |
| CIAPIN1 | 6.93 | 6.19 | 5.86 | 6.46 | 5.91 | 6.01 | 5.73 | 5.89 |
| CIAPIN1P | -2.30 | -2.29 | -2.28 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| CIART | 3.50 | 3.63 | 3.33 | 3.63 | 3.41 | 4.12 | 2.78 | 3.37 |
| CIB1 | 8.85 | 9.01 | 8.80 | 8.83 | 9.84 | 8.59 | 8.64 | 9.01 |
| CIB2 | 3.39 | 1.79 | 2.25 | 2.01 | 3.64 | 2.64 | 2.00 | 2.18 |
| CIB3 | 1.27 | 1.15 | 1.42 | 1.30 | 1.42 | 1.27 | 1.52 | 1.64 |
| CIB4 | -1.58 | -1.74 | -1.73 | -1.75 | -1.74 | -1.73 | -1.75 | -1.77 |
| CIC | 3.77 | 3.98 | 3.99 | 4.02 | 4.05 | 3.55 | 4.54 | 3.95 |
| CIDEB | 2.09 | 2.50 | 1.60 | 3.08 | 2.52 | 1.66 | 2.69 | 1.99 |
| CIDEC | 5.08 | 4.37 | 3.22 | 4.55 | 4.34 | 3.75 | 4.69 | 4.38 |
| CIDEC1 | 3.84 | 3.69 | 3.28 | 3.78 | 3.80 | 3.96 | 3.81 | 4.21 |
| CIITA | 2.87 | 2.26 | 2.84 | 2.04 | 2.06 | 2.14 | 2.06 | 1.58 |
| CILP | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.30 | -2.31 | -2.31 |
| CILP2 | 2.02 | 1.01 | 1.16 | 0.90 | 0.97 | 1.17 | 0.98 | 0.90 |
| CINP | 6.00 | 6.61 | 5.86 | 6.69 | 7.08 | 6.42 | 5.89 | 6.20 |
| CIP2A | 3.75 | 3.75 | 5.43 | 3.22 | 3.73 | 4.63 | 4.08 | 4.09 |
| CIPC | 3.93 | 4.43 | 3.76 | 4.04 | 3.98 | 4.01 | 3.95 | 4.14 |
| CIR1 | 6.90 | 6.49 | 6.06 | 6.45 | 6.72 | 6.59 | 6.12 | 6.83 |
| CIR1P1 | -2.20 | -2.20 | -2.19 | -2.17 | -2.20 | -2.21 | -2.17 | -2.22 |
| CIR1P2 | -1.87 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.92 |
| CIRBP | 6.88 | 6.94 | 6.87 | 7.17 | 7.65 | 7.22 | 7.21 | 6.85 |
| CIRBP-AS1 | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.76 |
| CISD1 | 7.89 | 7.16 | 6.49 | 7.35 | 7.53 | 7.11 | 6.57 | 6.20 |
| CISD2 | 6.14 | 6.45 | 5.97 | 6.57 | 5.96 | 6.43 | 6.41 | 6.86 |
| CISD3 | 8.81 | 8.42 | 7.65 | 8.58 | 8.18 | 7.90 | 7.83 | 7.50 |
| CISH | 1.41 | 1.29 | 1.09 | 1.58 | 1.90 | 1.56 | 1.51 | 1.30 |
| CISTR | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| CIT | 3.51 | 4.21 | 5.04 | 3.85 | 3.81 | 4.49 | 4.47 | 4.05 |
| CITED1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CITED2 | 3.12 | 3.32 | 3.05 | 3.38 | 3.03 | 2.97 | 3.17 | 3.11 |
| CITED4 | 6.64 | 7.37 | 5.67 | 7.28 | 6.29 | 6.98 | 6.81 | 6.20 |
| CIZ1 | 5.64 | 5.24 | 4.84 | 5.44 | 4.67 | 5.43 | 5.15 | 4.78 |
| CKAP2 | 6.40 | 6.16 | 6.27 | 6.15 | 6.13 | 6.22 | 5.94 | 6.97 |
| CKAP2L | 5.81 | 4.99 | 5.37 | 5.17 | 5.09 | 5.83 | 5.55 | 5.36 |
| CKAP4 | 6.27 | 6.90 | 6.66 | 6.96 | 5.91 | 6.19 | 6.95 | 7.07 |
| CKAP5 | 6.90 | 6.48 | 7.28 | 6.61 | 6.93 | 6.85 | 6.62 | 6.77 |
| CKB | 6.45 | 6.74 | 5.37 | 6.51 | 7.23 | 6.69 | 6.75 | 6.15 |
| CKLF | 7.63 | 7.39 | 7.13 | 7.44 | 8.33 | 7.75 | 6.38 | 7.56 |
| CKM | 0.08 | -0.28 | 0.00 | -0.29 | -0.24 | 0.08 | -0.29 | -0.14 |
| CKMT1A | 5.82 | 6.55 | 5.71 | 6.95 | 6.32 | 5.04 | 6.47 | 6.34 |
| CKMT1B | 6.01 | 5.96 | 5.54 | 6.34 | 6.21 | 4.95 | 6.31 | 6.33 |
| CKMT2 | 0.71 | 1.45 | 0.57 | 0.97 | 0.68 | 0.63 | 0.53 | 0.62 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CKMT2-AS1 | 2.50 | 2.71 | 2.86 | 2.81 | 2.88 | 3.07 | 2.90 | 2.55 |
| CKS1B | 7.87 | 6.45 | 6.51 | 6.76 | 7.81 | 8.02 | 6.41 | 8.02 |
| CKS1BP1 | -1.74 | -1.68 | -1.73 | -1.75 | -1.71 | -1.75 | -1.75 | -1.76 |
| CKS2 | 9.10 | 8.59 | 8.34 | 8.53 | 8.60 | 9.78 | 7.89 | 8.39 |
| CLASP1 | 3.74 | 4.18 | 4.37 | 3.87 | 4.15 | 4.16 | 4.60 | 3.74 |
| CLASP2 | 3.68 | 3.96 | 4.06 | 3.75 | 3.71 | 3.94 | 4.21 | 3.12 |
| CLASRP | 3.68 | 3.33 | 3.33 | 3.25 | 3.89 | 3.85 | 4.00 | 3.95 |
| CLBA1 | 2.49 | 2.94 | 3.25 | 2.62 | 3.08 | 2.92 | 2.82 | 2.42 |
| CLCA2 | -1.89 | -1.55 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.87 |
| CLCA3P | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.81 | -1.84 | -1.86 |
| CLCA4 | -1.55 | -1.48 | -1.53 | -1.49 | -1.51 | -1.53 | -1.55 | -1.57 |
| CLCA4-AS1 | -1.41 | -1.28 | -1.39 | -1.35 | -1.37 | -1.27 | -1.35 | -1.43 |
| CLCC1 | 5.08 | 4.84 | 4.67 | 4.72 | 4.87 | 4.34 | 5.19 | 4.81 |
| CLCF1 | 3.23 | 2.89 | 3.59 | 2.92 | 3.33 | 3.31 | 3.48 | 4.26 |
| CLCN1 | -0.30 | -0.37 | -0.36 | -0.30 | -0.05 | -0.15 | -0.38 | 0.07 |
| CLCN2 | 3.35 | 3.57 | 3.46 | 4.10 | 3.49 | 3.07 | 3.88 | 3.03 |
| CLCN3 | 5.48 | 6.40 | 5.88 | 6.44 | 5.74 | 5.95 | 6.76 | 6.80 |
| CLCN3P1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -2.00 | -2.00 | -2.01 |
| CLCN4 | 2.62 | 2.23 | 2.75 | 2.22 | 2.91 | 2.57 | 1.98 | 2.10 |
| CLCN5 | 3.00 | 3.75 | 3.39 | 3.40 | 3.28 | 3.01 | 4.78 | 2.77 |
| CLCN6 | 2.75 | 2.71 | 2.71 | 2.83 | 2.69 | 2.47 | 2.72 | 2.41 |
| CLCN7 | 4.92 | 5.05 | 5.77 | 5.05 | 4.89 | 4.72 | 5.01 | 5.67 |
| CLCNKA | -1.76 | -1.84 | -1.83 | -1.84 | -1.77 | -1.85 | -1.84 | -1.86 |
| CLCNKB | -1.10 | -1.45 | -1.38 | -1.46 | -1.39 | -1.43 | -1.46 | -1.48 |
| CLCP2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| CLDN1 | 5.44 | 5.97 | 6.28 | 5.86 | 5.43 | 5.65 | 6.23 | 6.33 |
| CLDN10 | 6.60 | 4.03 | 4.64 | 4.21 | 7.75 | 6.46 | 5.87 | 4.24 |
| CLDN10-AS1 | -1.38 | -1.43 | -1.23 | -1.38 | -1.37 | -1.45 | -1.26 | -1.46 |
| CLDN11 | -1.38 | -1.44 | -1.43 | -1.38 | -1.44 | -1.46 | -1.38 | -1.47 |
| CLDN12 | 4.19 | 4.98 | 5.69 | 4.36 | 5.19 | 4.89 | 5.51 | 4.78 |
| CLDN14 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| CLDN15 | 2.68 | 2.78 | 3.13 | 3.00 | 3.18 | 2.77 | 3.13 | 2.94 |
| CLDN16 | 0.07 | 0.01 | 0.24 | -0.15 | 0.02 | 0.13 | -0.07 | 0.29 |
| CLDN18 | 4.78 | 4.57 | 8.40 | 4.93 | 10.30 | 5.06 | 5.64 | 6.62 |
| CLDN2 | 7.53 | 5.56 | 9.08 | 5.84 | 8.29 | 5.64 | 9.27 | 6.65 |
| CLDN22 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.02 | -1.99 | -2.06 |
| CLDN23 | 3.49 | 3.92 | 5.66 | 4.15 | 4.71 | 4.95 | 3.85 | 4.31 |
| CLDN3 | 7.37 | 4.20 | 6.50 | 4.43 | 6.98 | 7.31 | 5.26 | 6.00 |
| CLDN4 | 9.84 | 8.29 | 9.20 | 8.14 | 10.14 | 9.62 | 8.22 | 9.22 |
| CLDN5 | 2.59 | 1.10 | 1.24 | 1.23 | 1.70 | 1.15 | 1.23 | 0.97 |
| CLDN6 | -1.64 | -1.63 | -1.63 | -1.69 | -1.66 | -1.67 | -1.59 | -1.71 |
| CLDN7 | 8.50 | 7.76 | 9.08 | 7.69 | 8.67 | 8.84 | 8.92 | 8.86 |
| CLDN8 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| CLDN9 | 2.73 | 1.59 | 2.15 | 1.89 | 1.99 | 3.17 | 1.93 | 1.55 |
| CLDND1 | 5.96 | 5.13 | 5.46 | 4.83 | 5.46 | 5.66 | 5.11 | 6.22 |
| CLDND2 | 3.61 | 2.62 | 2.76 | 2.91 | 3.90 | 3.43 | 2.67 | 2.28 |
| CLEC11A | 1.69 | 1.40 | 1.60 | 1.73 | 1.67 | 1.44 | 1.95 | 1.60 |
| CLEC16A | 4.02 | 4.22 | 4.27 | 3.81 | 3.47 | 3.63 | 4.73 | 3.86 |
| CLEC18A | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| CLEC18B | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| CLEC19A | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| CLEC1A | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CLEC20A | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| CLEC2B | -0.80 | -0.78 | -0.93 | -0.95 | -0.90 | -0.95 | -0.88 | -0.47 |
| CLEC2D | 0.97 | 1.13 | 0.96 | 1.02 | 0.95 | 0.98 | 1.19 | 1.13 |
| CLEC2L | -1.81 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.91 |
| CLEC4A | -2.04 | -2.04 | -2.01 | -2.05 | -2.01 | -2.05 | -2.05 | -2.03 |
| CLEC4E | -1.89 | -1.89 | -1.88 | -1.85 | -1.89 | -1.88 | -1.86 | -1.91 |
| CLEC4F | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| CLEC7A | 1.50 | 0.32 | 0.44 | 0.04 | 0.05 | 0.11 | 0.20 | 0.14 |
| CLGN | 2.86 | 1.82 | 1.88 | 2.07 | 3.14 | 1.92 | 2.78 | 2.79 |
| CLHC1 | 3.04 | 3.23 | 2.76 | 3.01 | 3.14 | 2.70 | 3.50 | 2.42 |
| CLIC1 | 9.96 | 9.64 | 8.81 | 9.83 | 9.10 | 10.01 | 9.47 | 10.34 |
| CLIC1P1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.80 | -1.81 | -1.84 | -1.82 |
| CLIC2 | -1.40 | -1.33 | -1.06 | -1.40 | -1.39 | -1.32 | -1.40 | -1.16 |
| CLIC3 | 4.73 | 6.20 | 4.64 | 5.15 | 5.05 | 5.62 | 6.54 | 7.20 |
| CLIC4 | 4.83 | 4.81 | 5.66 | 4.70 | 5.35 | 5.82 | 5.83 | 5.91 |
| CLIC4P1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.02 | -2.06 |
| CLIC5 | 2.77 | 2.99 | 3.97 | 2.86 | 3.44 | 3.32 | 5.58 | 2.97 |
| CLIC6 | 3.33 | 2.01 | 2.03 | 2.02 | 2.43 | 2.17 | 2.14 | 3.11 |
| CLINT1 | 6.40 | 7.73 | 7.96 | 7.50 | 7.75 | 6.95 | 7.53 | 7.52 |
| CLIP1 | 5.27 | 6.27 | 6.57 | 6.04 | 5.79 | 6.32 | 6.54 | 6.32 |
| CLIP1-AS1 | -1.79 | -1.74 | -1.78 | -1.79 | -1.74 | -1.78 | -1.75 | -1.81 |
| CLIP2 | 5.32 | 5.08 | 5.11 | 5.02 | 4.78 | 5.07 | 5.12 | 4.41 |
| CLIP3 | -1.24 | -1.30 | -1.22 | -1.24 | -1.16 | -1.22 | -1.31 | -1.27 |
| CLIP4 | 4.22 | 4.66 | 4.52 | 3.99 | 4.32 | 5.22 | 3.99 | 4.86 |
| CLK1 | 4.98 | 4.75 | 5.81 | 5.28 | 6.01 | 5.00 | 5.51 | 5.62 |
| CLK2 | 4.72 | 4.56 | 4.48 | 4.57 | 5.33 | 5.22 | 4.82 | 4.88 |
| CLK2P1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| CLK3 | 6.50 | 5.79 | 6.25 | 5.89 | 6.62 | 6.10 | 5.82 | 6.50 |
| CLK4 | 3.09 | 3.44 | 3.57 | 3.43 | 4.06 | 3.41 | 3.91 | 3.47 |
| CLLU1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.37 |
| CLMN | 5.08 | 6.06 | 6.08 | 5.68 | 6.14 | 5.70 | 6.28 | 5.12 |
| CLMP | -0.91 | -0.91 | -0.82 | -0.92 | -0.83 | -0.78 | -0.92 | 0.12 |
| CLN3 | -1.28 | -1.28 | -1.20 | -1.15 | -1.24 | -1.20 | -1.17 | -1.19 |
| CLN5 | 4.83 | 5.16 | 5.10 | 5.09 | 5.22 | 4.62 | 4.85 | 5.65 |
| CLN6 | 2.75 | 2.65 | 2.86 | 2.56 | 2.12 | 2.23 | 2.84 | 2.11 |
| CLN8 | 3.56 | 4.95 | 5.06 | 4.96 | 3.90 | 4.40 | 4.55 | 4.65 |
| CLNS1A | 8.18 | 7.50 | 7.34 | 7.69 | 8.42 | 7.42 | 7.14 | 7.88 |
| CLOCK | 4.06 | 5.75 | 5.36 | 5.29 | 4.07 | 6.26 | 5.53 | 5.33 |
| CLP1 | 4.82 | 3.94 | 4.18 | 4.31 | 4.78 | 3.97 | 3.83 | 4.56 |
| CLPB | 5.19 | 4.66 | 4.91 | 4.63 | 5.26 | 4.56 | 4.76 | 4.41 |
| CLPP | 6.46 | 7.12 | 6.66 | 7.15 | 7.36 | 7.11 | 6.69 | 6.72 |
| CLPS | -1.99 | -1.99 | -1.91 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |

| | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| CLPSL1 | 1.15 | 0.32 | 0.97 | 0.54 | 0.55 | 0.37 | 0.30 | 1.02 |
| CLPSL2 | 0.36 | -0.11 | -0.10 | -0.12 | 0.31 | -0.06 | -0.13 | 0.33 |
| CLPTM1 | 6.95 | 6.63 | 6.67 | 6.84 | 6.80 | 6.27 | 6.44 | 6.49 |
| CLPTM1L | 7.60 | 7.58 | 7.43 | 7.62 | 7.80 | 6.73 | 6.83 | 7.61 |
| CLPX | 5.86 | 5.59 | 5.69 | 5.68 | 5.64 | 5.53 | 5.77 | 5.91 |
| CLRN3 | 5.29 | 3.71 | 3.43 | 4.48 | 3.96 | 4.16 | 4.45 | 3.53 |
| CLSPN | 5.97 | 5.32 | 6.38 | 5.40 | 5.25 | 6.15 | 6.32 | 4.51 |
| CLSTN1 | 6.71 | 7.51 | 7.71 | 7.25 | 6.72 | 6.99 | 6.86 | 6.30 |
| CLSTN3 | 2.64 | 2.64 | 3.01 | 3.25 | 3.24 | 2.74 | 3.03 | 2.62 |
| CLTA | 8.71 | 8.54 | 8.00 | 8.62 | 8.76 | 8.48 | 7.80 | 8.23 |
| CLTB | 7.45 | 9.24 | 7.75 | 9.27 | 7.81 | 7.63 | 8.14 | 7.92 |
| CLTC | 7.51 | 8.05 | 7.71 | 7.67 | 7.48 | 7.87 | 8.01 | 8.08 |
| CLTCL1 | 1.41 | 1.04 | 0.94 | 0.88 | 1.06 | 0.85 | 1.02 | 0.88 |
| CLTRN | 1.41 | 1.08 | 1.20 | 1.13 | 1.32 | 1.20 | 1.33 | 1.28 |
| CLU | 9.73 | 7.39 | 9.65 | 7.87 | 8.17 | 8.47 | 9.33 | 7.24 |
| CLUAP1 | 4.60 | 4.08 | 4.91 | 4.27 | 3.68 | 4.67 | 3.88 | 3.25 |
| CLUH | 4.90 | 5.31 | 5.98 | 5.20 | 4.97 | 4.94 | 5.52 | 5.18 |
| CLUHP3 | 3.97 | 3.39 | 4.38 | 3.82 | 3.67 | 3.44 | 4.16 | 4.26 |
| CLUL1 | -1.69 | -1.74 | -1.73 | -1.74 | -1.66 | -1.75 | -1.70 | -1.76 |
| CLVS1 | 0.78 | 0.87 | 1.00 | 0.90 | 1.01 | 0.86 | 0.61 | 1.10 |
| CLVS2 | -2.20 | -2.20 | -2.19 | -2.21 | -2.20 | -2.21 | -2.21 | -2.14 |
| CLYBL | 4.04 | 4.63 | 4.02 | 4.16 | 5.25 | 4.01 | 4.80 | 3.80 |
| CMAHP | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| CMAS | 6.56 | 6.43 | 7.15 | 6.42 | 7.77 | 6.31 | 7.15 | 7.14 |
| CMBL | 6.03 | 7.04 | 6.01 | 7.64 | 6.80 | 5.59 | 6.17 | 6.49 |
| CMC1 | 8.11 | 7.19 | 7.32 | 7.34 | 7.59 | 7.52 | 7.30 | 7.17 |
| CMC2 | 8.12 | 7.03 | 7.34 | 7.25 | 7.27 | 7.56 | 6.86 | 7.40 |
| CMIP | 5.36 | 5.79 | 6.25 | 5.43 | 5.30 | 5.94 | 6.06 | 5.56 |
| CMPK1 | 7.41 | 8.40 | 7.20 | 8.18 | 7.93 | 7.76 | 7.95 | 7.65 |
| CMPK2 | 4.59 | 3.16 | 3.65 | 2.98 | 3.56 | 3.36 | 3.32 | 2.94 |
| CMSS1 | 6.58 | 5.56 | 7.02 | 5.55 | 6.59 | 6.68 | 6.18 | 6.50 |
| CMTM1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| CMTM2 | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.15 | -2.13 | -2.13 |
| CMTM3 | 3.61 | 2.54 | 3.08 | 2.42 | 3.40 | 4.16 | 2.23 | 4.11 |
| CMTM4 | 5.93 | 6.43 | 6.49 | 6.00 | 5.69 | 5.69 | 6.56 | 5.90 |
| CMTM6 | 8.47 | 8.38 | 8.38 | 8.36 | 8.49 | 8.68 | 7.23 | 7.08 |
| CMTM7 | 7.41 | 6.09 | 6.76 | 6.24 | 7.92 | 7.49 | 5.85 | 5.99 |
| CMTM8 | 6.46 | 6.15 | 5.39 | 6.46 | 6.64 | 6.25 | 5.73 | 5.76 |
| CMTR1 | 5.69 | 4.74 | 4.92 | 5.04 | 5.40 | 5.52 | 5.15 | 5.52 |
| CMTR2 | 4.20 | 4.41 | 4.51 | 3.92 | 4.16 | 4.21 | 4.59 | 4.70 |
| CMYA5 | -0.33 | -0.18 | -0.21 | -0.18 | -0.16 | -0.26 | -0.21 | -0.36 |
| CNBD2 | 4.10 | 3.04 | 3.01 | 3.25 | 3.30 | 3.21 | 3.11 | 3.37 |
| CNBP | 9.40 | 7.82 | 8.58 | 8.11 | 9.17 | 8.85 | 8.29 | 9.88 |
| CNDP1 | -2.01 | -2.01 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| CNDP2 | 6.18 | 6.62 | 6.61 | 6.54 | 6.17 | 5.87 | 6.78 | 5.56 |
| CNEP1R1 | 3.43 | 2.94 | 3.16 | 3.22 | 3.38 | 3.30 | 2.62 | 3.09 |
| CNFN | 5.99 | 5.92 | 4.52 | 5.97 | 5.47 | 5.28 | 4.53 | 3.89 |
| CNGA1 | 1.68 | 2.03 | 1.86 | 1.73 | 1.74 | 3.39 | 2.00 | 2.20 |
| CNGB1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.87 |
| CNGB3 | -1.57 | -1.57 | -1.50 | -1.58 | -1.54 | -1.58 | -1.58 | -1.35 |
| CNIH1 | 7.83 | 7.82 | 7.32 | 8.14 | 8.43 | 8.21 | 7.82 | 7.61 |
| CNIH2 | 0.10 | 0.13 | 0.04 | -0.01 | -0.15 | 0.10 | -0.09 | 0.11 |
| CNIH3 | -0.13 | 0.03 | -0.19 | -0.08 | -0.01 | 0.28 | -0.14 | 0.44 |
| CNIH4 | 8.53 | 8.32 | 7.98 | 8.24 | 8.64 | 8.84 | 7.63 | 8.48 |
| CNKSR1 | 3.75 | 3.97 | 3.99 | 3.59 | 4.16 | 4.08 | 4.50 | 3.86 |
| CNKSR2 | -1.55 | -1.61 | -1.60 | -1.62 | -1.61 | -1.62 | -1.62 | -1.64 |
| CNKSR3 | 2.96 | 2.79 | 2.53 | 2.81 | 2.43 | 2.48 | 2.58 | 1.85 |
| CNN1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| CNN2 | 8.73 | 6.88 | 7.35 | 6.70 | 7.39 | 8.30 | 7.06 | 7.97 |
| CNN2P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CNN3 | 7.35 | 6.56 | 6.25 | 6.78 | 7.10 | 7.45 | 6.96 | 5.32 |
| CNNM1 | 3.76 | 4.71 | 3.89 | 4.69 | 4.17 | 3.72 | 4.39 | 3.04 |
| CNNM2 | 3.44 | 3.54 | 3.62 | 3.43 | 3.72 | 3.19 | 3.33 | 2.80 |
| CNNM3 | 5.41 | 5.07 | 5.12 | 5.06 | 5.01 | 4.52 | 5.39 | 4.32 |
| CNNM3-DT | -1.84 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |
| CNNM4 | 4.98 | 5.15 | 5.33 | 4.93 | 4.52 | 4.35 | 4.48 | 4.33 |
| CNOT1 | 6.72 | 6.86 | 7.06 | 6.66 | 6.26 | 6.66 | 7.09 | 7.23 |
| CNOT10 | 4.62 | 4.64 | 4.71 | 4.54 | 4.18 | 4.49 | 4.64 | 4.06 |
| CNOT11 | 5.96 | 5.41 | 5.86 | 5.60 | 5.69 | 5.64 | 5.72 | 5.87 |
| CNOT3 | 5.23 | 5.24 | 5.19 | 5.14 | 5.06 | 5.02 | 5.01 | 5.36 |
| CNOT4 | 4.75 | 5.43 | 4.98 | 5.03 | 5.08 | 4.79 | 5.05 | 5.16 |
| CNOT6 | 5.03 | 5.51 | 5.91 | 5.62 | 5.41 | 5.40 | 5.96 | 5.34 |
| CNOT6L | 4.01 | 4.84 | 5.23 | 4.58 | 4.20 | 4.77 | 5.34 | 4.57 |
| CNOT6LP1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| CNOT7 | 6.29 | 6.68 | 6.91 | 6.36 | 6.25 | 7.19 | 6.44 | 6.64 |
| CNOT8 | 4.87 | 5.33 | 5.95 | 5.14 | 5.38 | 5.58 | 5.57 | 4.97 |
| CNOT9 | 5.92 | 5.29 | 5.46 | 5.60 | 5.49 | 5.78 | 5.28 | 5.71 |
| CNP | 7.31 | 6.24 | 6.50 | 6.21 | 6.25 | 6.69 | 5.79 | 6.01 |
| CNPPD1 | 6.01 | 5.43 | 5.28 | 5.58 | 5.95 | 5.51 | 5.52 | 6.15 |
| CNPY2 | 8.30 | 8.25 | 7.64 | 8.55 | 8.19 | 8.32 | 7.43 | 7.53 |
| CNPY3 | 6.44 | 6.14 | 5.72 | 6.14 | 6.89 | 6.58 | 5.42 | 6.21 |
| CNPY4 | 2.30 | 2.19 | 1.99 | 2.62 | 2.27 | 2.16 | 2.30 | 1.70 |
| CNR1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.03 | -2.05 | -2.06 |
| CNR2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| CNST | 3.19 | 3.54 | 3.30 | 3.46 | 3.67 | 3.91 | 3.46 | 4.13 |
| CNTD1 | 0.19 | 0.35 | 0.47 | 0.26 | 0.35 | 0.31 | 0.26 | 0.42 |
| CNTD2 | 1.24 | 0.72 | 0.83 | 0.62 | 0.87 | 1.24 | 0.83 | 0.64 |
| CNTF | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| CNTFR | 1.23 | 0.68 | 0.79 | 0.66 | 0.95 | 0.75 | 1.18 | 0.74 |
| CNTLN | 4.20 | 4.07 | 4.19 | 3.82 | 3.48 | 3.89 | 4.04 | 3.49 |
| CNTN1 | -1.57 | -1.57 | -1.56 | -1.57 | -1.57 | -1.58 | -1.58 | -1.42 |
| CNTN2 | -2.02 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.06 |
| CNTN3 | -0.50 | -0.50 | 0.07 | -0.51 | -0.50 | -0.51 | -0.44 | -0.53 |
| CNTNAP1 | 0.16 | -0.12 | -0.20 | -0.06 | 0.23 | -0.05 | -0.22 | -0.25 |

| | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| CNTNAP2 | 1.77 | 3.27 | 2.48 | 4.04 | 1.57 | 3.08 | 1.88 | 2.08 |
| CNTNAP3 | 0.85 | 1.50 | 0.88 | 1.77 | 0.74 | 1.16 | 0.89 | 0.76 |
| CNTNAP3B | -0.31 | -0.29 | -0.35 | -0.39 | -0.46 | 0.24 | -0.47 | -0.43 |
| CNTRL | 3.56 | 4.30 | 4.21 | 3.94 | 3.52 | 4.05 | 3.89 | 3.55 |
| CNTROB | 3.49 | 3.35 | 3.47 | 3.38 | 3.38 | 3.40 | 3.55 | 3.49 |
| COA1 | 6.91 | 6.48 | 5.98 | 6.81 | 7.23 | 6.84 | 6.21 | 7.08 |
| COA3 | 7.76 | 7.96 | 7.18 | 8.01 | 8.16 | 7.93 | 7.38 | 8.03 |
| COA4 | 7.78 | 7.53 | 6.87 | 7.80 | 7.77 | 7.45 | 6.89 | 7.64 |
| COA5 | 7.08 | 6.59 | 6.13 | 6.52 | 7.39 | 6.58 | 6.09 | 6.46 |
| COA6 | 7.67 | 6.86 | 6.17 | 6.95 | 7.10 | 7.51 | 6.90 | 7.83 |
| COA6-AS1 | 3.28 | 1.79 | 2.16 | 2.47 | 2.61 | 2.54 | 1.91 | 2.52 |
| COA7 | 4.58 | 4.92 | 4.36 | 5.01 | 4.69 | 4.58 | 4.31 | 4.41 |
| COASY | 6.86 | 6.51 | 7.40 | 6.97 | 6.90 | 7.15 | 6.90 | 7.63 |
| COBL | 4.90 | 5.15 | 4.84 | 5.52 | 5.56 | 4.54 | 5.76 | 4.80 |
| COBLL1 | 4.66 | 5.45 | 4.42 | 5.43 | 4.67 | 4.20 | 5.63 | 4.63 |
| COCH | 2.86 | 2.52 | 2.55 | 2.77 | 4.51 | 2.75 | 2.49 | 2.68 |
| COG1 | 4.05 | 4.08 | 4.68 | 4.08 | 4.38 | 4.15 | 4.35 | 4.56 |
| COG2 | 4.97 | 5.11 | 4.58 | 5.12 | 5.35 | 4.87 | 5.19 | 5.07 |
| COG3 | 4.36 | 4.38 | 4.79 | 4.74 | 5.10 | 4.11 | 4.86 | 5.36 |
| COG4 | 5.47 | 5.28 | 5.68 | 5.27 | 5.02 | 5.12 | 5.27 | 5.16 |
| COG5 | 3.89 | 4.24 | 4.41 | 4.24 | 4.33 | 4.06 | 4.25 | 4.92 |
| COG6 | 3.00 | 4.40 | 3.98 | 4.18 | 4.56 | 3.86 | 4.46 | 5.17 |
| COG7 | 3.56 | 3.92 | 4.30 | 4.23 | 3.74 | 3.65 | 4.15 | 4.17 |
| COG8 | 3.92 | 4.16 | 4.35 | 4.21 | 4.36 | 3.96 | 4.16 | 4.30 |
| COIL | 6.45 | 5.79 | 5.70 | 5.91 | 6.13 | 6.18 | 5.86 | 6.39 |
| COL10A1 | -2.30 | -2.30 | -2.28 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| COL11A2 | -0.41 | -0.40 | -0.29 | -0.33 | 0.91 | -0.34 | -0.41 | -0.44 |
| COL12A1 | -0.13 | 0.66 | 0.00 | 0.78 | -0.08 | -0.11 | -0.14 | 0.08 |
| COL13A1 | 1.15 | 2.41 | 1.30 | 2.46 | 1.96 | 2.16 | 1.21 | 1.31 |
| COL14A1 | -1.89 | -1.85 | -1.88 | -1.85 | -1.85 | -1.88 | -1.89 | -1.87 |
| COL16A1 | 2.42 | 2.00 | 2.66 | 1.82 | 2.85 | 2.16 | 1.58 | 3.55 |
| COL17A1 | 5.72 | 8.04 | 7.21 | 8.40 | 6.19 | 6.00 | 7.75 | 7.63 |
| COL18A1 | 5.65 | 4.87 | 5.34 | 4.74 | 5.84 | 6.68 | 5.65 | 4.18 |
| COL19A1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| COL1A1 | 2.49 | 2.56 | 2.55 | 2.67 | 2.29 | 2.34 | 2.40 | 2.80 |
| COL1A2 | 0.81 | 0.77 | 0.56 | 0.60 | 0.64 | 0.55 | 0.59 | 0.92 |
| COL20A1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| COL21A1 | -1.85 | -1.84 | -1.83 | -1.79 | -1.81 | -1.74 | -1.85 | -1.81 |
| COL22A1 | -0.97 | -0.80 | -0.95 | -0.63 | -0.27 | -0.88 | -0.98 | -0.99 |
| COL24A1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| COL25A1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| COL27A1 | 2.52 | 2.81 | 2.81 | 3.07 | 2.90 | 2.22 | 3.32 | 1.86 |
| COL28A1 | 2.81 | 1.61 | 1.67 | 2.20 | 1.60 | 1.79 | 1.80 | 1.56 |
| COL3A1 | -1.74 | -1.74 | -1.73 | -1.74 | -1.74 | -1.73 | -1.74 | -1.66 |
| COL4A1 | -0.26 | -0.16 | 0.04 | -0.05 | -0.25 | -0.09 | 0.16 | 1.02 |
| COL4A2 | 2.10 | 2.71 | 2.81 | 2.98 | 3.14 | 2.14 | 3.37 | 3.64 |
| COL4A3 | 1.08 | 0.93 | 0.96 | 1.07 | 1.06 | 0.88 | 1.99 | 1.03 |
| COL4A3BP | 5.21 | 6.13 | 6.31 | 5.93 | 6.20 | 5.73 | 6.19 | 5.60 |
| COL4A4 | 3.55 | 3.00 | 3.45 | 3.10 | 2.93 | 2.65 | 4.71 | 3.13 |
| COL4A5 | 2.39 | 2.64 | 3.44 | 2.39 | 2.54 | 2.47 | 3.75 | 3.15 |
| COL4A6 | 0.35 | 0.28 | 0.41 | 0.26 | 0.33 | 0.36 | 0.64 | 0.29 |
| COL5A1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| COL5A2 | -0.26 | -0.25 | -0.22 | -0.34 | -0.33 | -0.21 | -0.20 | -0.13 |
| COL5A3 | 1.75 | 0.94 | 0.97 | 1.03 | 0.89 | 0.87 | 1.22 | 0.69 |
| COL6A1 | 7.44 | 5.00 | 7.77 | 5.21 | 5.13 | 7.52 | 5.23 | 3.93 |
| COL6A2 | 2.73 | 2.05 | 5.48 | 2.57 | 2.07 | 5.03 | 2.38 | 2.14 |
| COL6A3 | 2.64 | 2.61 | 2.71 | 2.41 | 2.64 | 2.45 | 2.35 | 2.42 |
| COL6A4P1 | -1.89 | -1.89 | -1.84 | -1.86 | -1.87 | -1.90 | -1.89 | -1.87 |
| COL6A4P2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.12 | -2.15 | -2.16 |
| COL7A1 | 0.54 | 0.34 | 0.59 | 0.59 | 0.53 | 0.66 | 0.46 | 0.39 |
| COL8A1 | -1.78 | -1.78 | -1.77 | -1.79 | -1.76 | -1.79 | -1.79 | -1.44 |
| COL8A2 | -1.40 | -1.45 | -1.44 | -1.46 | -1.42 | -1.41 | -1.41 | -1.43 |
| COL9A1 | -1.92 | -1.99 | -1.95 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| COL9A2 | 1.23 | 0.75 | 1.26 | 0.81 | 0.99 | 1.17 | 1.01 | 1.31 |
| COL9A3 | 6.35 | 3.96 | 3.89 | 4.17 | 5.54 | 4.55 | 4.19 | 3.98 |
| COLCA1 | 2.44 | 4.49 | 2.67 | 4.47 | 5.29 | 2.26 | 2.75 | 2.93 |
| COLCA2 | 2.54 | 4.86 | 2.81 | 5.15 | 5.76 | 2.23 | 3.43 | 3.25 |
| COLEC10 | -1.61 | -1.60 | -1.60 | -1.61 | -1.58 | -1.62 | -1.56 | -1.54 |
| COLEC11 | 0.29 | -0.23 | -0.22 | -0.11 | -0.20 | -0.08 | -0.17 | 0.35 |
| COLGALT1 | 5.62 | 6.47 | 7.17 | 6.17 | 5.69 | 5.68 | 5.80 | 5.44 |
| COLGALT2 | 2.53 | 4.72 | 2.73 | 4.64 | 4.27 | 2.28 | 2.40 | 1.92 |
| COLQ | -2.15 | -2.15 | -2.11 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| COMMD1 | 6.69 | 6.27 | 5.29 | 6.27 | 6.46 | 5.67 | 5.67 | 5.60 |
| COMMD10 | 4.72 | 5.32 | 5.24 | 5.59 | 5.79 | 5.46 | 5.03 | 5.14 |
| COMMD2 | 6.62 | 5.32 | 6.31 | 5.37 | 5.96 | 6.29 | 5.86 | 6.76 |
| COMMD3 | 5.93 | 6.41 | 5.53 | 6.50 | 6.72 | 6.75 | 5.62 | 6.27 |
| COMMD4 | 6.82 | 6.41 | 6.88 | 6.57 | 6.27 | 6.32 | 6.27 | 6.83 |
| COMMD5 | 5.88 | 5.53 | 5.83 | 5.77 | 6.03 | 6.02 | 4.96 | 6.11 |
| COMMD6 | 8.63 | 9.02 | 8.13 | 9.07 | 9.82 | 8.44 | 8.33 | 9.16 |
| COMMD7 | 6.33 | 6.12 | 5.81 | 6.39 | 6.63 | 6.11 | 5.67 | 6.38 |
| COMMD8 | 5.34 | 5.61 | 5.50 | 5.90 | 5.21 | 5.62 | 4.99 | 5.34 |
| COMMD9 | 5.68 | 5.32 | 5.47 | 5.37 | 4.88 | 5.10 | 4.87 | 5.65 |
| COMP | -1.55 | -1.49 | -1.54 | -1.50 | -1.52 | -1.48 | -1.56 | -1.52 |
| COMT | 9.75 | 9.90 | 8.37 | 10.31 | 8.28 | 9.37 | 8.97 | 10.27 |
| COMTD1 | 5.63 | 6.46 | 5.50 | 6.59 | 5.91 | 5.50 | 5.60 | 5.76 |
| COP1 | 5.15 | 5.34 | 5.37 | 5.16 | 5.17 | 5.55 | 5.17 | 5.78 |
| COPA | 6.67 | 6.69 | 7.10 | 6.75 | 6.99 | 7.09 | 6.99 | 7.47 |
| COPB1 | 6.84 | 7.15 | 7.35 | 6.93 | 7.14 | 6.76 | 6.89 | 7.60 |
| COPB2 | 6.91 | 6.49 | 6.92 | 6.31 | 7.27 | 6.92 | 6.98 | 8.00 |
| COPE | 8.28 | 8.54 | 8.28 | 8.76 | 9.22 | 8.49 | 8.44 | 8.42 |
| COPG1 | 5.94 | 5.76 | 6.54 | 5.74 | 6.48 | 6.02 | 6.53 | 7.13 |
| COPG2 | 2.84 | 2.97 | 3.07 | 2.57 | 2.98 | 2.99 | 2.78 | 2.76 |
| COPRS | 7.23 | 6.55 | 6.47 | 6.68 | 6.43 | 6.90 | 6.08 | 6.26 |
| COPS2 | 6.78 | 6.72 | 5.88 | 6.60 | 6.78 | 6.72 | 6.40 | 6.78 |

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|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| COPS3 | 6.91 | 5.38 | 5.84 | 5.60 | 5.89 | 6.00 | 5.88 | 5.99 |
| COPS4 | 5.29 | 5.59 | 5.23 | 5.60 | 5.46 | 5.75 | 5.21 | 5.84 |
| COPSS | 7.42 | 6.80 | 6.98 | 6.72 | 7.33 | 7.70 | 6.72 | 7.83 |
| COPSSP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| COPS6 | 8.49 | 7.77 | 7.69 | 7.93 | 8.28 | 8.01 | 7.43 | 8.19 |
| COPST7A | 6.08 | 5.90 | 5.97 | 5.85 | 5.89 | 5.58 | 5.58 | 6.81 |
| COPST7B | 5.80 | 4.85 | 4.99 | 4.99 | 5.45 | 5.74 | 4.78 | 5.22 |
| COPS8 | 6.99 | 6.60 | 6.37 | 6.61 | 7.04 | 7.57 | 5.95 | 7.08 |
| COPS8P2 | -1.89 | -1.85 | -1.88 | -1.89 | -1.87 | -1.88 | -1.90 | -1.83 |
| COPSS9 | 9.09 | 8.93 | 7.42 | 8.92 | 8.93 | 8.73 | 7.94 | 8.30 |
| COPZ1 | 8.67 | 8.30 | 7.71 | 8.37 | 8.43 | 8.76 | 7.58 | 8.61 |
| COPZ2 | 5.16 | 4.00 | 4.33 | 3.73 | 3.61 | 3.55 | 3.37 | 4.77 |
| COQ10A | 3.51 | 3.26 | 3.06 | 2.82 | 2.88 | 3.19 | 2.51 | 2.80 |
| COQ10B | 6.53 | 5.71 | 5.44 | 5.58 | 6.24 | 5.93 | 5.87 | 6.77 |
| COQ10BP2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| COQ2 | 4.08 | 4.34 | 4.57 | 4.44 | 4.45 | 4.79 | 4.61 | 4.49 |
| COQ3 | 5.53 | 3.96 | 4.69 | 3.78 | 3.90 | 4.40 | 4.38 | 4.40 |
| COQ4 | 7.99 | 6.66 | 5.95 | 6.79 | 6.27 | 6.35 | 6.20 | 6.04 |
| COQ5 | 4.87 | 5.33 | 5.78 | 5.38 | 5.80 | 5.29 | 5.34 | 5.52 |
| COQ6 | 4.51 | 4.45 | 4.76 | 4.79 | 4.95 | 5.18 | 4.54 | 4.25 |
| COQ7 | 4.62 | 4.35 | 4.96 | 3.95 | 4.60 | 4.67 | 4.19 | 4.68 |
| COQ8A | 5.49 | 4.32 | 4.81 | 4.83 | 5.63 | 4.62 | 5.38 | 4.88 |
| COQ8B | 5.18 | 4.43 | 4.31 | 4.87 | 5.40 | 4.44 | 4.65 | 4.44 |
| COQ9 | 5.87 | 5.31 | 5.35 | 5.33 | 5.62 | 5.19 | 5.38 | 5.36 |
| CORIN | -1.36 | -1.29 | -1.35 | -1.37 | -1.33 | -1.38 | -1.24 | -1.38 |
| CORO1A | 0.62 | 0.24 | 0.43 | 0.14 | 0.24 | 0.55 | 0.22 | 0.18 |
| CORO1B | 7.08 | 6.89 | 6.73 | 6.86 | 7.38 | 6.75 | 6.67 | 7.50 |
| CORO1C | 5.15 | 5.86 | 6.24 | 5.49 | 5.15 | 5.92 | 5.86 | 5.47 |
| CORO2A | 6.71 | 7.23 | 6.91 | 7.22 | 5.87 | 6.57 | 7.66 | 5.78 |
| CORO2B | -1.59 | -1.53 | -1.57 | -1.48 | -1.58 | -1.57 | -1.59 | -1.61 |
| CORO6 | 0.83 | 0.25 | 0.48 | 0.45 | 0.56 | 0.48 | 0.38 | 0.38 |
| CORO7 | 3.50 | 3.51 | 4.04 | 3.80 | 3.03 | 3.33 | 3.73 | 3.41 |
| CORT | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| COTL1 | 9.42 | 8.86 | 8.65 | 8.85 | 8.59 | 9.02 | 7.79 | 9.47 |
| COX10 | 4.96 | 4.44 | 4.31 | 4.44 | 4.17 | 4.10 | 4.70 | 4.46 |
| COX10-AS1 | 1.95 | 1.61 | 1.95 | 1.97 | 1.47 | 1.70 | 1.90 | 1.86 |
| COX11 | 6.80 | 6.50 | 5.60 | 6.66 | 6.27 | 6.14 | 5.62 | 6.01 |
| COX14 | 8.66 | 7.75 | 7.42 | 8.03 | 7.96 | 8.27 | 7.37 | 7.89 |
| COX15 | 5.81 | 5.25 | 5.02 | 5.09 | 4.95 | 5.15 | 5.25 | 4.86 |
| COX16 | 4.31 | 5.34 | 4.20 | 5.20 | 5.00 | 4.67 | 4.78 | 4.65 |
| COX17 | 8.85 | 7.57 | 8.33 | 7.53 | 8.21 | 8.55 | 7.88 | 9.05 |
| COX17P1 | 2.63 | 2.07 | 2.19 | 2.06 | 2.36 | 2.35 | 2.30 | 2.78 |
| COX18 | 3.70 | 4.38 | 3.89 | 4.25 | 3.79 | 3.83 | 4.12 | 4.53 |
| COX19 | 6.50 | 6.00 | 5.88 | 6.04 | 6.24 | 6.12 | 5.94 | 6.44 |
| COX20 | 8.04 | 7.45 | 6.60 | 7.28 | 7.13 | 7.73 | 6.74 | 7.42 |
| COX20P1 | 5.83 | 4.42 | 2.64 | 4.19 | 3.69 | 2.54 | 2.67 | 2.54 |
| COX20P2 | -1.45 | -1.38 | -1.43 | -1.39 | -1.35 | -1.40 | -1.45 | -1.41 |
| COX4I1 | 10.97 | 10.49 | 10.30 | 10.61 | 10.93 | 10.26 | 10.32 | 10.62 |
| COX4I1P1 | -2.04 | -2.01 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| COX5A | 9.99 | 9.53 | 9.14 | 9.54 | 10.10 | 9.06 | 8.92 | 9.33 |
| COX5AP2 | 1.15 | 1.37 | 1.14 | 1.43 | 1.53 | 1.06 | 1.31 | 1.20 |
| COX5B | 10.40 | 9.90 | 9.42 | 9.88 | 10.57 | 9.74 | 9.57 | 10.09 |
| COX5BP6 | -1.80 | -1.79 | -1.79 | -1.84 | -1.82 | -1.85 | -1.80 | -1.86 |
| COX6A1 | 9.34 | 9.83 | 9.77 | 9.92 | 9.90 | 9.71 | 9.16 | 9.62 |
| COX6A1P2 | 2.95 | 3.56 | 3.58 | 3.55 | 3.45 | 3.24 | 3.19 | 3.47 |
| COX6B1 | 10.73 | 10.24 | 9.52 | 10.32 | 10.72 | 9.80 | 9.84 | 9.72 |
| COX6B1P1 | -0.71 | -0.63 | -0.36 | -0.65 | -0.78 | -0.70 | -0.72 | -0.80 |
| COX6B1P2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.23 |
| COX6B2 | 2.19 | 3.07 | 3.32 | 2.41 | 3.61 | 2.92 | 2.40 | 2.00 |
| COX6C | 10.70 | 10.26 | 10.25 | 10.19 | 10.69 | 10.40 | 9.66 | 10.44 |
| COX6CP1 | 0.30 | 0.01 | 0.04 | -0.08 | 0.04 | 0.12 | -0.01 | -0.18 |
| COX6CP10 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| COX6CP12 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 |
| COX6CP14 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| COX6CP17 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| COX6CP18 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| COX6CP2 | -1.87 | -1.94 | -1.93 | -1.94 | -1.92 | -1.93 | -1.91 | -1.92 |
| COX6CP3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| COX6CP6 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| COX7A1 | 1.82 | 1.68 | 1.96 | 1.69 | 1.86 | 1.80 | 2.75 | 2.55 |
| COX7A2 | 11.01 | 9.76 | 9.88 | 9.75 | 10.38 | 10.43 | 9.90 | 10.14 |
| COX7A2L | 8.51 | 8.06 | 7.43 | 8.26 | 9.26 | 8.16 | 7.66 | 8.77 |
| COX7A2P1 | -1.84 | -1.84 | -1.79 | -1.84 | -1.84 | -1.83 | -1.76 | -1.86 |
| COX7A2P2 | 0.74 | 0.53 | 0.48 | 0.28 | 0.49 | 0.55 | 0.42 | 0.58 |
| COX7B | 9.92 | 9.28 | 8.96 | 9.26 | 9.94 | 9.12 | 9.07 | 8.98 |
| COX7BP2 | -0.56 | -0.63 | -0.55 | -0.65 | -0.45 | -0.45 | -0.72 | -0.73 |
| COX7C | 10.17 | 9.93 | 10.00 | 10.07 | 11.33 | 10.33 | 10.39 | 10.47 |
| COX7CP1 | 1.28 | 1.08 | 1.22 | 0.90 | 1.50 | 1.24 | 1.31 | 1.43 |
| COX8A | 10.94 | 8.89 | 9.48 | 9.09 | 10.49 | 9.84 | 9.52 | 10.26 |
| COX8C | -1.79 | -1.74 | -1.78 | -1.79 | -1.79 | -1.71 | -1.79 | -1.81 |
| CP | 2.42 | 2.26 | 4.15 | 2.52 | 4.42 | 2.54 | 3.67 | 2.54 |
| CPA3 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| CPA4 | 0.62 | 0.73 | 0.57 | 0.61 | 0.64 | 0.79 | 0.60 | 0.54 |
| CPA5 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| CPAMD8 | -0.09 | 0.00 | 0.03 | -0.17 | -0.12 | 0.06 | -0.10 | 0.31 |
| CPB1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| CPB2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| CPB2-AS1 | -1.38 | -1.30 | -1.36 | -1.31 | -1.27 | -1.40 | -1.39 | -1.28 |
| CPD | 6.92 | 7.72 | 8.19 | 7.94 | 7.27 | 8.04 | 7.89 | 8.42 |
| CPE | 2.63 | 2.90 | 3.02 | 2.94 | 2.35 | 3.24 | 2.63 | 5.14 |
| CPEB1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| CPEB2 | 2.45 | 3.73 | 2.69 | 3.23 | 2.63 | 2.78 | 3.10 | 3.59 |
| CPEB2-DT | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| CPEB3 | 1.87 | 2.26 | 2.47 | 2.13 | 2.40 | 1.85 | 2.43 | 1.54 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CPEB4 | 4.26 | 5.14 | 5.43 | 4.76 | 5.26 | 5.31 | 6.01 | 5.38 |
| CPED1 | 1.16 | 0.32 | 0.45 | 0.22 | 0.28 | 0.46 | 0.21 | 0.31 |
| CPHL1P | 0.13 | 0.06 | 0.34 | 0.05 | 0.30 | 0.28 | 0.05 | 1.12 |
| CPLANE1 | 3.72 | 4.24 | 4.20 | 3.86 | 3.64 | 3.82 | 5.20 | 3.94 |
| CPLANE2 | 2.13 | 1.56 | 1.54 | 1.90 | 1.88 | 1.85 | 2.02 | 1.40 |
| CPLX1 | 1.34 | 1.30 | 1.26 | 1.31 | 1.80 | 1.34 | 1.24 | 1.41 |
| CPLX2 | -2.20 | -2.17 | -2.19 | -2.20 | -2.20 | -2.21 | -2.20 | -2.21 |
| CPM | 5.70 | 5.65 | 6.56 | 5.11 | 4.80 | 5.99 | 7.27 | 6.29 |
| CPNE1 | 7.33 | 6.57 | 6.90 | 6.72 | 7.39 | 7.71 | 5.87 | 6.25 |
| CPNE2 | 4.15 | 3.77 | 3.45 | 3.84 | 3.45 | 3.16 | 3.41 | 3.05 |
| CPNE3 | 7.75 | 7.99 | 8.06 | 7.79 | 7.43 | 8.00 | 7.91 | 7.40 |
| CPNE4 | -0.78 | -0.61 | -0.68 | -0.39 | -0.51 | -0.79 | -0.71 | -0.67 |
| CPNE5 | -1.15 | -1.14 | -1.20 | -1.15 | -1.18 | -1.11 | -1.09 | -1.18 |
| CPNE7 | 0.58 | 0.59 | 0.93 | 0.65 | 0.90 | 0.87 | 0.72 | 0.59 |
| CPNE8 | 3.31 | 4.21 | 3.71 | 4.46 | 4.53 | 5.91 | 3.88 | 4.61 |
| CPNE8-AS1 | -0.66 | -0.50 | -0.56 | -0.45 | -0.46 | -0.15 | -0.52 | -0.68 |
| CPNE9 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| CPO | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| CPOX | 3.74 | 3.40 | 4.84 | 3.58 | 3.82 | 4.18 | 4.47 | 3.80 |
| CPPED1 | 4.20 | 5.27 | 4.51 | 4.72 | 3.02 | 4.89 | 4.54 | 2.69 |
| CPQ | 1.86 | 2.77 | 2.11 | 2.66 | 1.81 | 1.95 | 2.85 | 2.01 |
| CPS1 | 1.01 | 0.52 | 0.80 | 0.33 | 0.39 | 0.53 | 0.32 | 0.35 |
| CPSF1 | 4.78 | 4.82 | 5.99 | 4.85 | 4.99 | 5.32 | 5.19 | 4.64 |
| CPSF2 | 5.30 | 6.50 | 6.00 | 6.35 | 6.28 | 6.03 | 6.60 | 6.18 |
| CPSF3 | 5.63 | 5.19 | 5.54 | 5.29 | 4.97 | 5.30 | 5.27 | 5.37 |
| CPSF4 | 5.12 | 5.28 | 5.27 | 5.45 | 5.85 | 5.52 | 5.22 | 5.62 |
| CPSF4L | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| CPSF6 | 6.27 | 5.90 | 6.07 | 5.89 | 5.97 | 6.51 | 5.97 | 6.17 |
| CPSF7 | 4.45 | 4.55 | 5.14 | 4.48 | 4.33 | 4.48 | 4.56 | 4.72 |
| CPT1A | 6.85 | 6.45 | 6.71 | 6.62 | 6.12 | 5.78 | 6.52 | 6.23 |
| CPT1B | -1.64 | -1.63 | -1.62 | -1.59 | -1.63 | -1.62 | -1.54 | -1.66 |
| CPT1C | 1.78 | 1.05 | 1.08 | 1.25 | 1.54 | 1.45 | 1.48 | 1.26 |
| CPT2 | 4.53 | 5.40 | 5.19 | 5.01 | 4.57 | 4.45 | 5.38 | 4.35 |
| CPTP | 6.43 | 5.55 | 5.67 | 6.02 | 5.24 | 5.32 | 5.68 | 5.99 |
| CPVL | 7.69 | 5.02 | 5.31 | 5.34 | 8.81 | 5.51 | 4.05 | 5.07 |
| CPXM2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.19 |
| CPZ | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| CR1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| CR1L | -1.54 | -1.68 | -1.68 | -1.64 | -1.68 | -1.70 | -1.64 | -1.71 |
| CR2 | -0.60 | -0.87 | -0.93 | -0.88 | -0.87 | -0.92 | -0.96 | -0.97 |
| CR381653.1 | -1.64 | -1.69 | -1.57 | -1.69 | -1.66 | -1.70 | -1.70 | -1.71 |
| CR381653.2 | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CR381670.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CR382285.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| CR391992.1 | -1.74 | -1.73 | -1.73 | -1.74 | -1.74 | -1.68 | -1.70 | -1.76 |
| CR392000.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CR392039.3 | -1.84 | -1.80 | -1.83 | -1.80 | -1.84 | -1.73 | -1.84 | -1.78 |
| CR392039.5 | -1.39 | -1.38 | -1.43 | -1.33 | -1.45 | -1.43 | -1.34 | -1.47 |
| CRABP1 | 3.07 | 0.94 | 1.08 | 1.17 | 1.43 | 1.04 | 1.06 | 0.99 |
| CRABP2 | 7.98 | 5.75 | 8.24 | 6.10 | 7.29 | 9.77 | 6.59 | 9.62 |
| CRACR2A | 1.50 | 2.18 | 1.37 | 2.00 | 1.49 | 1.25 | 0.95 | 1.26 |
| CRACR2B | 6.23 | 6.00 | 5.56 | 7.12 | 6.31 | 6.01 | 6.54 | 6.56 |
| CRADD | 3.78 | 4.15 | 3.96 | 3.70 | 3.98 | 3.83 | 3.93 | 3.89 |
| CRAMP1 | 3.05 | 3.74 | 3.67 | 2.97 | 3.03 | 2.95 | 3.55 | 3.64 |
| CRAT | 5.18 | 5.40 | 4.98 | 5.37 | 4.85 | 5.24 | 5.81 | 4.34 |
| CRB1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| CRB2 | -1.53 | -1.52 | -1.51 | -1.58 | -1.57 | -1.56 | -1.58 | -1.55 |
| CRB3 | 6.39 | 6.39 | 5.30 | 5.95 | 6.61 | 5.87 | 5.69 | 5.93 |
| CRBN | 6.10 | 5.19 | 4.95 | 5.34 | 5.33 | 5.28 | 5.36 | 5.04 |
| CRCP | 6.04 | 5.25 | 4.81 | 5.63 | 5.41 | 5.28 | 5.18 | 5.76 |
| CRCT1 | 1.81 | 1.62 | 1.86 | 1.48 | 1.54 | 2.09 | 2.13 | 1.36 |
| CREB1 | 5.21 | 5.13 | 4.83 | 4.72 | 5.16 | 5.25 | 5.30 | 4.67 |
| CREB3 | 5.60 | 6.21 | 5.67 | 6.53 | 6.87 | 6.30 | 5.75 | 5.92 |
| CREB3L1 | 5.73 | 7.17 | 5.85 | 7.62 | 6.87 | 5.62 | 7.01 | 8.47 |
| CREB3L2 | 3.94 | 5.02 | 5.41 | 4.78 | 5.41 | 6.19 | 5.11 | 5.00 |
| CREB3L3 | 2.56 | 1.01 | 1.25 | 1.37 | 1.33 | 1.02 | 1.05 | 1.10 |
| CREB3L4 | 4.47 | 3.95 | 4.59 | 4.99 | 4.80 | 4.50 | 4.16 | 5.11 |
| CREB5 | 1.79 | 2.38 | 2.14 | 1.90 | 2.01 | 1.76 | 3.51 | 2.20 |
| CREBBP | 5.16 | 5.58 | 5.48 | 5.29 | 4.88 | 5.42 | 5.81 | 5.65 |
| CREBL2 | 4.69 | 4.17 | 4.30 | 4.12 | 3.79 | 4.11 | 4.40 | 4.27 |
| CREBRF | 3.48 | 3.97 | 4.75 | 3.55 | 4.43 | 3.96 | 4.25 | 4.21 |
| CREBZF | 5.16 | 4.81 | 5.45 | 4.90 | 5.34 | 4.95 | 5.09 | 5.22 |
| CREG1 | 7.37 | 7.05 | 6.37 | 7.40 | 7.80 | 7.19 | 6.43 | 7.03 |
| CREG2 | 4.34 | 5.05 | 3.25 | 4.49 | 3.81 | 5.08 | 3.86 | 4.46 |
| CRELD1 | 5.43 | 4.91 | 5.22 | 5.14 | 6.03 | 5.25 | 5.43 | 5.20 |
| CRELD2 | 7.11 | 6.78 | 5.67 | 7.20 | 6.74 | 6.07 | 6.19 | 7.60 |
| CREM | 4.10 | 4.17 | 3.86 | 4.36 | 4.38 | 3.76 | 3.61 | 3.92 |
| CRIM1 | 4.72 | 5.24 | 4.73 | 4.77 | 4.59 | 5.25 | 5.61 | 4.55 |
| CRIM1-DT | 2.59 | 2.30 | 2.17 | 2.38 | 2.41 | 2.60 | 2.46 | 2.28 |
| CRIP1 | -0.23 | -0.21 | -0.43 | -0.17 | -0.22 | -0.32 | -0.53 | -0.55 |
| CRIP1P2 | -2.15 | -2.12 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| CRIP1P4 | -1.54 | -1.63 | -1.62 | -1.59 | -1.56 | -1.55 | -1.64 | -1.66 |
| CRIP2 | 5.85 | 5.10 | 7.52 | 5.29 | 5.71 | 7.56 | 7.39 | 5.42 |
| CRIP3 | -0.27 | -0.42 | -0.33 | -0.43 | -0.38 | -0.33 | 0.13 | -0.27 |
| CRIPT | 6.81 | 5.81 | 5.51 | 5.64 | 7.24 | 6.26 | 5.64 | 6.32 |
| CRISP2 | -1.55 | -1.59 | -1.59 | -1.55 | -1.60 | -1.61 | -1.55 | -1.62 |
| CRISP3 | 1.36 | 1.75 | 1.56 | 1.51 | 1.43 | 1.18 | 2.87 | 1.34 |
| CRISPLD1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.21 |
| CRISPLD2 | 2.75 | 4.23 | 3.30 | 4.53 | 3.73 | 3.26 | 2.49 | 3.75 |
| CRK | 5.84 | 6.06 | 6.44 | 5.80 | 5.86 | 6.04 | 6.57 | 5.89 |
| CRKL | 4.96 | 5.33 | 5.26 | 5.20 | 4.57 | 4.91 | 5.17 | 5.06 |
| CRLF1 | 1.09 | 0.48 | 0.78 | 0.54 | 1.57 | 0.49 | 0.46 | 0.84 |
| CRLF3 | 4.00 | 3.79 | 4.17 | 3.88 | 4.17 | 4.00 | 3.56 | 3.78 |
| CRLS1 | 2.71 | 2.92 | 2.81 | 2.24 | 2.84 | 2.50 | 3.31 | 2.56 |

| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CRNDE | 6.39 | 6.36 | 5.96 | 6.68 | 6.53 | 6.26 | 5.69 | 6.69 |
| CRNKL1 | 5.37 | 5.59 | 5.90 | 5.52 | 5.90 | 5.76 | 5.53 | 5.59 |
| CRNN | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CROCC | 2.38 | 2.77 | 3.09 | 2.81 | 2.62 | 2.56 | 2.70 | 2.12 |
| CROCC2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.83 | -1.88 | -1.90 | -1.91 |
| CROCCP2 | 4.31 | 3.84 | 4.68 | 4.45 | 3.98 | 4.20 | 4.64 | 4.48 |
| CROCCP3 | -0.42 | -0.41 | -0.32 | -0.35 | -0.33 | -0.25 | -0.23 | -0.32 |
| CROT | 3.00 | 4.20 | 3.84 | 4.65 | 3.80 | 3.51 | 4.24 | 3.98 |
| CRP | -0.39 | -0.30 | -0.38 | -0.40 | -0.30 | -0.33 | 0.61 | 0.71 |
| CRPPA | 0.47 | 0.64 | 0.44 | 0.59 | 0.32 | 0.57 | 0.50 | 0.51 |
| CRTAC1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| CRTAM | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.89 | -1.79 |
| CRTAP | 7.29 | 7.71 | 6.58 | 7.66 | 7.21 | 7.22 | 7.04 | 6.85 |
| CRTC1 | 2.94 | 2.85 | 2.95 | 2.86 | 3.11 | 2.94 | 3.12 | 2.83 |
| CRTC2 | 3.42 | 3.28 | 3.51 | 3.04 | 3.32 | 3.42 | 3.09 | 3.65 |
| CRTC3 | 4.76 | 3.84 | 4.35 | 3.86 | 3.76 | 4.10 | 4.21 | 3.92 |
| CRTC3-AS1 | -1.48 | -1.59 | -1.52 | -1.59 | -1.56 | -1.57 | -1.60 | -1.56 |
| CRX | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| CRY1 | 3.13 | 3.12 | 3.54 | 3.28 | 3.48 | 3.62 | 3.62 | 3.19 |
| CRY2 | 3.39 | 3.54 | 3.74 | 3.16 | 3.41 | 3.19 | 3.66 | 3.46 |
| CRYAB | 0.72 | 0.55 | 0.67 | 0.79 | 0.60 | 0.64 | 1.19 | 1.60 |
| CRYBA2 | -0.08 | -0.25 | -0.55 | -0.05 | -0.52 | -0.57 | -0.57 | -0.59 |
| CRYBA4 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.02 | -2.06 |
| CRYBB2 | 0.82 | 1.02 | 1.82 | 1.14 | 2.93 | 0.86 | 0.89 | 0.89 |
| CRYBB2P1 | 4.73 | 3.98 | 4.48 | 4.55 | 5.34 | 3.51 | 4.23 | 3.76 |
| CRYBB3 | -1.50 | -1.55 | -1.54 | -1.56 | -1.44 | -1.56 | -1.56 | -1.58 |
| CRYBG1 | 4.34 | 4.52 | 4.80 | 4.08 | 4.08 | 5.75 | 5.59 | 4.32 |
| CRYBG2 | 3.42 | 3.46 | 4.29 | 3.50 | 3.92 | 3.90 | 4.46 | 4.01 |
| CRYBG3 | 4.88 | 5.06 | 4.85 | 4.82 | 4.71 | 4.77 | 5.22 | 5.02 |
| CRYGB | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| CRYGS | -0.60 | -0.68 | -0.33 | -0.54 | -0.52 | -0.63 | -0.42 | -0.71 |
| CRYL1 | 5.11 | 5.90 | 5.39 | 6.32 | 6.71 | 5.08 | 6.11 | 5.90 |
| CRYM | 0.63 | 0.64 | 1.05 | 0.60 | 1.10 | 0.52 | 0.81 | 0.49 |
| CRYM-AS1 | -0.31 | -0.16 | -0.11 | -0.34 | -0.34 | -0.42 | -0.26 | -0.49 |
| CRYZ | 4.97 | 6.13 | 5.49 | 6.15 | 5.51 | 6.26 | 6.55 | 4.96 |
| CRYZL1 | 5.15 | 5.13 | 5.05 | 5.08 | 5.16 | 5.10 | 4.97 | 4.98 |
| CRYZL2P | 3.59 | 4.07 | 3.55 | 4.37 | 3.44 | 3.44 | 3.83 | 3.99 |
| CRYZL2P-SEC16B | -1.84 | -1.83 | -1.83 | -1.84 | -1.84 | -1.85 | -1.80 | -1.67 |
| CS | 6.37 | 6.46 | 6.35 | 6.34 | 5.89 | 6.59 | 6.42 | 6.18 |
| CSAD | 4.41 | 3.91 | 4.73 | 4.01 | 3.91 | 4.41 | 4.45 | 4.11 |
| CSDC2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| CSDE1 | 7.75 | 8.10 | 7.88 | 7.72 | 7.63 | 7.90 | 8.28 | 7.83 |
| CSE1L | 7.29 | 6.63 | 7.29 | 6.49 | 6.58 | 6.84 | 6.61 | 6.71 |
| CSE1L-AS1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| CSF1 | 2.29 | 1.60 | 2.10 | 1.48 | 1.73 | 1.51 | 1.75 | 1.39 |
| CSF1R | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| CSF2 | 0.38 | 0.08 | 0.70 | 0.06 | 0.23 | 0.35 | 0.13 | 0.15 |
| CSF3 | -1.76 | -1.94 | -1.93 | -1.91 | -1.94 | -1.95 | -1.95 | -1.96 |
| CSF3R | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| CSGALNACT1 | 1.61 | 2.05 | 1.83 | 2.13 | 2.02 | 1.92 | 1.49 | 2.92 |
| CSGALNACT2 | 3.16 | 3.20 | 3.62 | 3.05 | 3.55 | 3.19 | 3.20 | 2.54 |
| CSK | 4.97 | 5.41 | 5.61 | 4.89 | 4.99 | 5.14 | 4.81 | 4.93 |
| CSKMT | 7.31 | 5.26 | 5.37 | 5.57 | 6.61 | 5.81 | 5.28 | 5.31 |
| CSMD2 | -0.83 | -0.68 | -0.74 | -0.70 | -0.83 | -0.84 | -0.70 | -0.79 |
| CSMD3 | -1.11 | -1.02 | -1.09 | -1.11 | -1.10 | -1.12 | -1.11 | -1.12 |
| CSN3 | -2.20 | -2.20 | -2.15 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| CSNK1A1 | 5.70 | 6.52 | 6.62 | 6.26 | 6.43 | 6.48 | 6.81 | 6.52 |
| CSNK1A1L | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| CSNK1A1P1 | -1.79 | -1.78 | -1.73 | -1.75 | -1.79 | -1.78 | -1.75 | -1.76 |
| CSNK1D | 7.24 | 7.17 | 7.74 | 7.07 | 7.43 | 7.44 | 7.16 | 7.70 |
| CSNK1E | 5.28 | 5.42 | 5.39 | 5.50 | 5.24 | 5.61 | 6.17 | 5.25 |
| CSNK1G1 | 3.95 | 4.38 | 4.63 | 4.32 | 4.11 | 4.43 | 4.49 | 3.98 |
| CSNK1G2 | 6.12 | 5.79 | 6.85 | 5.58 | 6.69 | 6.63 | 6.72 | 6.48 |
| CSNK1G3 | 4.77 | 5.59 | 5.65 | 5.34 | 5.94 | 5.35 | 5.68 | 5.30 |
| CSNK2A1 | 6.98 | 6.76 | 7.22 | 6.43 | 6.63 | 6.70 | 6.91 | 6.91 |
| CSNK2A2 | 5.41 | 5.52 | 5.81 | 5.40 | 5.35 | 5.53 | 5.58 | 5.72 |
| CSNK2A3 | 0.53 | 0.61 | 0.41 | 0.38 | 0.43 | 0.46 | 0.58 | 0.69 |
| CSNK2B | 8.08 | 7.68 | 7.15 | 7.90 | 7.46 | 8.23 | 7.40 | 8.47 |
| CSPG4 | 0.78 | 0.38 | 0.40 | 0.53 | 1.71 | 0.46 | 0.53 | 1.71 |
| CSPG5 | 2.90 | 2.58 | 1.82 | 2.70 | 1.95 | 1.65 | 2.37 | 1.70 |
| CSPP1 | 4.94 | 4.97 | 5.31 | 5.28 | 5.09 | 5.28 | 4.86 | 5.04 |
| CSRNP1 | 3.30 | 3.33 | 3.68 | 3.09 | 3.67 | 3.20 | 3.47 | 2.96 |
| CSRNP2 | 3.09 | 3.27 | 3.89 | 2.72 | 3.13 | 3.61 | 3.37 | 3.22 |
| CSRNP3 | 0.11 | 0.62 | 0.62 | 0.46 | 0.12 | 0.13 | 0.24 | 0.64 |
| CSRP1 | 7.64 | 7.34 | 6.80 | 7.74 | 7.70 | 7.48 | 7.06 | 7.60 |
| CSRP2 | 2.31 | 2.19 | 2.76 | 2.28 | 2.68 | 2.68 | 2.46 | 2.19 |
| CST1 | 3.57 | 3.28 | 6.43 | 3.38 | 3.59 | 3.00 | 3.85 | 3.33 |
| CST2 | -0.37 | -0.36 | -0.24 | -0.37 | -0.36 | -0.34 | -0.37 | -0.39 |
| CST3 | 10.28 | 10.48 | 9.81 | 10.60 | 10.48 | 10.04 | 9.89 | 9.52 |
| CST4 | 2.34 | 2.32 | 4.44 | 2.64 | 2.61 | 2.31 | 2.72 | 2.18 |
| CST5 | -1.54 | -1.54 | -1.58 | -1.60 | -1.59 | -1.61 | -1.55 | -1.62 |
| CST6 | 2.21 | 2.31 | 3.24 | 2.00 | 2.40 | 4.29 | 2.91 | 2.19 |
| CST7 | -1.77 | -1.76 | -1.76 | -1.73 | -1.76 | -1.76 | -1.73 | -1.49 |
| CSTA | 3.23 | 3.51 | 3.37 | 3.20 | 4.81 | 2.64 | 2.97 | 5.81 |
| CSTB | 11.57 | 10.96 | 10.48 | 10.95 | 10.78 | 11.42 | 9.27 | 11.51 |
| CSTF1 | 5.89 | 5.78 | 5.44 | 5.71 | 5.79 | 5.58 | 5.21 | 5.59 |
| CSTF2 | 5.24 | 4.44 | 4.98 | 4.30 | 4.66 | 4.72 | 4.59 | 4.28 |
| CSTF2T | 4.97 | 4.80 | 4.27 | 4.45 | 4.47 | 4.45 | 4.61 | 4.35 |
| CSTF3 | 5.69 | 5.46 | 5.53 | 5.45 | 5.95 | 5.80 | 5.80 | 5.67 |
| CSTF3-DT | -1.79 | -1.78 | -1.74 | -1.75 | -1.74 | -1.67 | -1.79 | -1.76 |
| CT45A11P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| CT62 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CT70 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| CT75 | -0.36 | -0.58 | -0.49 | -0.37 | -0.41 | -0.46 | -0.59 | -0.60 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CT83 | 6.17 | 5.24 | 2.96 | 5.43 | 2.66 | 2.46 | 2.80 | 4.51 |
| CTAGE1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.13 | -2.16 |
| CTAGE11P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CTAGE12P | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.18 | -2.21 |
| CTAGE13P | -2.01 | -2.01 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| CTAGE14P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| CTAGE15 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 |
| CTAGE3P | -1.22 | -1.07 | -1.20 | -1.15 | -1.21 | -1.23 | -1.10 | -1.13 |
| CTAGE6 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| CTAGE7P | -1.84 | -1.75 | -1.83 | -1.84 | -1.82 | -1.85 | -1.80 | -1.86 |
| CTBP1 | 7.03 | 7.53 | 7.54 | 7.61 | 7.00 | 7.38 | 7.22 | 7.62 |
| CTBP1-AS | -1.15 | -1.00 | -1.20 | -1.29 | -1.24 | -1.21 | -1.15 | -1.19 |
| CTBP1-DT | 2.83 | 2.74 | 2.73 | 2.89 | 2.62 | 2.73 | 2.87 | 2.52 |
| CTBP2 | 7.15 | 7.29 | 6.65 | 7.46 | 7.09 | 7.42 | 7.16 | 6.90 |
| CTBP2P8 | -1.64 | -1.68 | -1.68 | -1.69 | -1.69 | -1.65 | -1.59 | -1.71 |
| CTBS | 3.80 | 3.80 | 3.42 | 3.59 | 3.87 | 3.41 | 3.96 | 3.58 |
| CTC1 | 1.92 | 2.05 | 2.52 | 1.79 | 1.91 | 1.88 | 2.19 | 1.61 |
| CTCF | 6.33 | 6.34 | 6.32 | 6.03 | 5.98 | 6.18 | 6.14 | 6.12 |
| CTCFL | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| CTDNEP1 | 5.88 | 5.91 | 6.29 | 5.64 | 5.69 | 6.10 | 6.36 | 6.13 |
| CTDP1 | 4.46 | 4.72 | 4.56 | 4.98 | 4.49 | 3.94 | 4.63 | 4.29 |
| CTDSP1 | 5.49 | 5.97 | 5.49 | 5.53 | 5.29 | 5.54 | 6.03 | 5.50 |
| CTDSP2 | 5.27 | 5.31 | 5.63 | 5.01 | 4.94 | 5.36 | 5.23 | 5.29 |
| CTDSPL | 7.27 | 8.28 | 7.48 | 8.85 | 7.81 | 7.09 | 7.90 | 6.64 |
| CTDSPL2 | 5.81 | 5.67 | 5.73 | 5.49 | 5.59 | 5.60 | 5.93 | 5.84 |
| CTF1 | 3.35 | 1.79 | 1.86 | 1.66 | 2.76 | 2.12 | 1.94 | 3.09 |
| CTH | 2.60 | 2.17 | 2.64 | 2.08 | 3.65 | 3.02 | 3.08 | 4.10 |
| CTHRC1 | 1.30 | 1.02 | 1.12 | 0.90 | 1.66 | 2.32 | 1.19 | 1.58 |
| CTIF | 2.75 | 3.27 | 3.62 | 3.27 | 3.16 | 3.09 | 3.43 | 3.14 |
| CTNNA1 | 7.36 | 8.36 | 8.82 | 8.25 | 7.85 | 7.87 | 8.57 | 8.35 |
| CTNNA1P1 | -2.04 | -1.98 | -2.04 | -2.02 | -2.04 | -2.01 | -2.05 | -2.03 |
| CTNNA2 | -1.07 | -0.98 | -0.76 | -0.86 | -1.02 | -0.94 | -1.00 | -1.08 |
| CTNNA3 | -1.11 | -1.10 | -1.09 | -1.11 | -0.48 | -1.12 | -1.11 | -1.13 |
| CTNNAL1 | 7.30 | 7.37 | 6.61 | 6.76 | 5.58 | 7.12 | 7.17 | 6.89 |
| CTNNB1 | 7.66 | 7.92 | 7.85 | 7.71 | 7.29 | 7.71 | 7.30 | 7.27 |
| CTNNBIP1 | 5.92 | 5.81 | 5.15 | 5.85 | 5.04 | 6.73 | 5.18 | 5.68 |
| CTNNBL1 | 6.28 | 6.07 | 6.20 | 6.10 | 6.82 | 6.18 | 5.82 | 6.09 |
| CTNND1 | 6.81 | 7.40 | 7.40 | 7.29 | 6.93 | 6.86 | 7.17 | 7.10 |
| CTNND2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -1.93 | -2.01 |
| CTNS | 2.28 | 2.33 | 2.36 | 2.14 | 2.08 | 2.02 | 2.37 | 2.08 |
| CTPS1 | 4.73 | 5.21 | 5.14 | 5.38 | 4.97 | 5.62 | 5.56 | 5.01 |
| CTPS2 | 4.14 | 3.66 | 3.71 | 3.46 | 4.37 | 3.79 | 4.05 | 3.46 |
| CTR9 | 5.75 | 6.07 | 6.45 | 5.83 | 6.01 | 5.92 | 6.24 | 6.06 |
| CTRB1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CTRC | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| CTRL | -1.75 | -1.78 | -1.78 | -1.79 | -1.76 | -1.78 | -1.71 | -1.76 |
| CTSA | 7.96 | 7.55 | 7.12 | 7.54 | 7.32 | 7.35 | 6.70 | 7.40 |
| CTSB | 8.23 | 9.13 | 9.45 | 8.97 | 8.79 | 9.71 | 7.57 | 8.32 |
| CTSC | 7.22 | 7.19 | 7.14 | 7.84 | 7.77 | 7.51 | 6.13 | 6.73 |
| CTSD | 10.60 | 10.31 | 11.26 | 10.13 | 10.49 | 9.82 | 11.32 | 11.53 |
| CTSE | 8.36 | 9.86 | 8.94 | 10.26 | 10.50 | 8.42 | 10.08 | 9.43 |
| CTSF | 4.35 | 3.33 | 3.24 | 3.37 | 4.79 | 2.44 | 3.16 | 2.88 |
| CTSH | 8.70 | 8.18 | 8.44 | 8.66 | 8.38 | 7.34 | 7.31 | 7.70 |
| CTSK | 0.51 | 0.89 | 0.79 | 0.66 | 0.63 | 0.81 | 1.04 | 0.85 |
| CTSL | 6.99 | 7.04 | 7.36 | 7.19 | 6.23 | 7.01 | 6.03 | 6.17 |
| CTSLP6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| CTSO | 2.49 | 3.06 | 2.32 | 2.56 | 2.19 | 2.89 | 2.93 | 2.71 |
| CTSS | 5.39 | 6.89 | 5.73 | 6.61 | 5.38 | 5.81 | 4.63 | 6.91 |
| CTSV | 5.86 | 4.26 | 5.90 | 4.33 | 5.04 | 6.28 | 3.79 | 7.10 |
| CTSW | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| CTSZ | 7.61 | 7.61 | 7.82 | 7.82 | 7.29 | 7.36 | 6.62 | 7.02 |
| CTTN | 8.05 | 8.30 | 8.45 | 8.29 | 8.35 | 7.77 | 8.23 | 8.81 |
| CTTNBP2 | -0.13 | -0.20 | -0.19 | -0.22 | -0.28 | -0.26 | -0.01 | -0.31 |
| CTTNBP2NL | 5.28 | 5.75 | 5.35 | 5.72 | 4.77 | 5.49 | 5.76 | 4.89 |
| CTU1 | 5.46 | 5.13 | 5.19 | 5.40 | 6.02 | 5.39 | 5.08 | 5.54 |
| CTU2 | 5.15 | 4.78 | 4.82 | 4.94 | 4.90 | 4.93 | 4.32 | 4.86 |
| CTXN1 | 3.22 | 4.03 | 4.06 | 4.50 | 3.18 | 4.02 | 3.84 | 3.02 |
| CTXN2 | -1.42 | -1.41 | -1.33 | -1.36 | -1.41 | -1.40 | -1.36 | -1.44 |
| CTXND1 | -1.42 | -1.35 | -1.41 | -1.43 | -0.94 | -1.44 | -1.30 | -1.45 |
| CTXND2 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| CU633906.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| CUBN | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.88 | -1.89 | -1.91 |
| CUEDC1 | 4.54 | 5.39 | 5.10 | 5.59 | 5.31 | 6.03 | 4.90 | 5.70 |
| CUEDC2 | 7.10 | 6.22 | 6.40 | 6.60 | 6.82 | 6.72 | 6.03 | 5.95 |
| CUL1 | 4.79 | 5.54 | 5.29 | 5.57 | 5.46 | 5.33 | 5.54 | 5.31 |
| CUL2 | 4.28 | 5.15 | 5.08 | 4.96 | 4.89 | 4.79 | 5.16 | 4.83 |
| CUL3 | 6.32 | 6.46 | 6.29 | 6.09 | 6.31 | 6.66 | 6.73 | 6.75 |
| CUL4A | 5.54 | 5.97 | 5.87 | 5.90 | 6.33 | 5.45 | 5.58 | 6.48 |
| CUL4B | 4.67 | 4.85 | 5.16 | 4.80 | 4.56 | 4.59 | 4.95 | 5.49 |
| CUL5 | 5.56 | 5.96 | 5.75 | 5.87 | 5.99 | 5.73 | 6.15 | 6.21 |
| CUL7 | 3.03 | 3.43 | 3.59 | 3.24 | 3.73 | 3.88 | 3.50 | 3.92 |
| CUL9 | 4.25 | 3.99 | 3.97 | 4.54 | 4.61 | 5.14 | 4.55 | 4.87 |
| CUTA | 8.42 | 7.84 | 7.38 | 8.14 | 7.80 | 8.30 | 7.84 | 8.27 |
| CUTALP | 4.39 | 3.81 | 3.96 | 3.79 | 3.78 | 3.61 | 3.05 | 3.63 |
| CUTC | 5.91 | 4.60 | 4.46 | 4.41 | 5.14 | 5.18 | 4.34 | 5.07 |
| CUX1 | 5.42 | 6.61 | 6.12 | 6.13 | 6.14 | 5.87 | 6.54 | 6.30 |
| CUZD1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| CWC15 | 7.13 | 6.85 | 6.98 | 6.81 | 7.19 | 6.92 | 6.65 | 7.08 |
| CWC22 | 5.59 | 5.41 | 4.96 | 5.15 | 5.41 | 5.17 | 5.45 | 5.65 |
| CWC25 | 6.48 | 5.88 | 6.65 | 5.92 | 6.28 | 6.39 | 6.04 | 6.25 |
| CWC27 | 5.46 | 5.95 | 5.81 | 5.88 | 6.05 | 6.14 | 5.66 | 5.70 |
| CWF19L1 | 4.34 | 4.07 | 4.03 | 3.94 | 4.02 | 4.18 | 4.08 | 3.83 |
| CWF19L2 | 6.29 | 5.74 | 6.31 | 5.59 | 5.78 | 5.72 | 5.89 | 6.23 |
| CWH43 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CX3CL1 | 3.43 | 3.04 | 3.16 | 3.13 | 2.36 | 3.13 | 2.57 | 2.26 |
| CXADR | 6.75 | 5.69 | 6.45 | 5.53 | 6.64 | 6.25 | 7.75 | 5.11 |
| CXCL1 | 7.63 | 4.79 | 6.02 | 5.04 | 5.42 | 5.40 | 5.85 | 4.98 |
| CXCL10 | 3.90 | 2.03 | 2.38 | 2.30 | 2.19 | 1.98 | 2.22 | 2.64 |
| CXCL11 | 2.35 | 2.35 | 2.52 | 1.76 | 2.33 | 2.01 | 2.15 | 2.25 |
| CXCL12 | -2.10 | -2.03 | -2.09 | -2.04 | -2.09 | -2.10 | -2.10 | -2.08 |
| CXCL14 | 2.24 | 2.16 | 2.78 | 2.06 | 2.44 | 1.98 | 1.85 | 6.30 |
| CXCL16 | 6.68 | 6.28 | 6.67 | 6.32 | 7.11 | 6.07 | 6.33 | 5.93 |
| CXCL17 | 2.63 | 5.03 | 3.86 | 4.49 | 2.97 | 3.03 | 3.85 | 5.76 |
| CXCL2 | 5.26 | 3.64 | 3.69 | 3.07 | 4.10 | 3.74 | 4.17 | 3.41 |
| CXCL3 | 7.57 | 4.34 | 5.73 | 4.70 | 5.55 | 4.83 | 5.72 | 4.72 |
| CXCL5 | 6.23 | 4.55 | 7.40 | 4.41 | 6.82 | 4.52 | 6.12 | 5.07 |
| CXCL6 | 3.78 | 2.72 | 4.00 | 2.93 | 2.74 | 3.64 | 3.33 | 3.06 |
| CXCL8 | 7.55 | 5.24 | 6.55 | 5.34 | 5.57 | 6.80 | 6.11 | 6.11 |
| CXCL9 | -1.67 | -1.61 | -1.65 | -1.67 | -1.66 | -1.65 | -1.57 | -1.64 |
| CXCR1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| CXCR2 | -1.49 | -1.49 | -1.36 | -1.50 | -1.40 | -1.50 | -1.50 | -1.51 |
| CXCR2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| CXCR3 | -1.41 | -1.40 | -1.45 | -1.47 | -1.43 | -1.20 | -1.41 | -1.43 |
| CXCR4 | 5.71 | 5.34 | 3.88 | 5.77 | 6.50 | 2.93 | 4.13 | 2.90 |
| CXCR5 | -1.05 | -0.97 | -1.03 | -0.98 | -0.93 | -0.96 | -1.05 | -1.06 |
| CXCR6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| CXorf38 | 5.88 | 4.72 | 6.06 | 4.76 | 5.58 | 4.99 | 4.98 | 4.91 |
| CXorf40A | 1.42 | 1.32 | 1.43 | 1.15 | 1.46 | 1.64 | 1.37 | 1.68 |
| CXorf40B | 1.86 | 2.14 | 1.96 | 1.90 | 2.13 | 2.56 | 1.73 | 2.50 |
| CXorf56 | 4.38 | 3.86 | 4.53 | 4.20 | 4.32 | 4.03 | 3.67 | 4.91 |
| CXorf58 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.29 | -2.31 |
| CXXC1 | 4.52 | 4.33 | 4.59 | 4.45 | 4.36 | 3.98 | 4.59 | 4.02 |
| CXXC4 | -0.47 | -0.38 | 0.09 | 0.04 | -0.47 | -0.10 | -0.48 | -0.38 |
| CXXC4-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| CXXC5 | 6.82 | 6.33 | 7.84 | 5.96 | 6.25 | 7.38 | 7.23 | 6.47 |
| CXXC5-AS1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CYB561 | 5.88 | 6.77 | 6.86 | 7.04 | 6.44 | 6.30 | 6.35 | 6.80 |
| CYB561A3 | 6.02 | 5.49 | 5.68 | 6.02 | 6.08 | 5.25 | 5.53 | 5.46 |
| CYB561D1 | 2.89 | 2.96 | 3.26 | 3.24 | 2.79 | 2.94 | 2.95 | 2.75 |
| CYB561D2 | 6.31 | 5.59 | 5.18 | 6.11 | 4.76 | 5.33 | 5.63 | 5.19 |
| CYB5A | 8.57 | 8.56 | 8.36 | 8.86 | 8.71 | 7.83 | 8.40 | 7.64 |
| CYB5B | 9.91 | 7.84 | 7.64 | 7.96 | 8.33 | 7.97 | 7.66 | 7.85 |
| CYB5D1 | -1.94 | -1.94 | -1.93 | -1.95 | -1.92 | -1.95 | -1.95 | -1.96 |
| CYB5D2 | 5.40 | 4.69 | 5.21 | 4.84 | 5.68 | 4.73 | 5.77 | 4.89 |
| CYB5R1 | 5.54 | 5.47 | 4.77 | 5.70 | 5.04 | 5.04 | 5.01 | 6.11 |
| CYB5R2 | 5.47 | 4.91 | 4.66 | 5.13 | 5.06 | 4.99 | 4.44 | 4.90 |
| CYB5R3 | 8.94 | 8.30 | 7.96 | 8.48 | 7.92 | 8.30 | 8.11 | 8.39 |
| CYB5R4 | 4.87 | 4.21 | 4.62 | 4.38 | 4.30 | 4.22 | 4.72 | 3.94 |
| CYB5RL | 2.60 | 2.62 | 2.80 | 3.12 | 2.63 | 2.34 | 2.63 | 2.24 |
| CYBA | 10.14 | 10.10 | 9.87 | 10.09 | 9.64 | 9.08 | 7.90 | 9.64 |
| CYBB | -1.94 | -1.86 | -1.93 | -1.79 | -1.94 | -1.95 | -1.95 | -1.96 |
| CYBC1 | 5.75 | 4.81 | 5.46 | 4.76 | 5.45 | 5.38 | 5.08 | 5.53 |
| CYBRD1 | 5.75 | 4.71 | 3.47 | 4.54 | 3.10 | 3.29 | 4.32 | 4.66 |
| CYC1 | 10.01 | 9.09 | 9.72 | 9.22 | 9.60 | 9.63 | 8.75 | 9.88 |
| CYCS | 9.90 | 9.07 | 8.37 | 9.27 | 10.01 | 8.79 | 9.03 | 9.31 |
| CYCSP24 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.08 | -2.10 | -2.06 |
| CYCSP29 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| CYCSP4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CYCSP44 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 |
| CYCSP45 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| CYCSP55 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| CYFIP1 | 6.11 | 6.38 | 6.54 | 5.98 | 6.41 | 6.04 | 6.71 | 6.80 |
| CYFIP2 | 3.91 | 4.59 | 4.77 | 4.51 | 3.74 | 3.02 | 4.18 | 2.64 |
| CYGB | -1.79 | -1.78 | -1.78 | -1.75 | -1.78 | -1.74 | -1.75 | -1.80 |
| CYHR1 | 6.81 | 6.00 | 6.74 | 6.36 | 6.50 | 6.86 | 5.91 | 6.79 |
| CYLD | 4.47 | 5.00 | 5.57 | 4.56 | 4.25 | 4.58 | 5.06 | 4.79 |
| CYMP | 0.82 | 2.28 | 0.50 | 2.89 | 1.00 | 0.43 | 0.68 | 0.75 |
| CYP11A1 | -1.99 | -1.96 | -1.98 | -1.99 | -1.99 | -2.00 | -1.99 | -2.00 |
| CYP17A1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.04 | -2.10 | -2.07 | -2.11 |
| CYP1A1 | 4.31 | 2.14 | 2.38 | 2.34 | 2.61 | 2.22 | 3.67 | 3.25 |
| CYP1B1 | 4.13 | 3.31 | 2.52 | 4.42 | 2.74 | 3.13 | 2.97 | 4.18 |
| CYP1B1-AS1 | -0.98 | -0.90 | -1.04 | -0.40 | -0.98 | -0.97 | -1.07 | -0.77 |
| CYP20A1 | 4.95 | 5.13 | 4.53 | 5.48 | 4.83 | 4.63 | 4.63 | 4.38 |
| CYP24A1 | 2.93 | 1.87 | 2.35 | 1.75 | 1.80 | 1.72 | 1.86 | 1.84 |
| CYP26B1 | -1.45 | -1.44 | -1.44 | -1.29 | -1.39 | -1.46 | -1.46 | -1.47 |
| CYP27A1 | 2.79 | 2.30 | 2.31 | 2.36 | 2.86 | 4.12 | 2.27 | 2.57 |
| CYP27B1 | 1.72 | 1.53 | 1.21 | 2.19 | 1.58 | 1.78 | 1.26 | 1.37 |
| CYP27C1 | -1.55 | -1.59 | -1.58 | -1.60 | -1.59 | -1.53 | -1.60 | -1.47 |
| CYP2A7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| CYP2A7P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CYP2B7P | -1.52 | -1.51 | -1.50 | -1.52 | -1.34 | -1.50 | -1.52 | -1.38 |
| CYP2C18 | 2.52 | 2.92 | 2.90 | 3.91 | 2.81 | 2.13 | 3.67 | 2.79 |
| CYP2C19 | -1.20 | -1.19 | -1.11 | -1.14 | -1.20 | -1.21 | -0.95 | -1.10 |
| CYP2C8 | -1.99 | -1.88 | -1.98 | -2.00 | -1.97 | -2.00 | -2.00 | -1.97 |
| CYP2C9 | 0.14 | 0.31 | 0.45 | 0.28 | 0.27 | 0.23 | 0.94 | 0.23 |
| CYP2D6 | -0.18 | -0.75 | -0.74 | -0.76 | -0.75 | -0.53 | -0.76 | -0.61 |
| CYP2D7 | -1.43 | -1.54 | -1.53 | -1.55 | -1.42 | -1.50 | -1.55 | -1.51 |
| CYP2E1 | 0.21 | -0.17 | -0.07 | -0.09 | 0.10 | -0.08 | -0.10 | -0.01 |
| CYP2G1P | -2.05 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.03 |
| CYP2J2 | 3.27 | 4.09 | 3.51 | 4.46 | 2.89 | 3.40 | 3.00 | 2.63 |
| CYP2R1 | 3.77 | 4.14 | 4.06 | 4.32 | 4.23 | 3.35 | 4.03 | 3.77 |
| CYP2S1 | 5.67 | 5.48 | 6.02 | 5.55 | 6.43 | 5.08 | 6.12 | 5.34 |
| CYP2T1P | 0.49 | -0.03 | -0.02 | 0.03 | 0.28 | 0.11 | 0.09 | 0.27 |
| CYP2U1 | 1.76 | 1.68 | 2.15 | 1.71 | 2.24 | 1.51 | 1.42 | 1.32 |
| CYP2W1 | -1.69 | -1.68 | -1.68 | -1.44 | -1.61 | -1.65 | -1.69 | -1.71 |
| CYP39A1 | 3.22 | 2.46 | 2.25 | 2.30 | 2.10 | 3.20 | 3.14 | 2.96 |
| CYP3A4 | -1.36 | -1.35 | -1.34 | -1.36 | -1.32 | -1.34 | -1.24 | -1.32 |
| CYP3A43 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| CYP3A5 | 5.83 | 6.00 | 6.27 | 6.27 | 6.35 | 5.36 | 7.06 | 6.59 |
| CYP3A51P | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| CYP3A7 | -0.36 | -0.55 | -0.44 | -0.56 | -0.59 | -0.61 | -0.64 | -0.59 |
| CYP46A1 | -1.14 | -1.13 | -0.96 | -1.14 | -1.13 | -1.11 | -1.00 | -1.15 |
| CYP4A11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CYP4A22-AS1 | -0.88 | -0.95 | -0.94 | -0.88 | -0.95 | -0.96 | -0.89 | -0.97 |
| CYP4B1 | 0.62 | 1.15 | 1.07 | 1.56 | 0.64 | 0.66 | 0.69 | 0.75 |
| CYP4F11 | 4.06 | 3.12 | 3.38 | 3.27 | 3.69 | 2.53 | 4.09 | 3.40 |
| CYP4F12 | 4.07 | 5.09 | 4.68 | 5.59 | 3.85 | 3.40 | 5.95 | 3.96 |
| CYP4F2 | 0.74 | 0.68 | 0.89 | 0.63 | 0.58 | 0.51 | 1.52 | 0.44 |
| CYP4F22 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| CYP4F26P | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.03 |
| CYP4F29P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| CYP4F3 | 3.89 | 4.15 | 4.38 | 4.52 | 3.83 | 3.03 | 4.63 | 3.59 |
| CYP4F8 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| CYP4V2 | 3.19 | 4.17 | 3.26 | 4.20 | 3.09 | 3.26 | 4.00 | 3.63 |
| CYP4X1 | 2.54 | 3.51 | 2.85 | 3.31 | 3.11 | 1.74 | 2.02 | 3.16 |
| CYP4Z1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| CYP51A1 | 2.36 | 2.33 | 2.45 | 2.79 | 3.34 | 2.34 | 3.09 | 2.80 |
| CYP51A1-AS1 | -1.74 | -1.74 | -1.78 | -1.79 | -1.76 | -1.80 | -1.80 | -1.81 |
| CYP51A1P1 | -0.55 | -0.40 | -0.52 | -0.56 | -0.40 | -0.47 | -0.42 | -0.37 |
| CYP51A1P2 | -0.48 | -0.40 | -0.47 | -0.34 | -0.33 | -0.49 | -0.22 | -0.27 |
| CYP51A1P3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| CYP7B1 | 0.47 | 0.83 | 0.25 | 0.81 | 0.04 | 0.09 | 0.17 | 0.07 |
| CYP8B1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| CYREN | 5.30 | 4.70 | 5.09 | 5.10 | 5.02 | 5.05 | 5.42 | 5.50 |
| CYS1 | -1.16 | -1.15 | -1.21 | -1.23 | -1.22 | -1.21 | -1.17 | -1.25 |
| CYSLTR1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| CYSRT1 | 5.97 | 3.38 | 3.91 | 3.44 | 3.53 | 4.11 | 3.14 | 2.53 |
| CYSTM1 | 9.98 | 9.82 | 9.34 | 10.29 | 10.78 | 8.56 | 10.79 | 9.83 |
| CYTH1 | 5.08 | 5.20 | 5.50 | 5.22 | 5.29 | 5.09 | 5.51 | 4.79 |
| CYTH2 | 5.61 | 6.00 | 5.55 | 6.15 | 6.09 | 5.99 | 5.90 | 6.51 |
| CYTH3 | 4.35 | 3.87 | 4.14 | 3.83 | 4.05 | 4.12 | 3.95 | 3.96 |
| CYTH4 | -0.28 | -0.07 | -0.07 | -0.22 | -0.28 | -0.27 | -0.29 | -0.26 |
| CYTIP | 1.30 | 1.26 | 1.12 | 1.05 | 1.25 | 1.22 | 1.71 | 1.25 |
| CYTOR | 6.84 | 6.03 | 5.71 | 5.97 | 5.85 | 6.11 | 4.98 | 6.32 |
| CZIB | 5.74 | 6.25 | 5.54 | 6.35 | 6.27 | 6.28 | 5.72 | 5.91 |
| D2HGDH | 4.80 | 4.71 | 5.08 | 4.71 | 4.48 | 4.24 | 5.15 | 4.59 |
| DAAM1 | 4.39 | 6.36 | 6.02 | 5.78 | 5.74 | 6.05 | 6.04 | 5.11 |
| DAAM2 | -2.05 | -2.00 | -2.00 | -2.05 | -2.02 | -2.06 | -2.05 | -2.06 |
| DAB1 | -1.59 | -1.37 | -1.57 | -1.32 | -1.58 | -1.60 | -1.54 | -1.61 |
| DAB2 | 2.99 | 3.98 | 3.14 | 3.91 | 3.69 | 3.52 | 2.81 | 3.49 |
| DAB2IP | 6.62 | 6.80 | 6.41 | 6.83 | 5.96 | 6.41 | 7.05 | 6.08 |
| DACH1 | 0.66 | 0.59 | 0.62 | 0.65 | 0.68 | 0.63 | 1.40 | 0.90 |
| DACT1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| DACT2 | 1.49 | 2.14 | 1.91 | 2.44 | 2.00 | 1.62 | 2.45 | 1.79 |
| DACT3 | -0.20 | -0.58 | -0.65 | -0.67 | -0.63 | -0.68 | -0.68 | -0.63 |
| DACT3-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| DAD1 | 8.50 | 8.94 | 8.22 | 9.11 | 9.57 | 9.15 | 8.62 | 9.00 |
| DAG1 | 7.40 | 7.01 | 7.47 | 6.95 | 6.41 | 6.57 | 7.00 | 6.23 |
| DAGLA | 1.77 | 1.76 | 2.32 | 1.50 | 1.82 | 1.84 | 1.91 | 1.46 |
| DAGLB | 3.81 | 3.96 | 4.42 | 3.99 | 3.91 | 3.96 | 4.27 | 3.70 |
| DALRD3 | 5.03 | 4.68 | 4.24 | 4.65 | 4.77 | 4.81 | 4.08 | 4.85 |
| DANCR | 7.16 | 7.69 | 6.17 | 8.39 | 7.00 | 6.93 | 6.44 | 6.05 |
| DAND5 | -1.54 | -1.59 | -1.58 | -1.65 | -1.61 | -1.65 | -1.65 | -1.66 |
| DANT2 | 1.66 | 1.60 | 3.18 | 1.64 | 1.95 | 2.18 | 3.18 | 1.98 |
| DAP | 8.25 | 7.53 | 7.18 | 7.95 | 8.28 | 7.03 | 7.23 | 8.10 |
| DAP3 | 7.10 | 6.79 | 6.34 | 6.79 | 7.23 | 7.32 | 6.54 | 7.38 |
| DAP3P1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| DAP3P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| DAPK1 | 5.17 | 4.71 | 5.34 | 4.43 | 4.63 | 4.97 | 5.63 | 4.15 |
| DAPK1-IT1 | 0.91 | 0.93 | 0.89 | 0.82 | 0.81 | 1.05 | 1.38 | 0.82 |
| DAPK2 | 0.58 | 0.44 | 0.46 | 0.34 | 0.76 | 0.43 | 0.56 | 0.37 |
| DAPK3 | 5.38 | 5.37 | 5.73 | 5.65 | 5.49 | 5.70 | 5.47 | 5.66 |
| DAPL1 | 1.04 | 1.54 | 1.00 | 1.23 | 1.01 | 0.99 | 1.07 | 2.97 |
| DAPP1 | 3.08 | 3.14 | 3.37 | 2.91 | 2.69 | 3.53 | 2.64 | 4.31 |
| DARS | 7.26 | 6.97 | 7.45 | 6.97 | 7.27 | 6.97 | 7.28 | 6.96 |
| DARS-AS1 | 1.85 | 1.62 | 1.83 | 1.65 | 1.69 | 1.43 | 2.20 | 1.51 |
| DARS2 | 4.31 | 4.25 | 4.49 | 4.14 | 4.55 | 4.61 | 4.14 | 4.51 |
| DAW1 | -0.66 | -0.90 | -0.89 | -0.91 | -0.79 | -0.91 | -0.91 | -0.51 |
| DAXX | 5.91 | 5.46 | 5.62 | 5.71 | 5.16 | 5.87 | 5.35 | 6.13 |
| DAZAP1 | 6.39 | 6.11 | 6.57 | 6.14 | 6.19 | 6.54 | 6.34 | 6.32 |
| DAZAP2 | 8.59 | 7.88 | 8.09 | 7.80 | 8.22 | 8.56 | 7.99 | 8.60 |
| DAZAP2P1 | -1.89 | -1.85 | -1.88 | -1.89 | -1.83 | -1.90 | -1.89 | -1.87 |
| DBET | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| DBF4 | 4.10 | 4.83 | 4.69 | 4.65 | 4.85 | 5.11 | 4.76 | 5.16 |
| DBF4B | 0.63 | 0.52 | 0.93 | 0.68 | 0.70 | 0.61 | 0.62 | 0.44 |
| DBF4P1 | -1.31 | -1.30 | -1.35 | -1.37 | -1.36 | -1.23 | -1.38 | -1.33 |
| DBH-AS1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| DBI | 10.60 | 10.03 | 9.67 | 10.12 | 10.14 | 9.60 | 9.83 | 9.92 |
| DBIL5P | -1.49 | -1.43 | -1.48 | -1.50 | -1.49 | -1.42 | -1.38 | -1.51 |
| DBIP1 | -1.08 | -1.21 | -1.13 | -1.22 | -1.14 | -1.23 | -1.23 | -1.18 |
| DBN1 | 4.26 | 5.13 | 5.45 | 4.33 | 5.14 | 5.59 | 5.06 | 5.16 |
| DBNDD1 | 5.70 | 3.54 | 3.75 | 3.50 | 4.81 | 3.74 | 4.52 | 3.57 |
| DBNDD2 | -2.01 | -2.04 | -2.00 | -2.01 | -2.03 | -2.05 | -2.05 | -2.06 |
| DBNL | 6.33 | 6.20 | 6.31 | 6.36 | 6.30 | 6.09 | 6.55 | 6.46 |
| DBP | 6.01 | 5.76 | 5.54 | 5.77 | 5.91 | 6.01 | 5.30 | 6.58 |
| DBR1 | 3.76 | 3.33 | 4.24 | 3.26 | 4.14 | 3.71 | 3.83 | 3.93 |
| DBT | 4.12 | 5.08 | 5.05 | 4.85 | 4.33 | 4.64 | 5.18 | 4.35 |
| DCAF1 | 4.12 | 4.30 | 4.66 | 4.06 | 3.99 | 4.24 | 4.86 | 3.86 |
| DCAF10 | 4.98 | 5.50 | 5.45 | 5.20 | 5.46 | 5.40 | 5.72 | 5.38 |
| DCAF11 | 4.69 | 5.25 | 5.39 | 5.21 | 5.85 | 5.57 | 5.43 | 5.27 |
| DCAF12 | 4.31 | 5.39 | 4.85 | 4.86 | 4.70 | 4.89 | 5.12 | 4.69 |
| DCAF12L1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| DCAF13 | 6.76 | 6.41 | 7.00 | 6.57 | 7.16 | 7.40 | 5.78 | 7.39 |
| DCAF13P1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| DCAF13P3 | -0.90 | -0.80 | -0.73 | -0.98 | -0.89 | -0.88 | -0.76 | -0.99 |
| DCAF15 | 2.78 | 3.34 | 3.50 | 3.14 | 3.05 | 3.25 | 3.05 | 3.05 |
| DCAF16 | 4.24 | 4.55 | 5.09 | 4.49 | 4.26 | 4.51 | 4.64 | 5.05 |
| DCAF17 | 3.91 | 3.49 | 3.46 | 3.70 | 3.65 | 3.39 | 3.81 | 3.51 |
| DCAF4 | 2.07 | 3.30 | 2.53 | 2.89 | 2.88 | 2.65 | 2.88 | 2.73 |
| DCAF4L1 | -1.34 | -1.39 | -1.26 | -1.46 | -1.46 | -1.47 | -1.40 | -1.43 |
| DCAF5 | 4.45 | 4.79 | 5.14 | 4.98 | 4.82 | 5.09 | 5.31 | 4.56 |
| DCAF6 | 4.95 | 4.96 | 5.19 | 4.77 | 4.96 | 5.11 | 5.83 | 5.02 |
| DCAF7 | 6.90 | 6.92 | 7.30 | 6.64 | 6.92 | 7.08 | 7.10 | 6.51 |
| DCAF8 | 4.30 | 4.59 | 4.35 | 4.50 | 4.52 | 4.54 | 4.71 | 4.58 |
| DCAKD | 3.90 | 3.43 | 3.95 | 3.76 | 4.31 | 4.06 | 3.58 | 4.03 |
| DCBLD1 | 4.10 | 3.98 | 3.99 | 4.26 | 3.63 | 4.37 | 3.67 | 4.04 |
| DCBLD2 | 6.31 | 6.72 | 8.08 | 6.52 | 6.43 | 8.81 | 7.50 | 7.35 |
| DCD | -1.12 | -1.04 | -1.10 | -1.12 | -0.89 | -1.10 | -0.92 | -1.14 |
| DCDC1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| DCDC2 | 2.87 | 3.25 | 4.13 | 3.17 | 3.00 | 3.10 | 5.36 | 4.01 |
| DCDC2B | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| DCDC2C | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| DCHS1 | -1.00 | -1.21 | -1.20 | -1.22 | -1.07 | -1.16 | -1.22 | -1.23 |
| DCHS2 | -1.47 | -1.47 | -1.39 | -1.48 | -1.06 | -1.36 | -1.48 | -1.49 |
| DCK | 3.83 | 3.85 | 4.36 | 3.99 | 3.84 | 4.19 | 4.28 | 4.36 |
| DCLK1 | -0.69 | -0.59 | -0.67 | -0.69 | -0.64 | -0.58 | -0.69 | -0.71 |
| DCLK2 | -2.20 | -2.20 | -2.17 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| DCLK3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| DCLRE1A | 3.43 | 3.04 | 3.38 | 3.30 | 3.32 | 3.22 | 3.29 | 3.43 |
| DCLRE1B | 3.52 | 3.43 | 3.45 | 3.24 | 3.32 | 3.28 | 3.53 | 3.07 |
| DCLRE1C | 3.43 | 3.62 | 4.28 | 3.60 | 3.92 | 3.91 | 4.07 | 3.59 |
| DCN | -0.80 | -0.79 | -0.78 | -0.65 | -0.79 | -0.77 | -0.65 | -0.30 |
| DCP1A | 6.06 | 5.63 | 6.12 | 5.59 | 5.78 | 5.76 | 5.76 | 5.48 |
| DCP1B | 3.83 | 3.94 | 3.90 | 4.15 | 3.52 | 3.18 | 3.58 | 3.65 |
| DCP2 | 4.32 | 4.71 | 4.82 | 4.71 | 4.72 | 4.92 | 5.02 | 4.65 |
| DCPS | 6.53 | 5.48 | 5.38 | 5.44 | 6.66 | 5.96 | 5.29 | 6.10 |
| DCST1-AS1 | 1.96 | 1.89 | 1.53 | 1.61 | 1.57 | 1.56 | 1.69 | 2.07 |
| DCST2 | -1.38 | -1.44 | -1.37 | -1.45 | -1.41 | -1.39 | -1.39 | -1.41 |
| DCT | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| DCTD | 6.48 | 7.21 | 6.44 | 7.30 | 6.70 | 6.81 | 7.11 | 7.59 |
| DCTN1 | 6.12 | 5.98 | 5.90 | 5.72 | 5.48 | 5.65 | 5.83 | 5.53 |
| DCTN2 | 7.23 | 6.84 | 6.82 | 7.12 | 6.92 | 7.37 | 7.08 | 7.25 |
| DCTN3 | 6.22 | 6.71 | 6.24 | 6.80 | 6.72 | 7.02 | 6.25 | 6.25 |
| DCTN4 | 4.00 | 5.09 | 4.80 | 4.93 | 4.40 | 4.34 | 4.95 | 4.16 |
| DCTN5 | 5.24 | 5.60 | 5.73 | 5.38 | 5.05 | 5.00 | 5.32 | 5.33 |
| DCTN6 | 7.12 | 6.15 | 6.79 | 6.46 | 6.18 | 7.09 | 6.34 | 7.05 |
| DCTPP1 | 7.78 | 7.28 | 7.14 | 7.48 | 7.20 | 7.02 | 6.73 | 6.71 |
| DCUN1D1 | 5.60 | 5.47 | 5.53 | 5.41 | 5.62 | 5.38 | 5.79 | 6.43 |
| DCUN1D2 | 2.71 | 2.85 | 2.95 | 2.94 | 3.41 | 2.81 | 3.17 | 3.28 |
| DCUN1D3 | 3.45 | 4.12 | 3.48 | 3.61 | 3.30 | 3.73 | 3.35 | 3.54 |
| DCUN1D4 | 4.65 | 4.14 | 4.81 | 4.69 | 4.29 | 4.99 | 5.24 | 5.18 |
| DCUN1D5 | 6.64 | 6.14 | 6.00 | 6.05 | 6.22 | 6.09 | 5.67 | 7.01 |
| DCX | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| DCXR | 10.10 | 8.87 | 8.65 | 9.08 | 8.69 | 8.74 | 8.35 | 8.29 |
| DCXR-DT | 1.11 | 0.20 | 0.13 | 0.25 | 0.11 | 0.16 | 0.09 | 0.19 |
| DDA1 | 5.96 | 6.30 | 5.79 | 6.35 | 6.22 | 6.43 | 6.06 | 6.13 |
| DDAH1 | 5.79 | 6.48 | 5.99 | 6.41 | 5.52 | 5.33 | 6.70 | 4.86 |
| DDAH2 | 6.46 | 6.30 | 5.55 | 6.59 | 5.62 | 7.40 | 6.66 | 6.84 |
| DDB1 | 6.61 | 6.98 | 7.52 | 6.62 | 6.64 | 6.62 | 6.90 | 7.06 |
| DDB2 | 4.94 | 5.96 | 5.21 | 6.46 | 4.92 | 4.79 | 5.88 | 5.38 |
| DDC | 2.05 | 2.71 | 2.19 | 4.20 | 2.70 | 1.46 | 1.59 | 1.43 |
| DDHD1 | 3.68 | 4.25 | 4.41 | 4.20 | 4.00 | 4.05 | 4.78 | 3.37 |
| DDHD2 | 3.74 | 3.99 | 4.63 | 3.52 | 3.68 | 3.63 | 4.43 | 3.62 |
| DDI2 | 5.00 | 5.77 | 5.41 | 5.16 | 4.56 | 5.13 | 5.29 | 4.57 |
| DDIAS | 3.27 | 2.89 | 3.28 | 2.93 | 3.03 | 3.03 | 3.06 | 2.95 |
| DDIT3 | 6.48 | 5.87 | 6.57 | 5.47 | 6.77 | 6.83 | 6.06 | 7.06 |
| DDIT4 | 8.90 | 9.45 | 9.62 | 9.06 | 9.57 | 8.59 | 9.52 | 9.34 |
| DDIT4-AS1 | 2.43 | 2.45 | 2.76 | 2.28 | 2.36 | 2.06 | 2.45 | 2.44 |
| DDIT4L | 0.71 | 0.45 | 0.47 | 0.34 | 0.27 | 0.28 | 0.33 | 0.82 |
| DDN | -1.96 | -1.99 | -1.95 | -1.96 | -1.99 | -1.97 | -2.00 | -2.01 |
| DDN-AS1 | 2.00 | 1.11 | 1.31 | 1.08 | 1.48 | 1.61 | 1.12 | 1.04 |
| DDO | 1.75 | 1.55 | 1.55 | 1.46 | 1.42 | 1.51 | 1.37 | 1.26 |
| DDOST | 6.82 | 6.40 | 6.73 | 6.79 | 7.95 | 7.11 | 6.41 | 7.59 |
| DDR1 | 6.92 | 8.18 | 7.91 | 8.24 | 7.34 | 7.75 | 7.82 | 8.60 |
| DDR1-DT | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| DDR2 | -0.71 | -0.71 | -0.61 | -0.72 | -0.55 | -0.68 | -0.58 | -0.67 |
| DDR GK1 | 8.88 | 7.75 | 7.56 | 7.90 | 8.16 | 7.53 | 7.68 | 7.34 |
| DDT | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.95 | -1.95 | -1.92 |
| DDTL | 0.39 | 0.48 | 0.29 | 0.38 | 0.22 | 0.29 | 0.30 | 0.46 |
| DDX1 | 7.82 | 7.90 | 7.11 | 7.86 | 6.81 | 7.34 | 7.39 | 7.82 |
| DDX10 | 5.08 | 5.49 | 6.05 | 5.13 | 5.57 | 5.35 | 4.74 | 5.40 |
| DDX10P1 | -1.54 | -1.53 | -1.58 | -1.48 | -1.53 | -1.61 | -1.60 | -1.62 |
| DDX10P2 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -2.01 |
| DDX11 | 4.26 | 4.11 | 4.75 | 4.38 | 4.42 | 3.67 | 4.52 | 3.88 |
| DDX11-AS1 | 0.96 | 0.56 | 0.79 | 0.73 | 0.79 | 0.58 | 0.46 | 0.91 |
| DDX11L2 | -0.81 | -1.08 | -1.07 | -1.09 | -1.05 | -1.06 | -1.02 | -1.10 |
| DDX12P | -1.38 | -1.44 | -1.37 | -1.45 | -1.44 | -1.40 | -1.39 | -1.47 |
| DDX17 | 7.01 | 7.55 | 7.44 | 7.71 | 7.32 | 7.29 | 8.12 | 7.21 |
| DDX18 | 8.61 | 8.01 | 7.96 | 7.93 | 8.11 | 8.00 | 7.53 | 8.34 |
| DDX18P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| DDX18P4 | -1.59 | -1.64 | -1.58 | -1.64 | -1.61 | -1.60 | -1.65 | -1.56 |
| DDX19A | 5.09 | 4.91 | 5.47 | 4.89 | 4.73 | 4.66 | 5.32 | 4.67 |
| DDX19B | 4.89 | 4.43 | 4.20 | 4.64 | 4.71 | 5.10 | 4.29 | 5.45 |
| DDX20 | 4.00 | 3.98 | 3.90 | 4.20 | 4.07 | 3.82 | 3.73 | 3.59 |
| DDX21 | 8.46 | 8.57 | 7.86 | 8.44 | 8.28 | 8.09 | 8.26 | 8.36 |
| DDX23 | 5.58 | 5.99 | 6.49 | 5.61 | 5.24 | 6.48 | 6.08 | 5.90 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| DDX24 | 7.05 | 7.37 | 7.31 | 7.53 | 7.80 | 7.70 | 7.48 | 7.10 |
| DDX25 | -1.24 | -1.30 | -1.29 | -1.32 | -0.99 | -1.32 | -1.32 | -1.27 |
| DDX27 | 7.86 | 7.08 | 7.42 | 6.82 | 7.45 | 7.21 | 6.58 | 7.53 |
| DDX28 | 4.02 | 3.78 | 4.22 | 4.00 | 3.78 | 3.78 | 3.31 | 4.15 |
| DDX31 | 3.66 | 3.63 | 3.62 | 3.75 | 3.31 | 3.45 | 3.27 | 3.57 |
| DDX39A | 6.64 | 6.89 | 6.78 | 6.89 | 7.22 | 6.76 | 6.02 | 6.11 |
| DDX39B | 2.20 | 2.48 | 2.69 | 3.01 | 2.52 | 2.85 | 3.26 | 2.69 |
| DDX39B-AS1 | -1.76 | -1.84 | -1.83 | -1.80 | -1.82 | -1.81 | -1.84 | -1.86 |
| DDX3P1 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| DDX3X | 6.89 | 6.97 | 7.36 | 6.90 | 6.59 | 6.80 | 7.18 | 6.68 |
| DDX3Y | 2.06 | 2.20 | 2.19 | 2.17 | 2.09 | 1.98 | 1.93 | 1.69 |
| DDX41 | 4.63 | 5.67 | 5.47 | 5.51 | 5.54 | 5.45 | 5.26 | 5.64 |
| DDX42 | 5.72 | 6.26 | 6.30 | 6.11 | 6.04 | 6.13 | 6.25 | 6.30 |
| DDX43 | -0.40 | -0.40 | -0.22 | -0.41 | -0.35 | -0.38 | -0.04 | 0.44 |
| DDX46 | 7.23 | 7.56 | 7.61 | 7.60 | 7.62 | 7.65 | 7.63 | 7.19 |
| DDX47 | -1.99 | -1.96 | -1.98 | -1.99 | -1.99 | -2.00 | -1.93 | -2.01 |
| DDX49 | 5.18 | 5.87 | 5.38 | 5.85 | 5.20 | 5.64 | 5.34 | 5.50 |
| DDX5 | 8.64 | 8.74 | 8.92 | 8.89 | 8.73 | 9.13 | 9.01 | 9.17 |
| DDX50 | 5.80 | 5.91 | 5.39 | 5.61 | 6.13 | 5.68 | 5.57 | 5.24 |
| DDX50P1 | 1.16 | 1.06 | 0.99 | 1.14 | 0.75 | 1.15 | 1.43 | 0.86 |
| DDX51 | 3.97 | 3.82 | 4.05 | 3.82 | 3.72 | 3.85 | 3.29 | 3.95 |
| DDX52 | 6.74 | 6.39 | 6.63 | 6.72 | 6.63 | 6.94 | 6.30 | 6.67 |
| DDX54 | 5.58 | 6.07 | 6.70 | 6.42 | 5.96 | 6.20 | 6.04 | 6.38 |
| DDX55 | 5.64 | 5.45 | 6.31 | 5.67 | 6.06 | 6.20 | 5.47 | 5.85 |
| DDX55P1 | -1.65 | -1.55 | -1.54 | -1.65 | -1.62 | -1.57 | -1.61 | -1.57 |
| DDX56 | 6.41 | 6.09 | 5.84 | 6.09 | 6.14 | 5.88 | 5.84 | 5.94 |
| DDX58 | 4.53 | 4.24 | 4.09 | 3.99 | 3.92 | 4.17 | 4.03 | 3.56 |
| DDX59 | 3.36 | 3.61 | 2.55 | 3.65 | 3.61 | 3.41 | 3.42 | 4.25 |
| DDX6 | 6.31 | 6.47 | 6.53 | 6.14 | 6.03 | 6.38 | 6.52 | 6.26 |
| DDX60 | 5.40 | 5.63 | 6.72 | 4.48 | 4.55 | 5.55 | 4.87 | 4.88 |
| DDX60L | 4.47 | 4.14 | 5.17 | 4.39 | 4.32 | 4.59 | 4.74 | 5.31 |
| DDX6P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| DEAF1 | 5.78 | 5.55 | 5.62 | 5.78 | 5.56 | 5.22 | 5.43 | 5.85 |
| DEC1 | -0.92 | -0.92 | -0.90 | -0.76 | -0.92 | -0.85 | -0.70 | -0.87 |
| DECR1 | 7.14 | 6.98 | 6.77 | 7.15 | 7.20 | 7.45 | 6.74 | 7.51 |
| DECR2 | 5.29 | 5.48 | 5.23 | 5.44 | 5.48 | 5.04 | 4.99 | 5.93 |
| DEDD | 5.70 | 5.31 | 4.76 | 5.58 | 5.68 | 5.67 | 4.91 | 6.03 |
| DEDD2 | 5.41 | 4.76 | 5.28 | 4.69 | 5.53 | 5.04 | 4.57 | 5.01 |
| DEF6 | 3.19 | 3.61 | 2.98 | 3.72 | 4.02 | 3.94 | 2.73 | 4.30 |
| DEF8 | 6.75 | 5.87 | 5.49 | 6.16 | 6.04 | 5.80 | 5.69 | 5.25 |
| DEFB1 | 5.41 | 6.62 | 6.33 | 6.31 | 6.36 | 5.43 | 6.97 | 6.05 |
| DEFB4A | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.95 |
| DEGS1 | 6.39 | 5.29 | 5.89 | 5.85 | 6.28 | 6.19 | 5.39 | 5.03 |
| DEGS2 | 5.71 | 6.31 | 4.69 | 7.09 | 7.10 | 4.85 | 6.31 | 4.64 |
| DEK | 8.78 | 8.21 | 8.82 | 7.63 | 7.75 | 7.78 | 8.85 | 8.93 |
| DELE1 | 4.64 | 4.88 | 4.86 | 4.85 | 5.33 | 4.55 | 4.92 | 4.50 |
| DENND1A | 4.10 | 3.97 | 3.72 | 3.68 | 3.74 | 3.95 | 4.58 | 4.07 |
| DENND1B | 3.75 | 3.68 | 3.83 | 3.55 | 3.38 | 4.39 | 4.01 | 4.66 |
| DENND1C | 1.81 | 1.24 | 1.29 | 1.28 | 1.27 | 1.28 | 1.94 | 1.05 |
| DENND2A | -1.45 | -1.44 | -1.32 | -1.39 | -1.41 | -1.43 | -1.46 | -1.47 |
| DENND2C | 3.47 | 2.37 | 2.91 | 2.91 | 2.28 | 2.83 | 3.21 | 2.58 |
| DENND2D | 6.21 | 5.91 | 4.89 | 6.09 | 5.92 | 5.61 | 5.87 | 5.52 |
| DENND3 | 3.28 | 2.99 | 4.28 | 2.95 | 3.16 | 3.65 | 4.29 | 4.44 |
| DENND4A | 4.21 | 4.54 | 4.39 | 4.44 | 3.92 | 3.98 | 5.24 | 3.96 |
| DENND4B | 4.14 | 3.74 | 4.06 | 4.02 | 3.93 | 3.80 | 4.03 | 3.90 |
| DENND4C | 5.04 | 5.19 | 5.02 | 4.76 | 4.03 | 4.78 | 5.29 | 4.55 |
| DENND5A | 2.89 | 2.87 | 3.61 | 2.35 | 3.39 | 2.71 | 3.26 | 2.83 |
| DENND5B | 3.92 | 3.30 | 2.53 | 3.16 | 3.03 | 2.80 | 3.39 | 2.96 |
| DENND5B-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| DENND6A | 3.85 | 4.40 | 4.44 | 4.37 | 4.05 | 4.49 | 4.84 | 3.64 |
| DENND6A-AS1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -1.97 | -2.00 | -1.97 |
| DENND6A-DT | -1.65 | -1.73 | -1.73 | -1.70 | -1.71 | -1.72 | -1.74 | -1.76 |
| DENND6B | 3.68 | 3.05 | 2.59 | 3.22 | 2.87 | 3.11 | 2.88 | 3.62 |
| DENR | 5.83 | 7.04 | 6.62 | 6.50 | 6.24 | 6.64 | 6.53 | 6.66 |
| DEPDC1 | 4.13 | 4.45 | 3.22 | 4.50 | 4.36 | 5.24 | 4.54 | 4.87 |
| DEPDC1-AS1 | -1.34 | -1.39 | -1.38 | -1.34 | -1.33 | -1.29 | -1.40 | -1.36 |
| DEPDC1B | 4.72 | 4.27 | 5.07 | 4.21 | 4.74 | 4.90 | 5.61 | 4.36 |
| DEPDC4 | 1.69 | 1.51 | 2.05 | 1.65 | 1.81 | 1.75 | 2.21 | 1.93 |
| DEPDC5 | 3.02 | 3.20 | 2.75 | 2.67 | 2.65 | 2.79 | 3.37 | 2.68 |
| DEPDC7 | 2.23 | 2.11 | 1.76 | 2.03 | 1.77 | 2.17 | 2.44 | 1.40 |
| DEPP1 | 5.01 | 3.51 | 6.27 | 3.30 | 6.54 | 4.17 | 4.91 | 6.59 |
| DEPTOR | 3.05 | 3.78 | 3.16 | 4.86 | 4.04 | 2.40 | 3.07 | 3.66 |
| DERA | 6.54 | 5.47 | 5.80 | 5.37 | 6.72 | 5.38 | 6.01 | 6.52 |
| DERL1 | 6.49 | 6.54 | 7.52 | 6.57 | 7.20 | 7.21 | 6.71 | 7.42 |
| DERL2 | 6.54 | 5.80 | 6.05 | 5.90 | 6.40 | 5.98 | 5.84 | 6.79 |
| DERL3 | 2.41 | 3.64 | 3.33 | 3.88 | 3.45 | 2.59 | 3.03 | 2.14 |
| DES | -1.99 | -1.99 | -1.98 | -1.99 | -1.96 | -2.00 | -2.00 | -2.01 |
| DES11 | 7.33 | 6.34 | 5.67 | 6.16 | 5.02 | 6.16 | 6.09 | 6.47 |
| DES12 | 6.30 | 6.24 | 5.60 | 6.37 | 6.11 | 6.33 | 6.08 | 6.90 |
| DET1 | -0.23 | -0.15 | -0.29 | -0.32 | -0.38 | -0.29 | -0.10 | -0.41 |
| DEUP1 | -1.49 | -1.43 | -1.42 | -1.50 | -1.49 | -1.45 | -1.50 | -1.46 |
| DEXI | 5.26 | 5.62 | 5.31 | 5.54 | 4.99 | 5.31 | 5.30 | 5.39 |
| DFFA | 5.98 | 6.29 | 5.72 | 6.26 | 5.76 | 5.92 | 5.65 | 5.66 |
| DFFB | 2.47 | 2.28 | 2.35 | 2.09 | 2.26 | 1.86 | 2.33 | 2.02 |
| DFFBP1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| DGAT1 | 7.36 | 7.09 | 6.81 | 7.59 | 7.41 | 6.89 | 7.00 | 7.20 |
| DGAT2 | 5.02 | 4.78 | 4.43 | 5.18 | 4.84 | 5.15 | 3.68 | 3.49 |
| DGCR11 | 2.61 | 2.29 | 1.77 | 2.55 | 2.03 | 2.17 | 2.08 | 2.61 |
| DGCR2 | 6.26 | 6.63 | 6.56 | 6.34 | 5.33 | 5.76 | 6.42 | 6.39 |
| DGCR5 | -0.70 | -0.45 | -0.68 | -0.71 | -0.66 | -0.38 | -0.63 | -0.72 |
| DGCR6 | -0.82 | -1.21 | -1.20 | -1.22 | -1.21 | -1.13 | -1.22 | -1.17 |
| DGCR6L | 6.13 | 5.00 | 4.77 | 5.24 | 4.79 | 4.93 | 4.68 | 5.08 |
| DGCR8 | 3.72 | 4.08 | 3.94 | 4.11 | 3.08 | 3.58 | 4.01 | 3.68 |
| DGCR9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| DGKA | 4.08 | 5.26 | 4.46 | 5.33 | 3.89 | 4.90 | 5.47 | 5.25 |
| DGKB | -1.78 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.89 | -1.91 |
| DGKD | 4.81 | 5.15 | 4.86 | 5.52 | 5.24 | 5.35 | 5.84 | 5.18 |
| DGKE | 4.32 | 4.14 | 4.59 | 4.37 | 4.55 | 3.98 | 4.61 | 3.83 |
| DGKG | 2.63 | 1.89 | 2.29 | 2.28 | 2.07 | 1.80 | 1.93 | 1.81 |
| DGKH | 3.74 | 5.05 | 5.37 | 4.94 | 4.47 | 4.57 | 5.65 | 5.27 |
| DGKI | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| DGKQ | 3.23 | 3.68 | 3.48 | 4.09 | 3.27 | 3.58 | 3.62 | 3.89 |
| DGKZ | 5.02 | 5.36 | 6.07 | 5.13 | 5.24 | 5.25 | 5.10 | 5.34 |
| DGKZP1 | -1.19 | -1.25 | -1.24 | -1.19 | -1.15 | -1.14 | -1.19 | -1.22 |
| DGLUCY | 3.62 | 4.69 | 4.51 | 4.72 | 4.23 | 4.17 | 4.04 | 2.92 |
| DGUOK | 8.44 | 7.55 | 7.45 | 7.68 | 8.58 | 7.79 | 7.55 | 8.41 |
| DGUOK-AS1 | 4.82 | 3.93 | 3.12 | 4.50 | 3.60 | 3.39 | 3.04 | 2.84 |
| DHCR24 | 7.21 | 8.02 | 8.06 | 8.32 | 8.02 | 7.34 | 8.75 | 7.97 |
| DHCR24-DT | -0.54 | -0.44 | -0.50 | -0.39 | -0.49 | -0.48 | -0.62 | -0.40 |
| DHCR7 | 7.87 | 7.35 | 7.56 | 7.64 | 8.57 | 7.14 | 8.10 | 8.21 |
| DHDDS | 4.13 | 3.87 | 3.87 | 4.12 | 4.92 | 4.23 | 4.18 | 3.81 |
| DHDH | 1.31 | 0.83 | 1.38 | 1.23 | 1.68 | 1.41 | 1.22 | 1.16 |
| DHFR | 4.10 | 4.53 | 5.06 | 4.47 | 4.32 | 4.33 | 4.51 | 3.37 |
| DHFR2 | 3.19 | 3.19 | 3.40 | 2.66 | 2.83 | 2.73 | 3.09 | 2.99 |
| DHFRP1 | -1.96 | -1.99 | -1.98 | -1.96 | -1.99 | -1.95 | -2.00 | -1.97 |
| DHH | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| DHODH | 4.49 | 3.49 | 4.24 | 4.02 | 4.55 | 4.03 | 3.45 | 3.91 |
| DHPS | 4.09 | 3.92 | 4.19 | 4.26 | 4.66 | 5.01 | 4.32 | 4.66 |
| DHRS1 | 4.45 | 5.26 | 4.75 | 5.55 | 5.50 | 5.19 | 5.51 | 5.08 |
| DHRS11 | 5.71 | 4.27 | 4.96 | 4.40 | 5.17 | 4.84 | 5.18 | 5.34 |
| DHRS12 | 2.91 | 3.34 | 2.91 | 3.41 | 3.85 | 3.28 | 2.80 | 3.83 |
| DHRS13 | 3.66 | 3.11 | 3.00 | 3.20 | 3.15 | 3.12 | 3.35 | 2.68 |
| DHRS2 | 1.76 | 2.06 | 1.29 | 2.19 | 1.58 | 1.95 | 1.19 | 1.45 |
| DHRS3 | 6.42 | 7.87 | 7.68 | 6.92 | 7.96 | 8.08 | 7.45 | 7.05 |
| DHRS4 | 2.82 | 4.24 | 3.34 | 4.28 | 3.24 | 3.78 | 3.00 | 2.73 |
| DHRS4-AS1 | 4.30 | 5.25 | 3.98 | 5.57 | 4.58 | 4.03 | 4.57 | 4.12 |
| DHRS4L1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| DHRS4L2 | 4.62 | 5.12 | 4.42 | 5.25 | 5.21 | 4.85 | 4.75 | 4.60 |
| DHRS7 | 6.20 | 7.16 | 6.73 | 7.52 | 7.82 | 6.91 | 7.02 | 6.62 |
| DHRS7B | 6.15 | 5.08 | 5.77 | 5.66 | 5.56 | 5.49 | 5.41 | 5.72 |
| DHRS9 | 5.48 | 7.24 | 7.56 | 7.07 | 5.86 | 8.32 | 6.85 | 7.81 |
| DHTKD1 | 4.22 | 4.81 | 4.92 | 4.48 | 4.66 | 4.60 | 4.63 | 4.44 |
| DHX15 | 5.99 | 6.74 | 7.16 | 6.63 | 6.40 | 6.72 | 6.78 | 6.86 |
| DHX16 | 5.52 | 4.82 | 5.30 | 5.12 | 5.11 | 6.03 | 5.34 | 5.85 |
| DHX29 | 6.18 | 6.90 | 7.16 | 6.85 | 7.03 | 6.66 | 6.79 | 6.30 |
| DHX30 | 7.29 | 6.51 | 6.42 | 6.71 | 6.49 | 6.58 | 6.46 | 6.09 |
| DHX32 | 5.42 | 5.30 | 5.40 | 5.03 | 5.05 | 5.42 | 5.49 | 5.21 |
| DHX33 | 3.85 | 4.11 | 5.34 | 3.94 | 4.24 | 4.17 | 4.71 | 4.18 |
| DHX34 | 2.85 | 2.41 | 2.71 | 2.84 | 2.97 | 2.89 | 2.77 | 2.83 |
| DHX35 | 2.91 | 2.72 | 2.84 | 2.84 | 2.58 | 2.78 | 2.39 | 2.67 |
| DHX36 | 7.04 | 6.57 | 7.25 | 6.40 | 6.57 | 6.90 | 7.07 | 7.38 |
| DHX37 | 3.54 | 4.44 | 4.58 | 4.27 | 3.89 | 3.94 | 3.95 | 3.92 |
| DHX38 | 4.85 | 5.23 | 5.50 | 5.20 | 4.52 | 4.56 | 5.20 | 5.13 |
| DHX40 | 5.22 | 5.53 | 5.32 | 5.17 | 4.97 | 5.48 | 5.51 | 5.20 |
| DHX57 | 3.68 | 3.58 | 3.51 | 3.49 | 3.70 | 3.48 | 3.58 | 3.39 |
| DHX58 | 3.64 | 2.91 | 3.72 | 3.07 | 3.56 | 3.15 | 2.99 | 3.22 |
| DHX8 | 4.93 | 5.78 | 5.39 | 5.56 | 5.70 | 5.94 | 5.62 | 6.09 |
| DHX9 | 6.66 | 7.05 | 7.30 | 6.81 | 6.52 | 7.03 | 7.18 | 6.81 |
| DHX9P1 | -1.48 | -1.47 | -1.47 | -1.54 | -1.48 | -1.49 | -1.49 | -1.56 |
| DIAPH1 | 5.76 | 6.73 | 7.43 | 6.55 | 6.71 | 6.43 | 7.24 | 6.71 |
| DIAPH2 | 5.37 | 6.13 | 6.57 | 5.92 | 5.39 | 5.62 | 6.35 | 5.17 |
| DIAPH2-AS1 | 0.76 | 1.45 | 1.05 | 1.87 | 0.82 | 1.58 | 0.75 | 0.93 |
| DIAPH3 | 4.34 | 5.02 | 5.74 | 4.67 | 4.68 | 4.85 | 5.49 | 5.39 |
| DIAPH3-AS1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| DICER1 | 4.77 | 5.80 | 5.80 | 5.99 | 5.93 | 6.22 | 6.58 | 5.45 |
| DICER1-AS1 | 2.33 | 2.37 | 3.11 | 2.51 | 3.02 | 2.86 | 2.55 | 2.61 |
| DIDO1 | 5.73 | 5.42 | 5.92 | 5.35 | 5.22 | 5.33 | 5.33 | 5.71 |
| DIMT1 | 5.59 | 5.58 | 4.35 | 5.89 | 5.91 | 5.71 | 5.08 | 5.51 |
| DINOL | -2.15 | -2.10 | -2.14 | -2.10 | -2.15 | -2.13 | -2.15 | -2.16 |
| DIO1 | -1.13 | -1.13 | -1.11 | -1.14 | -1.13 | -1.11 | -1.06 | -1.09 |
| DIO3 | -0.05 | -0.34 | -0.25 | -0.20 | -0.34 | 0.28 | -0.35 | -0.31 |
| DIO3OS | 2.46 | 1.39 | 1.98 | 1.41 | 1.35 | 2.91 | 1.34 | 1.38 |
| DIP2A | 4.65 | 5.13 | 5.04 | 4.86 | 4.36 | 5.35 | 5.71 | 4.42 |
| DIP2A-IT1 | -1.55 | -1.54 | -1.53 | -1.55 | -1.49 | -1.53 | -1.56 | -1.47 |
| DIP2B | 4.54 | 4.46 | 5.05 | 4.25 | 4.25 | 5.39 | 4.86 | 4.86 |
| DIP2C | 3.55 | 3.96 | 4.38 | 4.18 | 4.18 | 3.99 | 4.89 | 3.92 |
| DIPK1A | 3.33 | 3.55 | 3.23 | 2.96 | 3.01 | 3.01 | 3.02 | 2.81 |
| DIPK1B | 4.09 | 1.80 | 1.78 | 1.87 | 2.43 | 1.85 | 1.65 | 1.72 |
| DIPK1C | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -1.98 | -2.06 |
| DIPK2A | 3.55 | 3.69 | 4.30 | 3.59 | 3.41 | 3.53 | 4.08 | 3.46 |
| DIRAS1 | -0.93 | -1.01 | -1.00 | -1.02 | -0.84 | -1.02 | -1.02 | -1.03 |
| DIRAS2 | -0.20 | -0.03 | -0.10 | -0.13 | -0.20 | -0.18 | 0.19 | -0.17 |
| DIRAS3 | -0.04 | 0.20 | 0.59 | 0.38 | 0.21 | 0.38 | -0.05 | 0.23 |
| DIRC3 | -1.48 | -1.54 | -1.53 | -1.55 | -1.54 | -1.52 | -1.55 | -1.57 |
| DIS3 | 5.26 | 5.75 | 5.78 | 5.67 | 5.96 | 5.31 | 5.87 | 6.36 |
| DIS3L | 3.92 | 4.12 | 3.97 | 4.03 | 3.68 | 3.66 | 3.77 | 3.41 |
| DIS3L2 | 3.51 | 4.23 | 4.13 | 4.18 | 4.11 | 4.17 | 4.25 | 3.85 |
| DISC1 | -0.48 | -0.77 | -0.58 | -0.70 | -0.73 | -0.54 | -0.78 | -0.67 |
| DISC1-IT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| DISC1FP1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| DISP1 | 1.94 | 1.57 | 1.51 | 1.52 | 1.79 | 1.87 | 1.99 | 1.77 |
| DISP2 | 0.57 | 0.36 | 0.81 | 0.54 | 0.57 | 0.31 | 0.99 | 0.47 |
| DIXDC1 | 2.41 | 2.01 | 2.03 | 1.98 | 2.45 | 1.97 | 1.87 | 2.06 |
| DKC1 | 6.96 | 6.76 | 7.11 | 6.82 | 6.76 | 7.26 | 5.98 | 7.05 |
| DKFZP434A062 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| DKFZP434K028 | -0.81 | -0.72 | -0.53 | -0.73 | -0.65 | -0.68 | -0.66 | -0.82 |
| DKK1 | 5.95 | 6.30 | 6.36 | 6.42 | 5.25 | 8.37 | 6.44 | 8.31 |
| DKK3 | 2.11 | 1.81 | 2.03 | 1.96 | 2.68 | 3.29 | 2.59 | 1.69 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| DKK4 | 3.14 | 3.19 | 3.44 | 3.10 | 8.29 | 2.93 | 3.88 | 3.06 |
| DKKL1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.84 | -1.95 | -1.91 | -1.96 |
| DLAT | 5.59 | 5.44 | 5.39 | 5.11 | 5.53 | 5.54 | 5.63 | 5.59 |
| DLC1 | 2.36 | 3.24 | 3.41 | 2.50 | 2.35 | 2.37 | 4.27 | 3.33 |
| DLD | 5.92 | 6.38 | 5.93 | 6.15 | 6.28 | 5.82 | 6.04 | 6.23 |
| DLEC1 | 0.47 | 0.34 | 0.22 | 0.33 | 0.20 | 0.26 | 0.50 | 0.46 |
| DLEU1 | 3.85 | 4.40 | 3.91 | 4.60 | 4.73 | 3.64 | 3.61 | 4.50 |
| DLEU2 | 3.76 | 3.87 | 3.75 | 3.55 | 3.66 | 3.37 | 3.92 | 3.74 |
| DLEU2L | -0.22 | -0.06 | 0.03 | -0.11 | -0.18 | -0.22 | 0.14 | -0.15 |
| DLG1 | 5.76 | 5.97 | 6.00 | 5.80 | 5.50 | 5.68 | 6.53 | 6.20 |
| DLG1-AS1 | 0.00 | -0.26 | -0.19 | -0.27 | -0.35 | -0.26 | -0.29 | -0.25 |
| DLG2 | -0.68 | -0.75 | -0.66 | -0.69 | -0.71 | -0.73 | -0.36 | -0.71 |
| DLG3 | 6.11 | 6.37 | 6.76 | 6.33 | 6.84 | 6.44 | 6.55 | 5.78 |
| DLG3-AS1 | 0.53 | 0.46 | 0.50 | 0.70 | 0.66 | 0.35 | 0.51 | 0.67 |
| DLG4 | -0.32 | -0.32 | -0.07 | -0.41 | -0.20 | -0.29 | -0.27 | -0.26 |
| DLG5 | 4.45 | 5.36 | 5.01 | 5.28 | 4.73 | 4.87 | 4.33 | 4.33 |
| DLG5-AS1 | 1.27 | 0.93 | 1.05 | 0.82 | 1.16 | 0.86 | 0.74 | 0.69 |
| DLGAP1 | 1.36 | 1.14 | 1.36 | 1.18 | 1.26 | 1.52 | 2.31 | 1.11 |
| DLGAP1-AS1 | 3.15 | 3.09 | 2.99 | 2.89 | 3.82 | 3.40 | 3.09 | 3.85 |
| DLGAP1-AS2 | 3.03 | 3.00 | 2.86 | 3.01 | 3.96 | 2.47 | 2.74 | 3.37 |
| DLGAP1-AS4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| DLGAP1-AS5 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.29 | -2.31 |
| DLGAP2 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 |
| DLGAP3 | 0.44 | 0.02 | 0.22 | 0.23 | 0.29 | 0.10 | 0.08 | 0.04 |
| DLGAP4 | 5.34 | 5.69 | 5.76 | 5.71 | 5.28 | 5.96 | 5.56 | 5.84 |
| DLGAP4-AS1 | -1.54 | -1.48 | -1.47 | -1.55 | -1.45 | -1.53 | -1.49 | -1.57 |
| DLGAP5 | 5.15 | 5.54 | 5.82 | 5.33 | 5.41 | 6.59 | 5.55 | 5.83 |
| DLK1 | -1.74 | -1.74 | -1.73 | -1.75 | -1.74 | -1.73 | -1.75 | -1.77 |
| DLK2 | 1.16 | 0.73 | 0.76 | 0.92 | 1.13 | 1.05 | 0.69 | 1.63 |
| DLL1 | 0.12 | 0.21 | 0.13 | 0.32 | 0.33 | 0.27 | 0.17 | 0.07 |
| DLL3 | 0.74 | 0.23 | 0.84 | 0.21 | 1.46 | 0.27 | 0.20 | 0.17 |
| DLL4 | -0.40 | -0.45 | -0.50 | -0.62 | -0.61 | -0.42 | -0.62 | -0.63 |
| DLST | 3.71 | 4.13 | 4.17 | 4.12 | 3.92 | 4.12 | 4.68 | 3.73 |
| DLSTP1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| DLX1 | -1.79 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 |
| DLX2 | -1.55 | -1.60 | -1.59 | -1.61 | -1.55 | -1.51 | -1.61 | -1.58 |
| DLX3 | 1.01 | 0.39 | 0.24 | 0.37 | 0.27 | 0.30 | 0.29 | 0.18 |
| DLX4 | -0.40 | -0.74 | -0.64 | -0.75 | -0.58 | -0.69 | -0.75 | -0.77 |
| DLX5 | -1.65 | -1.64 | -1.63 | -1.60 | -1.64 | -1.58 | -1.65 | -1.34 |
| DLX6 | -0.73 | -0.80 | -0.86 | -0.67 | -0.88 | -0.79 | -0.89 | -0.53 |
| DLX6-AS1 | -0.97 | -0.88 | -0.95 | -0.89 | -0.96 | -0.84 | -0.97 | -0.45 |
| DM1-AS | -0.41 | -0.48 | -0.50 | -0.55 | -0.66 | -0.64 | -0.63 | -0.49 |
| DMAC1 | 6.87 | 6.97 | 6.24 | 6.99 | 6.88 | 7.36 | 6.21 | 6.54 |
| DMAC2 | 6.29 | 6.14 | 5.64 | 6.13 | 6.46 | 5.96 | 5.80 | 5.62 |
| DMAC2L | 5.41 | 5.77 | 5.32 | 5.79 | 5.98 | 5.55 | 5.43 | 5.13 |
| DMAPI | 4.23 | 4.05 | 4.91 | 4.35 | 4.17 | 5.07 | 4.58 | 4.35 |
| DMBT1 | 6.10 | 4.75 | 5.99 | 4.50 | 7.80 | 4.12 | 5.59 | 4.12 |
| DMBX1 | -0.42 | -0.31 | -0.60 | -0.35 | -0.43 | -0.26 | -0.63 | -0.64 |
| DMC1 | 2.66 | 1.77 | 1.93 | 1.65 | 1.41 | 1.92 | 1.51 | 1.59 |
| DMD | 1.07 | 1.91 | 0.87 | 1.27 | 0.89 | 0.84 | 1.23 | 0.83 |
| DMGDH | -0.62 | -0.62 | -0.61 | -0.63 | -0.43 | -0.60 | -0.37 | -0.47 |
| DMKN | 6.96 | 8.05 | 5.60 | 8.02 | 7.99 | 6.71 | 5.53 | 5.52 |
| DMPK | 2.37 | 2.63 | 2.84 | 2.89 | 2.08 | 2.45 | 2.43 | 2.51 |
| DMRT1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| DMRT2 | -2.10 | -2.09 | -2.09 | -2.04 | -2.09 | -2.06 | -2.07 | -2.11 |
| DMRTA1 | 1.83 | 2.18 | 1.84 | 2.08 | 2.20 | 1.68 | 1.96 | 1.72 |
| DMRTA2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.14 |
| DMTF1 | 3.32 | 3.32 | 3.89 | 3.81 | 4.03 | 3.93 | 4.23 | 3.75 |
| DMTN | 4.12 | 3.72 | 4.53 | 3.67 | 3.76 | 3.30 | 4.08 | 3.89 |
| DMWD | 4.90 | 4.42 | 4.51 | 4.50 | 4.43 | 4.55 | 4.59 | 4.35 |
| DMXL1 | 3.85 | 4.79 | 4.71 | 4.70 | 4.62 | 4.24 | 5.25 | 4.32 |
| DMXL2 | 4.34 | 4.14 | 4.49 | 4.51 | 4.46 | 4.66 | 4.85 | 4.35 |
| DNA2 | 3.74 | 3.73 | 3.57 | 3.42 | 3.35 | 3.84 | 4.41 | 3.34 |
| DNAAF1 | -2.04 | -2.04 | -2.01 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| DNAAF2 | 4.57 | 4.51 | 4.40 | 5.16 | 5.10 | 4.95 | 4.44 | 4.83 |
| DNAAF3 | 2.15 | 2.47 | 2.19 | 2.38 | 2.55 | 2.59 | 2.04 | 2.01 |
| DNAAF4 | -0.48 | -0.25 | -0.46 | -0.29 | -0.51 | -0.43 | -0.35 | -0.51 |
| DNAAF5 | 4.35 | 4.59 | 4.54 | 4.81 | 4.23 | 4.41 | 4.67 | 4.10 |
| DNAH1 | 0.40 | 0.18 | 0.38 | 0.42 | 0.43 | 0.41 | 0.38 | 0.43 |
| DNAH10 | -1.96 | -1.99 | -1.98 | -1.99 | -1.94 | -1.98 | -2.00 | -2.01 |
| DNAH10OS | -0.74 | -0.74 | -0.64 | -0.56 | -0.70 | -0.53 | -0.60 | -0.12 |
| DNAH11 | 0.54 | 0.25 | 0.36 | 0.46 | 0.49 | 0.43 | 0.58 | 0.33 |
| DNAH12 | 0.41 | 1.17 | 0.82 | 0.99 | 0.54 | 0.47 | 0.62 | 0.72 |
| DNAH14 | 5.67 | 4.49 | 4.60 | 4.45 | 5.64 | 5.49 | 4.24 | 5.38 |
| DNAH17 | -2.10 | -2.09 | -2.06 | -2.07 | -2.09 | -2.09 | -2.10 | -2.11 |
| DNAH17-AS1 | -1.65 | -1.79 | -1.78 | -1.79 | -1.79 | -1.75 | -1.80 | -1.81 |
| DNAH2 | 0.57 | 0.67 | 0.65 | 1.08 | 0.63 | 0.74 | 0.48 | 0.49 |
| DNAH3 | 0.13 | 0.40 | 0.07 | 0.56 | 0.50 | -0.05 | -0.12 | -0.02 |
| DNAH5 | 1.05 | 1.39 | 1.32 | 1.59 | 1.72 | 1.61 | 1.31 | 1.23 |
| DNAH6 | 0.46 | 0.41 | 0.19 | 0.38 | 0.47 | 0.43 | 0.43 | 0.37 |
| DNAH7 | 0.54 | 0.55 | 0.49 | 0.81 | 0.59 | 0.82 | 1.06 | 0.54 |
| DNAH8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| DNAH9 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| DNAI1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 |
| DNAJA1 | 8.29 | 8.00 | 8.51 | 8.14 | 8.90 | 8.99 | 7.96 | 8.19 |
| DNAJA1P3 | -1.61 | -1.60 | -1.60 | -1.61 | -1.61 | -1.59 | -1.61 | -1.63 |
| DNAJA1P5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| DNAJA2 | 7.08 | 6.55 | 6.41 | 6.56 | 6.50 | 6.73 | 6.54 | 7.14 |
| DNAJA3 | 6.21 | 5.83 | 6.20 | 6.16 | 5.42 | 5.69 | 5.71 | 6.03 |
| DNAJA4 | 4.04 | 4.92 | 5.33 | 4.74 | 4.51 | 4.96 | 4.36 | 4.91 |
| DNAJB1 | 8.35 | 8.01 | 8.04 | 7.68 | 7.80 | 8.42 | 7.30 | 7.26 |
| DNAJB11 | 7.44 | 6.72 | 6.84 | 6.82 | 6.93 | 6.67 | 6.54 | 7.32 |
| DNAJB12 | 5.36 | 5.75 | 5.67 | 5.49 | 5.60 | 5.75 | 5.38 | 5.31 |
| DNAJB13 | -2.04 | -2.04 | -2.00 | -2.05 | -2.04 | -2.02 | -2.05 | -2.06 |

| | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| DNAJB14 | 5.32 | 6.02 | 5.75 | 5.96 | 5.32 | 5.78 | 6.42 | 6.17 |
| DNAJB2 | 4.94 | 4.68 | 5.49 | 4.69 | 5.03 | 4.98 | 4.81 | 5.37 |
| DNAJB4 | 3.15 | 3.26 | 3.39 | 2.93 | 3.27 | 3.21 | 3.16 | 3.76 |
| DNAJB5 | 2.02 | 2.16 | 1.97 | 2.49 | 2.75 | 2.51 | 2.32 | 2.06 |
| DNAJB6 | 5.29 | 5.71 | 5.54 | 5.70 | 6.22 | 6.05 | 5.53 | 6.09 |
| DNAJB7 | -2.07 | -2.09 | -2.09 | -2.04 | -2.09 | -2.10 | -2.10 | -2.11 |
| DNAJB9 | 4.70 | 4.54 | 4.48 | 4.77 | 5.84 | 4.82 | 5.05 | 6.01 |
| DNAJC1 | 5.87 | 7.23 | 6.88 | 7.12 | 7.44 | 6.78 | 7.16 | 6.96 |
| DNAJC10 | 6.11 | 6.82 | 6.20 | 6.74 | 6.42 | 6.44 | 6.98 | 7.28 |
| DNAJC11 | 5.26 | 5.33 | 5.10 | 5.29 | 4.95 | 5.09 | 5.32 | 4.97 |
| DNAJC12 | 2.58 | 2.03 | 2.09 | 2.07 | 3.17 | 2.12 | 1.70 | 1.72 |
| DNAJC13 | 4.62 | 4.77 | 5.85 | 4.25 | 4.73 | 5.11 | 5.81 | 5.45 |
| DNAJC14 | 4.57 | 3.88 | 4.83 | 3.99 | 3.83 | 4.57 | 4.17 | 4.12 |
| DNAJC15 | 8.05 | 9.18 | 6.96 | 9.19 | 9.62 | 7.12 | 7.82 | 8.92 |
| DNAJC16 | 4.36 | 5.05 | 4.16 | 4.54 | 4.07 | 4.22 | 4.54 | 3.49 |
| DNAJC17 | 5.04 | 4.61 | 4.33 | 4.93 | 5.33 | 4.97 | 4.83 | 5.11 |
| DNAJC18 | 2.00 | 1.86 | 2.23 | 2.06 | 2.46 | 2.11 | 2.07 | 1.61 |
| DNAJC19 | 7.51 | 6.60 | 6.32 | 6.55 | 7.01 | 6.53 | 6.07 | 7.28 |
| DNAJC19P1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| DNAJC19P5 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 |
| DNAJC19P9 | 0.66 | 0.20 | 0.21 | 0.26 | 0.53 | 0.43 | 0.74 | 0.44 |
| DNAJC2 | 5.51 | 5.97 | 5.75 | 6.04 | 6.18 | 6.08 | 5.68 | 6.39 |
| DNAJC21 | 7.01 | 7.06 | 6.92 | 6.97 | 7.00 | 6.80 | 7.02 | 6.94 |
| DNAJC22 | 5.07 | 5.79 | 5.37 | 6.22 | 4.93 | 5.54 | 5.86 | 4.32 |
| DNAJC24 | 4.56 | 4.60 | 4.64 | 4.61 | 5.02 | 4.55 | 4.49 | 4.75 |
| DNAJC25 | 5.43 | 5.09 | 4.53 | 5.09 | 4.35 | 4.54 | 4.79 | 5.05 |
| DNAJC25-GNG10 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| DNAJC27 | 2.54 | 2.16 | 2.58 | 2.35 | 1.97 | 1.98 | 2.37 | 1.91 |
| DNAJC27-AS1 | 2.70 | 2.10 | 2.11 | 1.85 | 1.91 | 2.07 | 1.83 | 2.01 |
| DNAJC28 | 2.36 | 1.74 | 1.62 | 2.21 | 2.11 | 1.96 | 2.16 | 2.24 |
| DNAJC3 | 6.45 | 7.61 | 7.28 | 7.78 | 7.96 | 6.57 | 7.46 | 7.61 |
| DNAJC3-DT | 2.96 | 2.71 | 3.10 | 3.03 | 2.94 | 2.39 | 2.74 | 2.33 |
| DNAJC30 | 4.28 | 4.49 | 3.84 | 4.86 | 4.58 | 3.98 | 3.95 | 4.34 |
| DNAJC4 | 5.27 | 4.68 | 5.25 | 5.28 | 6.41 | 5.41 | 5.33 | 6.44 |
| DNAJC5 | 5.76 | 5.81 | 6.41 | 5.57 | 5.47 | 5.72 | 6.14 | 5.67 |
| DNAJC6 | 0.62 | 0.42 | 0.69 | 0.63 | 0.69 | 0.60 | 0.62 | 0.37 |
| DNAJC7 | 7.74 | 7.21 | 7.53 | 7.26 | 6.82 | 7.47 | 6.83 | 7.23 |
| DNAJC8 | 7.64 | 7.39 | 7.65 | 7.33 | 7.86 | 8.28 | 7.57 | 7.78 |
| DNAJC8P1 | -1.22 | -1.14 | -1.13 | -1.22 | -1.15 | -1.13 | -1.23 | -1.18 |
| DNAJC9 | 6.92 | 6.31 | 6.22 | 6.20 | 6.07 | 6.52 | 6.02 | 5.50 |
| DNAJC9-AS1 | 0.30 | 0.19 | 0.22 | 0.16 | 0.41 | 0.25 | 0.09 | 0.30 |
| DNAL1 | 4.47 | 4.96 | 3.93 | 5.01 | 4.32 | 5.03 | 4.59 | 4.35 |
| DNAL4 | 4.91 | 5.06 | 4.71 | 4.76 | 4.57 | 5.36 | 4.86 | 4.78 |
| DNALI1 | 3.60 | 3.38 | 4.61 | 3.66 | 4.52 | 4.48 | 4.47 | 3.56 |
| DNASE1 | 4.07 | 3.53 | 4.52 | 4.06 | 3.47 | 4.55 | 4.24 | 4.20 |
| DNASE1L1 | 6.41 | 5.94 | 5.20 | 6.20 | 5.98 | 5.42 | 5.09 | 6.35 |
| DNASE1L2 | -0.71 | -0.62 | -0.36 | -0.64 | -0.54 | -0.53 | -0.50 | -0.60 |
| DNASE1L3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| DNASE2 | 6.19 | 6.09 | 5.97 | 6.66 | 6.66 | 6.00 | 6.07 | 7.02 |
| DNASE2B | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.13 | -2.13 |
| DND1 | -1.44 | -1.43 | -1.42 | -1.50 | -1.43 | -1.48 | -1.44 | -1.46 |
| DND1P1 | -2.30 | -2.28 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| DNER | 0.26 | 0.69 | 0.40 | 0.42 | 0.18 | 0.41 | 0.16 | 0.20 |
| DNHD1 | 1.55 | 1.34 | 1.57 | 1.61 | 1.80 | 1.54 | 2.03 | 1.74 |
| DNLZ | -1.65 | -1.64 | -1.63 | -1.65 | -1.59 | -1.63 | -1.60 | -1.58 |
| DNM1 | 4.46 | 3.36 | 3.86 | 3.58 | 3.47 | 3.69 | 4.64 | 3.11 |
| DNM1L | 5.95 | 5.72 | 5.72 | 5.72 | 6.01 | 5.07 | 6.22 | 5.66 |
| DNM1P35 | -1.82 | -1.89 | -1.88 | -1.86 | -1.89 | -1.90 | -1.89 | -1.87 |
| DNM2 | 6.41 | 7.64 | 7.67 | 7.53 | 7.09 | 6.91 | 7.96 | 6.85 |
| DNM3 | 1.50 | 1.39 | 1.36 | 1.26 | 1.21 | 1.29 | 1.45 | 1.21 |
| DNM3-IT1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| DNM3OS | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| DNMBP | 4.71 | 5.02 | 4.72 | 4.75 | 4.73 | 5.15 | 4.97 | 4.19 |
| DNMBP-AS1 | 0.40 | 0.27 | 0.55 | 0.17 | 0.22 | 0.36 | 0.17 | 0.26 |
| DNMT1 | 7.31 | 7.49 | 7.81 | 7.56 | 7.09 | 7.73 | 7.76 | 6.61 |
| DNMT3A | 3.94 | 4.43 | 4.10 | 3.97 | 3.79 | 3.93 | 4.38 | 4.20 |
| DNMT3B | 0.83 | 0.79 | 0.90 | 0.81 | 0.70 | 0.66 | 0.69 | 0.64 |
| DNPEP | 7.01 | 6.23 | 6.02 | 6.39 | 6.23 | 6.71 | 5.51 | 6.39 |
| DNPH1 | 8.75 | 8.91 | 7.95 | 9.18 | 8.89 | 8.43 | 8.30 | 8.25 |
| DNTTIP1 | 7.44 | 6.10 | 6.49 | 6.19 | 6.63 | 7.11 | 5.57 | 7.05 |
| DNTTIP2 | 6.91 | 6.70 | 6.01 | 6.60 | 6.24 | 6.38 | 6.55 | 6.39 |
| DOC2A | 2.48 | 1.84 | 2.04 | 1.89 | 2.49 | 2.05 | 1.72 | 1.54 |
| DOC2B | 1.41 | 0.95 | 1.16 | 1.01 | 1.18 | 1.69 | 1.00 | 1.22 |
| DOC2GP | -1.69 | -1.63 | -1.63 | -1.54 | -1.66 | -1.65 | -1.70 | -1.71 |
| DOCK1 | 4.86 | 5.13 | 4.27 | 4.64 | 4.26 | 4.81 | 5.35 | 4.37 |
| DOCK10 | -1.65 | -1.65 | -1.64 | -1.65 | -1.65 | -1.66 | -1.61 | -1.62 |
| DOCK11 | 1.09 | 0.98 | 1.40 | 1.12 | 0.90 | 0.96 | 1.18 | 0.97 |
| DOCK11P1 | -2.04 | -2.07 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| DOCK3 | -1.59 | -1.64 | -1.52 | -1.65 | -1.61 | -1.65 | -1.59 | -1.67 |
| DOCK4 | 1.26 | 0.92 | 1.48 | 0.97 | 1.37 | 1.71 | 1.10 | 0.83 |
| DOCK5 | 4.84 | 5.90 | 6.21 | 6.13 | 4.87 | 5.83 | 6.34 | 4.92 |
| DOCK6 | 3.39 | 4.12 | 4.02 | 4.03 | 4.22 | 4.00 | 3.93 | 3.85 |
| DOCK7 | 4.57 | 4.93 | 4.85 | 5.17 | 4.78 | 4.85 | 5.09 | 4.74 |
| DOCK8 | 1.06 | 1.51 | 0.95 | 1.05 | 0.83 | 0.82 | 1.36 | 0.99 |
| DOCK9 | 4.72 | 5.68 | 5.49 | 5.34 | 4.93 | 5.51 | 5.16 | 4.82 |
| DOCK9-DT | 3.31 | 3.02 | 2.77 | 3.06 | 3.32 | 2.86 | 2.60 | 2.99 |
| DOHH | 5.51 | 5.05 | 5.48 | 5.38 | 5.78 | 5.48 | 5.36 | 5.88 |
| DOK1 | 4.82 | 4.91 | 4.42 | 4.42 | 4.86 | 4.79 | 4.18 | 3.60 |
| DOK3 | 0.71 | 0.67 | 0.94 | 0.50 | 0.44 | 0.53 | 0.49 | 0.69 |
| DOK4 | 5.92 | 6.90 | 6.40 | 7.11 | 5.64 | 5.75 | 6.91 | 6.29 |
| DOK5 | 0.81 | 1.40 | 2.18 | 1.30 | 0.82 | 0.93 | 1.09 | 0.88 |
| DOK7 | 2.90 | 2.82 | 2.68 | 3.10 | 3.05 | 3.29 | 2.94 | 3.28 |
| DOLK | 5.81 | 5.21 | 4.64 | 5.46 | 4.55 | 5.10 | 4.32 | 4.64 |
| DOLPP1 | 5.99 | 5.25 | 5.17 | 5.36 | 4.91 | 5.29 | 4.93 | 5.20 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| DONSON | 5.05 | 3.83 | 4.35 | 4.15 | 3.64 | 4.28 | 4.33 | 4.40 |
| DOP1A | 3.43 | 3.60 | 3.99 | 3.53 | 2.99 | 3.44 | 4.08 | 2.81 |
| DOP1B | 3.63 | 4.32 | 3.81 | 4.16 | 3.31 | 3.54 | 4.44 | 3.69 |
| DOT1L | 4.05 | 4.09 | 5.04 | 4.25 | 4.24 | 4.36 | 5.27 | 3.80 |
| DPAGT1 | 6.36 | 5.90 | 5.94 | 5.96 | 6.33 | 5.61 | 5.70 | 5.81 |
| DPCD | 6.02 | 6.54 | 5.95 | 6.83 | 6.24 | 6.50 | 6.29 | 5.61 |
| DPEP1 | -0.85 | -0.84 | -0.91 | -0.93 | -0.88 | -0.56 | -0.93 | -0.94 |
| DPEP2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| DPF1 | 0.84 | 0.63 | 0.70 | 0.41 | 0.46 | 0.53 | 0.26 | 0.22 |
| DPF2 | 6.12 | 4.58 | 5.77 | 4.68 | 6.06 | 5.68 | 5.09 | 5.96 |
| DPF3 | 0.95 | 1.07 | 1.01 | 1.28 | 1.26 | 1.04 | 1.02 | 0.86 |
| DPH1 | -0.30 | -0.15 | -0.26 | -0.22 | -0.28 | -0.28 | -0.17 | -0.17 |
| DPH2 | 4.01 | 4.51 | 3.93 | 4.59 | 4.30 | 4.27 | 3.90 | 4.12 |
| DPH3 | 6.29 | 5.32 | 5.40 | 5.33 | 6.41 | 6.17 | 5.33 | 5.88 |
| DPH5 | 5.83 | 5.05 | 4.46 | 5.37 | 5.17 | 5.05 | 4.59 | 4.73 |
| DPH6 | 5.01 | 4.58 | 4.46 | 4.47 | 5.13 | 4.52 | 4.81 | 4.98 |
| DPH6-DT | -1.29 | -1.29 | -1.27 | -1.15 | -0.88 | -1.24 | -1.30 | -1.31 |
| DPH7 | 4.47 | 4.11 | 4.23 | 4.76 | 4.35 | 4.50 | 4.28 | 4.37 |
| DPM1 | 8.01 | 6.96 | 7.09 | 7.25 | 7.65 | 7.20 | 6.54 | 7.80 |
| DPM2 | 7.84 | 6.71 | 6.90 | 6.95 | 6.57 | 7.24 | 6.65 | 7.04 |
| DPM3 | 9.05 | 8.25 | 7.41 | 8.67 | 8.98 | 8.89 | 8.08 | 7.83 |
| DPP10 | 0.38 | 0.31 | 0.33 | 0.21 | 0.22 | 0.20 | 0.29 | 0.24 |
| DPP10-AS1 | 2.03 | 0.98 | 1.03 | 0.79 | 0.90 | 0.88 | 0.87 | 0.80 |
| DPP3 | 5.90 | 5.72 | 6.21 | 5.57 | 5.32 | 5.42 | 5.65 | 5.72 |
| DPP4 | 3.58 | 2.55 | 3.10 | 2.83 | 3.69 | 4.31 | 4.19 | 3.00 |
| DPP7 | 7.60 | 7.20 | 6.52 | 7.44 | 6.94 | 6.39 | 6.79 | 6.05 |
| DPP8 | 5.59 | 5.89 | 6.21 | 5.47 | 5.26 | 5.31 | 5.85 | 6.11 |
| DPP9 | 4.92 | 5.41 | 5.36 | 5.45 | 5.17 | 5.63 | 5.66 | 5.18 |
| DPPA5P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| DPRXP3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.10 | -2.16 |
| DPRXP4 | -1.15 | -0.99 | -0.84 | -1.02 | -1.14 | -1.06 | -1.09 | -1.10 |
| DPY19L1 | 5.29 | 6.25 | 6.01 | 6.22 | 5.10 | 5.30 | 6.60 | 5.30 |
| DPY19L1P1 | 1.31 | 1.46 | 1.49 | 1.38 | 1.27 | 1.13 | 1.16 | 1.27 |
| DPY19L1P2 | -1.29 | -1.28 | -1.27 | -1.36 | -1.35 | -1.27 | -1.23 | -1.32 |
| DPY19L2 | -1.96 | -1.92 | -1.98 | -1.89 | -1.99 | -2.00 | -2.00 | -2.01 |
| DPY19L2P1 | -1.85 | -1.72 | -1.84 | -1.73 | -1.89 | -1.90 | -1.90 | -1.91 |
| DPY19L2P2 | -1.59 | -1.64 | -1.58 | -1.44 | -1.59 | -1.65 | -1.59 | -1.56 |
| DPY19L2P3 | 0.09 | 0.03 | -0.05 | -0.07 | 0.52 | 0.09 | -0.07 | 0.12 |
| DPY19L3 | 2.30 | 2.47 | 2.50 | 2.72 | 2.64 | 2.23 | 3.13 | 2.28 |
| DPY19L4 | 4.60 | 4.19 | 5.26 | 4.55 | 4.52 | 5.04 | 4.79 | 5.27 |
| DPY30 | 8.22 | 7.45 | 6.94 | 7.46 | 7.27 | 7.90 | 7.07 | 8.06 |
| DPYD | 2.47 | 3.51 | 3.02 | 3.45 | 2.48 | 3.47 | 4.31 | 2.90 |
| DPYSL2 | 6.63 | 7.74 | 7.97 | 8.09 | 7.27 | 7.22 | 7.85 | 6.68 |
| DPYSL3 | 1.09 | 1.27 | 2.69 | 1.00 | 1.55 | 0.82 | 0.84 | 1.20 |
| DPYSL4 | -0.97 | -0.81 | -1.02 | -1.05 | -1.00 | -1.05 | -1.05 | -1.06 |
| DPYSL5 | -1.80 | -1.84 | -1.79 | -1.84 | -1.84 | -1.85 | -1.84 | -1.85 |
| DQX1 | -0.17 | 0.49 | -0.15 | 0.93 | 0.13 | -0.10 | -0.09 | 0.38 |
| DR1 | 6.16 | 6.42 | 5.32 | 6.07 | 5.71 | 6.07 | 6.49 | 6.04 |
| DRAIC | -0.21 | -0.20 | -0.41 | -0.22 | -0.30 | -0.20 | -0.28 | -0.38 |
| DRAM1 | 6.11 | 5.10 | 5.72 | 4.85 | 4.54 | 4.77 | 4.19 | 4.33 |
| DRAM2 | 7.01 | 6.62 | 6.37 | 6.78 | 7.31 | 6.68 | 6.57 | 7.02 |
| DRAP1 | 8.65 | 7.81 | 8.28 | 7.83 | 8.22 | 9.24 | 7.64 | 8.88 |
| DRAXIN | -1.75 | -1.74 | -1.78 | -1.79 | -1.79 | -1.78 | -1.75 | -1.81 |
| DRC1 | -1.29 | -1.22 | -1.21 | -1.36 | -1.35 | -1.08 | -1.36 | -1.32 |
| DRC3 | -0.65 | -0.72 | -0.62 | -0.58 | -0.57 | -0.60 | -0.59 | -0.57 |
| DRC7 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.05 | -2.10 | -2.08 |
| DRD1 | -0.96 | -0.59 | -0.78 | -0.53 | -0.84 | -0.78 | -0.96 | -0.91 |
| DRD2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| DRD4 | -0.06 | -0.11 | 0.00 | -0.06 | -0.05 | -0.01 | -0.13 | -0.10 |
| DRG1 | 7.17 | 6.15 | 5.59 | 6.31 | 5.92 | 6.32 | 5.75 | 6.50 |
| DRG2 | 5.97 | 4.90 | 5.30 | 4.87 | 4.97 | 5.16 | 4.97 | 5.16 |
| DRICH1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| DROSHA | 4.79 | 4.48 | 5.14 | 4.41 | 4.55 | 4.66 | 4.53 | 4.67 |
| DRP2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.24 |
| DSC2 | 4.34 | 4.92 | 4.79 | 5.03 | 4.50 | 6.20 | 5.88 | 5.00 |
| DSC3 | 0.33 | -0.02 | 0.68 | -0.04 | -0.02 | 0.45 | -0.04 | 0.23 |
| DSCAM | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| DSCAML1 | 0.97 | 1.08 | 1.12 | 0.96 | 1.19 | 1.23 | 1.38 | 1.04 |
| DSCAS | -1.91 | -1.87 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.89 |
| DSCC1 | 4.82 | 3.85 | 4.97 | 3.77 | 4.35 | 4.52 | 3.83 | 4.05 |
| DSCR9 | -2.20 | -2.15 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| DSE | 2.26 | 2.11 | 3.12 | 2.18 | 2.24 | 3.28 | 3.01 | 2.65 |
| DSEL | 1.91 | 2.69 | 2.18 | 2.47 | 1.91 | 2.52 | 2.88 | 2.33 |
| DSG1-AS1 | -1.80 | -1.83 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.85 |
| DSG2 | 6.64 | 7.24 | 8.16 | 6.66 | 7.13 | 7.60 | 8.04 | 7.28 |
| DSG2-AS1 | -0.93 | -1.00 | -0.99 | -0.88 | -0.96 | -0.95 | -1.01 | -0.75 |
| DSG3 | 0.74 | 1.13 | 1.29 | 0.92 | 0.71 | 1.96 | 0.72 | 1.27 |
| DSG4 | -1.69 | -1.64 | -1.63 | -1.69 | -1.69 | -1.67 | -1.60 | -1.71 |
| DSN1 | 5.48 | 4.81 | 5.33 | 5.19 | 5.14 | 4.94 | 4.95 | 4.89 |
| DSP | 7.37 | 7.60 | 7.12 | 7.10 | 6.71 | 6.80 | 8.12 | 7.58 |
| DST | 6.19 | 7.55 | 7.55 | 7.82 | 6.34 | 7.84 | 8.28 | 7.30 |
| DSTN | 10.11 | 9.81 | 9.37 | 9.90 | 10.14 | 9.74 | 9.59 | 10.20 |
| DSTNP1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.11 |
| DSTNP2 | 3.00 | 2.53 | 2.69 | 2.79 | 2.15 | 2.16 | 2.64 | 2.47 |
| DSTNP4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| DSTYK | 4.18 | 4.05 | 4.34 | 4.07 | 3.82 | 4.26 | 4.03 | 3.93 |
| DTD1 | 5.73 | 5.74 | 5.76 | 5.86 | 6.39 | 6.21 | 5.01 | 5.44 |
| DTD2 | 3.26 | 3.86 | 3.23 | 4.02 | 3.75 | 3.37 | 3.62 | 3.27 |
| DTHD1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| DTL | 4.53 | 4.38 | 4.50 | 4.11 | 3.60 | 4.44 | 4.46 | 3.94 |
| DTNA | 0.85 | 0.87 | 0.81 | 0.83 | 0.78 | 0.73 | 1.76 | 0.84 |
| DTNB | 4.22 | 3.25 | 3.45 | 3.03 | 3.43 | 2.87 | 3.79 | 3.30 |
| DTNBP1 | 5.12 | 4.35 | 4.54 | 4.32 | 4.51 | 4.16 | 4.50 | 5.42 |
| DTWD1 | 5.17 | 4.86 | 4.90 | 4.95 | 5.23 | 5.10 | 4.91 | 5.79 |

| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| DTWD2 | 2.94 | 3.53 | 3.55 | 3.15 | 3.22 | 3.20 | 3.06 | 3.08 |
| DTX1 | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 | -2.00 | -2.00 | -2.01 |
| DTX2 | 4.16 | 5.11 | 5.65 | 4.94 | 4.93 | 5.41 | 4.71 | 5.70 |
| DTX2P1-UPK3BP1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.95 | -2.00 | -1.97 |
| DTX3 | 1.59 | 1.68 | 1.72 | 1.57 | 1.86 | 1.67 | 1.47 | 1.67 |
| DTX3L | 5.76 | 4.79 | 5.88 | 4.88 | 5.27 | 5.15 | 5.48 | 5.36 |
| DTX4 | 5.08 | 5.18 | 5.67 | 5.18 | 4.82 | 5.02 | 4.98 | 5.49 |
| DTYMK | 7.94 | 7.30 | 7.24 | 7.48 | 7.46 | 7.89 | 6.79 | 7.54 |
| DUBR | 0.46 | 0.80 | 0.58 | 0.79 | 0.47 | 0.52 | 0.58 | 0.45 |
| DUOX1 | 2.59 | 2.27 | 2.17 | 2.56 | 2.60 | 2.52 | 3.35 | 2.02 |
| DUOX2 | 4.55 | 4.20 | 4.83 | 4.18 | 4.54 | 4.28 | 5.43 | 4.11 |
| DUOXA1 | 2.04 | 1.67 | 1.58 | 1.40 | 1.71 | 1.64 | 1.87 | 1.69 |
| DUOXA2 | 5.07 | 4.76 | 5.40 | 5.03 | 5.02 | 4.71 | 6.08 | 4.50 |
| DUS1L | 8.02 | 7.42 | 7.39 | 7.81 | 7.27 | 7.60 | 7.05 | 7.29 |
| DUS2 | 4.60 | 4.01 | 4.65 | 4.40 | 4.06 | 4.16 | 4.37 | 4.02 |
| DUS3L | 4.49 | 4.66 | 4.21 | 5.45 | 4.76 | 5.07 | 4.29 | 4.84 |
| DUS4L | 3.26 | 3.48 | 3.52 | 3.40 | 3.59 | 3.31 | 3.23 | 3.69 |
| DUSP1 | 4.60 | 4.07 | 5.87 | 4.19 | 6.24 | 5.05 | 5.77 | 5.34 |
| DUSP10 | 3.49 | 3.79 | 5.12 | 3.40 | 3.66 | 5.26 | 3.86 | 4.59 |
| DUSP11 | 5.92 | 5.11 | 4.88 | 5.64 | 5.79 | 5.48 | 4.88 | 5.83 |
| DUSP12 | 5.56 | 5.29 | 5.22 | 5.63 | 5.75 | 5.68 | 4.75 | 5.42 |
| DUSP13 | -1.84 | -1.83 | -1.83 | -1.84 | -1.84 | -1.72 | -1.84 | -1.78 |
| DUSP14 | 5.62 | 5.66 | 4.90 | 5.61 | 5.68 | 5.90 | 4.66 | 5.31 |
| DUSP15 | 1.87 | 0.71 | 0.84 | 0.84 | 0.67 | 0.80 | 0.84 | 0.88 |
| DUSP16 | 4.17 | 3.43 | 4.78 | 3.43 | 4.16 | 3.64 | 5.43 | 3.95 |
| DUSP18 | 3.75 | 4.25 | 4.05 | 4.25 | 3.66 | 4.39 | 5.10 | 3.45 |
| DUSP19 | 2.02 | 1.76 | 1.64 | 2.00 | 2.02 | 1.56 | 2.17 | 1.99 |
| DUSP2 | 2.08 | 2.41 | 2.01 | 2.72 | 2.62 | 3.16 | 1.77 | 2.28 |
| DUSP22 | 4.27 | 3.88 | 3.87 | 3.82 | 4.47 | 3.69 | 4.54 | 5.02 |
| DUSP23 | 7.42 | 7.60 | 6.52 | 7.62 | 6.97 | 7.18 | 6.81 | 7.31 |
| DUSP27 | -2.04 | -2.04 | -2.00 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| DUSP28 | 4.36 | 3.67 | 3.51 | 3.32 | 4.00 | 3.81 | 3.50 | 4.06 |
| DUSP3 | 5.44 | 6.08 | 6.07 | 5.93 | 5.79 | 5.93 | 6.33 | 5.79 |
| DUSP4 | 8.02 | 8.02 | 8.28 | 7.75 | 8.15 | 7.97 | 7.40 | 7.95 |
| DUSP5 | 4.51 | 4.01 | 5.51 | 3.56 | 6.32 | 4.63 | 4.24 | 4.66 |
| DUSP5P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| DUSP5P2 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| DUSP6 | 7.16 | 7.96 | 7.98 | 7.44 | 8.63 | 8.25 | 8.16 | 7.64 |
| DUSP7 | 3.43 | 4.13 | 3.95 | 3.83 | 3.55 | 3.46 | 4.06 | 3.90 |
| DUSP8 | 3.36 | 2.58 | 4.18 | 2.63 | 4.20 | 2.61 | 4.16 | 3.49 |
| DUSP8P5 | -1.79 | -1.70 | -1.78 | -1.79 | -1.76 | -1.80 | -1.75 | -1.81 |
| DUSP9 | -0.64 | -0.79 | -0.69 | -0.80 | -0.53 | -0.77 | -0.72 | -0.48 |
| DUT | 8.78 | 8.10 | 8.02 | 8.18 | 8.23 | 8.01 | 8.02 | 8.01 |
| DUTP6 | -1.36 | -1.36 | -1.28 | -1.30 | -1.33 | -1.31 | -1.37 | -1.22 |
| DUTP8 | 2.58 | 2.36 | 2.41 | 2.17 | 2.21 | 2.37 | 2.52 | 2.09 |
| DUX4L17 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| DUX4L26 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| DUX4L27 | -2.25 | -2.25 | -2.21 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| DUXAP10 | -1.29 | -1.09 | -1.27 | -1.29 | -1.35 | -1.36 | -1.36 | -1.21 |
| DUXAP9 | -1.13 | -1.19 | -1.25 | -1.27 | -1.26 | -1.24 | -1.27 | -0.52 |
| DVL1 | 6.18 | 6.02 | 6.40 | 6.04 | 5.71 | 6.05 | 6.21 | 5.90 |
| DVL2 | 3.68 | 3.85 | 4.21 | 3.58 | 3.83 | 3.89 | 4.33 | 4.30 |
| DVL3 | 5.44 | 5.50 | 5.83 | 5.67 | 4.99 | 5.19 | 5.45 | 5.86 |
| DXO | 4.11 | 3.34 | 3.67 | 3.60 | 3.59 | 4.17 | 3.77 | 4.49 |
| DYDC2 | -0.15 | -0.50 | -0.49 | -0.43 | -0.46 | -0.51 | -0.43 | -0.41 |
| DYM | 4.15 | 4.27 | 4.70 | 4.06 | 4.14 | 4.02 | 4.74 | 4.07 |
| DYNC1H1 | 6.29 | 7.39 | 7.42 | 7.48 | 7.23 | 7.58 | 8.05 | 6.94 |
| DYNC1I1 | -1.67 | -1.61 | -1.55 | -1.57 | -1.66 | -1.65 | -1.67 | -1.47 |
| DYNC1I2 | 7.19 | 7.57 | 7.16 | 7.43 | 7.48 | 7.55 | 7.72 | 7.54 |
| DYNC1I2P1 | 0.83 | 0.70 | 1.05 | 0.89 | 0.81 | 0.76 | 1.00 | 0.73 |
| DYNC1LI1 | 5.80 | 5.32 | 4.89 | 5.27 | 5.64 | 5.73 | 5.27 | 4.92 |
| DYNC1LI2 | 7.22 | 7.23 | 6.75 | 7.00 | 6.77 | 7.12 | 7.32 | 7.05 |
| DYNC2H1 | 2.41 | 2.46 | 4.17 | 2.38 | 3.58 | 3.28 | 3.46 | 2.31 |
| DYNC2LI1 | 5.26 | 4.97 | 4.64 | 5.02 | 5.88 | 5.34 | 5.10 | 5.38 |
| DYNLL1 | 9.29 | 9.69 | 8.99 | 9.60 | 9.11 | 9.46 | 9.17 | 9.79 |
| DYNLL1P1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.85 |
| DYNLL1P2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 |
| DYNLL2 | 6.98 | 5.94 | 6.85 | 5.72 | 6.41 | 6.69 | 6.64 | 6.24 |
| DYNLRB1 | 8.28 | 7.05 | 7.89 | 7.24 | 8.26 | 8.25 | 7.88 | 8.45 |
| DYNLRB2 | -0.72 | -0.93 | -0.92 | -0.94 | -0.93 | -0.84 | -0.87 | -0.95 |
| DYNLT1 | 9.19 | 8.61 | 8.77 | 8.42 | 8.18 | 9.51 | 8.97 | 8.34 |
| DYNLT3 | 6.93 | 6.49 | 6.42 | 6.62 | 6.88 | 6.79 | 7.07 | 6.32 |
| DYNLT3P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| DYNLT3P2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.06 | -2.10 | -2.11 |
| DYRK1A | 4.62 | 5.04 | 4.49 | 4.89 | 4.69 | 4.23 | 5.02 | 4.99 |
| DYRK1B | 2.95 | 3.73 | 3.46 | 3.97 | 3.43 | 3.36 | 3.67 | 2.81 |
| DYRK2 | 4.82 | 5.62 | 5.95 | 5.43 | 5.44 | 5.80 | 6.13 | 5.21 |
| DYRK3 | 3.19 | 2.56 | 2.80 | 2.62 | 3.06 | 3.11 | 2.88 | 2.32 |
| DYRK4 | 5.09 | 5.78 | 5.25 | 5.63 | 5.07 | 4.83 | 4.71 | 4.67 |
| DYSF | -0.72 | -0.72 | -0.52 | -0.73 | -0.63 | -0.69 | -0.65 | -0.68 |
| DZANK1 | 1.61 | 1.71 | 2.05 | 1.76 | 1.69 | 1.70 | 1.72 | 1.55 |
| DZIP1 | 1.72 | 1.16 | 1.36 | 1.05 | 1.65 | 1.15 | 1.99 | 0.98 |
| DZIP1L | 0.21 | 0.23 | 0.34 | 0.38 | 1.83 | 0.53 | 0.36 | 0.36 |
| DZIP3 | 3.46 | 3.63 | 4.53 | 3.15 | 3.25 | 3.96 | 3.27 | 4.18 |
| E2F1 | 6.10 | 5.09 | 5.86 | 5.19 | 4.70 | 5.04 | 5.35 | 4.45 |
| E2F2 | 2.31 | 1.85 | 2.27 | 1.84 | 1.59 | 1.70 | 2.37 | 1.41 |
| E2F3 | 5.33 | 4.36 | 4.95 | 4.23 | 4.01 | 5.60 | 4.92 | 5.11 |
| E2F3-IT1 | -1.51 | -1.51 | -1.44 | -1.52 | -1.51 | -1.32 | -1.52 | -1.48 |
| E2F3P2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| E2F4 | 7.36 | 6.52 | 6.72 | 6.65 | 6.64 | 6.63 | 5.95 | 6.90 |
| E2F5 | 3.11 | 3.27 | 3.66 | 3.60 | 3.90 | 4.00 | 2.95 | 3.35 |
| E2F6 | 3.15 | 2.93 | 2.75 | 3.28 | 2.73 | 3.15 | 3.19 | 3.07 |
| E2F6P4 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.08 | -2.10 | -2.11 |
| E2F7 | 3.93 | 4.25 | 4.95 | 4.53 | 3.65 | 4.26 | 4.83 | 4.06 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| E2F8 | 3.63 | 3.46 | 3.75 | 3.74 | 3.06 | 3.50 | 3.47 | 3.73 |
| E4F1 | 4.30 | 3.89 | 3.95 | 4.04 | 3.93 | 4.00 | 3.85 | 4.24 |
| EA1F | 4.73 | 4.99 | 4.45 | 4.66 | 4.66 | 4.72 | 4.75 | 4.20 |
| EA1F-AS1 | 1.14 | 0.95 | 0.82 | 0.93 | 1.19 | 1.01 | 1.02 | 1.07 |
| EA2F | 3.76 | 2.52 | 2.71 | 2.55 | 3.53 | 2.76 | 2.91 | 3.47 |
| EAPP | 5.86 | 6.32 | 5.94 | 6.31 | 6.67 | 6.48 | 6.21 | 6.44 |
| EARS2 | 3.32 | 3.60 | 4.11 | 3.02 | 3.40 | 3.36 | 3.38 | 3.55 |
| EBAG9 | 6.17 | 5.77 | 6.09 | 5.86 | 6.02 | 6.20 | 5.61 | 6.61 |
| EBAG9P1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| EBF1 | -1.64 | -1.47 | -1.63 | -1.32 | -1.64 | -1.65 | -1.65 | -1.61 |
| EBF2 | -1.52 | -1.15 | -1.50 | -1.13 | -1.39 | -1.53 | -1.46 | -1.54 |
| EBF3 | -1.89 | -1.73 | -1.88 | -1.81 | -1.89 | -1.88 | -1.90 | -1.87 |
| EBF4 | 0.90 | 1.17 | 0.65 | 1.06 | 0.96 | 0.67 | 0.80 | 0.73 |
| EBI3 | -0.56 | -1.05 | -1.03 | -0.98 | -1.05 | -1.03 | -0.99 | -1.01 |
| EBLN2 | 1.06 | 1.09 | 1.19 | 1.12 | 1.11 | 1.28 | 1.29 | 0.91 |
| EBLN3P | 4.94 | 5.75 | 5.50 | 5.84 | 6.46 | 5.56 | 5.89 | 5.77 |
| EBNA1BP2 | 7.57 | 7.44 | 7.37 | 7.57 | 6.90 | 7.43 | 7.17 | 6.81 |
| EBP | 8.83 | 8.94 | 8.90 | 9.38 | 9.73 | 8.42 | 9.35 | 8.67 |
| EBPL | 7.58 | 7.18 | 6.69 | 7.42 | 8.07 | 7.03 | 6.58 | 8.20 |
| ECD | 5.07 | 5.04 | 4.88 | 4.80 | 4.91 | 5.02 | 4.66 | 4.70 |
| ECE1 | 5.49 | 5.51 | 7.15 | 5.36 | 6.40 | 6.24 | 5.45 | 5.71 |
| ECEL1 | 1.49 | 0.32 | 0.54 | 0.30 | 0.31 | 0.36 | 0.29 | 0.25 |
| ECEL1P1 | -1.48 | -1.53 | -1.58 | -1.60 | -1.59 | -1.49 | -1.60 | -1.51 |
| ECEL1P2 | -0.10 | -0.34 | -0.22 | -0.26 | -0.25 | -0.21 | -0.27 | -0.30 |
| ECH1 | 9.22 | 8.79 | 8.35 | 9.27 | 9.64 | 8.25 | 8.47 | 8.78 |
| ECHDC1 | 6.55 | 5.62 | 5.52 | 5.78 | 6.05 | 6.72 | 6.43 | 6.24 |
| ECHDC2 | 4.76 | 4.96 | 4.97 | 5.12 | 4.88 | 4.99 | 5.74 | 5.18 |
| ECHDC3 | 4.19 | 1.90 | 3.09 | 1.91 | 1.80 | 1.82 | 2.12 | 1.87 |
| ECHS1 | 8.44 | 8.01 | 7.52 | 8.33 | 8.33 | 7.98 | 7.83 | 7.85 |
| ECI1 | 8.28 | 7.73 | 6.97 | 7.64 | 7.57 | 7.40 | 7.48 | 7.84 |
| ECI2 | 6.48 | 6.31 | 5.69 | 6.46 | 6.11 | 5.54 | 6.63 | 6.51 |
| ECM1 | 4.31 | 6.22 | 5.88 | 6.38 | 6.93 | 4.96 | 6.99 | 7.84 |
| ECM2 | -1.79 | -1.79 | -1.78 | -1.79 | -1.79 | -1.78 | -1.79 | -1.65 |
| ECPAS | 5.57 | 5.52 | 6.18 | 5.72 | 4.96 | 5.61 | 6.30 | 5.64 |
| ECSCR | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ECSIT | 5.34 | 5.40 | 5.27 | 5.52 | 5.99 | 5.47 | 5.47 | 5.20 |
| ECT2 | 6.80 | 6.84 | 6.59 | 6.79 | 6.45 | 6.88 | 6.88 | 7.17 |
| ECT2L | -2.20 | -2.16 | -2.19 | -2.20 | -2.20 | -2.21 | -2.21 | -2.22 |
| EDA | 0.95 | 1.00 | 1.24 | 1.46 | 1.05 | 0.89 | 1.13 | 0.69 |
| EDA2R | 0.45 | 0.55 | 0.48 | 0.53 | 0.46 | 0.43 | 0.80 | 0.47 |
| EDAR | 2.35 | 2.79 | 2.08 | 3.16 | 2.51 | 2.20 | 2.40 | 2.23 |
| EDARADD | 1.09 | 1.11 | 1.18 | 0.95 | 0.93 | 0.99 | 1.23 | 1.07 |
| EDC3 | 4.83 | 4.47 | 4.96 | 4.11 | 4.49 | 4.08 | 4.08 | 4.46 |
| EDC4 | 0.33 | 0.27 | 0.12 | 0.25 | 0.18 | 0.29 | 0.34 | 0.40 |
| EDDM13 | -1.30 | -1.23 | -1.22 | -1.31 | -1.27 | -1.32 | -1.24 | -1.21 |
| EDEM1 | 4.77 | 5.34 | 5.49 | 5.04 | 4.56 | 5.43 | 4.98 | 5.32 |
| EDEM2 | 5.78 | 5.77 | 5.90 | 5.89 | 6.86 | 5.40 | 5.04 | 6.15 |
| EDEM3 | 5.58 | 6.18 | 5.33 | 6.01 | 5.98 | 6.13 | 6.41 | 6.91 |
| EDF1 | 9.08 | 9.04 | 8.17 | 9.17 | 8.45 | 8.85 | 9.11 | 8.47 |
| EDIL3 | 0.93 | 1.21 | 1.09 | 1.83 | 0.87 | 2.13 | 0.83 | 0.83 |
| EDN1 | 3.80 | 4.14 | 5.07 | 4.09 | 4.17 | 4.23 | 6.09 | 3.84 |
| EDN2 | 1.54 | 0.84 | 1.08 | 0.87 | 0.60 | 0.51 | 0.57 | 0.70 |
| EDN3 | 0.04 | 0.97 | 0.06 | 1.68 | 0.09 | 0.02 | 0.72 | 0.00 |
| EDNRA | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| EDNRB | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| EDRF1 | 4.15 | 4.46 | 4.42 | 4.59 | 4.08 | 4.20 | 4.27 | 3.49 |
| EDRF1-DT | 2.20 | 1.85 | 1.77 | 1.79 | 2.44 | 2.04 | 2.18 | 1.89 |
| EEA1 | 4.93 | 5.71 | 6.28 | 5.66 | 5.35 | 5.56 | 6.35 | 5.05 |
| EED | 6.00 | 5.53 | 5.90 | 5.86 | 5.84 | 5.58 | 5.42 | 6.21 |
| EEF1A1 | 6.61 | 6.90 | 6.15 | 7.09 | 7.51 | 7.30 | 7.66 | 7.66 |
| EEF1A1P1 | -1.44 | -1.44 | -1.37 | -1.50 | -1.50 | -1.40 | -1.45 | -1.42 |
| EEF1A1P10 | -1.39 | -1.32 | -1.25 | -1.40 | -1.26 | -1.38 | -1.27 | -1.42 |
| EEF1A1P11 | 0.34 | 0.35 | 0.29 | 0.41 | 0.43 | 0.58 | 0.26 | 0.64 |
| EEF1A1P12 | -0.08 | -0.27 | -0.11 | -0.21 | 0.04 | -0.15 | -0.21 | -0.02 |
| EEF1A1P13 | 0.05 | -0.01 | -0.08 | 0.03 | -0.01 | 0.03 | 0.11 | 0.34 |
| EEF1A1P14 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| EEF1A1P16 | -2.25 | -2.25 | -2.23 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 |
| EEF1A1P17 | -2.10 | -2.09 | -2.09 | -2.02 | -2.09 | -2.10 | -2.10 | -2.08 |
| EEF1A1P19 | -0.55 | -0.61 | -0.68 | -0.70 | -0.47 | -0.61 | -0.63 | -0.59 |
| EEF1A1P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| EEF1A1P22 | -1.50 | -1.50 | -1.49 | -1.50 | -1.50 | -1.45 | -1.45 | -1.47 |
| EEF1A1P24 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| EEF1A1P25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| EEF1A1P28 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| EEF1A1P29 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| EEF1A1P3 | -1.12 | -1.04 | -1.10 | -1.12 | -1.04 | -1.06 | -0.85 | -1.07 |
| EEF1A1P30 | -1.59 | -1.49 | -1.63 | -1.65 | -1.64 | -1.60 | -1.55 | -1.67 |
| EEF1A1P32 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| EEF1A1P33 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| EEF1A1P34 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| EEF1A1P38 | -1.57 | -1.56 | -1.55 | -1.57 | -1.59 | -1.58 | -1.57 | -1.41 |
| EEF1A1P4 | -1.40 | -1.46 | -1.45 | -1.40 | -1.46 | -1.45 | -1.40 | -1.31 |
| EEF1A1P42 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| EEF1A1P5 | -1.14 | -1.13 | -1.20 | -1.22 | -1.17 | -1.16 | -1.09 | -1.11 |
| EEF1A1P6 | -1.25 | -1.25 | -1.23 | -1.19 | -1.21 | -1.11 | -1.19 | -1.11 |
| EEF1A1P7 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.09 | -2.10 | -2.05 |
| EEF1A1P8 | -1.85 | -1.85 | -1.88 | -1.81 | -1.87 | -1.90 | -1.85 | -1.87 |
| EEF1A1P9 | -0.81 | -0.64 | -0.79 | -0.53 | -0.62 | -0.68 | -0.81 | -0.71 |
| EEF1A2 | 7.05 | 4.76 | 7.04 | 5.22 | 7.21 | 5.36 | 6.25 | 5.96 |
| EEF1AKMT1 | 5.25 | 5.60 | 4.81 | 5.83 | 5.98 | 5.87 | 4.98 | 5.97 |
| EEF1AKMT2 | 5.56 | 4.54 | 4.47 | 5.03 | 4.74 | 4.75 | 3.98 | 4.63 |
| EEF1AKMT3 | 1.95 | 1.85 | 2.01 | 1.85 | 2.15 | 1.89 | 1.75 | 2.15 |
| EEF1AKMT4 | 5.97 | 5.25 | 5.05 | 5.78 | 5.46 | 5.16 | 4.16 | 5.53 |
| EEF1AKNMT | 5.28 | 4.91 | 4.69 | 4.84 | 4.74 | 5.22 | 4.84 | 5.17 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| EEF1B2 | 8.89 | 9.34 | 8.06 | 9.60 | 9.96 | 8.98 | 8.65 | 9.24 |
| EEF1B2P1 | -1.41 | -1.41 | -1.40 | -1.35 | -1.31 | -1.36 | -1.30 | -1.28 |
| EEF1B2P2 | 1.60 | 1.70 | 1.55 | 2.11 | 2.19 | 1.74 | 1.56 | 1.94 |
| EEF1B2P3 | 0.98 | 1.34 | 0.99 | 1.18 | 1.41 | 0.98 | 0.84 | 1.29 |
| EEF1B2P4 | -2.25 | -2.22 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| EEF1B2P5 | -2.10 | -2.04 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.08 |
| EEF1B2P6 | -0.12 | 0.18 | -0.08 | 0.02 | 0.07 | -0.01 | -0.20 | -0.06 |
| EEF1B2P7 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.06 |
| EEF1D | 9.42 | 9.72 | 9.83 | 9.81 | 10.26 | 9.94 | 9.21 | 9.54 |
| EEF1DP1 | 1.65 | 1.19 | 1.37 | 1.52 | 1.42 | 1.63 | 1.34 | 1.69 |
| EEF1DP2 | 0.77 | 1.06 | 0.92 | 0.71 | 0.96 | 1.07 | 1.01 | 0.70 |
| EEF1DP4 | -2.05 | -2.01 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| EEF1DP5 | 0.98 | 1.04 | 1.19 | 0.96 | 1.11 | 1.31 | 0.95 | 1.09 |
| EEF1DP7 | -1.10 | -1.01 | -0.81 | -0.89 | -1.02 | -0.98 | -1.11 | -1.12 |
| EEF1E1 | 7.75 | 6.29 | 5.79 | 6.21 | 6.64 | 6.36 | 6.26 | 7.31 |
| EEF1E1P1 | -0.49 | -0.23 | -0.47 | -0.57 | -0.48 | -0.58 | -0.57 | -0.53 |
| EEF1GP1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.87 | -1.90 | -1.89 | -1.83 |
| EEF1GP3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| EEF1GP4 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| EEF1GP5 | 0.98 | 0.84 | 0.87 | 0.70 | 0.94 | 0.87 | 0.64 | 0.99 |
| EEF1GP8 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| EEF2 | 8.97 | 10.39 | 9.67 | 10.51 | 10.08 | 9.85 | 10.22 | 9.63 |
| EEF2K | 3.84 | 3.77 | 3.82 | 3.63 | 3.67 | 3.42 | 3.95 | 3.62 |
| EEF2KMT | 3.75 | 3.25 | 3.03 | 3.72 | 3.38 | 3.29 | 2.80 | 3.47 |
| EEFSEC | 5.31 | 3.88 | 4.87 | 3.98 | 4.62 | 4.56 | 4.69 | 4.43 |
| EEP01 | 4.98 | 4.92 | 4.54 | 4.90 | 5.91 | 4.52 | 3.89 | 5.22 |
| EFCAB1 | -0.87 | -0.87 | -0.77 | -0.72 | -0.87 | -0.88 | -0.73 | -0.89 |
| EFCAB10 | -0.88 | -0.88 | -0.79 | -0.89 | -0.80 | -0.73 | -0.82 | -0.84 |
| EFCAB11 | 4.02 | 4.23 | 4.49 | 4.11 | 4.48 | 4.75 | 4.17 | 4.19 |
| EFCAB12 | -1.50 | -1.55 | -1.48 | -1.56 | -1.52 | -1.48 | -1.56 | -1.48 |
| EFCAB13 | 1.91 | 2.44 | 1.95 | 2.48 | 2.03 | 1.74 | 2.18 | 2.29 |
| EFCAB14 | 6.18 | 7.26 | 6.71 | 7.22 | 6.63 | 6.54 | 7.16 | 7.00 |
| EFCAB14-AS1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| EFCAB14P1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 | -1.81 | -1.85 | -1.86 |
| EFCAB2 | 3.44 | 3.03 | 3.49 | 3.02 | 2.88 | 4.50 | 3.31 | 3.95 |
| EFCAB5 | -0.17 | -0.39 | -0.20 | -0.25 | -0.39 | -0.10 | -0.40 | -0.13 |
| EFCAB6 | -0.66 | -0.65 | -0.72 | -0.59 | -0.62 | -0.71 | -0.59 | -0.69 |
| EFCAB7 | 1.77 | 2.32 | 2.34 | 1.93 | 2.24 | 2.38 | 2.14 | 1.74 |
| EFCAB8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| EFCAB9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| EFCC1 | -1.59 | -1.69 | -1.62 | -1.38 | -1.69 | -1.70 | -1.70 | -1.71 |
| EFEMP1 | 3.76 | 3.67 | 3.22 | 4.10 | 2.69 | 2.65 | 3.52 | 3.63 |
| EFEMP2 | 1.52 | 1.32 | 1.61 | 1.44 | 1.81 | 1.51 | 1.91 | 2.04 |
| EFHB | 0.24 | -0.05 | 0.21 | 0.09 | 0.11 | 0.26 | -0.06 | 0.09 |
| EFHC1 | 3.88 | 3.47 | 4.55 | 3.86 | 4.64 | 4.84 | 4.85 | 4.55 |
| EFHC2 | 1.86 | 1.00 | 1.63 | 1.03 | 1.43 | 1.56 | 1.08 | 1.19 |
| EFHD1 | 2.40 | 0.60 | 0.73 | 0.57 | 0.64 | 0.46 | 0.56 | 1.05 |
| EFHD2 | 8.29 | 8.12 | 7.72 | 7.85 | 8.49 | 7.96 | 7.45 | 8.58 |
| EFL1 | 4.03 | 3.93 | 4.52 | 3.98 | 4.21 | 3.88 | 4.63 | 3.88 |
| EFNA1 | 6.81 | 5.80 | 6.12 | 5.69 | 6.45 | 5.91 | 6.26 | 6.53 |
| EFNA2 | 3.54 | 2.92 | 2.85 | 3.05 | 2.90 | 2.64 | 3.01 | 2.33 |
| EFNA3 | 5.71 | 5.61 | 5.05 | 5.99 | 5.01 | 5.17 | 5.45 | 5.18 |
| EFNA4 | 5.96 | 5.40 | 4.92 | 5.63 | 5.28 | 5.43 | 5.30 | 5.39 |
| EFNA5 | 4.85 | 4.94 | 5.38 | 4.62 | 4.30 | 5.04 | 4.39 | 4.43 |
| EFNB1 | 5.47 | 4.38 | 8.11 | 4.54 | 6.94 | 5.81 | 7.28 | 6.31 |
| EFNB2 | 4.65 | 7.41 | 6.37 | 7.17 | 5.92 | 6.65 | 6.64 | 6.44 |
| EFNB3 | -1.45 | -1.38 | -1.50 | -1.51 | -1.45 | -1.38 | -1.52 | -1.53 |
| EFR3A | 5.51 | 6.09 | 6.98 | 5.52 | 5.70 | 6.42 | 6.44 | 6.32 |
| EFR3B | 0.27 | 0.23 | 0.34 | 0.12 | 0.10 | 0.20 | 0.39 | 0.01 |
| EFS | -1.53 | -1.52 | -1.51 | -1.46 | -1.52 | -1.54 | -1.54 | -1.55 |
| EFTUD2 | 5.28 | 6.00 | 6.59 | 5.89 | 5.63 | 5.94 | 5.91 | 5.83 |
| EGF | -1.18 | -1.17 | -1.09 | -1.18 | -1.17 | -0.98 | -1.19 | -0.98 |
| EGFL7 | 7.66 | 4.40 | 4.91 | 4.65 | 5.98 | 4.34 | 4.87 | 4.15 |
| EGFL8 | -1.37 | -1.30 | -1.35 | -1.19 | -1.33 | -1.29 | -1.19 | -1.29 |
| EGFLAM | -2.15 | -2.14 | -2.14 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 |
| EGFR | 4.55 | 6.04 | 5.61 | 5.47 | 5.60 | 5.69 | 6.30 | 5.41 |
| EGFR-AS1 | -1.64 | -1.64 | -1.63 | -1.65 | -1.64 | -1.65 | -1.49 | -1.66 |
| EGLN1 | 1.86 | 1.76 | 1.68 | 1.79 | 1.55 | 1.59 | 2.32 | 1.56 |
| EGLN2 | -1.59 | -1.63 | -1.63 | -1.64 | -1.63 | -1.60 | -1.59 | -1.61 |
| EGLN3 | 4.61 | 6.27 | 6.80 | 5.93 | 6.71 | 5.63 | 7.42 | 4.39 |
| EGOT | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.80 | -1.79 | -1.81 |
| EGR1 | 5.28 | 5.50 | 6.41 | 5.20 | 6.67 | 6.60 | 6.56 | 6.40 |
| EGR2 | -1.45 | -1.38 | -1.38 | -1.45 | -1.42 | -1.29 | -1.45 | -1.47 |
| EGR3 | 0.38 | 0.40 | 0.99 | 0.38 | 0.94 | 0.72 | 0.45 | 0.44 |
| EGR4 | -0.01 | 0.18 | 0.02 | 0.16 | 1.54 | 0.27 | 0.06 | 0.02 |
| EHBP1 | 6.26 | 7.00 | 6.86 | 6.96 | 7.01 | 6.73 | 7.46 | 6.18 |
| EHBP1L1 | 7.28 | 5.69 | 6.95 | 5.96 | 6.76 | 6.48 | 6.33 | 7.67 |
| EHD1 | 5.90 | 5.26 | 6.28 | 5.02 | 5.87 | 5.86 | 5.93 | 6.18 |
| EHD2 | 4.16 | 4.31 | 4.85 | 3.67 | 5.11 | 3.92 | 4.13 | 4.28 |
| EHD3 | -0.32 | -0.16 | 0.03 | -0.08 | 0.02 | -0.19 | -0.33 | -0.23 |
| EHD4 | 5.27 | 6.25 | 6.03 | 5.56 | 5.84 | 6.02 | 5.58 | 5.63 |
| EHD4-AS1 | -2.04 | -1.95 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.03 |
| EHF | 8.19 | 8.68 | 9.00 | 8.45 | 8.55 | 8.56 | 8.92 | 8.56 |
| EHHADH | 3.17 | 3.66 | 4.23 | 3.53 | 2.86 | 3.34 | 3.72 | 3.43 |
| EHMT1 | 6.16 | 5.86 | 5.63 | 5.95 | 5.60 | 6.11 | 5.98 | 5.91 |
| EHMT2 | 5.37 | 5.56 | 5.59 | 5.42 | 5.11 | 5.80 | 5.12 | 5.40 |
| EHMT2-AS1 | -1.18 | -1.24 | -1.17 | -1.25 | -1.18 | -1.13 | -1.19 | -1.01 |
| EI24 | 8.28 | 8.26 | 7.71 | 8.27 | 7.94 | 7.49 | 7.59 | 8.10 |
| EID1 | 8.24 | 8.39 | 7.29 | 8.50 | 8.68 | 8.45 | 8.02 | 7.61 |
| EID2 | 5.77 | 5.53 | 4.96 | 5.74 | 5.75 | 5.11 | 5.23 | 4.41 |
| EID2B | 2.72 | 2.16 | 2.31 | 2.45 | 2.64 | 2.19 | 1.95 | 1.60 |
| EID3 | -0.08 | 0.17 | 0.09 | 0.07 | 0.09 | -0.02 | -0.01 | -0.04 |
| EIF1 | 12.13 | 10.54 | 10.30 | 10.65 | 11.54 | 11.09 | 9.99 | 11.17 |
| EIF1AD | 4.78 | 4.27 | 4.56 | 4.68 | 4.96 | 4.48 | 4.21 | 4.64 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| EIF1AX | 6.82 | 6.74 | 7.33 | 6.50 | 6.23 | 6.07 | 6.95 | 6.16 |
| EIF1AXP1 | 1.63 | 1.32 | 1.24 | 1.51 | 1.18 | 1.35 | 1.08 | 1.06 |
| EIF1AY | 2.54 | 1.99 | 2.50 | 2.49 | 2.01 | 2.24 | 2.39 | 2.14 |
| EIF1B | 7.60 | 6.29 | 5.79 | 6.54 | 6.96 | 6.58 | 6.12 | 6.49 |
| EIF1B-AS1 | 1.27 | 1.00 | 0.86 | 1.08 | 0.84 | 0.84 | 1.00 | 1.06 |
| EIF1P1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.94 | -1.92 |
| EIF1P3 | 1.07 | 0.82 | 1.00 | 0.86 | 0.93 | 0.98 | 0.78 | 1.00 |
| EIF1P4 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -1.94 |
| EIF1P5 | -0.25 | -0.39 | -0.38 | -0.33 | -0.43 | -0.41 | -0.48 | -0.37 |
| EIF1P6 | -1.99 | -1.99 | -1.98 | -2.00 | -1.94 | -2.00 | -2.00 | -1.97 |
| EIF1P7 | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.05 | -2.03 |
| EIF2A | 6.65 | 5.69 | 6.26 | 6.01 | 6.85 | 6.53 | 6.19 | 7.49 |
| EIF2AK1 | 7.31 | 7.38 | 7.03 | 7.25 | 7.23 | 7.22 | 7.09 | 7.69 |
| EIF2AK2 | 7.60 | 6.83 | 7.07 | 6.50 | 5.79 | 6.73 | 6.23 | 6.25 |
| EIF2AK3 | 3.35 | 3.44 | 3.41 | 3.53 | 3.81 | 3.17 | 3.73 | 3.43 |
| EIF2AK3-DT | 0.53 | 0.63 | 0.40 | 0.66 | 0.94 | 0.63 | 0.44 | 0.45 |
| EIF2AK4 | 7.45 | 7.30 | 6.36 | 7.16 | 6.68 | 6.60 | 6.55 | 6.67 |
| EIF2B1 | 5.75 | 5.71 | 5.72 | 5.98 | 5.59 | 5.85 | 5.42 | 6.59 |
| EIF2B2 | 6.50 | 5.20 | 5.20 | 5.84 | 6.26 | 6.06 | 5.37 | 5.86 |
| EIF2B3 | 5.55 | 4.59 | 5.16 | 5.01 | 5.46 | 5.10 | 5.34 | 4.70 |
| EIF2B4 | 6.37 | 5.54 | 5.37 | 5.85 | 5.31 | 5.67 | 5.53 | 5.89 |
| EIF2B5 | 5.80 | 5.97 | 6.02 | 6.08 | 5.58 | 5.68 | 5.62 | 6.00 |
| EIF2D | 5.70 | 5.11 | 4.57 | 5.27 | 5.87 | 5.59 | 5.37 | 5.60 |
| EIF2S1 | 7.12 | 7.29 | 7.13 | 7.41 | 7.45 | 7.78 | 7.02 | 7.05 |
| EIF2S2 | 8.67 | 8.71 | 8.79 | 8.56 | 8.98 | 9.02 | 8.69 | 9.50 |
| EIF2S2P2 | -1.20 | -1.19 | -0.79 | -1.05 | -1.15 | -1.06 | -1.05 | -1.09 |
| EIF2S2P3 | -0.91 | -0.74 | -0.96 | -0.98 | -0.90 | -0.95 | -0.99 | -0.83 |
| EIF2S2P4 | 2.93 | 2.55 | 2.82 | 2.87 | 2.78 | 3.02 | 3.12 | 3.22 |
| EIF2S2P5 | -0.22 | -0.49 | -0.40 | -0.43 | -0.41 | -0.34 | -0.50 | -0.35 |
| EIF2S3 | 7.71 | 7.52 | 7.91 | 7.15 | 7.47 | 7.09 | 7.47 | 7.08 |
| EIF2S3B | -0.31 | -0.07 | -0.37 | -0.19 | -0.34 | -0.32 | -0.24 | -0.20 |
| EIF3A | 7.64 | 8.31 | 8.00 | 8.28 | 8.32 | 8.27 | 8.27 | 7.77 |
| EIF3B | 7.30 | 7.01 | 7.50 | 7.11 | 7.12 | 7.02 | 7.15 | 7.39 |
| EIF3C | 1.31 | 1.41 | 1.26 | 0.96 | 1.29 | 1.38 | 1.18 | 1.26 |
| EIF3CL | -1.59 | -1.59 | -1.58 | -1.60 | -1.51 | -1.55 | -1.60 | -1.62 |
| EIF3D | 7.86 | 7.93 | 7.49 | 7.87 | 7.80 | 8.08 | 7.30 | 8.18 |
| EIF3E | 7.63 | 7.76 | 7.65 | 7.83 | 8.68 | 8.48 | 7.44 | 8.56 |
| EIF3EP1 | -1.54 | -1.64 | -1.57 | -1.59 | -1.64 | -1.65 | -1.59 | -1.61 |
| EIF3F | 7.24 | 7.05 | 6.56 | 7.38 | 8.15 | 7.27 | 6.59 | 7.97 |
| EIF3FP3 | 0.94 | 0.87 | 0.89 | 0.97 | 1.07 | 1.03 | 0.89 | 1.53 |
| EIF3G | 8.42 | 8.48 | 7.60 | 8.71 | 8.60 | 8.48 | 8.03 | 8.14 |
| EIF3H | 8.76 | 8.70 | 8.77 | 8.87 | 9.51 | 9.50 | 8.22 | 9.62 |
| EIF3I | 7.82 | 7.07 | 7.34 | 7.23 | 8.07 | 8.07 | 7.98 | 7.89 |
| EIF3IP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| EIF3J | 7.96 | 7.91 | 7.42 | 7.81 | 8.06 | 7.56 | 7.55 | 8.18 |
| EIF3J-DT | 4.55 | 4.17 | 4.39 | 4.39 | 4.54 | 3.96 | 3.87 | 4.55 |
| EIF3K | 9.08 | 8.60 | 7.87 | 8.64 | 9.39 | 8.32 | 8.38 | 8.22 |
| EIF3KP1 | -0.81 | -0.87 | -0.94 | -0.89 | -0.84 | -0.89 | -0.82 | -0.97 |
| EIF3KP3 | -1.84 | -1.84 | -1.79 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 |
| EIF3L | 3.13 | 3.17 | 2.45 | 3.21 | 2.84 | 3.10 | 3.00 | 3.69 |
| EIF3LP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| EIF3LP2 | -1.32 | -1.44 | -1.37 | -1.26 | -1.35 | -1.42 | -1.45 | -1.41 |
| EIF3LP3 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.19 | -2.20 | -2.21 |
| EIF3M | 8.38 | 8.04 | 8.13 | 8.25 | 8.76 | 8.05 | 7.83 | 8.45 |
| EIF4A1 | 2.12 | 2.30 | 2.89 | 2.05 | 2.34 | 2.55 | 2.68 | 2.42 |
| EIF4A1P10 | -0.16 | -0.14 | -0.16 | -0.24 | -0.22 | -0.29 | -0.24 | -0.28 |
| EIF4A1P2 | -1.23 | -1.29 | -1.28 | -1.17 | -1.29 | -1.25 | -1.24 | -1.26 |
| EIF4A1P4 | -1.99 | -1.96 | -1.98 | -1.96 | -1.99 | -1.95 | -2.00 | -2.01 |
| EIF4A1P7 | -1.59 | -1.53 | -1.63 | -1.64 | -1.64 | -1.62 | -1.65 | -1.61 |
| EIF4A1P8 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| EIF4A1P9 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| EIF4A2 | 8.33 | 8.03 | 8.43 | 7.86 | 9.01 | 8.62 | 8.24 | 8.74 |
| EIF4A2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| EIF4A2P2 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| EIF4A2P4 | -2.04 | -2.01 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| EIF4A3 | 8.11 | 7.33 | 7.36 | 7.31 | 7.95 | 7.96 | 6.85 | 7.02 |
| EIF4B | 6.23 | 7.11 | 6.29 | 7.08 | 7.02 | 7.22 | 6.78 | 6.87 |
| EIF4BP3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| EIF4BP4 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| EIF4BP5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| EIF4BP6 | -0.49 | -0.48 | -0.48 | -0.43 | -0.56 | -0.39 | -0.50 | -0.42 |
| EIF4BP7 | -1.10 | -1.02 | -1.15 | -1.10 | -1.16 | -1.11 | -1.11 | -0.97 |
| EIF4BP8 | -2.18 | -2.20 | -2.19 | -2.18 | -2.20 | -2.18 | -2.20 | -2.19 |
| EIF4E | 6.13 | 6.30 | 5.83 | 5.94 | 5.65 | 6.28 | 5.94 | 6.46 |
| EIF4E2 | 8.17 | 7.25 | 6.97 | 7.40 | 7.53 | 7.78 | 7.60 | 8.09 |
| EIF4E2P2 | -2.10 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| EIF4E3 | 3.48 | 4.77 | 4.01 | 4.08 | 3.74 | 3.27 | 4.80 | 3.38 |
| EIF4EBP1 | 8.65 | 7.86 | 8.99 | 8.03 | 8.81 | 8.46 | 8.36 | 8.41 |
| EIF4EBP2 | 6.38 | 6.81 | 5.82 | 6.72 | 6.48 | 6.32 | 6.61 | 6.03 |
| EIF4EBP3 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| EIF4ENIF1 | 4.43 | 4.29 | 3.78 | 4.65 | 3.65 | 4.03 | 4.48 | 4.38 |
| EIF4EP2 | -2.10 | -2.06 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| EIF4G1 | 7.47 | 8.00 | 8.75 | 7.97 | 7.17 | 7.63 | 7.97 | 8.27 |
| EIF4G2 | 8.83 | 9.27 | 9.20 | 9.00 | 8.70 | 9.10 | 9.06 | 9.58 |
| EIF4G3 | 5.60 | 5.85 | 6.56 | 5.77 | 5.87 | 6.44 | 7.03 | 5.61 |
| EIF4H | 5.83 | 5.64 | 5.73 | 5.21 | 5.59 | 5.59 | 5.67 | 5.82 |
| EIF4HP1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.80 | -1.86 |
| EIF5 | 8.38 | 8.78 | 8.19 | 8.71 | 8.89 | 8.82 | 8.21 | 8.38 |
| EIF5A | 9.44 | 8.31 | 8.64 | 8.38 | 8.26 | 9.27 | 8.94 | 8.94 |
| EIF5A2 | 6.26 | 5.09 | 5.20 | 5.12 | 4.50 | 5.20 | 4.29 | 4.78 |
| EIF5A2P1 | -1.96 | -1.95 | -1.98 | -2.00 | -1.99 | -2.00 | -1.96 | -2.01 |
| EIF5AL1 | 2.33 | 1.71 | 2.21 | 2.11 | 2.17 | 2.13 | 2.20 | 2.59 |
| EIF5AP2 | -0.64 | -0.61 | -0.61 | -0.56 | -0.77 | -0.59 | -0.71 | -0.63 |
| EIF5AP3 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| EIF5B | 8.55 | 8.68 | 8.71 | 8.44 | 8.58 | 8.42 | 8.65 | 8.56 |
| EIF5P1 | 1.54 | 1.29 | 1.08 | 1.42 | 1.56 | 1.50 | 1.30 | 1.36 |
| EIF6 | 7.61 | 7.64 | 7.40 | 7.47 | 7.69 | 7.80 | 7.54 | 7.78 |
| EIPR1 | 5.83 | 5.61 | 5.49 | 5.72 | 5.22 | 5.55 | 5.08 | 5.88 |
| EIPR1-IT1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| ELAC1 | 4.23 | 3.65 | 2.98 | 3.57 | 3.62 | 2.68 | 3.40 | 2.27 |
| ELAC2 | 5.57 | 4.90 | 5.32 | 4.64 | 4.63 | 4.78 | 5.16 | 4.94 |
| ELANE | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ELAVL1 | 6.70 | 6.93 | 6.84 | 6.78 | 6.70 | 6.86 | 6.55 | 6.65 |
| ELAVL2 | -1.94 | -1.94 | -1.78 | -1.95 | -1.92 | -1.95 | -1.95 | -1.96 |
| ELAVL3 | -1.99 | -1.99 | -1.95 | -1.99 | -1.99 | -1.97 | -2.00 | -2.01 |
| ELDR | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| ELF1 | 5.24 | 6.50 | 5.99 | 6.51 | 6.46 | 5.89 | 6.44 | 7.14 |
| ELF2 | 4.55 | 5.40 | 4.82 | 5.17 | 4.72 | 5.10 | 5.60 | 5.39 |
| ELF3 | 8.63 | 8.85 | 9.25 | 8.40 | 9.57 | 8.86 | 8.48 | 8.33 |
| ELF3-AS1 | 3.33 | 4.00 | 3.51 | 3.89 | 4.07 | 3.08 | 3.58 | 2.73 |
| ELF4 | 3.41 | 3.13 | 3.77 | 3.08 | 3.08 | 3.22 | 2.92 | 3.81 |
| ELF5 | 2.45 | 1.14 | 1.17 | 1.10 | 1.23 | 1.33 | 1.53 | 1.09 |
| ELFN1 | -1.74 | -1.74 | -1.73 | -1.74 | -1.49 | -1.73 | -1.75 | -1.76 |
| ELFN1-AS1 | 1.17 | 0.71 | 0.84 | 0.85 | 2.08 | 1.17 | 0.67 | 0.95 |
| ELFN2 | 4.00 | 3.25 | 2.90 | 3.26 | 3.34 | 3.36 | 2.94 | 3.62 |
| ELK1 | 4.00 | 4.38 | 5.20 | 3.93 | 3.91 | 4.07 | 4.18 | 3.62 |
| ELK3 | 3.35 | 4.61 | 4.89 | 4.07 | 3.81 | 4.83 | 3.67 | 4.85 |
| ELK4 | 5.36 | 5.51 | 5.48 | 5.01 | 5.03 | 5.49 | 5.45 | 5.43 |
| ELL | 3.26 | 3.84 | 3.78 | 3.52 | 3.68 | 3.53 | 3.76 | 3.47 |
| ELL2 | 4.19 | 5.02 | 5.35 | 5.23 | 4.95 | 5.42 | 5.67 | 4.82 |
| ELL2P1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.06 | -2.10 | -2.11 |
| ELL3 | -1.39 | -1.45 | -1.38 | -1.46 | -1.42 | -1.35 | -1.46 | -1.32 |
| ELMO1 | -1.41 | -1.40 | -1.39 | -1.41 | -1.40 | -1.39 | -1.42 | -1.43 |
| ELMO2 | 3.98 | 3.59 | 3.77 | 3.46 | 3.48 | 3.47 | 3.51 | 3.80 |
| ELMO3 | 4.22 | 4.85 | 4.44 | 4.65 | 4.28 | 4.19 | 4.96 | 4.65 |
| ELMOD1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| ELMOD2 | 4.67 | 5.07 | 5.12 | 5.15 | 5.11 | 4.99 | 5.49 | 5.14 |
| ELMOD3 | 3.74 | 3.58 | 3.70 | 3.65 | 3.78 | 3.77 | 4.21 | 3.92 |
| ELMSAN1 | 4.05 | 4.45 | 5.08 | 4.49 | 4.88 | 4.73 | 5.28 | 4.43 |
| ELN | -1.53 | -1.53 | -1.58 | -1.54 | -1.42 | -1.57 | -1.60 | -1.61 |
| ELN-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ELOA | 5.05 | 4.20 | 5.52 | 4.77 | 5.19 | 5.58 | 5.53 | 5.75 |
| ELOA-AS1 | 2.81 | 2.15 | 2.43 | 1.99 | 2.48 | 2.44 | 2.15 | 2.52 |
| ELOB | 10.57 | 10.49 | 9.44 | 10.14 | 9.81 | 10.06 | 9.69 | 10.33 |
| ELOBP1 | 1.09 | 0.98 | 0.87 | 0.75 | 1.06 | 1.00 | 0.81 | 0.82 |
| ELOBP2 | 0.61 | 0.69 | 0.50 | 0.51 | 0.46 | 0.66 | 0.44 | 0.52 |
| ELOC | 9.27 | 8.41 | 8.68 | 8.57 | 9.15 | 9.44 | 8.02 | 9.48 |
| ELOCP19 | -0.53 | -0.21 | -0.51 | -0.38 | -0.52 | -0.37 | -0.45 | -0.48 |
| ELOCP2 | -1.25 | -1.37 | -1.36 | -1.38 | -1.34 | -1.27 | -1.32 | -1.29 |
| ELOCP21 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| ELOCP22 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| ELOCP29 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| ELOCP3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| ELOCP31 | -1.74 | -1.73 | -1.73 | -1.70 | -1.71 | -1.64 | -1.74 | -1.71 |
| ELOCP33 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| ELOF1 | 6.78 | 6.93 | 6.38 | 7.04 | 6.89 | 6.87 | 6.38 | 6.27 |
| ELOVL1 | 7.56 | 7.90 | 7.46 | 7.93 | 7.92 | 7.76 | 7.81 | 7.52 |
| ELOVL2 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| ELOVL2-AS1 | -1.17 | -0.47 | -1.14 | -0.48 | -1.12 | -1.18 | -1.09 | -1.18 |
| ELOVL3 | 0.76 | 0.12 | 0.29 | 0.18 | 0.87 | 0.47 | 0.10 | 0.36 |
| ELOVL4 | 2.34 | 1.10 | 1.04 | 0.97 | 1.48 | 0.94 | 0.87 | 0.89 |
| ELOVL5 | 6.16 | 6.67 | 6.83 | 6.35 | 6.83 | 7.18 | 6.55 | 7.45 |
| ELOVL6 | 6.26 | 6.48 | 5.75 | 7.15 | 5.53 | 6.56 | 6.52 | 5.62 |
| ELOVL7 | 3.97 | 4.22 | 4.56 | 4.36 | 4.49 | 4.00 | 5.51 | 3.37 |
| ELP1 | 4.22 | 4.39 | 4.55 | 4.14 | 3.82 | 4.44 | 4.63 | 3.90 |
| ELP2 | 4.07 | 4.68 | 5.25 | 4.19 | 4.69 | 5.09 | 4.88 | 4.24 |
| ELP3 | 4.28 | 4.34 | 5.03 | 4.38 | 4.10 | 4.37 | 4.40 | 4.22 |
| ELP4 | 5.31 | 5.21 | 4.68 | 5.22 | 5.68 | 5.29 | 5.29 | 5.43 |
| ELP5 | 5.13 | 5.50 | 5.04 | 5.50 | 6.05 | 5.19 | 5.35 | 6.38 |
| ELP6 | 5.90 | 5.58 | 5.16 | 5.75 | 5.69 | 5.64 | 5.32 | 5.31 |
| EMB | 3.80 | 5.75 | 5.18 | 6.00 | 4.73 | 5.22 | 3.91 | 3.81 |
| EMBP1 | 0.49 | 0.66 | 0.78 | 1.02 | 0.46 | 0.66 | 0.91 | 0.67 |
| EMC1 | 4.01 | 4.56 | 5.49 | 4.52 | 4.90 | 5.06 | 4.95 | 4.50 |
| EMC1-AS1 | 1.56 | 1.37 | 1.68 | 1.40 | 2.27 | 2.15 | 1.25 | 1.86 |
| EMC10 | 7.17 | 7.40 | 6.90 | 7.44 | 7.35 | 6.74 | 6.89 | 6.20 |
| EMC2 | 6.93 | 6.45 | 6.52 | 6.35 | 7.03 | 7.05 | 5.97 | 7.11 |
| EMC3 | 7.36 | 6.93 | 6.72 | 7.28 | 7.31 | 6.80 | 6.76 | 6.80 |
| EMC3-AS1 | 5.28 | 3.91 | 4.95 | 4.43 | 3.83 | 3.98 | 4.36 | 3.98 |
| EMC4 | 8.35 | 7.73 | 7.32 | 8.03 | 8.18 | 7.99 | 7.65 | 8.29 |
| EMC6 | 7.30 | 6.63 | 6.41 | 6.88 | 6.86 | 7.06 | 6.69 | 7.13 |
| EMC7 | 7.84 | 7.61 | 7.05 | 8.10 | 8.26 | 7.39 | 7.26 | 8.06 |
| EMC8 | 6.81 | 6.52 | 6.53 | 6.55 | 6.60 | 6.35 | 5.99 | 6.56 |
| EMC9 | 5.03 | 5.33 | 5.45 | 5.39 | 5.53 | 5.89 | 5.14 | 5.04 |
| EMCN | -1.94 | -1.87 | -1.93 | -1.91 | -1.92 | -1.95 | -1.94 | -1.96 |
| EMD | 6.53 | 5.71 | 6.13 | 5.73 | 5.90 | 6.50 | 5.76 | 6.60 |
| EME1 | 2.32 | 2.63 | 3.45 | 2.60 | 3.04 | 3.28 | 2.53 | 2.74 |
| EME2 | 2.46 | 2.70 | 2.55 | 2.90 | 2.27 | 2.48 | 3.07 | 2.37 |
| EMG1 | 7.16 | 6.11 | 6.39 | 6.36 | 7.08 | 5.69 | 6.10 | 6.43 |
| EMID1 | -1.70 | -1.79 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.81 |
| EMILIN1 | -0.71 | -0.78 | -0.61 | -0.71 | -0.73 | -0.75 | -0.71 | -0.63 |
| EMILIN2 | 4.31 | 4.31 | 3.31 | 4.01 | 4.09 | 4.12 | 3.32 | 4.07 |
| EMILIN3 | -1.05 | -1.34 | -1.33 | -1.29 | -1.31 | -1.36 | -1.29 | -1.37 |
| EML1 | 1.21 | 1.23 | 1.36 | 1.13 | 1.90 | 1.21 | 2.21 | 1.08 |
| EML2 | 5.74 | 5.92 | 5.22 | 6.12 | 5.93 | 5.95 | 5.54 | 6.65 |
| EML2-AS1 | 2.34 | 2.25 | 1.77 | 2.32 | 3.45 | 2.41 | 1.72 | 1.96 |
| EML3 | 5.89 | 5.63 | 5.39 | 6.08 | 5.95 | 5.54 | 5.20 | 5.77 |
| EML4 | 8.02 | 8.42 | 7.34 | 8.75 | 7.59 | 7.54 | 7.76 | 7.33 |
| EML6 | 0.13 | 0.30 | 0.29 | 0.13 | 0.39 | 0.56 | 0.32 | 0.24 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| EMP1 | 5.05 | 5.33 | 7.26 | 4.30 | 5.43 | 5.17 | 4.93 | 6.52 |
| EMP2 | 8.86 | 8.91 | 8.88 | 9.07 | 8.54 | 8.58 | 7.96 | 8.63 |
| EMP3 | 6.11 | 4.66 | 4.48 | 4.15 | 7.57 | 6.42 | 4.96 | 4.92 |
| EMSY | 4.07 | 4.16 | 4.96 | 4.47 | 4.43 | 4.32 | 4.77 | 4.25 |
| EMX1 | 1.74 | 1.05 | 0.76 | 1.28 | 1.27 | 0.76 | 0.85 | 0.65 |
| EMX2 | 0.97 | 1.26 | 0.85 | 1.18 | 1.19 | 0.96 | 1.08 | 1.05 |
| EMX2OS | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| EN1 | -1.94 | -1.90 | -1.90 | -1.94 | -1.92 | -1.95 | -1.94 | -1.85 |
| EN2 | -0.01 | -0.16 | -0.05 | -0.10 | -0.17 | -0.15 | -0.18 | -0.20 |
| ENAH | 6.52 | 5.78 | 6.09 | 5.46 | 6.07 | 6.24 | 6.19 | 5.73 |
| ENAM | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| ENC1 | 6.10 | 8.60 | 6.76 | 8.47 | 6.55 | 6.89 | 7.33 | 5.82 |
| ENDOD1 | 5.82 | 5.81 | 6.17 | 5.69 | 6.27 | 5.85 | 5.13 | 5.32 |
| ENDOG | 6.77 | 6.08 | 5.53 | 6.20 | 5.87 | 6.07 | 5.89 | 5.58 |
| ENDOU | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| ENDOV | 4.46 | 4.73 | 4.61 | 5.04 | 4.96 | 5.42 | 5.00 | 4.30 |
| ENG | 2.37 | 1.18 | 1.47 | 1.31 | 1.38 | 1.31 | 1.44 | 2.12 |
| ENGASE | 3.12 | 2.92 | 3.86 | 3.22 | 3.38 | 3.46 | 3.39 | 3.16 |
| ENHO | -0.15 | -0.18 | -0.26 | -0.14 | -0.23 | -0.29 | -0.15 | -0.37 |
| ENKD1 | 4.57 | 4.08 | 4.74 | 4.21 | 3.72 | 4.09 | 4.25 | 4.24 |
| ENKUR | -0.12 | 0.13 | 0.17 | -0.04 | 0.01 | 0.24 | 0.14 | -0.03 |
| ENO1 | 11.09 | 10.83 | 10.79 | 10.78 | 11.03 | 10.76 | 10.95 | 10.11 |
| ENO1-AS1 | 2.68 | 1.75 | 2.09 | 2.18 | 1.98 | 1.76 | 1.42 | 1.52 |
| ENO2 | 4.78 | 4.91 | 5.93 | 4.86 | 6.56 | 4.32 | 5.57 | 3.42 |
| ENO3 | 1.49 | 1.76 | 1.54 | 1.78 | 1.65 | 1.71 | 1.45 | 1.50 |
| ENO4 | -1.43 | -1.37 | -1.48 | -1.44 | -1.37 | -1.45 | -1.38 | -1.46 |
| ENOPH1 | 5.55 | 5.89 | 5.52 | 6.12 | 5.24 | 6.08 | 5.80 | 6.38 |
| ENOSF1 | 5.58 | 6.19 | 5.70 | 6.51 | 5.57 | 5.30 | 6.59 | 5.69 |
| ENOX1 | -1.06 | -1.06 | -1.04 | -1.00 | -0.94 | -0.82 | -1.07 | -0.76 |
| ENOX2 | 3.87 | 3.98 | 4.12 | 4.15 | 3.64 | 3.92 | 3.84 | 4.28 |
| ENPEP | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.06 | -2.10 | -2.10 |
| ENPP1 | 2.69 | 2.65 | 3.01 | 2.39 | 3.05 | 2.23 | 2.91 | 1.98 |
| ENPP2 | -2.20 | -2.20 | -2.17 | -2.16 | -2.20 | -2.20 | -2.20 | -2.21 |
| ENPP3 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.95 | -1.92 |
| ENPP4 | 4.55 | 4.63 | 4.26 | 4.57 | 4.90 | 4.10 | 5.01 | 4.38 |
| ENPP5 | 3.87 | 4.01 | 3.99 | 3.56 | 3.41 | 3.00 | 4.30 | 3.18 |
| ENPP6 | -1.21 | -1.39 | -1.44 | -1.40 | -1.45 | -1.44 | -1.46 | -1.47 |
| ENSA | 8.34 | 7.52 | 7.25 | 7.63 | 7.26 | 7.79 | 7.78 | 7.58 |
| ENSAP2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| ENTPD1 | 1.41 | 1.45 | 0.98 | 1.06 | 1.08 | 1.18 | 0.74 | 1.00 |
| ENTPD1-AS1 | 3.61 | 3.40 | 3.40 | 3.32 | 3.48 | 3.28 | 3.67 | 2.79 |
| ENTPD2 | 4.61 | 4.09 | 4.10 | 4.22 | 3.34 | 3.19 | 4.69 | 2.79 |
| ENTPD3 | 1.16 | 1.27 | 1.31 | 1.07 | 1.37 | 1.47 | 2.05 | 1.48 |
| ENTPD3-AS1 | 4.45 | 3.45 | 3.09 | 3.19 | 3.84 | 3.39 | 3.30 | 3.47 |
| ENTPD4 | 4.19 | 4.65 | 5.65 | 4.23 | 4.36 | 4.96 | 5.18 | 4.52 |
| ENTPD5 | 4.57 | 4.64 | 4.37 | 4.56 | 5.38 | 4.13 | 4.72 | 4.48 |
| ENTPD6 | 5.89 | 5.53 | 6.24 | 5.72 | 6.45 | 5.66 | 6.03 | 5.74 |
| ENTPD7 | 3.41 | 4.08 | 3.49 | 4.24 | 3.38 | 3.36 | 3.90 | 3.21 |
| ENTPD8 | 4.07 | 3.76 | 3.01 | 4.34 | 3.08 | 2.87 | 2.92 | 4.18 |
| ENTR1 | 6.42 | 5.45 | 5.86 | 5.84 | 5.58 | 5.73 | 5.75 | 5.32 |
| ENTR1P2 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| ENY2 | 8.72 | 8.12 | 8.74 | 8.23 | 8.68 | 8.94 | 7.93 | 8.65 |
| EOGT | 2.52 | 2.94 | 2.85 | 2.71 | 2.95 | 2.93 | 3.08 | 2.89 |
| EOMES | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -1.98 | -2.00 | -1.94 |
| EP300 | 5.84 | 5.97 | 5.89 | 5.84 | 5.20 | 5.66 | 6.28 | 5.74 |
| EP300-AS1 | -1.08 | -1.22 | -1.21 | -1.16 | -1.18 | -1.17 | -1.16 | -1.24 |
| EP400 | 4.75 | 5.59 | 5.76 | 5.83 | 5.99 | 5.86 | 5.29 | 5.84 |
| EP400P1 | 3.51 | 3.24 | 3.71 | 3.71 | 3.91 | 3.44 | 3.69 | 3.70 |
| EPAS1 | 5.95 | 6.18 | 5.42 | 6.05 | 5.89 | 5.54 | 5.88 | 5.91 |
| EPB41 | 5.09 | 4.81 | 5.06 | 4.77 | 5.11 | 4.78 | 5.64 | 5.38 |
| EPB41L1 | 4.07 | 5.76 | 5.49 | 4.61 | 5.02 | 4.54 | 4.97 | 4.86 |
| EPB41L2 | 5.11 | 4.46 | 5.89 | 4.86 | 6.36 | 5.23 | 6.40 | 4.92 |
| EPB41L3 | 1.70 | 3.18 | 1.79 | 3.43 | 1.56 | 1.80 | 3.19 | 1.41 |
| EPB41L4A | 3.82 | 6.13 | 4.57 | 5.23 | 3.46 | 3.76 | 5.62 | 3.98 |
| EPB41L4A-AS1 | 5.11 | 6.63 | 5.87 | 7.04 | 7.41 | 5.94 | 5.84 | 5.97 |
| EPB41L4A-DT | 0.21 | 0.30 | 0.08 | 0.40 | 0.15 | 0.15 | 0.32 | 0.15 |
| EPB41L4B | 4.23 | 4.93 | 4.31 | 4.78 | 4.09 | 4.30 | 5.08 | 4.11 |
| EPB41L5 | 4.30 | 4.04 | 4.65 | 3.98 | 3.88 | 4.39 | 4.78 | 4.74 |
| EPC1 | 4.67 | 5.64 | 4.86 | 5.57 | 5.64 | 5.31 | 5.76 | 5.36 |
| EPC2 | 3.74 | 3.75 | 3.61 | 3.70 | 3.24 | 3.47 | 3.72 | 3.51 |
| EPCAM | 10.51 | 9.89 | 9.70 | 10.35 | 11.35 | 10.06 | 9.57 | 9.76 |
| EPCAM-DT | 0.87 | 0.68 | 0.71 | 0.93 | 0.87 | 1.18 | 0.64 | 0.65 |
| EPDR1 | 3.03 | 4.64 | 4.68 | 4.17 | 4.29 | 4.41 | 3.72 | 4.12 |
| EPG5 | 3.39 | 3.38 | 3.81 | 3.35 | 3.30 | 3.40 | 4.30 | 2.94 |
| EPHA1 | 3.37 | 4.92 | 4.78 | 4.95 | 4.18 | 4.75 | 4.58 | 4.94 |
| EPHA1-AS1 | 0.16 | 0.09 | 0.02 | 0.13 | 0.16 | 0.26 | 0.07 | 0.20 |
| EPHA10 | 0.28 | 0.86 | 0.23 | 0.49 | 0.34 | 0.37 | 0.34 | 0.16 |
| EPHA2 | 7.08 | 7.77 | 8.05 | 7.17 | 7.04 | 7.38 | 7.52 | 7.83 |
| EPHA3 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| EPHA4 | 1.38 | 3.21 | 1.45 | 3.39 | 1.73 | 2.47 | 1.79 | 2.20 |
| EPHA5-AS1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| EPHA6 | -1.35 | -1.27 | -1.33 | -1.35 | -1.34 | -1.33 | -1.35 | -1.31 |
| EPHA7 | 0.32 | 1.09 | 1.91 | 0.91 | 0.33 | 0.25 | 0.22 | 0.73 |
| EPHA8 | -1.74 | -1.79 | -1.78 | -1.79 | -1.60 | -1.78 | -1.79 | -1.81 |
| EPHB1 | -1.74 | -1.74 | -1.68 | -1.69 | -1.61 | -1.75 | -1.75 | -1.76 |
| EPHB2 | 3.88 | 4.13 | 4.05 | 3.99 | 4.11 | 4.69 | 2.69 | 2.19 |
| EPHB3 | 4.19 | 6.17 | 5.09 | 6.21 | 4.85 | 4.04 | 5.00 | 3.26 |
| EPHB4 | 5.08 | 6.19 | 6.18 | 6.17 | 5.93 | 5.92 | 6.14 | 6.14 |
| EPHB6 | 2.34 | 3.36 | 3.52 | 3.76 | 2.78 | 6.28 | 2.87 | 3.54 |
| EPHX1 | 7.03 | 6.11 | 6.61 | 6.11 | 5.47 | 6.37 | 6.25 | 6.87 |
| EPHX2 | 3.18 | 3.06 | 3.90 | 3.34 | 3.55 | 3.12 | 3.10 | 2.57 |
| EPHX3 | 1.36 | 1.31 | 1.36 | 1.40 | 1.30 | 1.26 | 1.63 | 1.41 |
| EPHX4 | 3.43 | 2.98 | 2.61 | 3.08 | 2.88 | 2.55 | 2.23 | 3.02 |
| EPM2A | 1.03 | 0.95 | 0.90 | 1.32 | 1.12 | 1.20 | 1.04 | 1.06 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| EPM2AIP1 | 4.31 | 5.45 | 4.71 | 5.26 | 4.79 | 4.63 | 5.22 | 3.72 |
| EPN1 | 6.37 | 6.30 | 6.24 | 6.29 | 6.29 | 6.06 | 6.22 | 6.33 |
| EPN2 | 4.59 | 4.12 | 5.15 | 3.69 | 4.10 | 4.48 | 4.88 | 4.59 |
| EPN3 | 5.18 | 5.05 | 5.04 | 5.04 | 4.74 | 4.89 | 4.93 | 5.19 |
| EPO | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| EPOP | 3.87 | 4.30 | 4.30 | 3.83 | 3.96 | 3.30 | 3.79 | 2.87 |
| EPOR | 2.61 | 2.41 | 2.37 | 2.22 | 2.70 | 2.72 | 2.46 | 2.38 |
| EPPIN | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| EPPK1 | 4.27 | 3.47 | 4.73 | 3.35 | 4.02 | 4.79 | 4.69 | 3.74 |
| EPRS | 6.70 | 7.32 | 7.27 | 7.30 | 7.63 | 7.73 | 7.72 | 8.74 |
| EPS15 | 3.87 | 4.93 | 4.91 | 5.00 | 4.74 | 4.68 | 5.73 | 4.79 |
| EPS15L1 | 3.62 | 3.97 | 3.97 | 3.98 | 3.78 | 3.87 | 3.95 | 3.67 |
| EPS15P1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| EPS8 | 7.05 | 6.01 | 7.14 | 5.83 | 7.34 | 6.63 | 6.99 | 7.36 |
| EPS8L1 | 5.55 | 5.70 | 6.08 | 5.63 | 5.52 | 5.90 | 6.00 | 7.03 |
| EPS8L2 | 6.90 | 6.53 | 7.04 | 6.89 | 6.47 | 6.73 | 7.36 | 6.69 |
| EPS8L3 | 6.99 | 6.41 | 6.89 | 6.58 | 6.16 | 5.53 | 7.34 | 5.33 |
| EPSTI1 | 5.68 | 5.45 | 5.40 | 5.46 | 5.62 | 4.93 | 3.77 | 5.53 |
| EQTN | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ERAL1 | 6.09 | 5.70 | 5.68 | 5.70 | 5.69 | 5.75 | 5.21 | 5.79 |
| ERAP1 | 3.66 | 4.99 | 5.46 | 4.98 | 4.92 | 4.18 | 4.79 | 3.79 |
| ERAP2 | 4.79 | 4.79 | 3.75 | 4.41 | 3.26 | 4.61 | 3.89 | 4.55 |
| ERAS | -2.15 | -2.12 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.16 |
| ERBB2 | 6.12 | 6.52 | 6.90 | 6.28 | 6.26 | 6.31 | 6.73 | 6.41 |
| ERBB3 | 6.65 | 6.80 | 7.10 | 6.83 | 6.51 | 6.89 | 7.58 | 6.55 |
| ERBIN | 5.49 | 6.56 | 7.15 | 6.26 | 6.47 | 6.76 | 7.07 | 6.78 |
| ERC1 | 4.60 | 4.96 | 4.90 | 5.03 | 4.51 | 4.00 | 5.49 | 4.39 |
| ERC2 | -1.02 | -0.72 | -1.00 | -0.75 | -1.09 | -1.10 | -1.03 | -1.11 |
| ERCC1 | 6.52 | 5.80 | 5.23 | 5.80 | 7.08 | 6.08 | 5.38 | 6.29 |
| ERCC2 | 3.89 | 4.06 | 3.86 | 4.10 | 4.35 | 4.13 | 4.17 | 4.23 |
| ERCC3 | 4.94 | 4.55 | 4.51 | 4.64 | 4.58 | 4.70 | 4.41 | 4.71 |
| ERCC4 | 4.90 | 4.29 | 5.12 | 4.91 | 4.12 | 4.86 | 4.81 | 4.62 |
| ERCC5 | 1.11 | 1.41 | 1.25 | 1.64 | 1.43 | 1.23 | 1.55 | 1.20 |
| ERCC6 | 4.10 | 4.83 | 4.37 | 4.83 | 4.35 | 4.52 | 4.60 | 4.36 |
| ERCC6L | 3.39 | 2.78 | 3.90 | 2.79 | 2.95 | 3.03 | 2.95 | 2.67 |
| ERCC6L2 | 4.11 | 5.07 | 4.72 | 4.81 | 3.88 | 4.48 | 5.11 | 4.05 |
| ERCC8 | 3.37 | 3.58 | 3.07 | 3.58 | 3.75 | 3.38 | 3.23 | 3.17 |
| EREG | 4.57 | 4.04 | 6.32 | 4.05 | 4.99 | 7.48 | 6.04 | 6.28 |
| ERF | 4.01 | 4.04 | 3.84 | 4.07 | 4.05 | 3.74 | 3.92 | 3.78 |
| ERFE | 1.90 | 1.22 | 1.46 | 0.89 | 1.31 | 1.08 | 1.03 | 1.50 |
| ERG28 | 7.88 | 7.93 | 6.97 | 8.32 | 8.78 | 8.19 | 8.26 | 8.37 |
| ERGIC1 | 5.50 | 6.33 | 6.91 | 5.98 | 6.70 | 6.00 | 7.01 | 6.12 |
| ERGIC2 | 7.40 | 7.07 | 7.23 | 7.15 | 7.86 | 6.78 | 6.88 | 7.76 |
| ERGIC3 | 8.31 | 8.35 | 8.07 | 8.81 | 9.18 | 8.49 | 7.78 | 8.56 |
| ERH | 8.83 | 7.99 | 8.33 | 8.18 | 9.12 | 9.31 | 8.45 | 8.58 |
| ERHP1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| ERI1 | 4.48 | 4.57 | 5.19 | 4.54 | 4.25 | 4.81 | 4.56 | 4.10 |
| ERI2 | 3.99 | 4.22 | 4.36 | 4.14 | 3.99 | 4.17 | 4.60 | 3.99 |
| ERI3 | 6.03 | 5.15 | 6.05 | 5.41 | 6.13 | 6.24 | 5.67 | 6.32 |
| ERICD | -1.84 | -1.70 | -1.83 | -1.80 | -1.82 | -1.83 | -1.85 | -1.86 |
| ERICH1 | 5.45 | 5.61 | 6.71 | 5.85 | 5.28 | 6.03 | 5.83 | 5.63 |
| ERICH2 | 1.57 | 0.97 | 0.98 | 0.86 | 0.88 | 0.94 | 1.20 | 1.03 |
| ERICH3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| ERICH4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ERICH5 | 3.39 | 2.98 | 3.98 | 2.53 | 4.38 | 3.35 | 2.96 | 3.30 |
| ERICH6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| ERICH6-AS1 | 1.12 | 1.11 | 1.15 | 0.85 | 1.22 | 0.85 | 0.83 | 1.82 |
| ERICH6B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| ERLEC1 | 7.67 | 7.87 | 7.34 | 7.92 | 8.65 | 7.36 | 7.48 | 8.75 |
| ERLIN1 | 5.68 | 5.24 | 5.30 | 5.07 | 5.51 | 5.47 | 5.17 | 5.45 |
| ERLIN2 | 4.87 | 4.86 | 5.77 | 4.79 | 4.72 | 5.06 | 5.39 | 5.08 |
| ERMAP | 1.95 | 2.52 | 2.27 | 2.55 | 2.25 | 2.13 | 2.60 | 2.11 |
| ERMARD | 3.33 | 3.09 | 3.14 | 2.74 | 3.32 | 3.10 | 2.99 | 3.14 |
| ERMP1 | 5.29 | 5.89 | 6.07 | 5.57 | 5.06 | 6.28 | 5.95 | 6.41 |
| ERN1 | 4.16 | 3.32 | 4.23 | 3.60 | 3.85 | 3.96 | 3.72 | 4.26 |
| ERN2 | 5.36 | 5.99 | 6.15 | 6.88 | 5.95 | 5.59 | 6.81 | 5.97 |
| ERO1A | 7.08 | 7.83 | 8.26 | 7.49 | 8.22 | 7.63 | 8.32 | 7.87 |
| ERO1B | 2.89 | 2.43 | 2.82 | 2.20 | 3.10 | 3.22 | 2.56 | 3.11 |
| ERP27 | 1.08 | 1.09 | 1.57 | 1.64 | 2.00 | 1.36 | 1.13 | 1.28 |
| ERP29 | 7.78 | 8.21 | 8.40 | 8.58 | 8.44 | 7.95 | 8.23 | 8.32 |
| ERP29P1 | -2.10 | -2.09 | -2.09 | -2.04 | -2.08 | -2.10 | -2.10 | -2.11 |
| ERP44 | 7.84 | 7.55 | 7.16 | 7.89 | 7.58 | 7.22 | 7.37 | 7.70 |
| ERRF11 | 6.30 | 6.13 | 6.89 | 5.62 | 5.46 | 6.77 | 6.94 | 7.68 |
| ERV3-1 | 4.63 | 3.43 | 4.40 | 3.36 | 4.83 | 3.90 | 3.84 | 4.29 |
| ERVE-1 | -0.44 | -0.27 | -0.31 | -0.36 | -0.41 | -0.52 | -0.58 | -0.43 |
| ERVFRD-1 | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| ERVK13-1 | 3.23 | 2.70 | 2.57 | 2.97 | 2.51 | 3.09 | 3.19 | 2.95 |
| ERVK3-1 | 5.07 | 3.75 | 4.09 | 3.97 | 4.03 | 4.33 | 4.31 | 3.93 |
| ERVK9-11 | -2.25 | -2.25 | -2.25 | -2.24 | -2.23 | -2.25 | -2.25 | -2.26 |
| ERVMER34-1 | 1.78 | 2.91 | 1.94 | 2.39 | 1.43 | 1.83 | 1.75 | 1.64 |
| ERVMER61-1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| ESAM | 2.56 | 1.97 | 2.98 | 2.38 | 2.90 | 2.33 | 2.13 | 2.52 |
| ESCO1 | 5.77 | 5.82 | 5.64 | 5.76 | 6.36 | 5.69 | 5.65 | 6.86 |
| ESCO2 | 6.07 | 5.13 | 6.17 | 5.28 | 4.40 | 5.54 | 5.70 | 4.72 |
| ESD | 6.92 | 7.46 | 6.88 | 7.69 | 8.06 | 7.07 | 7.20 | 7.70 |
| ESF1 | 7.21 | 7.02 | 7.19 | 6.66 | 6.86 | 7.06 | 6.66 | 6.78 |
| ESPL1 | 3.03 | 2.81 | 3.55 | 2.54 | 2.66 | 2.86 | 2.90 | 2.54 |
| ESPN | 4.76 | 3.17 | 4.05 | 3.38 | 4.83 | 4.91 | 3.33 | 3.13 |
| ESPNL | -1.38 | -1.59 | -1.58 | -1.60 | -1.57 | -1.61 | -1.60 | -1.47 |
| ESR1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| ESR2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ESRP1 | 6.16 | 6.21 | 6.91 | 6.01 | 6.45 | 6.78 | 6.32 | 7.07 |
| ESRP2 | 4.54 | 4.60 | 4.34 | 4.46 | 4.04 | 4.08 | 5.03 | 4.21 |
| ESRRA | 6.76 | 5.99 | 6.39 | 6.12 | 7.07 | 6.17 | 6.68 | 7.20 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ESRRB | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ESRRG | -0.91 | -0.90 | -0.73 | -0.91 | -0.90 | -0.88 | -0.59 | -0.51 |
| ESS2 | 4.71 | 4.32 | 4.43 | 4.36 | 4.32 | 4.22 | 4.18 | 4.51 |
| ESX1 | -1.79 | -1.78 | -1.78 | -1.79 | -1.79 | -1.75 | -1.75 | -1.81 |
| ESYT1 | 5.29 | 5.62 | 6.17 | 5.31 | 4.83 | 5.73 | 5.76 | 4.68 |
| ESYT2 | 4.20 | 5.99 | 5.72 | 5.72 | 5.68 | 4.82 | 5.80 | 6.13 |
| ESYT3 | 0.64 | -0.02 | 0.49 | 0.05 | 0.14 | 0.03 | 0.19 | -0.06 |
| ETAA1 | 4.89 | 5.14 | 4.54 | 4.88 | 5.01 | 4.51 | 5.10 | 4.69 |
| ETF1 | 6.09 | 6.83 | 6.84 | 6.61 | 6.68 | 6.62 | 6.62 | 6.65 |
| ETF1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| ETF1P2 | -1.91 | -1.94 | -1.93 | -1.91 | -1.94 | -1.95 | -1.94 | -1.92 |
| ETF1P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ETFA | 8.54 | 7.89 | 8.05 | 8.22 | 8.58 | 7.88 | 7.67 | 8.94 |
| ETFB | 8.94 | 8.77 | 8.65 | 8.84 | 10.04 | 9.13 | 8.25 | 8.50 |
| ETFBKMT | 2.01 | 1.82 | 2.01 | 1.87 | 2.00 | 1.52 | 1.96 | 1.56 |
| ETFDH | 4.04 | 4.36 | 4.73 | 4.51 | 4.15 | 4.44 | 4.80 | 5.32 |
| ETFRF1 | 5.82 | 5.06 | 4.64 | 5.36 | 6.00 | 5.65 | 4.94 | 5.51 |
| ETHE1 | 8.10 | 7.99 | 6.53 | 8.15 | 7.79 | 6.97 | 6.84 | 7.88 |
| ETNK1 | 5.54 | 5.13 | 6.12 | 4.87 | 7.18 | 5.58 | 6.42 | 5.93 |
| ETNK2 | 1.14 | 0.93 | 1.13 | 0.82 | 1.14 | 1.32 | 1.02 | 1.71 |
| ETNPPL | -1.05 | -0.84 | -0.96 | -0.82 | -1.05 | -1.03 | -1.06 | -0.67 |
| ETS1 | 2.86 | 3.47 | 4.16 | 3.26 | 3.31 | 4.21 | 2.89 | 4.00 |
| ETS2 | 6.98 | 6.50 | 6.63 | 6.56 | 6.52 | 6.08 | 6.97 | 6.69 |
| ETV1 | 2.90 | 3.41 | 3.19 | 3.14 | 2.40 | 3.64 | 3.47 | 2.76 |
| ETV2 | 1.74 | 2.03 | 1.71 | 2.33 | 2.30 | 1.69 | 1.84 | 2.33 |
| ETV3 | 4.23 | 4.12 | 4.13 | 3.94 | 4.01 | 4.20 | 4.16 | 4.57 |
| ETV4 | 6.17 | 4.69 | 5.51 | 4.74 | 6.00 | 5.99 | 4.60 | 5.70 |
| ETV5 | 5.17 | 4.95 | 5.63 | 4.76 | 5.37 | 4.58 | 5.28 | 5.20 |
| ETV5-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ETV6 | 5.07 | 4.55 | 5.57 | 4.42 | 4.79 | 4.78 | 5.44 | 5.09 |
| ETV7 | 4.83 | 3.71 | 3.60 | 3.73 | 4.49 | 3.71 | 3.57 | 3.10 |
| EVA1A | 2.68 | 3.71 | 3.33 | 3.00 | 2.52 | 3.96 | 2.72 | 3.03 |
| EVA1B | 4.80 | 4.11 | 3.52 | 4.14 | 4.65 | 4.72 | 4.34 | 4.82 |
| EVA1C | 5.07 | 4.47 | 3.95 | 3.91 | 4.00 | 3.88 | 4.57 | 5.66 |
| EVC | 0.25 | 0.26 | 0.69 | 0.24 | 0.30 | 0.27 | 1.04 | 0.21 |
| EVC2 | -0.24 | -0.23 | -0.03 | -0.24 | -0.23 | -0.22 | 0.37 | -0.27 |
| EVI2A | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 |
| EVI2B | 0.85 | 0.73 | 0.59 | 0.56 | 0.46 | 0.65 | 0.47 | 0.61 |
| EVI5 | 6.43 | 6.63 | 6.43 | 6.61 | 6.16 | 6.23 | 6.70 | 6.23 |
| EVI5L | 3.63 | 4.14 | 4.28 | 4.27 | 3.95 | 3.83 | 4.03 | 3.88 |
| EVL | 1.59 | 2.44 | 1.67 | 2.79 | 1.70 | 1.71 | 2.79 | 1.85 |
| EVPL | 4.69 | 5.57 | 5.10 | 5.55 | 5.77 | 5.04 | 5.04 | 4.68 |
| EVPLL | -1.83 | -1.94 | -1.93 | -1.95 | -1.92 | -1.95 | -1.87 | -1.96 |
| EVX1 | -0.75 | -0.57 | -0.73 | -0.60 | -0.42 | -0.76 | -0.75 | -0.47 |
| EVX1-AS | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| EWSAT1 | -1.65 | -1.64 | -1.68 | -1.65 | -1.69 | -1.63 | -1.70 | -1.72 |
| EWSR1 | 8.43 | 7.50 | 7.43 | 7.76 | 7.34 | 7.94 | 7.65 | 7.72 |
| EXD1 | -1.65 | -1.64 | -1.59 | -1.65 | -1.57 | -1.63 | -1.65 | -1.62 |
| EXD2 | 3.46 | 3.10 | 4.11 | 3.47 | 3.97 | 4.04 | 3.78 | 3.52 |
| EXD3 | 4.36 | 3.92 | 3.55 | 3.94 | 4.06 | 4.17 | 4.35 | 3.67 |
| EXO1 | 3.44 | 2.89 | 3.68 | 3.22 | 3.00 | 3.50 | 3.51 | 2.87 |
| EXO5 | 3.21 | 2.93 | 2.50 | 2.61 | 2.25 | 2.56 | 2.72 | 2.47 |
| EXOC1 | 4.77 | 5.64 | 6.07 | 5.53 | 4.96 | 5.81 | 5.60 | 5.95 |
| EXOC1L | -0.91 | -1.12 | -1.03 | -1.06 | -1.12 | -1.10 | -1.13 | -1.02 |
| EXOC2 | 4.67 | 3.86 | 4.34 | 3.80 | 3.72 | 3.51 | 4.19 | 4.72 |
| EXOC3 | 4.54 | 4.99 | 5.18 | 4.56 | 4.73 | 4.28 | 4.83 | 4.80 |
| EXOC3-AS1 | 3.78 | 2.34 | 2.49 | 3.18 | 2.92 | 2.59 | 2.58 | 2.24 |
| EXOC3L1 | 0.78 | 0.42 | 0.26 | 0.37 | 0.48 | 0.33 | 0.30 | 0.26 |
| EXOC3L2 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 |
| EXOC3L4 | 1.03 | 1.05 | 0.84 | 1.01 | 1.24 | 1.01 | 1.13 | 1.04 |
| EXOC4 | 4.38 | 5.51 | 5.49 | 5.41 | 5.60 | 5.11 | 5.87 | 5.69 |
| EXOC5 | 4.56 | 5.24 | 5.41 | 5.15 | 5.19 | 5.57 | 5.93 | 5.08 |
| EXOC5P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.18 | -2.21 |
| EXOC6 | 5.01 | 5.63 | 5.40 | 5.40 | 5.52 | 5.58 | 5.70 | 5.07 |
| EXOC6B | 4.12 | 4.73 | 4.54 | 4.27 | 4.66 | 4.31 | 4.81 | 3.95 |
| EXOC7 | 5.88 | 5.47 | 5.97 | 5.77 | 5.37 | 5.99 | 5.71 | 5.79 |
| EXOC8 | 3.62 | 4.14 | 3.89 | 4.23 | 3.83 | 4.07 | 4.22 | 3.89 |
| EXOG | 3.66 | 3.80 | 3.64 | 3.97 | 3.71 | 3.80 | 4.04 | 2.71 |
| EXOSC1 | 7.15 | 6.49 | 6.13 | 6.47 | 7.21 | 6.51 | 5.94 | 6.35 |
| EXOSC10 | 5.57 | 5.59 | 5.51 | 5.69 | 5.35 | 5.48 | 5.83 | 5.42 |
| EXOSC10-AS1 | 1.18 | 1.43 | 1.55 | 1.66 | 1.19 | 1.33 | 1.07 | 1.18 |
| EXOSC2 | 5.47 | 4.73 | 4.57 | 5.21 | 4.53 | 4.93 | 4.67 | 4.56 |
| EXOSC3 | 6.16 | 5.67 | 5.89 | 5.75 | 6.40 | 6.36 | 5.57 | 5.71 |
| EXOSC3P1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.85 | -1.86 |
| EXOSC3P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| EXOSC4 | 6.50 | 6.41 | 6.43 | 6.74 | 6.59 | 7.05 | 5.44 | 6.74 |
| EXOSC5 | 6.54 | 5.55 | 5.52 | 5.64 | 6.34 | 5.84 | 5.29 | 5.60 |
| EXOSC6 | 6.24 | 5.71 | 6.08 | 5.85 | 5.61 | 5.86 | 5.50 | 5.64 |
| EXOSC7 | 6.95 | 6.59 | 6.38 | 6.49 | 6.75 | 6.83 | 5.91 | 6.54 |
| EXOSC8 | 6.75 | 6.94 | 6.31 | 6.98 | 7.38 | 6.72 | 6.70 | 7.71 |
| EXOSC9 | 4.88 | 5.09 | 5.30 | 5.21 | 4.95 | 5.44 | 5.22 | 5.09 |
| EXPH5 | 4.96 | 5.97 | 5.29 | 5.53 | 4.72 | 5.41 | 5.11 | 4.76 |
| EXT1 | 4.88 | 5.07 | 5.62 | 5.00 | 5.07 | 5.28 | 5.36 | 4.72 |
| EXT2 | 6.10 | 6.10 | 6.71 | 6.27 | 5.89 | 5.70 | 5.70 | 5.71 |
| EXTL1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| EXTL2 | 2.83 | 2.86 | 2.88 | 3.02 | 2.93 | 2.76 | 2.51 | 2.42 |
| EXTL3 | 4.36 | 4.54 | 5.92 | 4.66 | 4.21 | 5.02 | 5.11 | 4.36 |
| EXTL3-AS1 | -1.27 | -1.19 | -1.25 | -1.27 | -1.23 | -1.16 | -1.15 | -1.29 |
| EYA1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.17 |
| EYA2 | 0.28 | 0.87 | 0.19 | 0.28 | -0.01 | 0.07 | 0.70 | -0.05 |
| EYA3 | 4.12 | 3.57 | 4.56 | 3.55 | 4.23 | 4.47 | 4.78 | 3.95 |
| EYA4 | 3.55 | 1.04 | 1.08 | 1.09 | 1.13 | 1.14 | 1.16 | 1.97 |
| EYS | -1.90 | -1.94 | -1.89 | -1.95 | -1.92 | -1.95 | -1.91 | -1.96 |
| EZH1 | 3.73 | 3.93 | 4.00 | 3.99 | 4.37 | 4.08 | 4.15 | 3.87 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| EZH2 | 4.58 | 4.75 | 5.09 | 4.72 | 5.02 | 5.27 | 5.30 | 4.43 |
| EZR | 9.31 | 9.64 | 10.01 | 8.71 | 9.17 | 11.00 | 9.33 | 9.67 |
| EZR-AS1 | -1.69 | -1.69 | -1.68 | -1.69 | -1.69 | -1.65 | -1.70 | -1.61 |
| F10 | 2.01 | 1.76 | 1.35 | 1.78 | 2.32 | 1.57 | 1.18 | 1.17 |
| F11 | -1.35 | -1.35 | -1.34 | -1.36 | -1.35 | -1.37 | -1.29 | -1.11 |
| F11-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.26 |
| F11R | 7.35 | 7.48 | 7.71 | 7.27 | 7.52 | 7.80 | 7.55 | 7.76 |
| F12 | 5.57 | 6.21 | 5.15 | 6.44 | 6.72 | 5.47 | 5.53 | 4.64 |
| F13B | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.77 | -1.91 |
| F2 | -1.35 | -1.34 | -1.33 | -1.35 | -1.31 | -1.36 | -1.23 | -1.37 |
| F2R | 1.63 | 1.67 | 1.58 | 1.32 | 1.51 | 2.28 | 1.38 | 1.42 |
| F2RL1 | 4.46 | 4.52 | 5.92 | 4.43 | 5.58 | 5.77 | 5.35 | 5.29 |
| F2RL2 | -2.25 | -2.21 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| F2RL3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 |
| F3 | 6.36 | 8.20 | 8.15 | 7.17 | 6.35 | 8.42 | 8.07 | 7.52 |
| F5 | 4.50 | 6.15 | 4.44 | 7.30 | 5.95 | 5.58 | 5.62 | 5.25 |
| F7 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.93 | -1.94 | -1.89 |
| F8 | 0.47 | 0.57 | 0.99 | 0.60 | 0.60 | 0.63 | 0.67 | 0.83 |
| F8A1 | 3.43 | 2.68 | 3.04 | 2.56 | 3.31 | 3.63 | 2.30 | 3.24 |
| FA2H | 6.37 | 6.00 | 6.24 | 5.79 | 6.10 | 5.49 | 6.00 | 6.61 |
| FAAH | 4.26 | 4.63 | 4.90 | 4.76 | 5.05 | 4.56 | 4.75 | 4.34 |
| FAAH2 | 2.33 | 2.56 | 2.21 | 2.27 | 2.31 | 2.27 | 2.14 | 2.44 |
| FAAHP1 | 0.63 | 0.99 | 0.62 | 1.01 | 0.84 | 1.24 | 0.56 | 0.68 |
| FAAP100 | 3.45 | 3.89 | 3.89 | 3.58 | 3.11 | 3.72 | 3.75 | 3.70 |
| FAAP20 | 7.27 | 6.68 | 6.41 | 6.51 | 6.90 | 6.69 | 5.82 | 6.47 |
| FAAP24 | 3.23 | 2.64 | 2.90 | 2.87 | 3.32 | 2.92 | 2.70 | 3.09 |
| FABP1 | 3.52 | 2.63 | 3.09 | 2.59 | 3.75 | 2.74 | 3.06 | 2.39 |
| FABP2 | 0.42 | -0.10 | 0.02 | -0.12 | -0.10 | -0.09 | -0.12 | -0.15 |
| FABP3 | 0.04 | -0.01 | 0.02 | 0.05 | 0.29 | -0.08 | -0.03 | 0.51 |
| FABP4 | 0.01 | -0.14 | 0.22 | -0.07 | -0.14 | 0.06 | 0.06 | 1.55 |
| FABP5 | 5.17 | 4.51 | 4.42 | 4.62 | 4.74 | 5.82 | 3.97 | 4.77 |
| FABP5P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| FABP5P12 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FABP5P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FABP5P3 | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.88 | -1.89 | -1.91 |
| FABP5P7 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| FABP6 | 3.37 | 3.44 | 3.88 | 2.97 | 4.22 | 3.31 | 1.87 | 2.85 |
| FADD | 6.75 | 6.39 | 6.19 | 6.42 | 6.50 | 6.24 | 5.89 | 6.78 |
| FADS1 | 8.45 | 7.50 | 4.74 | 7.50 | 6.30 | 5.14 | 7.14 | 7.11 |
| FADS2 | 7.80 | 7.74 | 5.90 | 7.77 | 5.68 | 6.69 | 8.59 | 8.20 |
| FADS3 | 5.01 | 3.57 | 3.56 | 4.39 | 4.27 | 4.03 | 3.55 | 3.92 |
| FAF1 | 4.66 | 5.37 | 5.20 | 5.39 | 5.56 | 5.52 | 5.26 | 5.48 |
| FAF2 | 6.42 | 6.58 | 6.96 | 6.36 | 6.86 | 6.65 | 6.41 | 6.58 |
| FAH | 4.93 | 5.02 | 4.94 | 4.82 | 4.59 | 5.05 | 4.20 | 4.78 |
| FAHD1 | 6.53 | 6.78 | 5.70 | 6.80 | 5.34 | 6.11 | 6.17 | 5.67 |
| FAHD2A | 4.18 | 2.94 | 3.66 | 2.90 | 4.05 | 3.78 | 4.03 | 3.31 |
| FAHD2B | 5.10 | 3.49 | 3.51 | 3.26 | 4.97 | 3.83 | 3.06 | 3.00 |
| FAHD2CP | 2.47 | 1.93 | 1.94 | 1.99 | 2.40 | 2.03 | 1.59 | 1.67 |
| FAHD2P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| FAIM | 4.73 | 4.03 | 4.11 | 4.50 | 4.60 | 4.52 | 4.34 | 4.59 |
| FAIM2 | 4.77 | 3.06 | 3.72 | 3.21 | 6.02 | 3.16 | 4.92 | 2.92 |
| FALEC | 1.17 | 0.84 | 1.24 | 1.01 | 1.56 | 1.07 | 1.19 | 1.52 |
| FAM102A | 5.78 | 6.54 | 6.10 | 6.25 | 5.17 | 6.07 | 5.98 | 6.57 |
| FAM102B | 3.93 | 4.98 | 3.94 | 4.76 | 3.93 | 4.31 | 4.70 | 2.91 |
| FAM104A | 5.93 | 5.41 | 5.72 | 5.50 | 5.85 | 5.90 | 4.95 | 6.05 |
| FAM104B | 5.49 | 4.95 | 4.92 | 5.20 | 5.72 | 5.26 | 4.64 | 4.18 |
| FAM106A | -1.79 | -1.74 | -1.68 | -1.79 | -1.79 | -1.80 | -1.80 | -1.81 |
| FAM107A | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| FAM107B | 7.08 | 7.13 | 6.60 | 6.77 | 6.73 | 6.29 | 7.50 | 6.58 |
| FAM110A | 5.06 | 4.77 | 5.02 | 4.59 | 4.73 | 4.99 | 4.22 | 4.94 |
| FAM110B | -0.42 | 0.08 | -0.25 | 0.16 | -0.41 | -0.39 | -0.27 | -0.38 |
| FAM110C | 3.90 | 4.09 | 4.01 | 3.67 | 3.69 | 4.52 | 4.33 | 3.76 |
| FAM110D | -1.21 | -1.38 | -1.37 | -1.45 | -1.33 | -1.43 | -1.46 | -1.41 |
| FAM111A | 6.12 | 5.91 | 6.80 | 5.78 | 5.67 | 5.85 | 6.16 | 5.97 |
| FAM111A-DT | 3.39 | 3.47 | 3.52 | 3.63 | 3.53 | 3.38 | 3.07 | 3.50 |
| FAM111B | 5.53 | 5.06 | 5.71 | 5.12 | 4.29 | 4.72 | 5.97 | 4.48 |
| FAM114A1 | 6.27 | 7.20 | 6.66 | 6.94 | 6.57 | 6.88 | 6.92 | 7.68 |
| FAM114A2 | 3.44 | 3.81 | 4.35 | 3.37 | 4.28 | 3.72 | 4.33 | 3.88 |
| FAM117A | 3.82 | 2.78 | 3.46 | 2.80 | 3.25 | 3.08 | 2.76 | 3.93 |
| FAM117B | 3.05 | 3.12 | 3.11 | 3.42 | 3.47 | 3.29 | 3.78 | 3.39 |
| FAM118A | 5.75 | 4.17 | 4.21 | 4.55 | 4.14 | 5.51 | 5.86 | 4.85 |
| FAM118B | 5.67 | 5.37 | 5.00 | 5.55 | 5.51 | 5.08 | 5.21 | 5.33 |
| FAM120A | 6.61 | 7.52 | 7.17 | 7.31 | 6.27 | 6.88 | 7.35 | 6.78 |
| FAM120AOS | 6.33 | 5.99 | 5.70 | 5.88 | 5.50 | 5.93 | 5.57 | 5.58 |
| FAM120B | 4.18 | 4.24 | 4.16 | 3.88 | 4.11 | 4.26 | 4.64 | 4.34 |
| FAM120C | 2.92 | 2.93 | 3.28 | 2.84 | 3.30 | 3.02 | 2.90 | 2.32 |
| FAM122A | 4.95 | 4.82 | 4.26 | 4.81 | 4.52 | 4.80 | 4.42 | 4.23 |
| FAM122B | 4.20 | 4.15 | 5.15 | 3.92 | 4.31 | 4.70 | 4.22 | 4.95 |
| FAM122C | 1.79 | 1.45 | 1.90 | 1.54 | 1.33 | 2.02 | 1.52 | 1.74 |
| FAM124A | 0.09 | 0.09 | -0.05 | 0.12 | 0.30 | 0.02 | 0.06 | -0.10 |
| FAM124B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| FAM126A | 3.94 | 2.98 | 4.34 | 3.08 | 3.51 | 3.53 | 4.16 | 3.15 |
| FAM126B | 4.86 | 5.00 | 4.76 | 4.99 | 4.92 | 5.12 | 5.01 | 4.98 |
| FAM129A | 1.89 | 2.56 | 2.45 | 2.76 | 1.73 | 1.65 | 1.98 | 3.27 |
| FAM129B | 7.40 | 7.64 | 7.99 | 7.37 | 6.53 | 7.75 | 7.73 | 7.31 |
| FAM129C | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| FAM131A | 4.58 | 3.95 | 4.45 | 4.47 | 3.98 | 3.87 | 4.20 | 4.49 |
| FAM131B | -0.01 | 0.25 | 0.69 | 0.06 | 0.16 | 0.31 | -0.01 | -0.04 |
| FAM131C | 1.65 | 0.81 | 0.67 | 0.72 | 0.97 | 0.89 | 0.83 | 0.72 |
| FAM133A | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| FAM133B | 4.57 | 5.11 | 4.83 | 4.96 | 4.88 | 4.81 | 4.65 | 4.88 |
| FAM133CP | -0.05 | -0.12 | 0.16 | -0.05 | -0.12 | 0.02 | 0.62 | -0.03 |
| FAM133DP | -0.74 | -0.71 | -0.85 | -0.87 | -0.71 | -0.81 | -0.80 | -0.83 |
| FAM135A | 4.04 | 4.74 | 4.92 | 4.73 | 4.42 | 4.78 | 6.03 | 4.57 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| FAM135B | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| FAM136A | 6.99 | 6.87 | 6.31 | 7.05 | 7.11 | 6.58 | 6.35 | 7.14 |
| FAM136BP | -0.12 | -0.45 | -0.44 | -0.46 | -0.33 | -0.17 | -0.46 | -0.47 |
| FAM13A | 4.00 | 4.52 | 5.49 | 4.31 | 3.96 | 3.86 | 5.68 | 4.44 |
| FAM13A-AS1 | -0.46 | -0.28 | -0.36 | -0.32 | -0.41 | -0.44 | 0.06 | -0.42 |
| FAM13B | 3.22 | 4.48 | 3.99 | 4.22 | 3.80 | 3.45 | 4.21 | 2.63 |
| FAM13C | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FAM149A | 2.13 | 2.44 | 2.61 | 2.17 | 1.97 | 2.03 | 3.42 | 2.16 |
| FAM149B1 | 3.45 | 3.53 | 3.50 | 3.41 | 3.84 | 3.39 | 3.86 | 2.99 |
| FAM151A | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| FAM151B | 0.08 | -0.14 | -0.04 | -0.01 | -0.02 | -0.09 | -0.01 | 0.26 |
| FAM153A | -1.65 | -1.65 | -1.53 | -1.66 | -1.54 | -1.66 | -1.35 | -1.68 |
| FAM153B | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| FAM153CP | -0.08 | -0.30 | -0.21 | -0.16 | 0.00 | -0.14 | 0.03 | -0.16 |
| FAM155A | 0.96 | 1.26 | 1.23 | 1.28 | 1.34 | 0.97 | 1.27 | 1.10 |
| FAM155A-IT1 | -1.30 | -1.29 | -1.28 | -1.23 | -1.25 | -1.32 | -1.31 | -1.32 |
| FAM155B | 1.12 | 0.87 | 1.08 | 0.90 | 1.09 | 0.82 | 1.04 | 0.96 |
| FAM156A | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| FAM157A | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.91 | -1.95 | -1.85 |
| FAM157C | -1.69 | -1.68 | -1.73 | -1.63 | -1.74 | -1.76 | -1.75 | -1.77 |
| FAM160A1 | 2.60 | 3.37 | 3.53 | 2.87 | 2.53 | 3.36 | 3.19 | 3.11 |
| FAM160A1-DT | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FAM160A2 | 4.04 | 4.52 | 4.60 | 4.49 | 4.39 | 4.11 | 4.78 | 4.32 |
| FAM160B1 | 3.76 | 4.14 | 3.66 | 3.83 | 3.88 | 3.88 | 4.43 | 3.62 |
| FAM160B2 | 4.05 | 4.29 | 5.03 | 3.60 | 3.65 | 4.30 | 4.53 | 4.10 |
| FAM161A | 3.97 | 3.77 | 3.42 | 3.74 | 3.42 | 3.03 | 3.79 | 2.65 |
| FAM161B | 0.88 | 1.11 | 1.05 | 0.98 | 1.14 | 1.33 | 0.92 | 1.03 |
| FAM162A | 8.43 | 7.50 | 8.26 | 7.26 | 8.60 | 7.70 | 8.63 | 8.34 |
| FAM162B | -1.96 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| FAM163A | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| FAM166A | 1.75 | 2.03 | 2.26 | 1.88 | 1.54 | 1.70 | 1.59 | 1.69 |
| FAM166B | -1.80 | -1.84 | -1.79 | -1.80 | -1.82 | -1.83 | -1.85 | -1.86 |
| FAM167A | -0.43 | -0.43 | -0.42 | -0.36 | -0.38 | -0.15 | -0.29 | -0.45 |
| FAM167B | -1.05 | -1.18 | -1.17 | -1.12 | -1.01 | -1.03 | -1.06 | -1.10 |
| FAM168A | 3.32 | 3.70 | 4.34 | 3.80 | 3.59 | 3.40 | 4.05 | 3.37 |
| FAM168B | 5.96 | 6.05 | 6.41 | 6.08 | 6.01 | 6.05 | 5.89 | 6.34 |
| FAM169A | 2.49 | 3.26 | 3.07 | 3.21 | 3.46 | 3.01 | 2.81 | 2.23 |
| FAM171A1 | 3.61 | 3.51 | 2.94 | 4.31 | 3.91 | 2.75 | 5.40 | 2.61 |
| FAM171A2 | 0.71 | 0.58 | 0.85 | 0.56 | 0.98 | 0.94 | 0.74 | 0.50 |
| FAM171B | 2.53 | 2.05 | 2.76 | 2.35 | 3.00 | 3.08 | 1.97 | 2.92 |
| FAM172A | 4.09 | 4.76 | 4.88 | 4.57 | 4.95 | 4.49 | 5.21 | 4.73 |
| FAM173A | 7.53 | 7.03 | 7.22 | 7.04 | 6.41 | 6.65 | 6.38 | 7.05 |
| FAM174A | 4.66 | 4.92 | 4.82 | 4.86 | 4.75 | 4.65 | 4.82 | 5.72 |
| FAM174B | 2.88 | 3.89 | 4.33 | 3.69 | 4.35 | 2.82 | 3.75 | 4.37 |
| FAM177A1 | 6.70 | 7.49 | 6.50 | 7.41 | 7.63 | 7.06 | 7.16 | 7.07 |
| FAM177B | 2.94 | 4.15 | 2.78 | 4.36 | 3.66 | 2.61 | 3.19 | 2.78 |
| FAM178B | -1.72 | -1.71 | -1.71 | -1.72 | -1.71 | -1.73 | -1.72 | -1.23 |
| FAM180A | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FAM181B | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| FAM182B | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| FAM183A | -0.96 | -0.73 | -0.94 | -0.89 | -0.99 | -1.01 | -1.04 | -0.99 |
| FAM184A | 0.39 | 0.34 | 0.41 | 0.57 | 0.65 | 0.23 | 0.54 | 0.37 |
| FAM184B | 0.12 | -0.09 | 0.09 | -0.11 | 0.10 | -0.01 | 0.03 | 0.04 |
| FAM185A | 2.09 | 2.57 | 2.07 | 2.30 | 2.29 | 2.05 | 2.35 | 2.40 |
| FAM185BP | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.02 | -2.03 |
| FAM186A | -2.20 | -2.17 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| FAM186B | -2.30 | -2.30 | -2.30 | -2.28 | -2.30 | -2.31 | -2.30 | -2.31 |
| FAM189A1 | -1.29 | -1.41 | -1.40 | -1.36 | -1.41 | -1.43 | -1.42 | -1.43 |
| FAM189A2 | 1.82 | 2.31 | 1.61 | 1.84 | 1.29 | 1.27 | 2.12 | 1.26 |
| FAM189B | 5.05 | 4.92 | 4.82 | 5.02 | 5.23 | 4.85 | 5.02 | 4.80 |
| FAM192A | 7.24 | 6.27 | 6.73 | 6.66 | 6.55 | 6.56 | 6.50 | 6.97 |
| FAM192BP | -0.26 | -0.32 | -0.39 | -0.20 | -0.32 | -0.22 | -0.34 | -0.20 |
| FAM193A | 3.51 | 3.78 | 3.94 | 3.67 | 3.48 | 3.84 | 4.32 | 3.94 |
| FAM193B | 3.02 | 3.28 | 3.68 | 3.79 | 3.72 | 3.45 | 4.17 | 2.85 |
| FAM198B-AS1 | 0.37 | 1.53 | 0.41 | 1.74 | 0.43 | 0.94 | 0.45 | 0.40 |
| FAM199X | 4.69 | 4.83 | 5.53 | 4.84 | 4.57 | 4.56 | 4.77 | 4.39 |
| FAM200A | 2.28 | 2.27 | 2.42 | 2.20 | 2.50 | 2.60 | 2.73 | 2.44 |
| FAM200B | 6.13 | 6.47 | 5.42 | 6.63 | 5.77 | 6.37 | 6.05 | 6.22 |
| FAM201A | 2.35 | 2.39 | 2.25 | 2.94 | 2.90 | 2.39 | 2.34 | 2.18 |
| FAM204A | 6.74 | 6.42 | 5.89 | 6.50 | 6.76 | 6.56 | 6.38 | 6.48 |
| FAM204BP | -0.95 | -1.15 | -1.14 | -1.09 | -1.15 | -1.11 | -0.93 | -1.12 |
| FAM204CP | -1.55 | -1.54 | -1.53 | -1.55 | -1.49 | -1.53 | -1.55 | -1.46 |
| FAM207A | 6.02 | 5.43 | 4.53 | 5.38 | 5.13 | 5.71 | 4.77 | 5.19 |
| FAM207BP | -1.89 | -1.85 | -1.84 | -1.90 | -1.83 | -1.88 | -1.90 | -1.91 |
| FAM209A | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| FAM209B | 0.16 | -0.24 | -0.13 | -0.10 | -0.08 | -0.22 | -0.25 | 0.15 |
| FAM20B | 4.91 | 5.08 | 5.35 | 4.90 | 4.87 | 5.36 | 5.24 | 5.17 |
| FAM20C | 3.70 | 4.27 | 4.06 | 3.59 | 4.46 | 3.60 | 3.92 | 2.79 |
| FAM210A | 5.31 | 4.70 | 5.40 | 4.84 | 5.11 | 4.92 | 5.06 | 5.57 |
| FAM210B | 6.17 | 6.57 | 5.89 | 6.27 | 6.04 | 5.79 | 6.15 | 4.99 |
| FAM214A | 3.89 | 4.43 | 4.32 | 4.33 | 4.06 | 4.54 | 4.81 | 4.83 |
| FAM214B | 3.58 | 4.51 | 3.92 | 4.36 | 3.60 | 4.15 | 4.60 | 4.27 |
| FAM215B | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| FAM216A | 3.45 | 3.04 | 3.70 | 3.78 | 3.60 | 3.76 | 3.25 | 3.13 |
| FAM217B | 4.55 | 4.36 | 3.98 | 4.09 | 4.29 | 4.25 | 4.27 | 4.32 |
| FAM218A | -1.20 | -1.20 | -1.19 | -1.21 | -1.20 | -1.22 | -1.14 | -1.16 |
| FAM219A | 2.96 | 2.37 | 3.21 | 2.54 | 3.24 | 2.91 | 3.37 | 2.65 |
| FAM219B | 4.54 | 3.85 | 4.31 | 4.33 | 4.46 | 4.29 | 4.56 | 4.67 |
| FAM21EP | -0.90 | -0.82 | -0.89 | -0.91 | -0.61 | -0.91 | -0.84 | -0.69 |
| FAM21FP | -1.94 | -1.94 | -1.90 | -1.94 | -1.90 | -1.93 | -1.95 | -1.96 |
| FAM220CP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FAM221A | 4.10 | 3.56 | 3.91 | 3.83 | 4.92 | 3.93 | 3.91 | 3.94 |
| FAM222A | 1.97 | 2.45 | 1.70 | 2.31 | 2.03 | 1.95 | 1.99 | 1.70 |
| FAM222A-AS1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| FAM222B | 5.00 | 5.61 | 5.37 | 5.29 | 5.17 | 5.23 | 5.56 | 5.05 |
| FAM225A | -0.29 | -0.42 | -0.32 | -0.36 | -0.57 | -0.23 | -0.51 | -0.42 |
| FAM225B | -0.83 | -0.82 | -0.88 | -0.84 | -1.05 | -0.71 | -1.06 | -1.07 |
| FAM227A | 1.24 | 1.34 | 1.86 | 1.44 | 1.23 | 1.58 | 1.64 | 1.30 |
| FAM227B | 1.22 | 1.38 | 1.46 | 1.54 | 1.35 | 1.48 | 1.35 | 1.40 |
| FAM228A | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -1.87 | -2.01 |
| FAM228B | 2.37 | 2.06 | 1.95 | 1.82 | 1.82 | 2.19 | 2.02 | 2.47 |
| FAM229A | 2.23 | 1.93 | 2.48 | 2.27 | 2.16 | 2.22 | 2.17 | 2.34 |
| FAM229B | 3.36 | 2.51 | 3.28 | 2.69 | 3.10 | 3.89 | 2.38 | 2.98 |
| FAM234A | 7.78 | 6.96 | 7.70 | 7.18 | 7.63 | 6.91 | 6.98 | 7.84 |
| FAM234B | 2.15 | 1.47 | 2.35 | 1.57 | 1.78 | 1.69 | 1.97 | 1.91 |
| FAM237B | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| FAM238C | -1.60 | -1.69 | -1.68 | -1.69 | -1.64 | -1.65 | -1.65 | -1.71 |
| FAM241A | 4.04 | 4.32 | 4.17 | 4.72 | 4.43 | 4.99 | 4.76 | 6.14 |
| FAM241B | 4.51 | 3.68 | 3.54 | 3.12 | 4.24 | 3.93 | 3.09 | 3.84 |
| FAM242A | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FAM242C | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| FAM24B | 4.08 | 4.03 | 3.96 | 3.76 | 4.75 | 4.31 | 3.58 | 4.18 |
| FAM25A | -2.07 | -2.06 | -2.06 | -2.10 | -2.09 | -2.07 | -2.10 | -2.11 |
| FAM25BP | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| FAM27C | -0.61 | -0.68 | -0.67 | -0.54 | -0.41 | -0.66 | -0.56 | -0.65 |
| FAM27E3 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.18 | -2.21 |
| FAM32A | 7.19 | 7.32 | 6.98 | 7.42 | 7.29 | 7.04 | 7.02 | 7.15 |
| FAM3A | 6.50 | 5.75 | 5.67 | 5.90 | 5.77 | 5.74 | 5.85 | 6.21 |
| FAM3B | 6.31 | 4.01 | 4.63 | 3.94 | 7.43 | 3.92 | 5.45 | 6.41 |
| FAM3C | 5.10 | 6.24 | 6.72 | 6.17 | 6.21 | 7.48 | 5.84 | 7.29 |
| FAM3C2 | 1.30 | 1.40 | 1.95 | 1.97 | 1.58 | 1.96 | 1.67 | 2.01 |
| FAM3D | 4.52 | 8.28 | 5.74 | 8.51 | 5.94 | 4.83 | 7.19 | 6.09 |
| FAM3D-AS1 | 0.39 | 0.83 | 0.52 | 1.01 | 0.40 | 0.33 | 0.76 | 0.34 |
| FAM43A | 3.29 | 4.71 | 3.50 | 4.58 | 4.22 | 4.52 | 3.60 | 3.55 |
| FAM43B | -0.85 | -0.98 | -1.05 | -1.07 | -0.92 | -1.04 | -1.00 | -1.02 |
| FAM45A | 5.92 | 4.57 | 4.57 | 4.74 | 5.37 | 4.82 | 4.70 | 4.46 |
| FAM45BP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FAM47E | 1.76 | 2.28 | 1.78 | 2.23 | 2.15 | 2.31 | 2.51 | 2.26 |
| FAM49A | -1.69 | -1.69 | -1.63 | -1.69 | -1.69 | -1.67 | -1.70 | -1.71 |
| FAM49B | 6.39 | 6.03 | 6.76 | 6.21 | 6.48 | 7.12 | 5.86 | 7.08 |
| FAM50A | 9.22 | 8.31 | 8.49 | 8.52 | 8.83 | 9.19 | 8.50 | 8.74 |
| FAM50B | 4.48 | 3.71 | 2.88 | 2.74 | 2.73 | 4.06 | 3.89 | 4.09 |
| FAM53A | -0.11 | -0.02 | 0.30 | -0.11 | -0.10 | -0.09 | -0.05 | -0.10 |
| FAM53B | 3.59 | 3.67 | 3.46 | 3.44 | 3.59 | 3.39 | 3.49 | 3.27 |
| FAM53C | 3.67 | 4.05 | 4.71 | 3.85 | 4.01 | 3.81 | 4.16 | 3.87 |
| FAM57A | 4.62 | 4.42 | 4.85 | 4.56 | 4.63 | 4.04 | 5.30 | 4.11 |
| FAM57B | -0.95 | -0.86 | -0.52 | -0.72 | -0.94 | -0.85 | -0.68 | -0.90 |
| FAM66B | -1.50 | -1.50 | -1.37 | -1.50 | -1.44 | -1.51 | -1.45 | -1.47 |
| FAM66C | -0.67 | -0.80 | -0.78 | -0.96 | -0.63 | -0.93 | -0.89 | -0.91 |
| FAM66D | -1.30 | -1.08 | -1.21 | -1.23 | -1.22 | -1.28 | -1.23 | -1.32 |
| FAM71A | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| FAM71D | 1.67 | 0.99 | 1.02 | 1.29 | 1.45 | 1.45 | 1.10 | 1.37 |
| FAM71F1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FAM71F2 | -0.95 | -0.79 | -0.85 | -0.74 | -0.87 | -0.93 | -0.96 | -0.91 |
| FAM72A | 0.00 | -0.41 | -0.32 | -0.35 | -0.28 | -0.23 | -0.42 | -0.16 |
| FAM72B | 0.29 | 0.09 | 0.02 | 0.07 | 0.40 | 0.59 | 0.24 | 0.44 |
| FAM72C | 0.49 | 0.36 | 0.37 | 0.26 | 0.47 | 0.57 | 0.18 | 0.63 |
| FAM72D | 1.25 | 1.01 | 1.09 | 0.98 | 1.10 | 1.65 | 0.97 | 1.25 |
| FAM76A | 3.63 | 3.53 | 3.92 | 3.72 | 3.97 | 3.93 | 4.15 | 3.71 |
| FAM76B | 3.95 | 3.42 | 4.39 | 3.88 | 3.95 | 3.75 | 4.42 | 4.31 |
| FAM78A | 0.73 | 0.30 | 0.51 | 0.43 | 0.61 | 0.38 | 0.51 | 0.32 |
| FAM78B | 0.33 | 0.36 | 0.28 | 0.50 | 1.95 | 0.51 | 0.41 | 0.27 |
| FAM81A | 2.87 | 3.42 | 2.73 | 3.51 | 3.23 | 3.05 | 3.00 | 2.13 |
| FAM81B | -0.18 | -0.09 | 0.11 | -0.02 | -0.01 | 0.01 | -0.19 | 0.99 |
| FAM83A | 3.63 | 4.17 | 5.86 | 3.43 | 3.24 | 3.85 | 3.29 | 5.81 |
| FAM83A-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| FAM83B | 2.44 | 3.43 | 3.31 | 3.24 | 2.64 | 3.63 | 3.77 | 3.07 |
| FAM83C-AS1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.11 |
| FAM83D | 5.61 | 4.68 | 5.21 | 4.60 | 4.71 | 5.13 | 4.06 | 4.82 |
| FAM83E | 2.85 | 3.23 | 3.25 | 3.67 | 3.88 | 3.13 | 4.17 | 3.32 |
| FAM83F | 4.94 | 4.45 | 4.64 | 4.42 | 3.92 | 4.37 | 4.06 | 3.37 |
| FAM83G | 4.06 | 3.58 | 3.87 | 3.65 | 3.51 | 3.78 | 4.36 | 3.86 |
| FAM83H | 5.66 | 6.45 | 7.44 | 6.18 | 5.71 | 6.02 | 6.17 | 6.42 |
| FAM86B1 | -1.75 | -1.84 | -1.79 | -1.84 | -1.82 | -1.85 | -1.71 | -1.86 |
| FAM86B3P | 0.83 | 1.06 | 0.86 | 1.23 | 0.99 | 0.89 | 1.00 | 0.86 |
| FAM86C1 | 2.09 | 2.33 | 2.03 | 2.35 | 2.23 | 1.88 | 1.76 | 2.18 |
| FAM86C2P | 2.23 | 2.33 | 2.21 | 2.24 | 2.10 | 1.86 | 1.61 | 2.17 |
| FAM86DP | 3.32 | 4.06 | 3.10 | 3.92 | 3.18 | 3.13 | 3.46 | 3.38 |
| FAM86EP | 1.49 | 1.84 | 1.50 | 2.11 | 1.70 | 2.09 | 1.61 | 1.96 |
| FAM86FP | -0.80 | -0.88 | -0.86 | -0.81 | -0.15 | -0.66 | -0.89 | -0.90 |
| FAM86HP | -0.95 | -1.01 | -0.92 | -0.95 | -0.90 | -0.99 | -0.95 | -0.88 |
| FAM86JP | -0.10 | -0.32 | -0.31 | -0.33 | -0.13 | -0.24 | -0.26 | -0.12 |
| FAM89A | 6.03 | 4.41 | 4.18 | 4.31 | 5.84 | 5.24 | 4.18 | 5.32 |
| FAM89B | 6.77 | 5.24 | 5.78 | 4.91 | 5.77 | 6.53 | 5.45 | 6.58 |
| FAM8A1 | 4.78 | 4.08 | 4.65 | 4.42 | 4.03 | 3.50 | 5.42 | 4.51 |
| FAM90A1 | -0.11 | -0.10 | -0.33 | -0.27 | -0.08 | -0.32 | -0.27 | -0.19 |
| FAM91A1 | 5.33 | 5.49 | 6.53 | 5.40 | 5.22 | 5.85 | 6.10 | 5.64 |
| FAM92A | 5.71 | 3.80 | 4.71 | 3.71 | 4.12 | 5.23 | 3.72 | 4.04 |
| FAM92A1P1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 |
| FAM92B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| FAM95C | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -2.00 | -1.96 | -2.01 |
| FAM96AP2 | -1.93 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -1.93 | -2.01 |
| FAM98A | 4.71 | 5.16 | 4.55 | 5.25 | 4.79 | 4.65 | 4.95 | 5.30 |
| FAM98B | 5.27 | 5.09 | 5.19 | 5.00 | 5.00 | 5.22 | 5.29 | 5.24 |
| FAM98C | 3.80 | 4.25 | 3.82 | 4.67 | 4.94 | 4.18 | 4.35 | 4.03 |
| FAM9B | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| FAM9C | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| FAN1 | 5.23 | 5.25 | 4.94 | 5.15 | 5.09 | 4.78 | 5.06 | 5.03 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| FANCA | 4.41 | 3.88 | 4.97 | 4.19 | 3.83 | 4.00 | 4.54 | 4.00 |
| FANCB | 3.65 | 2.87 | 3.35 | 3.15 | 2.96 | 3.02 | 3.10 | 2.81 |
| FANCC | 3.54 | 3.49 | 3.66 | 3.68 | 3.03 | 3.57 | 4.03 | 3.16 |
| FANCD2 | 5.68 | 5.02 | 5.93 | 4.75 | 4.70 | 5.25 | 5.37 | 4.53 |
| FANCD2OS | -1.94 | -1.94 | -1.90 | -1.91 | -1.92 | -1.95 | -1.94 | -1.95 |
| FANCD2P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| FANCE | 2.89 | 2.54 | 2.76 | 2.66 | 2.46 | 2.77 | 2.80 | 2.51 |
| FANCF | 4.48 | 4.67 | 4.81 | 4.51 | 4.86 | 4.42 | 4.45 | 4.35 |
| FANCG | 3.18 | 3.45 | 3.63 | 3.52 | 3.31 | 3.83 | 3.49 | 3.21 |
| FANCI | 5.61 | 5.29 | 6.56 | 5.47 | 5.88 | 5.75 | 5.92 | 5.53 |
| FANCL | 5.14 | 4.93 | 5.19 | 4.55 | 5.83 | 5.01 | 5.42 | 5.02 |
| FANCM | 3.01 | 4.09 | 3.38 | 3.53 | 3.34 | 3.70 | 3.93 | 3.10 |
| FANK1 | 1.84 | 2.23 | 2.17 | 2.15 | 1.90 | 3.01 | 2.28 | 2.95 |
| FAR1 | 5.55 | 6.27 | 6.63 | 5.99 | 5.65 | 5.50 | 6.36 | 6.20 |
| FAR1-IT1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.16 | -2.21 |
| FAR1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| FAR2 | 3.17 | 2.36 | 2.29 | 2.36 | 2.89 | 2.43 | 1.81 | 2.51 |
| FAR2P2 | -0.79 | -0.78 | -0.85 | -0.87 | -0.50 | -0.87 | -0.66 | -0.82 |
| FARP1 | 4.80 | 5.16 | 5.34 | 4.77 | 5.94 | 5.28 | 5.66 | 4.77 |
| FARP1-AS1 | -1.46 | -1.45 | -1.38 | -1.40 | -1.42 | -1.47 | -1.40 | -1.48 |
| FARP2 | 5.08 | 5.32 | 5.43 | 5.52 | 4.84 | 5.41 | 5.75 | 4.91 |
| FARS2 | 3.30 | 3.41 | 3.00 | 3.36 | 3.09 | 3.15 | 3.50 | 3.69 |
| FARSA | 6.43 | 6.89 | 6.93 | 6.87 | 6.87 | 7.02 | 6.28 | 6.67 |
| FARSA-AS1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| FARSB | 6.78 | 6.57 | 6.36 | 6.56 | 6.39 | 7.03 | 6.38 | 6.45 |
| FARSBP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FAS | 4.86 | 5.48 | 3.85 | 5.73 | 4.48 | 4.44 | 4.67 | 4.00 |
| FASN | 7.71 | 7.86 | 8.43 | 7.63 | 7.56 | 7.62 | 8.63 | 7.54 |
| FASTK | 6.16 | 6.46 | 5.93 | 6.62 | 6.62 | 6.52 | 6.52 | 6.78 |
| FASTKD1 | 3.55 | 3.77 | 3.88 | 3.86 | 3.94 | 3.11 | 3.77 | 3.32 |
| FASTKD2 | 5.12 | 5.28 | 5.07 | 5.50 | 5.03 | 5.55 | 5.37 | 5.51 |
| FASTKD3 | 3.58 | 3.79 | 3.41 | 3.54 | 4.17 | 3.89 | 3.33 | 3.64 |
| FASTKD5 | 5.16 | 4.62 | 4.96 | 4.74 | 4.30 | 4.41 | 4.57 | 4.43 |
| FAT1 | 6.89 | 8.15 | 7.86 | 7.76 | 6.71 | 7.07 | 7.96 | 7.70 |
| FAT2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| FAT4 | -0.44 | -0.35 | -0.32 | -0.15 | -0.39 | -0.41 | -0.29 | -0.46 |
| FAU | 10.91 | 9.91 | 10.27 | 9.93 | 11.46 | 10.47 | 10.31 | 11.07 |
| FAUP1 | 3.31 | 3.03 | 3.04 | 2.89 | 3.71 | 3.40 | 2.71 | 3.47 |
| FAUP2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FAXC | 1.15 | 0.89 | 0.98 | 0.85 | 0.73 | 0.72 | 0.84 | 0.91 |
| FAXDC2 | 2.12 | 2.33 | 1.91 | 2.20 | 1.96 | 2.32 | 2.34 | 1.72 |
| FBF1 | 2.48 | 2.11 | 2.77 | 1.98 | 2.18 | 2.21 | 2.51 | 2.21 |
| FBH1 | 4.02 | 5.21 | 4.96 | 4.90 | 4.89 | 5.03 | 5.45 | 4.59 |
| FBL | 8.29 | 7.97 | 7.63 | 8.11 | 8.91 | 7.90 | 7.58 | 7.06 |
| FBLIM1 | 4.75 | 5.69 | 5.23 | 5.64 | 5.40 | 5.76 | 6.49 | 5.30 |
| FBL11 | -1.23 | -1.22 | -1.21 | -1.23 | -1.19 | -1.14 | -1.23 | -1.25 |
| FBLN1 | 5.69 | 2.87 | 3.44 | 3.15 | 3.01 | 2.90 | 4.15 | 4.30 |
| FBLN2 | 0.70 | 0.29 | 0.67 | 0.45 | 0.55 | 0.30 | 0.44 | 0.23 |
| FBLN5 | 0.73 | 0.57 | 0.50 | 0.47 | 0.69 | 0.47 | 0.59 | 0.40 |
| FBLN7 | 0.29 | 0.17 | 0.20 | 0.15 | 0.13 | 0.30 | 0.15 | 0.66 |
| FBN1 | -0.55 | -0.46 | -0.35 | -0.55 | -0.42 | -0.45 | -0.33 | -0.44 |
| FBN2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.11 |
| FBN3 | -1.74 | -1.79 | -1.64 | -1.70 | -1.76 | -1.78 | -1.80 | -1.81 |
| FBP1 | 8.44 | 7.42 | 7.63 | 7.68 | 6.58 | 6.66 | 8.26 | 7.93 |
| FBP2 | -0.83 | -0.91 | -0.90 | -0.92 | -0.87 | -0.92 | -0.85 | -0.93 |
| FBRS | 4.84 | 5.27 | 5.12 | 5.01 | 4.54 | 5.10 | 4.91 | 5.23 |
| FBRSL1 | 4.53 | 4.66 | 5.33 | 4.72 | 4.56 | 4.77 | 4.68 | 4.70 |
| FBXL12 | 5.24 | 5.60 | 5.36 | 5.94 | 6.11 | 5.86 | 5.94 | 6.22 |
| FBXL13 | -0.51 | -0.42 | -0.33 | -0.52 | -0.50 | -0.53 | -0.32 | -0.48 |
| FBXL14 | 0.72 | 0.89 | 0.79 | 0.78 | 0.73 | 0.81 | 0.69 | 0.64 |
| FBXL15 | 6.11 | 5.88 | 5.29 | 6.18 | 6.01 | 5.69 | 5.23 | 5.70 |
| FBXL16 | 3.07 | 1.48 | 1.79 | 1.60 | 2.11 | 2.12 | 2.08 | 1.75 |
| FBXL17 | 3.08 | 3.90 | 3.65 | 3.58 | 3.68 | 3.77 | 3.85 | 4.12 |
| FBXL18 | 4.71 | 4.92 | 4.32 | 4.65 | 4.71 | 4.87 | 5.03 | 4.82 |
| FBXL19 | 3.13 | 3.74 | 4.42 | 3.38 | 3.37 | 3.28 | 3.93 | 3.76 |
| FBXL19-AS1 | 1.59 | 1.13 | 1.24 | 1.65 | 1.25 | 1.32 | 1.79 | 1.29 |
| FBXL2 | 1.65 | 2.04 | 1.95 | 2.03 | 1.74 | 2.00 | 1.48 | 1.45 |
| FBXL20 | 3.72 | 3.74 | 4.31 | 3.67 | 3.75 | 4.00 | 4.25 | 4.04 |
| FBXL22 | 1.94 | 1.61 | 1.67 | 1.84 | 1.79 | 1.66 | 1.66 | 1.91 |
| FBXL3 | 3.89 | 4.71 | 4.36 | 4.49 | 4.45 | 3.96 | 4.83 | 4.80 |
| FBXL4 | 4.08 | 3.74 | 4.23 | 3.53 | 3.60 | 3.84 | 4.61 | 3.97 |
| FBXL5 | 4.64 | 5.35 | 5.19 | 5.16 | 4.59 | 5.29 | 5.96 | 5.61 |
| FBXL6 | 3.53 | 2.72 | 3.27 | 3.09 | 3.10 | 2.98 | 2.64 | 3.35 |
| FBXL8 | 1.21 | 1.25 | 1.30 | 1.20 | 1.16 | 1.23 | 1.18 | 1.14 |
| FBXO10 | 0.15 | 0.48 | 0.18 | 0.57 | 0.35 | 0.21 | 0.43 | 0.18 |
| FBXO11 | 4.80 | 5.10 | 5.24 | 5.00 | 5.58 | 4.96 | 5.41 | 5.26 |
| FBXO15 | -1.59 | -1.59 | -1.52 | -1.60 | -1.40 | -1.54 | -1.60 | -1.62 |
| FBXO16 | 2.86 | 2.93 | 3.13 | 2.75 | 3.01 | 3.10 | 2.52 | 2.48 |
| FBXO17 | 4.31 | 3.08 | 2.78 | 3.18 | 3.02 | 3.57 | 2.03 | 1.95 |
| FBXO2 | 9.04 | 4.55 | 5.27 | 4.72 | 6.92 | 5.31 | 5.65 | 4.94 |
| FBXO21 | 6.10 | 6.59 | 7.03 | 6.47 | 5.73 | 6.28 | 6.92 | 6.51 |
| FBXO22 | 6.14 | 6.49 | 5.90 | 6.52 | 6.42 | 6.02 | 6.30 | 6.01 |
| FBXO24 | 0.23 | 0.32 | 0.24 | 0.22 | 0.30 | 0.20 | 0.47 | 0.27 |
| FBXO25 | 4.50 | 4.43 | 5.15 | 4.68 | 4.88 | 4.71 | 5.12 | 4.93 |
| FBXO28 | 4.81 | 4.68 | 4.43 | 4.10 | 4.41 | 4.80 | 4.47 | 4.94 |
| FBXO3 | 4.97 | 5.06 | 5.23 | 4.82 | 4.78 | 4.48 | 5.12 | 5.04 |
| FBXO3-DT | -2.36 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| FBXO30 | 3.21 | 3.28 | 3.10 | 3.13 | 2.88 | 3.15 | 3.31 | 3.27 |
| FBXO31 | 3.31 | 3.72 | 4.20 | 3.74 | 3.61 | 3.35 | 3.46 | 3.07 |
| FBXO32 | 3.66 | 2.67 | 3.54 | 3.25 | 3.69 | 3.84 | 3.18 | 5.02 |
| FBXO33 | 3.58 | 4.19 | 4.75 | 4.38 | 4.36 | 4.45 | 4.64 | 4.15 |
| FBXO34 | 4.72 | 5.12 | 5.24 | 4.71 | 5.36 | 5.05 | 5.21 | 5.03 |
| FBXO36 | 2.57 | 1.89 | 2.24 | 2.26 | 2.27 | 2.67 | 2.01 | 2.89 |
| FBXO36-IT1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| FBXO38 | 4.09 | 4.21 | 4.70 | 4.12 | 4.26 | 4.18 | 4.73 | 3.81 |
| FBXO39 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| FBXO4 | 3.95 | 3.99 | 4.03 | 4.19 | 4.81 | 3.61 | 4.00 | 4.16 |
| FBXO41 | 2.90 | 2.30 | 3.04 | 2.84 | 3.16 | 2.46 | 2.61 | 2.57 |
| FBXO42 | 4.73 | 3.91 | 3.90 | 4.14 | 3.76 | 3.96 | 4.22 | 3.93 |
| FBXO43 | 0.38 | 0.11 | 0.44 | 0.09 | 0.27 | 0.31 | 0.09 | 0.23 |
| FBXO44 | 4.28 | 3.29 | 3.23 | 3.58 | 3.67 | 3.24 | 3.75 | 3.34 |
| FBXO45 | 5.20 | 5.42 | 5.30 | 5.01 | 5.00 | 4.96 | 5.15 | 5.24 |
| FBXO46 | 3.59 | 3.71 | 3.91 | 3.70 | 3.95 | 3.50 | 3.94 | 3.83 |
| FBXO47 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| FBXO48 | 3.56 | 3.32 | 2.59 | 3.21 | 3.47 | 2.95 | 2.77 | 2.79 |
| FBXO5 | 5.39 | 4.54 | 5.03 | 4.88 | 4.22 | 5.24 | 5.15 | 4.85 |
| FBXO6 | 5.07 | 3.96 | 3.62 | 3.76 | 4.60 | 4.15 | 3.93 | 3.99 |
| FBXO7 | 6.65 | 6.47 | 5.64 | 6.52 | 5.97 | 6.32 | 6.19 | 6.56 |
| FBXO8 | 3.79 | 4.10 | 4.03 | 4.31 | 4.22 | 4.23 | 4.18 | 4.84 |
| FBXO9 | 6.28 | 6.32 | 5.97 | 6.82 | 6.10 | 6.47 | 6.64 | 6.43 |
| FBXW10 | -0.83 | -1.16 | -1.08 | -1.17 | -1.13 | -1.18 | -1.17 | -1.02 |
| FBXW11 | 5.31 | 5.93 | 5.87 | 5.77 | 5.64 | 5.87 | 6.25 | 5.63 |
| FBXW11P1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| FBXW2 | 5.63 | 5.50 | 5.39 | 5.56 | 4.75 | 5.45 | 5.26 | 5.07 |
| FBXW4 | 5.89 | 5.25 | 5.20 | 5.35 | 5.67 | 5.23 | 4.87 | 5.34 |
| FBXW4P1 | 1.17 | 1.25 | 1.39 | 1.25 | 0.93 | 1.11 | 1.62 | 1.23 |
| FBXW5 | 7.39 | 7.55 | 7.06 | 7.77 | 6.55 | 7.01 | 7.15 | 6.78 |
| FBXW7 | 4.22 | 5.13 | 5.07 | 4.92 | 4.28 | 4.80 | 5.15 | 4.59 |
| FBXW8 | 2.61 | 2.89 | 2.66 | 3.12 | 3.29 | 2.87 | 2.61 | 3.30 |
| FBXW9 | 4.34 | 4.27 | 4.38 | 4.43 | 4.17 | 4.38 | 4.64 | 3.79 |
| FCAMR | -1.79 | -1.79 | -1.78 | -1.79 | -1.74 | -1.80 | -1.79 | -1.81 |
| FCAR | -1.74 | -1.73 | -1.68 | -1.70 | -1.74 | -1.75 | -1.70 | -1.76 |
| FCER1G | -1.69 | -1.68 | -1.63 | -1.69 | -1.59 | -1.57 | -1.69 | -1.71 |
| FCF1 | 4.95 | 5.68 | 5.03 | 5.26 | 5.65 | 5.63 | 5.27 | 5.70 |
| FCF1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FCF1P7 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| FCGBP | 2.77 | 2.44 | 3.60 | 2.79 | 2.86 | 3.22 | 3.69 | 2.59 |
| FCGR2A | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.06 | -2.10 | -2.11 |
| FCGRT | 8.85 | 7.54 | 6.49 | 8.42 | 8.79 | 6.50 | 6.85 | 6.98 |
| FCHO1 | 4.67 | 3.54 | 3.11 | 4.40 | 3.20 | 3.98 | 3.07 | 3.77 |
| FCHO2 | 4.40 | 5.23 | 5.60 | 5.35 | 5.46 | 5.37 | 5.97 | 5.29 |
| FCHSD1 | 1.96 | 2.00 | 2.61 | 2.20 | 2.23 | 2.18 | 2.32 | 2.28 |
| FCHSD2 | 3.55 | 3.15 | 3.56 | 3.09 | 2.94 | 3.04 | 3.49 | 3.43 |
| FCMR | 2.98 | 1.88 | 1.87 | 1.78 | 2.15 | 1.94 | 1.78 | 1.66 |
| FCN3 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| FCRL2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FCRL3 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.95 | -1.96 |
| FCRL4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FCRLB | 0.98 | 0.87 | 1.26 | 0.96 | 1.07 | 1.27 | 0.61 | 1.36 |
| FCSK | 3.37 | 3.25 | 3.72 | 3.27 | 3.35 | 3.10 | 3.40 | 3.10 |
| FDCSP | -1.31 | -1.30 | -0.63 | -1.31 | -1.30 | -1.32 | -1.31 | -1.26 |
| FDFT1 | 9.50 | 9.29 | 9.87 | 9.42 | 9.50 | 10.14 | 9.55 | 9.91 |
| FDPS | 9.25 | 8.72 | 8.25 | 8.92 | 9.76 | 9.10 | 9.51 | 9.56 |
| FDPSP1 | -2.20 | -2.20 | -2.19 | -2.16 | -2.19 | -2.19 | -2.18 | -2.21 |
| FDPSP4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| FDPSP5 | -1.79 | -1.74 | -1.78 | -1.79 | -1.79 | -1.78 | -1.70 | -1.76 |
| FDX1 | 7.51 | 7.03 | 6.84 | 6.76 | 6.96 | 6.54 | 6.67 | 7.73 |
| FDX1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FDX2 | -1.33 | -1.44 | -1.37 | -1.33 | -1.44 | -1.43 | -1.45 | -1.47 |
| FDXACB1 | 1.55 | 2.03 | 1.65 | 1.62 | 2.14 | 1.70 | 1.57 | 1.53 |
| FDXR | 5.02 | 6.08 | 4.62 | 6.20 | 5.37 | 4.79 | 5.15 | 4.35 |
| FECH | 4.12 | 3.62 | 3.93 | 3.17 | 3.37 | 3.41 | 3.77 | 3.80 |
| FEM1A | 3.98 | 4.78 | 4.35 | 4.38 | 3.94 | 4.17 | 4.10 | 4.05 |
| FEM1B | 4.80 | 4.77 | 5.31 | 4.66 | 4.70 | 4.74 | 5.14 | 4.66 |
| FEM1C | 3.31 | 4.52 | 4.30 | 4.05 | 3.90 | 3.86 | 4.06 | 3.98 |
| FEN1 | 7.24 | 6.90 | 7.19 | 7.05 | 6.59 | 6.57 | 6.60 | 6.43 |
| FER | 3.55 | 4.82 | 5.02 | 4.23 | 4.15 | 4.54 | 5.14 | 4.37 |
| FER1L4 | 3.52 | 3.69 | 4.93 | 4.39 | 4.53 | 4.75 | 4.86 | 4.22 |
| FER1L5 | -1.39 | -1.55 | -1.54 | -1.56 | -1.55 | -1.57 | -1.56 | -1.58 |
| FER1L6 | 1.96 | 2.91 | 2.43 | 2.79 | 2.48 | 2.86 | 3.82 | 4.14 |
| FERMT1 | 6.46 | 8.13 | 6.61 | 8.03 | 8.02 | 6.90 | 6.81 | 8.09 |
| FERMT2 | 1.78 | 1.89 | 1.79 | 1.97 | 1.76 | 3.16 | 2.19 | 2.68 |
| FERMT3 | 2.13 | 1.57 | 1.97 | 2.06 | 2.07 | 1.83 | 1.98 | 1.60 |
| FES | -0.93 | -0.84 | -0.83 | -0.93 | -0.88 | -0.78 | -0.86 | -0.45 |
| FETUB | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| FEV | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| FEZ1 | 1.12 | 0.42 | 0.59 | 0.54 | 0.58 | 0.52 | 0.39 | 0.54 |
| FEZ2 | 5.38 | 5.89 | 5.27 | 5.67 | 4.65 | 5.88 | 5.85 | 5.75 |
| FEZF1 | 0.03 | 0.04 | 0.07 | 0.02 | 1.15 | 0.34 | -0.07 | -0.02 |
| FEZF1-AS1 | 0.77 | 1.42 | 0.81 | 1.47 | 2.33 | 0.98 | 0.67 | 0.95 |
| FFAR2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| FFAR4 | 4.98 | 4.72 | 2.94 | 5.71 | 4.31 | 3.86 | 3.24 | 3.04 |
| FGA | 0.56 | 0.58 | 0.70 | 0.65 | 0.72 | 0.66 | 2.83 | 0.79 |
| FGB | 1.15 | 0.92 | 1.17 | 0.98 | 0.82 | 0.85 | 3.20 | 0.79 |
| FGD1 | 1.33 | 1.08 | 0.98 | 0.97 | 0.99 | 0.73 | 0.75 | 0.82 |
| FGD2 | 1.03 | 0.77 | 0.80 | 0.65 | 1.02 | 1.05 | 0.73 | 1.00 |
| FGD3 | 0.52 | 0.47 | 0.27 | 0.51 | 0.39 | 0.47 | 0.21 | 0.18 |
| FGD4 | 4.89 | 6.26 | 6.04 | 6.16 | 5.53 | 4.57 | 6.38 | 5.41 |
| FGD5 | -0.81 | -0.22 | -0.79 | -0.47 | -0.76 | -0.82 | -0.81 | -0.77 |
| FGD5-AS1 | 6.76 | 6.64 | 6.78 | 6.44 | 6.29 | 6.36 | 6.56 | 6.52 |
| FGD5P1 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| FGD6 | 3.96 | 4.02 | 5.03 | 3.70 | 3.97 | 4.61 | 4.46 | 4.77 |
| FGF11 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| FGF12 | -1.55 | -1.42 | -1.54 | -1.23 | -1.55 | -1.57 | -1.49 | -1.52 |
| FGF13 | -1.03 | -0.94 | -1.09 | -0.89 | -1.10 | -1.12 | -1.03 | -1.12 |
| FGF14 | -1.94 | -1.90 | -1.93 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| FGF14-AS2 | 0.30 | 0.08 | 0.44 | 0.36 | 0.50 | 0.16 | 0.34 | 0.04 |
| FGF17 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.13 |

| | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| FGF18 | 3.50 | 1.93 | 2.08 | 2.15 | 2.19 | 2.00 | 2.30 | 2.88 |
| FGF19 | 7.69 | 6.47 | 7.39 | 6.47 | 7.24 | 6.58 | 7.86 | 6.74 |
| FGF2 | 2.43 | 2.97 | 2.44 | 2.81 | 1.97 | 2.29 | 2.34 | 3.13 |
| FGF20 | -1.89 | -1.85 | -1.84 | -1.77 | -1.87 | -1.90 | -1.90 | -1.91 |
| FGF21 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.07 |
| FGF22 | -0.91 | -0.82 | -0.72 | -0.91 | -0.97 | -0.77 | -0.98 | -0.99 |
| FGF23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| FGF3 | -1.50 | -1.20 | -1.48 | -1.44 | -1.41 | -1.39 | -1.50 | -1.52 |
| FGF7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| FGF7P6 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.00 |
| FGF8 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| FGF9 | 2.21 | 2.94 | 2.64 | 2.90 | 1.53 | 1.46 | 1.46 | 1.13 |
| FGFBP1 | 6.04 | 5.61 | 5.52 | 5.85 | 6.86 | 5.37 | 7.45 | 7.73 |
| FGFBP2 | -2.15 | -2.14 | -2.14 | -2.11 | -2.15 | -2.14 | -2.15 | -2.09 |
| FGFBP3 | 3.63 | 2.93 | 2.53 | 3.49 | 2.99 | 2.64 | 2.22 | 2.27 |
| FGFR1 | 3.47 | 3.07 | 3.75 | 2.97 | 3.22 | 2.21 | 3.47 | 2.50 |
| FGFR1OP | 4.90 | 3.73 | 4.72 | 3.91 | 4.02 | 4.67 | 4.71 | 3.83 |
| FGFR1OP2 | 5.64 | 6.05 | 5.54 | 5.96 | 6.41 | 4.95 | 5.81 | 5.69 |
| FGFR2 | 4.18 | 3.76 | 3.10 | 3.41 | 3.59 | 3.17 | 4.31 | 2.59 |
| FGFR3 | 3.83 | 3.46 | 3.68 | 3.56 | 3.25 | 3.42 | 5.24 | 3.15 |
| FGFR4 | 5.41 | 5.75 | 6.06 | 6.09 | 5.88 | 5.18 | 6.32 | 3.79 |
| FGFRL1 | 5.34 | 5.34 | 5.02 | 5.15 | 4.24 | 5.11 | 4.94 | 4.90 |
| FGG | -0.32 | -0.31 | -0.19 | -0.32 | -0.22 | -0.33 | 1.16 | -0.09 |
| FGGY | 2.28 | 3.99 | 3.12 | 3.73 | 3.04 | 2.82 | 2.86 | 2.90 |
| FGL1 | -0.81 | -1.14 | -1.13 | -1.15 | -1.14 | -1.16 | -1.16 | -1.17 |
| FGL2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| FGR | -1.50 | -1.55 | -1.54 | -1.56 | -1.50 | -1.51 | -1.56 | -1.27 |
| FH | 7.10 | 6.88 | 6.72 | 7.00 | 7.00 | 7.01 | 6.96 | 6.86 |
| FHAD1 | 0.73 | 1.05 | 0.78 | 1.57 | 0.90 | 1.10 | 0.51 | 0.75 |
| FHDC1 | 2.06 | 2.47 | 2.72 | 2.80 | 2.70 | 2.29 | 2.88 | 2.50 |
| FHIT | 2.76 | 3.39 | 2.51 | 3.75 | 3.83 | 3.03 | 3.73 | 2.93 |
| FHL1 | 1.58 | 0.49 | 0.59 | 0.56 | 0.62 | 0.73 | 0.61 | 1.03 |
| FHL2 | 7.51 | 8.03 | 7.09 | 8.15 | 8.67 | 8.40 | 7.12 | 7.99 |
| FHL3 | 2.56 | 2.97 | 2.66 | 2.31 | 2.58 | 2.73 | 2.83 | 3.49 |
| FHOD1 | 5.00 | 4.75 | 4.17 | 5.78 | 4.95 | 5.00 | 4.74 | 4.65 |
| FHOD3 | 0.95 | 2.03 | 1.95 | 1.71 | 0.96 | 3.29 | 1.01 | 1.76 |
| FHP1 | -1.98 | -2.01 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.06 |
| FIBCD1 | 5.28 | 6.59 | 3.80 | 6.61 | 5.47 | 4.22 | 4.81 | 3.57 |
| FIBIN | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| FIBP | 7.19 | 6.05 | 6.74 | 6.17 | 7.28 | 6.87 | 6.19 | 6.62 |
| FICD | 3.64 | 3.80 | 3.77 | 3.73 | 3.98 | 3.81 | 4.07 | 4.72 |
| FIG4 | 3.29 | 3.04 | 3.25 | 2.76 | 3.12 | 3.00 | 3.22 | 3.19 |
| FIGN | 1.48 | 1.14 | 1.31 | 1.10 | 1.10 | 1.61 | 1.38 | 1.43 |
| FIGNL1 | 6.39 | 5.87 | 5.63 | 5.99 | 6.22 | 5.94 | 5.85 | 6.10 |
| FIGNL2 | -2.01 | -2.01 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.06 |
| FILIP1 | 0.60 | 0.29 | 0.31 | 0.17 | 0.19 | 0.20 | 0.17 | 0.35 |
| FILIP1L | 2.90 | 2.98 | 3.10 | 2.69 | 3.35 | 3.69 | 4.91 | 3.00 |
| FIP1L1 | 5.63 | 5.84 | 5.97 | 6.11 | 5.73 | 6.40 | 6.10 | 6.69 |
| FIRRE | 1.82 | 2.54 | 3.45 | 2.36 | 1.08 | 0.93 | 1.12 | 1.99 |
| FIS1 | 6.53 | 7.48 | 6.53 | 7.71 | 7.79 | 7.18 | 7.25 | 7.65 |
| FITM1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.82 | -1.87 |
| FITM2 | 4.58 | 3.92 | 3.94 | 4.17 | 3.98 | 3.81 | 4.01 | 3.30 |
| FIZ1 | 2.87 | 2.74 | 2.64 | 2.80 | 2.99 | 2.73 | 2.99 | 2.63 |
| FJX1 | 1.54 | 2.34 | 2.19 | 2.75 | 1.90 | 1.65 | 1.63 | 1.15 |
| FKBP10 | 6.86 | 4.02 | 4.65 | 3.86 | 5.32 | 3.47 | 3.91 | 5.30 |
| FKBP11 | 5.12 | 5.16 | 4.06 | 5.99 | 5.69 | 4.75 | 4.27 | 5.69 |
| FKBP14 | 4.90 | 4.67 | 4.60 | 4.64 | 5.30 | 4.90 | 4.67 | 5.65 |
| FKBP15 | 4.19 | 5.01 | 4.57 | 4.35 | 4.09 | 4.69 | 4.90 | 4.03 |
| FKBP1A | 8.62 | 7.90 | 7.69 | 7.96 | 7.69 | 8.07 | 7.41 | 8.10 |
| FKBP1AP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| FKBP1B | 5.42 | 4.76 | 5.13 | 4.53 | 5.57 | 4.93 | 6.15 | 5.09 |
| FKBP1C | 0.04 | -0.23 | -0.05 | -0.11 | -0.28 | -0.26 | -0.33 | -0.13 |
| FKBP2 | 0.29 | 0.53 | 0.31 | 0.56 | 0.55 | 0.49 | 0.35 | 0.67 |
| FKBP3 | 7.00 | 7.29 | 6.95 | 7.22 | 7.64 | 7.81 | 7.12 | 6.88 |
| FKBP4 | 7.78 | 7.60 | 7.42 | 7.55 | 6.79 | 6.97 | 7.56 | 7.23 |
| FKBP4P1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| FKBP4P6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| FKBP5 | 5.79 | 7.72 | 7.40 | 6.97 | 5.81 | 6.35 | 7.06 | 7.94 |
| FKBP6 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| FKBP7 | 2.83 | 3.50 | 3.16 | 4.01 | 4.10 | 3.89 | 2.72 | 3.56 |
| FKBP8 | 6.40 | 6.72 | 6.42 | 7.01 | 6.61 | 6.67 | 6.37 | 7.04 |
| FKBP9 | 5.99 | 5.91 | 5.59 | 5.77 | 5.74 | 5.03 | 5.32 | 5.76 |
| FKBP9P1 | 0.92 | 0.94 | 2.42 | 0.90 | 2.90 | 0.97 | 0.95 | 0.73 |
| FKBPL | 3.66 | 3.29 | 3.02 | 3.18 | 3.09 | 3.74 | 3.51 | 3.62 |
| FKRP | 3.07 | 2.93 | 3.40 | 2.87 | 2.94 | 2.70 | 2.81 | 3.08 |
| FKTN | 4.18 | 4.31 | 4.29 | 4.20 | 3.74 | 4.34 | 4.58 | 3.99 |
| FLACC1 | -1.49 | -1.49 | -1.48 | -1.38 | -1.43 | -1.47 | -1.50 | -1.46 |
| FLAD1 | 5.83 | 5.39 | 5.28 | 5.62 | 5.98 | 6.11 | 5.29 | 6.15 |
| FLCN | 3.64 | 3.06 | 4.00 | 3.30 | 3.11 | 3.47 | 3.16 | 3.21 |
| FLG | -0.20 | -0.19 | -0.27 | 0.02 | -0.29 | -0.27 | -0.14 | -0.33 |
| FLG-AS1 | 0.45 | 0.88 | 0.60 | 0.53 | 0.47 | 0.42 | 0.60 | 0.58 |
| FLI1 | -0.54 | -0.54 | -0.44 | -0.46 | -0.49 | -0.51 | -0.55 | -0.43 |
| FLII | 6.70 | 6.16 | 6.24 | 5.97 | 5.57 | 5.98 | 6.87 | 6.55 |
| FLJ45513 | -0.59 | -0.87 | -0.65 | -0.88 | -0.83 | -0.85 | -0.88 | -0.83 |
| FLNA | 7.21 | 6.10 | 7.84 | 5.83 | 5.98 | 7.98 | 6.79 | 6.55 |
| FLNB | 6.79 | 8.13 | 8.21 | 7.56 | 7.36 | 7.63 | 7.91 | 8.33 |
| FLNB-AS1 | -0.65 | -0.35 | -0.54 | -0.58 | -0.49 | -0.59 | -0.58 | -0.49 |
| FLNC | 1.58 | 2.85 | 2.77 | 2.82 | 3.36 | 2.26 | 1.63 | 3.40 |
| FLOT1 | 7.80 | 6.63 | 7.06 | 6.37 | 6.97 | 8.07 | 6.81 | 7.47 |
| FLOT2 | 5.54 | 4.88 | 5.53 | 4.69 | 5.31 | 4.79 | 4.74 | 5.24 |
| FLRT1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.17 |
| FLRT2 | -0.91 | -0.74 | -0.89 | -0.84 | -0.83 | -0.88 | -0.76 | -0.93 |
| FLRT3 | 3.39 | 4.15 | 3.98 | 4.31 | 3.32 | 4.02 | 4.85 | 6.09 |
| FLT1 | -2.10 | -2.06 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| FLT3LG | -0.60 | -0.75 | -0.49 | -0.48 | -0.46 | -0.72 | -0.68 | -0.70 |
| FLT4 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| FLVCR1 | 4.32 | 4.47 | 4.44 | 4.24 | 4.82 | 4.47 | 4.43 | 4.00 |
| FLVCR1-DT | 3.78 | 2.94 | 3.63 | 3.04 | 5.14 | 4.52 | 3.77 | 3.81 |
| FLVCR2 | 0.98 | 1.23 | 0.88 | 1.20 | 1.05 | 1.26 | 1.18 | 0.97 |
| FLYWCH1 | 4.33 | 4.21 | 4.14 | 4.06 | 3.74 | 3.81 | 3.88 | 4.38 |
| FLYWCH2 | 7.31 | 6.22 | 5.71 | 6.04 | 5.75 | 6.26 | 5.89 | 6.52 |
| FMC1 | 5.92 | 5.20 | 4.77 | 5.77 | 5.60 | 5.77 | 5.07 | 5.31 |
| FMN1 | 3.80 | 4.87 | 4.18 | 4.83 | 4.38 | 4.68 | 4.76 | 4.09 |
| FMNL1 | 0.31 | 0.18 | 0.21 | 0.16 | 0.47 | 0.76 | 0.30 | 0.50 |
| FMNL2 | 5.29 | 4.70 | 4.88 | 4.89 | 5.51 | 4.51 | 4.97 | 4.92 |
| FMNL3 | -0.85 | -0.85 | -0.83 | -0.85 | -0.77 | -0.67 | -0.78 | -0.87 |
| FMO2 | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| FMO4 | 0.67 | 1.17 | 0.98 | 0.95 | 1.14 | 0.85 | 0.87 | 1.10 |
| FMO5 | 2.62 | 4.02 | 3.59 | 4.51 | 4.28 | 3.08 | 4.48 | 4.29 |
| FMO9P | -1.01 | -1.14 | -1.13 | -1.15 | -1.10 | -1.16 | -1.15 | -0.88 |
| FMOD | 1.33 | 1.37 | 1.05 | 2.09 | 3.28 | 1.07 | 1.20 | 1.11 |
| FMR1 | 5.32 | 5.53 | 6.12 | 5.08 | 5.04 | 6.15 | 5.53 | 5.38 |
| FMR1-AS1 | -1.23 | -1.22 | -0.86 | -1.16 | -1.15 | -1.20 | -1.03 | -1.18 |
| FMR1-IT1 | -1.69 | -1.74 | -1.73 | -1.69 | -1.71 | -1.75 | -1.64 | -1.76 |
| FN1 | 2.18 | 2.33 | 3.35 | 2.43 | 2.63 | 5.19 | 3.97 | 3.11 |
| FN3K | 0.64 | 0.66 | 0.55 | 0.34 | 0.55 | 0.50 | 0.71 | 0.43 |
| FN3KRP | 6.48 | 5.62 | 5.46 | 5.95 | 5.52 | 6.11 | 5.29 | 5.45 |
| FNBP1 | 4.95 | 4.81 | 4.44 | 4.41 | 4.52 | 5.25 | 5.09 | 4.56 |
| FNBP1L | 5.86 | 6.41 | 5.73 | 6.35 | 5.87 | 5.86 | 6.71 | 6.06 |
| FNBP1P1 | 1.95 | 1.46 | 1.46 | 1.28 | 1.59 | 1.36 | 1.41 | 1.60 |
| FNBP4 | 5.75 | 5.82 | 6.15 | 5.93 | 6.31 | 5.85 | 6.33 | 6.16 |
| FNDC1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FNDC10 | 5.42 | 5.84 | 4.20 | 6.00 | 5.06 | 4.07 | 4.87 | 3.67 |
| FNDC11 | 1.73 | 0.68 | 0.84 | 0.66 | 0.89 | 1.00 | 0.72 | 0.60 |
| FNDC3A | 4.52 | 5.45 | 5.03 | 5.58 | 5.91 | 4.64 | 5.97 | 6.20 |
| FNDC3B | 6.86 | 7.25 | 8.32 | 7.00 | 7.09 | 6.90 | 7.17 | 7.92 |
| FNDC4 | 3.19 | 2.98 | 3.34 | 2.82 | 3.86 | 3.06 | 3.75 | 4.95 |
| FNDC5 | -0.54 | -1.01 | -1.00 | -1.02 | -0.97 | -1.02 | -0.95 | -1.03 |
| FNDC7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FNDC8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FNIP1 | 3.74 | 4.34 | 5.69 | 4.46 | 4.65 | 4.57 | 4.89 | 4.63 |
| FNIP2 | 4.16 | 5.45 | 5.17 | 5.34 | 4.73 | 4.71 | 5.29 | 4.84 |
| FNTA | 5.96 | 5.78 | 5.71 | 5.68 | 6.04 | 6.09 | 6.02 | 6.46 |
| FNTB | 3.10 | 3.52 | 3.38 | 3.39 | 3.54 | 3.35 | 3.55 | 3.00 |
| FO393401.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| FO393409.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| FO393411.1 | 3.43 | 3.62 | 3.20 | 3.75 | 3.55 | 3.24 | 2.94 | 3.36 |
| FO393415.2 | -1.30 | -1.23 | -1.28 | -1.24 | -1.10 | -1.25 | -1.17 | -1.15 |
| FO393418.1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| FO704657.1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| FOCAD | 3.65 | 4.07 | 4.04 | 3.88 | 3.60 | 3.65 | 4.11 | 3.64 |
| FOCAD-AS1 | -1.59 | -1.68 | -1.68 | -1.69 | -1.66 | -1.65 | -1.69 | -1.71 |
| FOLH1 | -1.02 | -0.93 | -1.00 | -0.47 | -0.97 | -1.03 | -0.95 | -1.04 |
| FOLR1 | 3.88 | 4.17 | 3.94 | 3.96 | 3.72 | 3.82 | 5.71 | 4.20 |
| FOLR3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| FOPNL | 6.65 | 6.12 | 5.77 | 5.99 | 5.30 | 6.20 | 5.58 | 6.71 |
| FOS | 7.60 | 7.31 | 7.18 | 6.74 | 7.77 | 6.49 | 7.29 | 7.72 |
| FOSB | 0.44 | 0.54 | 0.84 | 0.52 | 0.90 | 0.84 | 0.59 | 0.82 |
| FOSL1 | 5.84 | 5.61 | 5.99 | 5.57 | 6.18 | 7.25 | 4.37 | 7.09 |
| FOSL2 | 6.92 | 6.94 | 6.76 | 6.37 | 5.90 | 5.77 | 6.92 | 6.91 |
| FOXA1 | 4.36 | 4.08 | 4.23 | 3.66 | 3.62 | 5.26 | 3.87 | 4.68 |
| FOXA2 | 5.35 | 5.93 | 5.75 | 6.32 | 6.42 | 5.74 | 5.80 | 5.49 |
| FOXA3 | 4.16 | 4.27 | 3.97 | 4.52 | 4.41 | 3.57 | 4.27 | 3.38 |
| FOXB1 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.01 | -2.05 | -2.00 |
| FOXC1 | 5.71 | 5.64 | 4.56 | 5.09 | 5.15 | 4.54 | 5.08 | 5.64 |
| FOXC2 | 2.61 | 2.32 | 3.93 | 2.24 | 2.50 | 2.29 | 3.78 | 2.16 |
| FOXC2-AS1 | 1.41 | 1.53 | 1.95 | 1.31 | 1.52 | 1.43 | 2.18 | 1.22 |
| FOXCUT | -2.10 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| FOXD1 | 3.35 | 3.94 | 2.85 | 3.88 | 4.40 | 4.67 | 2.41 | 3.63 |
| FOXD1-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| FOXD2 | 2.45 | 2.85 | 2.32 | 2.70 | 2.47 | 2.44 | 1.89 | 2.15 |
| FOXD2-AS1 | 0.52 | 0.34 | 0.59 | 0.38 | 0.41 | 0.34 | 0.31 | 0.42 |
| FOXD3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| FOXD3-AS1 | -0.91 | -0.98 | -0.88 | -0.91 | -0.75 | -0.81 | -0.99 | -0.88 |
| FOXD4 | -2.07 | -2.09 | -2.09 | -2.07 | -2.07 | -2.09 | -2.10 | -2.11 |
| FOXD4L1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| FOXE1 | -1.24 | -1.30 | -1.22 | -1.31 | -1.30 | -1.32 | -1.24 | -0.64 |
| FOXE3 | -1.94 | -1.90 | -1.93 | -1.95 | -1.94 | -1.93 | -1.91 | -1.96 |
| FOXF1 | -2.05 | -2.01 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| FOXF2 | 2.31 | 1.14 | 1.30 | 1.15 | 1.03 | 0.92 | 0.86 | 1.01 |
| FOXH1 | 0.38 | 0.03 | 0.32 | 0.22 | 0.25 | 0.39 | 0.10 | 0.52 |
| FOXI1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.29 | -2.31 |
| FOXI3 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| FOXJ1 | 2.30 | 2.53 | 5.00 | 2.55 | 5.22 | 4.03 | 2.56 | 4.62 |
| FOXJ2 | 4.15 | 4.34 | 4.72 | 4.05 | 5.06 | 3.58 | 4.50 | 3.82 |
| FOXJ3 | 4.39 | 5.37 | 4.84 | 5.14 | 4.98 | 5.13 | 5.33 | 5.25 |
| FOXK1 | 5.29 | 5.12 | 5.34 | 5.16 | 5.27 | 4.97 | 4.82 | 5.64 |
| FOXK2 | 5.97 | 5.56 | 5.91 | 5.57 | 5.90 | 5.93 | 5.57 | 6.09 |
| FOXL1 | 3.17 | 4.27 | 4.59 | 3.81 | 4.05 | 3.99 | 4.36 | 3.53 |
| FOXL2 | 1.36 | 0.69 | 0.88 | 0.76 | 1.94 | 0.87 | 0.82 | 0.69 |
| FOXL2NB | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| FOXN1 | 4.94 | 4.87 | 5.59 | 4.98 | 3.91 | 4.28 | 4.70 | 5.12 |
| FOXN2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| FOXN3 | 5.64 | 5.23 | 5.20 | 5.11 | 6.08 | 5.21 | 5.01 | 5.76 |
| FOXN3-AS1 | 3.73 | 4.36 | 3.85 | 4.59 | 3.93 | 3.92 | 4.71 | 3.84 |
| FOXO1 | 2.61 | 2.11 | 2.07 | 2.70 | 2.32 | 1.87 | 1.85 | 2.12 |
| FOXO3 | 4.16 | 4.38 | 4.93 | 4.51 | 4.90 | 4.15 | 4.82 | 5.13 |
| FOXO3 | 5.67 | 4.66 | 6.42 | 5.03 | 4.92 | 5.74 | 6.04 | 5.75 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| FOXO3B | 0.14 | -0.01 | 0.18 | 0.20 | 0.07 | 0.17 | 0.30 | 0.13 |
| FOXO4 | 2.29 | 2.05 | 2.83 | 2.17 | 2.27 | 2.05 | 2.44 | 2.06 |
| FOXO6 | 0.65 | 0.95 | 0.72 | 1.01 | 0.64 | 0.77 | 0.69 | 0.99 |
| FOXP1 | 5.43 | 5.87 | 6.42 | 6.06 | 5.67 | 6.31 | 6.43 | 4.63 |
| FOXP1-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FOXP1-IT1 | 0.49 | 0.91 | 0.89 | 0.86 | 0.63 | 0.76 | 1.22 | 0.44 |
| FOXP2 | -1.65 | -1.64 | -1.64 | -1.60 | -1.62 | -1.66 | -1.65 | -1.53 |
| FOXP3 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| FOXP4 | 4.31 | 4.23 | 3.93 | 4.56 | 4.26 | 3.90 | 4.61 | 4.20 |
| FOXP4-AS1 | 4.26 | 2.04 | 2.35 | 2.69 | 3.00 | 2.29 | 2.18 | 2.12 |
| FOXQ1 | 7.89 | 7.17 | 7.20 | 7.23 | 7.03 | 6.93 | 8.29 | 8.59 |
| FOXR1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| FOXRED1 | 5.64 | 4.63 | 4.92 | 4.84 | 4.61 | 4.74 | 4.72 | 5.07 |
| FOXRED2 | 4.65 | 3.65 | 3.86 | 4.33 | 3.23 | 3.65 | 3.51 | 3.21 |
| FP236315.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| FP325331.1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FP325332.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| FP326651.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FP565260.1 | 2.75 | 2.03 | 2.61 | 2.23 | 2.11 | 2.84 | 2.69 | 2.96 |
| FP565260.6 | 1.39 | 1.29 | 1.49 | 1.03 | 1.26 | 1.17 | 1.47 | 1.39 |
| FPGS | 6.87 | 6.60 | 5.78 | 6.51 | 5.58 | 6.33 | 5.59 | 6.37 |
| FPGT | 2.62 | 3.29 | 3.12 | 3.04 | 3.26 | 3.02 | 3.41 | 3.00 |
| FPGT-TNNI3K | -1.38 | -1.31 | -1.36 | -1.32 | -1.34 | -1.27 | -1.09 | -1.29 |
| FPR1 | -0.58 | -0.48 | -0.14 | -0.59 | -0.58 | 0.68 | -0.51 | -0.46 |
| FPR2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| FPR3 | -2.05 | -2.04 | -1.94 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| FRA10AC1 | 6.66 | 6.51 | 5.86 | 6.17 | 6.87 | 6.29 | 6.68 | 6.38 |
| FRAS1 | 3.01 | 3.79 | 3.62 | 4.25 | 2.96 | 3.48 | 3.60 | 2.64 |
| FRAT1 | 2.94 | 2.49 | 2.67 | 2.58 | 2.99 | 2.66 | 2.61 | 2.78 |
| FRAT2 | 5.11 | 4.95 | 4.60 | 4.89 | 5.02 | 4.64 | 4.12 | 4.20 |
| FREM1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| FREM2 | 2.57 | 4.16 | 3.97 | 2.95 | 2.43 | 2.34 | 3.41 | 2.71 |
| FREM3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| FRG1 | 6.18 | 6.30 | 6.01 | 6.35 | 5.82 | 6.14 | 6.16 | 6.30 |
| FRG1-DT | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| FRG1BP | 4.03 | 3.77 | 4.14 | 3.95 | 4.32 | 3.60 | 4.26 | 4.35 |
| FRG1CP | 5.10 | 5.70 | 5.39 | 5.43 | 5.77 | 4.67 | 5.93 | 4.99 |
| FRG1DP | 0.56 | 0.44 | 0.29 | 0.54 | 0.74 | 0.25 | 0.70 | 0.36 |
| FRG1EP | 0.03 | 0.26 | -0.09 | 0.35 | 0.01 | -0.09 | 0.22 | 0.04 |
| FRG1FP | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| FRG1GP | -0.35 | -0.26 | -0.34 | -0.28 | 0.28 | -0.26 | -0.36 | -0.03 |
| FRG1HP | 4.18 | 3.94 | 4.15 | 3.96 | 4.24 | 3.42 | 4.07 | 3.87 |
| FRG1JP | 0.38 | 0.92 | 0.41 | 0.85 | 0.47 | 0.39 | 0.79 | 0.46 |
| FRG2C | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| FRG2FP | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| FRGCA | -1.22 | -1.21 | -1.13 | -1.23 | -1.08 | -1.20 | -1.23 | -1.24 |
| FRK | 4.69 | 4.67 | 4.67 | 4.84 | 4.27 | 4.60 | 5.31 | 4.50 |
| FRMD1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FRMD3 | 4.20 | 4.17 | 3.88 | 4.25 | 3.76 | 3.89 | 7.48 | 3.74 |
| FRMD4A | 1.90 | 1.44 | 1.41 | 1.71 | 1.43 | 1.35 | 1.67 | 1.32 |
| FRMD4B | 4.01 | 4.42 | 4.83 | 4.54 | 5.18 | 5.20 | 4.87 | 4.69 |
| FRMD5 | 2.55 | 3.67 | 3.17 | 3.19 | 3.53 | 3.49 | 3.05 | 2.62 |
| FRMD6 | 2.51 | 2.48 | 2.99 | 2.15 | 2.02 | 3.25 | 3.02 | 3.21 |
| FRMD6-AS1 | 0.67 | 0.61 | 1.09 | 0.70 | 0.82 | 0.84 | 1.07 | 0.70 |
| FRMD6-AS2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.28 |
| FRMD8 | 5.08 | 4.60 | 5.71 | 4.97 | 5.02 | 4.54 | 4.99 | 6.12 |
| FRMPD1 | -1.32 | -1.31 | -1.30 | -1.32 | -1.24 | -1.26 | -1.25 | -1.34 |
| FRMPD2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| FRMPD3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| FRRS1 | 2.05 | 2.10 | 2.07 | 1.78 | 1.86 | 2.10 | 2.44 | 2.36 |
| FRRS1L | -1.25 | -1.31 | -1.30 | -1.32 | -1.24 | -1.33 | -1.26 | -1.33 |
| FRS2 | 4.76 | 4.21 | 3.89 | 4.62 | 3.84 | 4.55 | 4.46 | 4.45 |
| FRS3 | 0.14 | -0.01 | 0.08 | -0.02 | 0.17 | 0.16 | 0.25 | 0.17 |
| FRY | 3.35 | 3.50 | 3.65 | 3.66 | 3.19 | 2.77 | 3.57 | 3.96 |
| FRY-AS1 | -1.92 | -1.96 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -1.97 |
| FRYL | 4.59 | 5.76 | 6.07 | 5.43 | 5.20 | 5.79 | 6.22 | 5.40 |
| FRZB | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.91 | -1.95 | -1.96 |
| FSBP | 1.73 | 1.67 | 2.15 | 1.68 | 1.75 | 2.06 | 1.63 | 1.52 |
| FSCN1 | 5.07 | 6.35 | 5.33 | 5.59 | 5.13 | 5.32 | 4.40 | 6.22 |
| FSCN2 | -0.95 | -1.01 | -0.85 | -0.89 | -1.02 | -0.86 | -0.76 | -0.87 |
| FSCN3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| FSD1 | -1.17 | -1.37 | -1.02 | -1.31 | -1.37 | -1.39 | -1.38 | -1.40 |
| FSD1L | 0.72 | 0.66 | 1.06 | 0.64 | 1.00 | 0.84 | 0.62 | 0.62 |
| FSD2 | -1.38 | -1.49 | -1.43 | -1.45 | -1.47 | -1.51 | -1.51 | -1.42 |
| FSIP1 | -0.03 | -0.10 | -0.02 | 0.20 | -0.06 | 0.13 | 0.02 | -0.15 |
| FSIP2 | 1.20 | 3.42 | 1.35 | 3.20 | 1.30 | 2.02 | 1.61 | 2.68 |
| FSIP2-AS1 | -1.59 | -1.53 | -1.52 | -1.59 | -1.59 | -1.49 | -1.60 | -1.56 |
| FSIP2-AS2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FST | 1.45 | 1.31 | 1.52 | 1.25 | 1.35 | 3.26 | 1.58 | 1.68 |
| FSTL1 | 3.66 | 2.32 | 3.89 | 2.45 | 2.50 | 2.84 | 3.89 | 3.86 |
| FSTL3 | 4.06 | 5.08 | 4.55 | 4.06 | 3.89 | 4.13 | 4.76 | 5.84 |
| FSTL4 | -1.04 | -0.82 | -1.02 | -0.97 | -1.04 | -1.05 | -1.05 | -1.06 |
| FTCD | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.08 |
| FTCDNL1 | -0.01 | -0.24 | -0.04 | -0.09 | 0.54 | -0.26 | -0.25 | -0.02 |
| FTH1 | 13.70 | 11.38 | 11.08 | 11.37 | 11.88 | 12.35 | 10.94 | 13.46 |
| FTH1P1 | -1.59 | -1.74 | -1.73 | -1.74 | -1.71 | -1.75 | -1.75 | -1.71 |
| FTH1P10 | 1.59 | 1.01 | 0.88 | 0.91 | 1.22 | 1.12 | 1.18 | 1.75 |
| FTH1P11 | 1.94 | 0.88 | 1.01 | 0.99 | 1.09 | 1.37 | 0.84 | 1.86 |
| FTH1P12 | -0.98 | -1.28 | -1.33 | -1.36 | -1.31 | -1.30 | -1.36 | -1.11 |
| FTH1P15 | -1.70 | -1.74 | -1.73 | -1.75 | -1.72 | -1.73 | -1.75 | -1.63 |
| FTH1P16 | 2.50 | 1.35 | 1.77 | 1.68 | 1.73 | 1.82 | 1.59 | 2.64 |
| FTH1P19 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| FTH1P2 | 0.36 | -0.01 | 0.02 | -0.03 | 0.05 | 0.06 | -0.04 | 0.42 |
| FTH1P20 | 0.93 | 0.76 | 0.54 | 0.58 | 0.64 | 0.93 | 0.77 | 1.18 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| FTH1P21 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FTH1P23 | 0.02 | -0.09 | -0.31 | -0.18 | -0.28 | -0.27 | -0.26 | 0.23 |
| FTH1P26 | -1.16 | -1.38 | -1.37 | -1.39 | -1.35 | -1.37 | -1.33 | -1.21 |
| FTH1P3 | 1.12 | 0.48 | 0.76 | 0.54 | 0.60 | 0.74 | 0.54 | 1.25 |
| FTH1P4 | -0.64 | -0.77 | -0.76 | -0.78 | -0.62 | -0.68 | -0.78 | -0.47 |
| FTH1P5 | -0.38 | -0.52 | -0.49 | -0.60 | -0.52 | -0.51 | -0.54 | -0.31 |
| FTH1P7 | -0.25 | -0.54 | -0.53 | -0.40 | -0.46 | -0.45 | -0.55 | -0.23 |
| FTH1P8 | 1.77 | 1.11 | 0.97 | 1.00 | 1.34 | 1.36 | 1.13 | 1.76 |
| FTL | 12.62 | 11.61 | 11.35 | 11.42 | 12.30 | 11.24 | 10.76 | 12.37 |
| FTLP14 | 0.77 | 0.93 | 0.98 | 0.96 | 0.82 | 0.80 | 1.20 | 0.69 |
| FTLP17 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| FTLP2 | 0.73 | 0.57 | 0.50 | 0.47 | 0.62 | 0.46 | 0.53 | 0.66 |
| FTLP3 | 3.50 | 2.67 | 2.37 | 2.80 | 3.34 | 2.83 | 2.51 | 3.57 |
| FTLP5 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| FTLP6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| FTLP8 | -1.95 | -1.99 | -1.99 | -2.00 | -1.97 | -1.98 | -2.00 | -2.02 |
| FTO | 4.20 | 4.28 | 4.35 | 4.43 | 4.16 | 4.28 | 4.70 | 4.26 |
| FTSJ1 | 6.08 | 6.13 | 6.07 | 6.10 | 6.18 | 6.12 | 5.31 | 6.24 |
| FTSJ3 | 5.50 | 5.25 | 5.45 | 5.21 | 5.19 | 5.39 | 4.86 | 5.15 |
| FTX | 4.89 | 5.33 | 6.09 | 5.35 | 4.66 | 4.87 | 5.96 | 4.11 |
| FUBP1 | 6.30 | 6.47 | 6.97 | 6.61 | 6.60 | 7.02 | 6.85 | 6.92 |
| FUBP3 | 5.15 | 5.32 | 5.42 | 5.33 | 5.07 | 5.50 | 5.31 | 5.30 |
| FUCA1 | 5.79 | 5.68 | 6.01 | 5.72 | 6.44 | 6.70 | 6.09 | 6.37 |
| FUCA2 | 7.86 | 7.79 | 7.09 | 8.24 | 7.06 | 7.50 | 7.98 | 7.21 |
| FUNDC1 | 7.01 | 6.41 | 6.30 | 6.44 | 5.90 | 5.85 | 5.64 | 5.72 |
| FUNDC2 | 5.72 | 4.50 | 4.99 | 4.97 | 5.87 | 5.58 | 5.11 | 5.78 |
| FUNDC2P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| FUOM | 5.08 | 3.02 | 3.15 | 3.36 | 4.44 | 4.43 | 5.04 | 4.36 |
| FURIN | 6.68 | 5.59 | 6.35 | 5.80 | 4.99 | 5.89 | 5.58 | 6.02 |
| FUS | 7.99 | 7.94 | 8.72 | 8.21 | 8.03 | 8.15 | 8.10 | 8.02 |
| FUT1 | 2.42 | 2.19 | 1.91 | 1.83 | 2.42 | 2.08 | 1.79 | 1.75 |
| FUT10 | 3.20 | 3.22 | 3.24 | 2.90 | 2.87 | 2.89 | 3.05 | 2.77 |
| FUT11 | 4.11 | 5.06 | 4.66 | 4.46 | 4.18 | 4.47 | 5.35 | 3.81 |
| FUT2 | 6.77 | 6.35 | 5.86 | 6.55 | 6.80 | 5.10 | 6.02 | 5.50 |
| FUT3 | 4.86 | 5.94 | 5.92 | 5.33 | 5.27 | 5.17 | 6.43 | 5.49 |
| FUT4 | 5.32 | 5.59 | 5.19 | 5.34 | 4.82 | 4.87 | 6.04 | 5.36 |
| FUT5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| FUT6 | 2.58 | 3.02 | 2.84 | 2.92 | 2.79 | 2.49 | 3.31 | 2.28 |
| FUT7 | -1.36 | -1.35 | -1.34 | -1.29 | -1.35 | -1.21 | -1.11 | -1.37 |
| FUT8 | 3.79 | 5.56 | 5.12 | 5.33 | 5.24 | 5.79 | 4.53 | 4.25 |
| FUT8-AS1 | 0.07 | 0.45 | 0.18 | 0.70 | 0.82 | 0.25 | 0.14 | 0.28 |
| FUT9 | 2.26 | 1.70 | 5.24 | 1.81 | 2.70 | 1.26 | 1.33 | 2.71 |
| FUZ | 4.30 | 3.34 | 3.55 | 3.68 | 4.19 | 3.62 | 3.41 | 3.62 |
| FXN | 6.03 | 5.38 | 4.84 | 5.51 | 4.96 | 4.78 | 4.39 | 4.14 |
| FXR1 | 6.84 | 6.53 | 7.13 | 6.30 | 6.87 | 7.02 | 6.71 | 7.37 |
| FXR2 | 4.15 | 4.12 | 5.00 | 4.19 | 4.45 | 4.70 | 5.21 | 4.86 |
| FXYD1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| FXYD2 | 0.85 | 0.98 | 1.03 | 0.84 | 0.78 | 0.80 | 2.68 | 0.97 |
| FXYD3 | 1.73 | 2.28 | 1.72 | 2.26 | 2.74 | 1.93 | 2.35 | 2.30 |
| FXYD4 | 0.49 | -0.14 | -0.21 | -0.23 | 0.01 | -0.03 | -0.01 | -0.19 |
| FXYD5 | 7.04 | 8.87 | 7.19 | 8.89 | 8.91 | 8.58 | 6.76 | 7.28 |
| FXYD6 | -1.41 | -1.52 | -1.45 | -1.53 | -1.43 | -1.50 | -1.47 | -1.44 |
| FXYD7 | -1.87 | -1.94 | -1.93 | -1.94 | -1.94 | -1.88 | -1.95 | -1.92 |
| FYB1 | 0.53 | 0.77 | 0.51 | 0.38 | 0.39 | 0.71 | 0.37 | 1.01 |
| FYB2 | -1.79 | -1.74 | -1.78 | -1.79 | -1.79 | -1.80 | -1.79 | -1.81 |
| FYCO1 | 3.98 | 3.80 | 4.16 | 4.11 | 3.71 | 4.03 | 4.59 | 4.15 |
| FYN | 3.18 | 3.36 | 3.44 | 3.35 | 3.58 | 4.23 | 3.35 | 2.98 |
| FYTTD1 | 6.70 | 6.15 | 6.35 | 5.94 | 6.04 | 5.89 | 6.42 | 6.59 |
| FYTTD1P1 | -1.94 | -1.94 | -1.90 | -1.94 | -1.94 | -1.95 | -1.87 | -1.96 |
| FZD1 | 2.70 | 2.89 | 2.96 | 2.57 | 2.51 | 2.60 | 3.70 | 2.29 |
| FZD10 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.01 | -2.06 |
| FZD2 | 1.63 | 2.47 | 2.74 | 2.29 | 1.96 | 2.24 | 1.39 | 2.28 |
| FZD3 | 4.72 | 4.18 | 5.80 | 4.39 | 4.10 | 4.54 | 4.75 | 3.24 |
| FZD4 | 1.53 | 1.32 | 1.71 | 1.36 | 1.23 | 1.05 | 1.26 | 1.37 |
| FZD5 | 5.04 | 4.87 | 4.96 | 4.85 | 4.92 | 4.88 | 5.29 | 4.28 |
| FZD6 | 4.57 | 5.16 | 5.47 | 4.97 | 4.43 | 5.06 | 4.81 | 4.96 |
| FZD7 | 3.86 | 3.82 | 4.07 | 3.13 | 3.44 | 4.09 | 3.41 | 3.53 |
| FZD8 | 1.61 | 1.86 | 1.57 | 1.64 | 1.38 | 1.39 | 1.99 | 1.23 |
| FZD9 | 1.90 | 0.70 | 0.73 | 0.76 | 0.82 | 0.81 | 1.11 | 0.70 |
| FZR1 | 4.14 | 4.28 | 5.08 | 4.30 | 4.60 | 4.78 | 5.01 | 4.37 |
| G0S2 | 5.89 | 5.70 | 7.28 | 5.40 | 6.07 | 6.79 | 6.18 | 9.45 |
| G2E3 | 4.32 | 5.02 | 4.73 | 4.88 | 5.06 | 5.76 | 5.28 | 4.98 |
| G3BP1 | 7.12 | 7.99 | 7.96 | 7.83 | 7.44 | 7.49 | 7.78 | 7.14 |
| G3BP2 | 6.56 | 7.50 | 6.67 | 7.27 | 6.83 | 7.15 | 7.35 | 7.56 |
| G6PC | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| G6PC3 | 6.08 | 6.45 | 6.40 | 6.89 | 6.34 | 6.34 | 6.05 | 6.06 |
| G6PD | 8.21 | 5.82 | 7.20 | 5.78 | 6.20 | 6.15 | 5.81 | 6.67 |
| GAA | 7.03 | 5.82 | 6.45 | 5.92 | 8.00 | 7.51 | 6.70 | 5.59 |
| GAB1 | 2.15 | 2.73 | 3.11 | 2.62 | 2.23 | 2.69 | 3.39 | 2.88 |
| GAB2 | 1.39 | 1.13 | 1.10 | 0.96 | 1.25 | 1.00 | 1.20 | 0.88 |
| GAB3 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| GABARAP | 2.38 | 2.07 | 2.12 | 2.07 | 1.99 | 2.03 | 3.04 | 2.10 |
| GABARAPL1 | 4.69 | 3.48 | 4.54 | 3.45 | 3.65 | 3.73 | 3.86 | 4.77 |
| GABARAPL2 | 8.19 | 7.47 | 7.51 | 7.78 | 8.02 | 7.95 | 7.38 | 8.67 |
| GABBR1 | 1.67 | 1.79 | 1.63 | 1.67 | 1.57 | 1.99 | 2.11 | 1.38 |
| GABBR2 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.93 | -1.94 | -1.95 |
| GABPA | 4.06 | 3.96 | 3.79 | 3.75 | 3.71 | 3.97 | 4.08 | 3.40 |
| GABPAP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GABPB1 | 4.12 | 3.59 | 3.93 | 3.54 | 3.80 | 4.09 | 3.74 | 4.40 |
| GABPB1-AS1 | 6.13 | 5.31 | 5.58 | 5.93 | 5.86 | 6.12 | 5.79 | 5.88 |
| GABPB1-IT1 | 4.33 | 4.15 | 3.68 | 4.43 | 3.93 | 4.34 | 3.63 | 4.12 |
| GABPB2 | 3.60 | 3.50 | 3.83 | 3.74 | 3.19 | 3.72 | 3.98 | 3.51 |
| GABRA1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| GABRA2 | -0.82 | -0.82 | -0.63 | -0.75 | -0.77 | -0.76 | -0.75 | -0.84 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| GABRA3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| GABRA4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| GABRB1 | -2.15 | -2.15 | -2.11 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| GABRB2 | -1.64 | -1.31 | -1.62 | -1.59 | -1.69 | -1.67 | -1.70 | -1.71 |
| GABRB3 | 1.19 | 0.84 | 0.97 | 0.90 | 0.84 | 0.91 | 1.62 | 2.07 |
| GABRD | -0.11 | -0.09 | -0.17 | -0.13 | 0.30 | -0.25 | -0.14 | -0.24 |
| GABRE | 2.81 | 2.37 | 3.03 | 2.23 | 2.24 | 3.47 | 3.54 | 2.79 |
| GABRG2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| GABRG3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| GABRP | 2.14 | 2.28 | 4.87 | 2.26 | 3.95 | 2.58 | 2.85 | 2.17 |
| GABRR1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| GACAT2 | 0.78 | 0.80 | 0.93 | 1.07 | 1.32 | 1.01 | 0.85 | 0.86 |
| GACAT3 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| GAD1 | 3.34 | 3.46 | 2.43 | 3.59 | 3.17 | 2.90 | 2.55 | 2.81 |
| GADD45A | 6.28 | 6.99 | 6.68 | 7.54 | 7.77 | 6.73 | 7.31 | 7.93 |
| GADD45B | 5.08 | 4.81 | 6.60 | 4.62 | 6.15 | 5.90 | 4.92 | 5.93 |
| GADD45G | 3.28 | 3.03 | 2.75 | 3.40 | 3.40 | 2.97 | 3.11 | 2.72 |
| GADD45GIP1 | 7.88 | 8.18 | 7.43 | 8.04 | 8.10 | 8.13 | 7.52 | 8.00 |
| GAK | 4.88 | 6.29 | 5.88 | 6.02 | 5.29 | 5.85 | 5.95 | 6.05 |
| GAL | 4.69 | 3.99 | 2.88 | 4.41 | 4.94 | 2.85 | 2.65 | 3.20 |
| GAL3ST1 | 5.83 | 5.44 | 4.59 | 5.64 | 4.25 | 4.70 | 6.62 | 3.97 |
| GAL3ST2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GAL3ST4 | 1.61 | 1.75 | 0.92 | 1.94 | 1.05 | 0.95 | 1.07 | 0.73 |
| GALC | 4.08 | 4.09 | 3.93 | 4.02 | 3.80 | 4.14 | 3.82 | 4.46 |
| GALE | 6.87 | 6.73 | 7.39 | 6.81 | 8.00 | 7.61 | 7.63 | 7.37 |
| GALK1 | 6.39 | 5.03 | 5.71 | 4.82 | 5.44 | 5.52 | 5.32 | 5.07 |
| GALK2 | 6.02 | 5.49 | 5.47 | 5.67 | 5.80 | 5.70 | 5.60 | 6.30 |
| GALM | 4.97 | 5.51 | 4.62 | 5.27 | 5.01 | 5.07 | 4.76 | 4.68 |
| GALNS | 5.11 | 4.95 | 4.85 | 5.12 | 5.26 | 4.62 | 4.24 | 5.59 |
| GALNT1 | 6.59 | 6.68 | 6.77 | 6.79 | 6.10 | 7.39 | 8.04 | 6.75 |
| GALNT10 | 4.39 | 6.73 | 6.66 | 6.94 | 5.66 | 6.31 | 6.09 | 4.87 |
| GALNT11 | 4.33 | 4.69 | 4.89 | 4.68 | 4.59 | 4.31 | 4.97 | 4.79 |
| GALNT12 | 4.28 | 5.12 | 4.59 | 5.63 | 4.71 | 4.88 | 4.97 | 4.46 |
| GALNT13 | 1.00 | 0.30 | 0.40 | 0.35 | 0.21 | 0.22 | 0.34 | 0.59 |
| GALNT14 | 2.52 | 3.64 | 4.37 | 3.57 | 3.53 | 2.70 | 2.89 | 2.34 |
| GALNT15 | -2.01 | -2.01 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| GALNT16 | -0.90 | -0.90 | -0.80 | -0.91 | -0.40 | -0.88 | -0.91 | -0.92 |
| GALNT18 | 3.67 | 4.52 | 3.93 | 4.33 | 4.36 | 2.52 | 4.29 | 2.42 |
| GALNT2 | 6.51 | 6.45 | 6.70 | 6.51 | 7.01 | 6.47 | 6.32 | 6.70 |
| GALNT3 | 6.94 | 7.59 | 6.87 | 7.82 | 7.63 | 7.21 | 7.83 | 8.13 |
| GALNT4 | -0.86 | -0.69 | -0.84 | -0.71 | -0.82 | -0.80 | -0.59 | -0.82 |
| GALNT5 | 4.70 | 7.12 | 5.66 | 7.16 | 6.46 | 6.58 | 6.00 | 6.93 |
| GALNT6 | 5.27 | 6.23 | 5.48 | 6.25 | 4.90 | 6.27 | 4.19 | 5.29 |
| GALNT7 | 5.70 | 6.93 | 5.63 | 6.68 | 5.22 | 5.99 | 5.92 | 6.38 |
| GALNT8 | -0.05 | -0.65 | -0.63 | -0.51 | -0.65 | -0.56 | -0.66 | -0.67 |
| GALNT9 | -1.51 | -1.56 | -1.55 | -1.51 | -1.48 | -1.41 | -1.57 | -1.58 |
| GALNTL6 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.14 | -2.21 |
| GALR2 | 2.33 | 1.20 | 1.24 | 1.59 | 2.41 | 1.12 | 1.06 | 1.14 |
| GALR3 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.06 |
| GALT | 4.23 | 4.37 | 4.32 | 4.78 | 4.73 | 4.51 | 3.47 | 3.96 |
| GAMT | 5.21 | 4.71 | 4.73 | 4.97 | 5.08 | 5.74 | 5.41 | 3.39 |
| GAN | 3.50 | 3.54 | 3.31 | 3.35 | 3.24 | 3.18 | 3.51 | 4.00 |
| GANAB | 6.54 | 7.03 | 7.76 | 6.94 | 6.97 | 6.74 | 7.10 | 6.88 |
| GANC | 3.24 | 3.57 | 3.27 | 4.08 | 3.51 | 3.10 | 3.46 | 3.55 |
| GAP43 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| GAPDH | 12.13 | 12.03 | 12.02 | 12.01 | 11.96 | 11.54 | 12.35 | 11.88 |
| GAPDHP1 | 2.83 | 2.65 | 2.33 | 2.61 | 2.12 | 2.38 | 2.44 | 1.93 |
| GAPDHP2 | -1.75 | -1.74 | -1.78 | -1.75 | -1.79 | -1.78 | -1.75 | -1.76 |
| GAPDHP20 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GAPDHP21 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| GAPDHP22 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.29 | -2.31 |
| GAPDHP23 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GAPDHP25 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| GAPDHP27 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| GAPDHP28 | -1.80 | -1.79 | -1.83 | -1.84 | -1.84 | -1.83 | -1.84 | -1.86 |
| GAPDHP29 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| GAPDHP33 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GAPDHP35 | 1.32 | 1.79 | 1.09 | 1.71 | 0.95 | 1.40 | 1.35 | 0.90 |
| GAPDHP37 | -1.87 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.96 |
| GAPDHP38 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| GAPDHP40 | 1.36 | 1.38 | 1.58 | 1.22 | 1.18 | 1.31 | 1.38 | 1.29 |
| GAPDHP42 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GAPDHP44 | -0.93 | -1.13 | -1.05 | -1.07 | -1.10 | -1.09 | -1.07 | -1.10 |
| GAPDHP45 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| GAPDHP46 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| GAPDHP51 | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| GAPDHP58 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| GAPDHP59 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| GAPDHP60 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| GAPDHP61 | -1.45 | -1.32 | -1.43 | -1.39 | -1.44 | -1.43 | -1.39 | -1.47 |
| GAPDHP63 | -0.33 | -0.16 | -0.39 | -0.41 | -0.28 | -0.41 | -0.07 | -0.36 |
| GAPDHP64 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.89 | -1.95 | -1.96 |
| GAPDHP65 | 1.67 | 1.75 | 1.42 | 1.76 | 1.40 | 1.33 | 1.69 | 1.65 |
| GAPDHP66 | -2.10 | -2.06 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| GAPDHP67 | -1.89 | -1.89 | -1.88 | -1.86 | -1.89 | -1.88 | -1.86 | -1.87 |
| GAPDHP68 | -1.64 | -1.68 | -1.68 | -1.64 | -1.66 | -1.65 | -1.69 | -1.61 |
| GAPDHP69 | -0.80 | -0.79 | -0.93 | -0.80 | -0.94 | -0.80 | -0.88 | -0.90 |
| GAPDHP70 | -2.05 | -2.04 | -2.00 | -2.05 | -2.03 | -2.05 | -2.02 | -2.06 |
| GAPDHP71 | -1.43 | -1.42 | -1.42 | -1.49 | -1.48 | -1.44 | -1.38 | -1.51 |
| GAPDHP72 | -0.95 | -0.94 | -1.01 | -1.03 | -0.98 | -0.96 | -1.03 | -0.98 |
| GAPDHP73 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.95 | -1.92 |
| GAPDHP76 | -1.91 | -1.94 | -1.93 | -1.91 | -1.94 | -1.91 | -1.94 | -1.96 |
| GAPLINC | 2.21 | 1.19 | 1.29 | 1.23 | 1.22 | 1.51 | 1.42 | 1.32 |
| GAPVD1 | 5.51 | 5.48 | 5.53 | 5.58 | 4.53 | 5.62 | 5.96 | 5.33 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| GAR1 | 5.34 | 6.02 | 5.69 | 6.14 | 5.65 | 6.15 | 5.43 | 6.73 |
| GAREM1 | 3.86 | 3.80 | 4.26 | 3.82 | 3.96 | 4.51 | 4.70 | 3.85 |
| GAREM2 | 0.76 | 0.63 | 0.57 | 0.81 | 0.78 | 0.63 | 0.81 | 0.93 |
| GARNL3 | 1.17 | 1.15 | 0.82 | 1.04 | 0.90 | 0.84 | 1.17 | 0.77 |
| GARS | 6.21 | 6.74 | 6.65 | 6.68 | 7.17 | 6.75 | 7.49 | 7.77 |
| GARS-DT | 3.99 | 3.69 | 4.23 | 4.57 | 3.92 | 3.83 | 5.23 | 4.36 |
| GART | 6.32 | 6.03 | 6.41 | 5.95 | 5.95 | 6.12 | 6.06 | 6.52 |
| GAS1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.85 | -1.86 |
| GAS1RR | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| GAS2 | 1.19 | 1.79 | 1.23 | 1.89 | 1.45 | 1.28 | 1.65 | 1.52 |
| GAS2L1 | 5.43 | 4.94 | 4.52 | 5.16 | 4.33 | 5.36 | 4.40 | 4.72 |
| GAS2L2 | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.95 | -1.91 | -1.96 |
| GAS2L3 | 3.90 | 4.54 | 4.64 | 4.60 | 4.19 | 4.75 | 6.44 | 3.93 |
| GAS5 | 8.64 | 9.76 | 7.67 | 10.13 | 10.55 | 9.86 | 8.77 | 9.68 |
| GAS5-AS1 | 0.74 | 0.89 | 0.88 | 1.06 | 0.89 | 0.90 | 0.86 | 0.95 |
| GAS6 | 4.90 | 7.42 | 6.79 | 7.61 | 7.55 | 6.06 | 6.79 | 5.37 |
| GAS6-AS1 | 2.46 | 2.28 | 1.89 | 2.35 | 2.03 | 1.95 | 3.14 | 2.15 |
| GAS6-DT | -0.66 | -0.42 | -0.63 | -0.46 | -0.61 | -0.65 | -0.52 | -0.70 |
| GAS8 | 4.20 | 3.78 | 4.09 | 3.74 | 3.93 | 3.72 | 4.09 | 3.36 |
| GASAL1 | 2.46 | 2.33 | 3.03 | 2.12 | 2.30 | 2.48 | 2.23 | 2.20 |
| GASK1A | 0.32 | 0.10 | 0.22 | 0.09 | 0.50 | 0.48 | 0.16 | 0.19 |
| GASK1B | 2.28 | 4.15 | 2.57 | 3.79 | 2.40 | 4.56 | 2.60 | 3.27 |
| GAST | 1.78 | 1.00 | 0.89 | 1.03 | 0.71 | 0.91 | 0.72 | 0.66 |
| GATA2 | 3.74 | 2.51 | 3.43 | 2.52 | 3.10 | 3.48 | 2.52 | 4.10 |
| GATA2-AS1 | 4.34 | 1.98 | 2.99 | 2.14 | 3.32 | 3.16 | 1.90 | 3.46 |
| GATA3 | 1.40 | 2.90 | 1.59 | 2.16 | 1.65 | 3.27 | 1.44 | 1.98 |
| GATA3-AS1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| GATA4 | 3.73 | 2.74 | 4.11 | 3.01 | 3.61 | 3.60 | 2.69 | 3.46 |
| GATA5 | 2.14 | 1.09 | 0.81 | 0.67 | 0.78 | 0.69 | 0.81 | 0.61 |
| GATA6 | 5.66 | 5.95 | 5.52 | 6.37 | 6.10 | 4.58 | 5.86 | 5.67 |
| GATA6-AS1 | 1.38 | 1.40 | 1.76 | 2.07 | 1.96 | 1.59 | 2.52 | 2.08 |
| GATAD1 | 4.33 | 5.60 | 5.48 | 5.51 | 5.64 | 5.29 | 5.97 | 5.10 |
| GATAD2A | 5.36 | 6.44 | 6.50 | 6.40 | 5.75 | 5.95 | 6.41 | 6.25 |
| GATAD2B | 4.37 | 4.63 | 4.46 | 4.56 | 4.46 | 4.75 | 4.74 | 4.78 |
| GATB | 3.56 | 3.94 | 3.81 | 3.75 | 3.29 | 3.64 | 3.57 | 3.87 |
| GATC | 5.23 | 5.39 | 5.40 | 5.38 | 5.12 | 5.57 | 5.88 | 5.50 |
| GATD1 | 4.88 | 5.09 | 5.57 | 5.02 | 5.01 | 4.67 | 5.35 | 4.49 |
| GATD3A | 0.91 | 1.87 | 0.83 | 1.41 | 0.74 | 0.69 | 0.67 | 0.62 |
| GATD3B | -0.57 | -0.79 | -0.78 | -0.72 | -0.76 | -0.77 | -0.80 | -0.70 |
| GATM | 5.77 | 6.30 | 5.35 | 6.68 | 5.21 | 5.22 | 5.20 | 6.29 |
| GAU1 | -1.12 | -0.98 | -1.10 | -0.94 | -1.19 | -1.14 | -1.20 | -1.15 |
| GBA | 1.66 | 1.48 | 1.47 | 1.59 | 1.34 | 1.23 | 1.23 | 1.71 |
| GBA2 | 4.74 | 4.75 | 5.02 | 5.11 | 5.44 | 5.19 | 5.98 | 4.56 |
| GBA3 | -0.21 | 0.07 | -0.19 | 0.12 | -0.11 | -0.23 | -0.14 | -0.25 |
| GBAP1 | -1.22 | -1.21 | -1.27 | -1.29 | -1.11 | -1.12 | -1.22 | -1.24 |
| GBE1 | 4.20 | 4.70 | 5.55 | 4.88 | 5.18 | 4.89 | 5.71 | 4.42 |
| GBF1 | 5.82 | 5.92 | 5.65 | 6.13 | 6.57 | 6.11 | 6.06 | 5.95 |
| GBGT1 | 0.55 | 0.44 | 0.33 | 0.20 | 0.13 | 0.26 | 0.12 | 0.38 |
| GBP1 | 3.36 | 3.31 | 3.57 | 3.26 | 3.45 | 4.10 | 3.47 | 3.14 |
| GBP1P1 | -1.37 | -1.36 | -1.35 | -1.37 | -1.33 | -1.22 | -1.38 | -1.33 |
| GBP2 | 4.92 | 4.39 | 4.39 | 4.84 | 5.96 | 5.18 | 5.21 | 4.79 |
| GBP3 | 4.82 | 5.80 | 4.23 | 5.40 | 5.32 | 4.91 | 6.40 | 5.34 |
| GBP4 | 2.51 | 1.98 | 2.99 | 2.18 | 2.32 | 3.11 | 1.74 | 2.16 |
| GBP5 | -2.25 | -2.25 | -2.23 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| GBP6 | -1.35 | -1.34 | -1.33 | -1.35 | -1.34 | -0.94 | -1.29 | -1.25 |
| GBP7 | -1.99 | -1.99 | -1.98 | -1.99 | -1.96 | -1.92 | -2.00 | -2.01 |
| GBX2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| GC | 0.48 | 0.49 | 0.53 | 0.46 | 0.58 | 0.35 | 1.48 | 0.53 |
| GCA | 6.27 | 5.32 | 5.94 | 5.47 | 6.26 | 6.23 | 5.72 | 5.95 |
| GCAT | 5.01 | 4.04 | 3.50 | 3.83 | 3.56 | 4.91 | 5.01 | 5.30 |
| GCC1 | 3.21 | 3.95 | 3.72 | 3.77 | 3.77 | 3.67 | 3.59 | 4.02 |
| GCC2 | 6.80 | 7.03 | 7.23 | 7.12 | 6.93 | 7.47 | 7.28 | 7.28 |
| GCC2-AS1 | -0.67 | -0.74 | -0.57 | -0.75 | -0.74 | -0.67 | -0.76 | -0.78 |
| GCDH | 3.96 | 3.96 | 4.25 | 4.03 | 3.80 | 4.01 | 3.88 | 3.41 |
| GCFC2 | 4.23 | 4.84 | 3.83 | 4.76 | 4.25 | 4.11 | 4.27 | 4.39 |
| GCG | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| GCH1 | 2.49 | 2.93 | 3.01 | 2.94 | 3.31 | 3.28 | 2.91 | 2.67 |
| GCHFR | 7.54 | 6.80 | 5.31 | 6.95 | 6.66 | 6.81 | 6.12 | 5.78 |
| GCK | -0.94 | -1.01 | -0.83 | -1.02 | -1.01 | -1.03 | -1.02 | -1.03 |
| GCKR | 1.32 | 1.29 | 1.83 | 1.33 | 1.49 | 1.15 | 2.10 | 1.71 |
| GCLC | 5.53 | 6.09 | 6.04 | 5.66 | 5.35 | 5.43 | 6.01 | 8.35 |
| GCLM | 7.53 | 5.93 | 6.05 | 5.62 | 6.20 | 5.70 | 6.13 | 7.00 |
| GCM1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GCN1 | 5.14 | 5.87 | 6.86 | 5.58 | 5.66 | 5.76 | 5.97 | 6.30 |
| GCNA | 0.20 | 0.30 | 0.42 | 0.27 | 0.34 | 0.92 | 0.33 | 0.48 |
| GCNT1 | 3.12 | 3.76 | 2.72 | 4.07 | 3.36 | 2.33 | 2.42 | 2.53 |
| GCNT1P1 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 |
| GCNT1P3 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| GCNT2 | 4.17 | 3.16 | 3.77 | 3.12 | 3.28 | 3.39 | 2.71 | 4.34 |
| GCNT3 | 8.76 | 8.07 | 8.22 | 7.87 | 8.58 | 7.82 | 8.15 | 8.66 |
| GCNT4 | 1.28 | 1.30 | 1.35 | 1.31 | 1.58 | 1.26 | 2.49 | 1.16 |
| GCOM1 | 3.48 | 3.12 | 3.19 | 2.43 | 3.31 | 2.95 | 3.36 | 3.49 |
| GCOM2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GCSH | 3.42 | 2.93 | 3.25 | 3.06 | 2.77 | 2.77 | 2.76 | 3.31 |
| GCSHP5 | -0.37 | -0.77 | -0.75 | -0.77 | -0.65 | -0.71 | -0.71 | -0.73 |
| GDA | 5.78 | 5.52 | 6.37 | 5.26 | 5.52 | 5.98 | 7.07 | 4.96 |
| GDAP1 | 3.49 | 3.12 | 2.94 | 2.95 | 3.27 | 3.41 | 2.58 | 2.77 |
| GDAP1L1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GDAP2 | 4.38 | 4.20 | 3.85 | 4.32 | 4.01 | 4.11 | 4.31 | 4.60 |
| GDE1 | 7.69 | 7.45 | 7.32 | 7.47 | 7.21 | 7.58 | 7.06 | 7.64 |
| GDF11 | 2.99 | 3.87 | 3.71 | 3.23 | 2.87 | 3.43 | 3.13 | 2.46 |
| GDF15 | 8.19 | 8.69 | 7.48 | 8.58 | 9.66 | 8.45 | 9.07 | 9.34 |
| GDF3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| GDF5 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| GDF7 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| GDF9 | 0.56 | 1.08 | 0.78 | 1.14 | 0.92 | 1.00 | 0.82 | 0.65 |
| GDI1 | 7.05 | 5.96 | 6.86 | 5.87 | 6.38 | 7.00 | 6.22 | 6.43 |
| GDI2 | 6.50 | 7.70 | 7.05 | 7.57 | 7.50 | 7.35 | 7.47 | 7.05 |
| GDI2P2 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| GDNF | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| GDPD1 | 3.56 | 2.76 | 2.61 | 2.76 | 3.24 | 2.93 | 2.44 | 2.93 |
| GDPD2 | -0.95 | -0.94 | -1.00 | -1.02 | -0.83 | -1.03 | -1.03 | -0.67 |
| GDPD3 | 4.35 | 4.92 | 4.14 | 4.73 | 3.54 | 3.91 | 3.82 | 3.09 |
| GDPD5 | 2.73 | 2.95 | 3.08 | 2.61 | 3.07 | 2.72 | 2.72 | 2.44 |
| GDPGP1 | 3.11 | 2.84 | 3.37 | 2.76 | 3.25 | 2.86 | 3.08 | 2.75 |
| GEM | 2.94 | 2.40 | 2.87 | 2.76 | 3.03 | 3.75 | 2.60 | 2.58 |
| GEMIN2 | 4.74 | 4.73 | 4.36 | 4.65 | 4.83 | 4.88 | 4.05 | 4.52 |
| GEMIN4 | 4.11 | 4.17 | 4.73 | 3.97 | 3.85 | 3.94 | 4.19 | 4.04 |
| GEMIN5 | 3.79 | 4.31 | 4.33 | 4.23 | 3.94 | 3.94 | 3.81 | 3.63 |
| GEMIN6 | 6.34 | 5.97 | 5.26 | 5.95 | 6.69 | 5.85 | 5.79 | 5.87 |
| GEMIN7 | 5.92 | 5.01 | 4.40 | 5.35 | 5.74 | 5.15 | 5.20 | 5.26 |
| GEMIN7-AS1 | 0.98 | 0.85 | 1.02 | 0.69 | 1.12 | 0.95 | 0.95 | 0.70 |
| GEMIN8 | 5.17 | 4.97 | 4.98 | 4.67 | 4.88 | 4.48 | 4.56 | 4.10 |
| GEMIN8P4 | -1.08 | -1.14 | -1.20 | -1.09 | -1.21 | -1.20 | -1.16 | -1.24 |
| GEN1 | 3.64 | 3.89 | 4.27 | 4.10 | 3.24 | 3.88 | 4.20 | 3.85 |
| GET4 | -0.82 | -0.81 | -0.80 | -0.67 | -0.66 | -0.79 | -0.68 | -0.61 |
| GFAP | -1.36 | -1.64 | -1.63 | -1.65 | -1.49 | -1.65 | -1.65 | -1.67 |
| GFER | 5.37 | 4.88 | 4.58 | 4.92 | 4.60 | 4.80 | 4.88 | 4.96 |
| GFI1 | 0.80 | 0.02 | 0.14 | -0.08 | 0.06 | 0.09 | -0.08 | -0.11 |
| GFI1B | -1.96 | -1.89 | -1.95 | -2.00 | -1.97 | -2.00 | -2.00 | -1.97 |
| GFM1 | 5.35 | 4.74 | 5.70 | 4.79 | 5.34 | 5.07 | 5.26 | 5.79 |
| GFM2 | 3.64 | 4.40 | 4.10 | 4.29 | 4.26 | 4.44 | 4.36 | 3.89 |
| GFOD1 | 3.96 | 2.90 | 3.98 | 3.35 | 3.30 | 2.79 | 3.89 | 2.76 |
| GFOD2 | 4.72 | 4.93 | 4.61 | 4.68 | 4.42 | 4.64 | 4.70 | 4.61 |
| GFPT1 | 6.38 | 7.17 | 6.70 | 6.88 | 7.43 | 6.57 | 7.52 | 7.49 |
| GFPT2 | 0.92 | 0.32 | 0.52 | 0.30 | 0.71 | 0.36 | 0.30 | 0.27 |
| GFRA3 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| GFY | -1.89 | -1.89 | -1.88 | -1.90 | -1.73 | -1.88 | -1.90 | -1.91 |
| GGA1 | 5.68 | 5.46 | 5.27 | 5.54 | 4.97 | 5.57 | 5.81 | 5.41 |
| GGA2 | 4.68 | 4.08 | 4.73 | 4.05 | 4.21 | 4.14 | 4.50 | 4.56 |
| GGA3 | 4.17 | 4.12 | 4.61 | 4.22 | 4.45 | 4.37 | 4.33 | 4.36 |
| GGACT | 2.84 | 3.39 | 2.42 | 3.57 | 3.40 | 2.34 | 2.86 | 2.65 |
| GGCT | 8.04 | 8.02 | 6.99 | 8.27 | 7.80 | 7.56 | 7.37 | 7.42 |
| GGCX | 5.78 | 5.29 | 5.52 | 5.54 | 6.00 | 5.46 | 5.70 | 5.61 |
| GGH | 7.89 | 7.75 | 7.89 | 8.11 | 8.07 | 8.31 | 5.90 | 8.14 |
| GGN | 0.37 | 0.53 | 0.32 | 0.56 | 0.42 | 0.40 | 0.43 | 0.18 |
| GGNBP1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| GGNBP2 | 7.14 | 6.89 | 7.37 | 6.93 | 6.91 | 7.31 | 7.27 | 7.49 |
| GGPS1 | 6.17 | 5.96 | 5.68 | 6.09 | 6.84 | 6.55 | 5.85 | 7.01 |
| GGT4P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| GGT5 | -1.58 | -1.63 | -1.62 | -1.63 | -1.63 | -1.59 | -1.64 | -1.38 |
| GGT6 | 2.37 | 4.30 | 2.68 | 4.80 | 2.59 | 2.36 | 3.58 | 3.80 |
| GGT7 | 4.02 | 3.60 | 4.57 | 3.54 | 5.29 | 4.01 | 4.78 | 4.00 |
| GGTA2P | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| GGTLC2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| GH2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| GHDC | 3.60 | 4.66 | 4.90 | 4.54 | 4.39 | 4.04 | 4.07 | 4.03 |
| GHET1 | -0.15 | -0.12 | -0.24 | -0.15 | -0.34 | -0.30 | -0.24 | -0.45 |
| GHITM | 9.31 | 8.34 | 8.24 | 8.53 | 8.92 | 8.42 | 8.33 | 8.39 |
| GHR | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| GHRL | 2.21 | 1.91 | 2.23 | 1.83 | 1.50 | 1.69 | 1.44 | 1.82 |
| GHRLOS | -0.41 | -0.55 | -0.54 | -0.49 | -0.48 | -0.40 | -0.30 | -0.52 |
| GID4 | 3.53 | 2.86 | 3.64 | 2.92 | 3.15 | 3.09 | 2.98 | 3.42 |
| GID8 | 6.57 | 6.41 | 6.38 | 6.54 | 6.90 | 6.59 | 6.15 | 6.88 |
| GIGYF1 | 3.85 | 4.10 | 4.20 | 4.19 | 4.48 | 4.41 | 4.67 | 4.14 |
| GIGYF2 | 6.57 | 6.53 | 6.21 | 6.52 | 6.47 | 6.71 | 6.63 | 6.54 |
| GIHCG | 1.75 | 1.26 | 1.46 | 1.27 | 1.66 | 1.58 | 1.20 | 1.77 |
| GIMAP1 | -1.48 | -1.52 | -1.52 | -1.48 | -1.47 | -1.43 | -1.54 | -1.27 |
| GIMAP2 | 2.52 | 3.49 | 2.17 | 3.45 | 3.24 | 2.62 | 2.11 | 2.63 |
| GIMAP6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GIMAP7 | -2.15 | -2.09 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| GIN1 | 3.55 | 3.63 | 3.57 | 3.44 | 3.70 | 3.79 | 3.63 | 3.43 |
| GINM1 | 7.22 | 5.95 | 6.43 | 6.02 | 5.90 | 6.69 | 6.49 | 6.60 |
| GINS1 | 4.31 | 4.02 | 4.94 | 4.14 | 3.74 | 4.01 | 4.10 | 3.62 |
| GINS2 | 6.89 | 5.68 | 6.35 | 5.90 | 5.19 | 6.07 | 5.66 | 5.22 |
| GINS3 | 3.26 | 3.27 | 3.49 | 3.18 | 2.76 | 2.93 | 3.22 | 2.73 |
| GINS4 | 4.94 | 4.09 | 4.93 | 4.19 | 3.45 | 4.59 | 4.20 | 4.65 |
| GIP | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.94 | -1.99 | -2.00 |
| GIPC1 | 7.67 | 8.48 | 8.08 | 8.57 | 8.44 | 8.84 | 8.21 | 8.09 |
| GIPC2 | 3.81 | 5.08 | 4.88 | 4.98 | 5.14 | 4.90 | 5.22 | 4.93 |
| GIPR | 2.00 | 1.55 | 1.85 | 1.92 | 2.03 | 1.93 | 2.41 | 1.91 |
| GIT1 | 5.24 | 5.24 | 5.84 | 5.09 | 4.68 | 5.36 | 4.88 | 4.57 |
| GIT2 | 3.91 | 4.21 | 4.54 | 4.33 | 3.92 | 4.07 | 4.27 | 4.25 |
| GJA1 | 1.73 | 1.29 | 2.63 | 1.24 | 1.24 | 1.32 | 1.81 | 1.35 |
| GJA3 | 0.12 | 0.14 | 0.46 | 0.34 | 0.96 | 0.59 | 0.12 | 0.01 |
| GJA5 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.05 | -2.05 | -1.90 |
| GJA6P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GJB1 | 5.49 | 5.61 | 6.20 | 6.40 | 7.07 | 4.61 | 7.10 | 4.34 |
| GJB2 | 5.33 | 6.05 | 5.01 | 5.99 | 5.56 | 5.94 | 5.30 | 6.24 |
| GJB3 | 5.09 | 5.87 | 5.84 | 6.06 | 6.19 | 6.02 | 6.23 | 6.70 |
| GJB4 | 3.89 | 3.82 | 4.65 | 3.77 | 3.88 | 4.55 | 4.77 | 4.99 |
| GJB5 | 3.14 | 4.33 | 3.81 | 5.02 | 3.14 | 4.12 | 3.46 | 5.05 |
| GJB6 | -0.16 | -0.32 | -0.22 | -0.33 | -0.10 | 0.36 | -0.33 | 0.56 |
| GJB7 | 0.33 | -0.18 | -0.26 | -0.14 | -0.27 | -0.29 | -0.29 | -0.31 |
| GJC1 | 2.43 | 1.73 | 1.95 | 1.83 | 2.27 | 3.51 | 2.19 | 2.36 |
| GJC2 | 0.52 | 0.62 | 0.64 | 0.59 | 0.66 | 0.53 | 1.39 | 0.77 |
| GJC3 | 0.84 | 1.04 | 0.44 | 0.98 | 0.69 | 0.80 | 1.06 | 0.50 |
| GK | 2.15 | 1.91 | 2.32 | 1.70 | 1.84 | 1.74 | 2.39 | 1.67 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| GK-IT1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.95 | -1.98 | -2.00 | -2.01 |
| GK5 | 5.06 | 4.66 | 4.89 | 4.30 | 4.44 | 4.72 | 5.45 | 5.11 |
| GKAP1 | 3.55 | 3.17 | 3.10 | 2.93 | 3.15 | 2.90 | 3.12 | 2.41 |
| GKN1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| GKN2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GLA | 5.89 | 5.36 | 6.04 | 5.53 | 6.05 | 5.00 | 5.07 | 4.81 |
| GLB1 | 6.13 | 6.13 | 6.26 | 6.43 | 6.73 | 6.30 | 6.07 | 6.31 |
| GLB1L | 2.11 | 1.70 | 1.94 | 1.88 | 1.82 | 1.90 | 1.88 | 1.54 |
| GLB1L2 | 5.07 | 4.57 | 5.88 | 4.95 | 4.75 | 4.52 | 5.63 | 4.02 |
| GLB1L3 | -0.19 | -0.68 | -0.67 | -0.62 | -0.69 | -0.66 | -0.69 | -0.71 |
| GLCCI1 | 3.08 | 2.68 | 3.33 | 2.77 | 3.26 | 3.27 | 3.51 | 3.21 |
| GLCE | 4.90 | 4.67 | 4.47 | 4.36 | 4.18 | 4.51 | 4.84 | 3.79 |
| GLDC | 1.50 | 1.53 | 2.04 | 1.55 | 1.48 | 1.44 | 2.16 | 1.30 |
| GLDN | 1.15 | 0.57 | 0.50 | 0.38 | 0.44 | 1.02 | 0.45 | 0.69 |
| GLE1 | 4.59 | 4.40 | 4.89 | 4.35 | 4.06 | 4.32 | 4.49 | 3.92 |
| GLG1 | 7.25 | 7.82 | 7.99 | 7.71 | 7.03 | 7.47 | 7.81 | 7.26 |
| GLI1 | -1.51 | -1.45 | -1.50 | -1.03 | -1.51 | -1.41 | -1.46 | -1.53 |
| GLI2 | 3.46 | 3.70 | 3.41 | 3.42 | 2.67 | 3.22 | 3.26 | 2.69 |
| GLI3 | 0.43 | 0.77 | 0.47 | 0.66 | 0.49 | 0.49 | 1.73 | 0.39 |
| GLI4 | 3.67 | 3.36 | 3.83 | 3.66 | 4.37 | 4.13 | 3.61 | 4.35 |
| GLIDR | -1.45 | -1.32 | -1.43 | -1.33 | -1.35 | -1.31 | -1.45 | -1.47 |
| GLIPR1 | 3.14 | 3.38 | 2.60 | 3.33 | 3.22 | 2.76 | 3.24 | 3.87 |
| GLIPR1L1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| GLIPR1L2 | -0.18 | -0.01 | -0.01 | -0.11 | 0.15 | 0.09 | -0.12 | 0.03 |
| GLIPR2 | 2.95 | 1.85 | 2.19 | 2.21 | 2.50 | 2.17 | 1.89 | 1.72 |
| GLIS1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| GLIS2 | 4.26 | 4.06 | 4.70 | 3.88 | 3.27 | 3.52 | 4.06 | 3.56 |
| GLIS2-AS1 | -1.50 | -1.49 | -1.55 | -1.57 | -1.53 | -1.51 | -1.57 | -1.59 |
| GLIS3 | 2.99 | 3.51 | 3.61 | 3.54 | 4.58 | 3.77 | 4.10 | 2.74 |
| GLIS3-AS1 | -1.26 | -1.49 | -1.48 | -1.44 | -1.37 | -1.48 | -1.50 | -1.52 |
| GLMN | 3.78 | 4.54 | 3.85 | 4.44 | 4.24 | 3.99 | 4.14 | 3.88 |
| GLMP | 5.74 | 5.58 | 5.23 | 5.94 | 5.96 | 5.93 | 5.30 | 6.77 |
| GLO1 | 8.36 | 7.45 | 7.26 | 7.44 | 7.48 | 8.16 | 7.60 | 7.69 |
| GLOD4 | 6.07 | 5.69 | 6.23 | 5.92 | 6.10 | 5.88 | 6.28 | 6.36 |
| GLOD5 | 0.42 | 0.84 | 0.35 | 0.45 | 0.31 | 0.17 | 0.10 | 0.14 |
| GLP1R | -0.97 | -1.11 | -1.10 | -1.12 | -0.73 | -1.13 | -1.12 | -1.13 |
| GLRB | 2.26 | 2.36 | 2.02 | 2.82 | 2.28 | 1.74 | 2.90 | 2.89 |
| GLRX | 6.51 | 6.47 | 6.41 | 7.00 | 8.09 | 6.71 | 6.31 | 6.36 |
| GLRX2 | 6.07 | 6.45 | 5.87 | 6.41 | 6.71 | 6.68 | 6.31 | 6.75 |
| GLRX3 | 7.94 | 7.29 | 7.07 | 7.41 | 7.74 | 7.76 | 6.88 | 7.30 |
| GLRX3P2 | -1.16 | -1.15 | -1.20 | -1.16 | -1.18 | -1.17 | -1.16 | -1.14 |
| GLRX5 | 7.01 | 7.30 | 6.79 | 7.55 | 7.79 | 7.87 | 6.88 | 7.26 |
| GLRXP3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GLS | 6.80 | 5.82 | 6.54 | 5.99 | 5.94 | 6.77 | 6.39 | 6.90 |
| GLS2 | 2.49 | 2.86 | 2.76 | 3.39 | 2.74 | 2.75 | 2.58 | 1.92 |
| GLT8D1 | 5.39 | 5.61 | 5.19 | 5.72 | 5.69 | 5.75 | 5.28 | 5.21 |
| GLT8D2 | -1.40 | -1.40 | -1.39 | -1.41 | -1.34 | -1.16 | -1.41 | -1.31 |
| GLTP | 4.50 | 5.77 | 4.79 | 5.60 | 4.85 | 5.43 | 4.83 | 5.34 |
| GLTPD2 | 0.25 | 0.06 | -0.09 | 0.18 | 0.47 | -0.02 | -0.05 | -0.14 |
| GLUD1 | 6.16 | 6.13 | 6.24 | 5.89 | 6.38 | 6.42 | 6.30 | 6.36 |
| GLUD1P2 | -1.41 | -1.40 | -1.39 | -1.27 | -1.30 | -1.35 | -1.35 | -1.37 |
| GLUD1P3 | 0.31 | 0.53 | 0.27 | 0.28 | 0.27 | 0.24 | 0.47 | 0.33 |
| GLUD2 | -0.93 | -0.70 | -0.83 | -0.66 | -0.81 | -0.87 | -0.93 | -0.94 |
| GLUL | 7.35 | 7.73 | 7.66 | 7.04 | 7.45 | 8.24 | 7.05 | 8.36 |
| GLYATL1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| GLYCTK | 3.07 | 3.62 | 3.05 | 3.82 | 3.09 | 2.73 | 3.46 | 2.89 |
| GLYCTK-AS1 | -2.30 | -2.28 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| GLYR1 | 5.88 | 6.10 | 6.56 | 6.41 | 5.51 | 5.86 | 6.36 | 6.38 |
| GM2A | 4.03 | 5.07 | 5.91 | 4.87 | 4.51 | 4.58 | 4.31 | 4.47 |
| GMCL1 | 5.85 | 5.71 | 5.84 | 5.52 | 6.05 | 5.00 | 6.53 | 5.31 |
| GMCL2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| GMDS | 8.10 | 7.67 | 7.32 | 8.12 | 8.37 | 6.33 | 8.21 | 7.71 |
| GMDS-DT | 2.52 | 2.63 | 2.45 | 2.29 | 2.80 | 2.39 | 2.84 | 3.09 |
| GMEB1 | 3.39 | 3.41 | 3.70 | 3.44 | 3.45 | 3.72 | 3.84 | 3.20 |
| GMEB2 | 3.82 | 3.42 | 4.55 | 3.59 | 3.69 | 3.48 | 3.71 | 4.31 |
| GMFB | 5.31 | 5.84 | 5.34 | 6.00 | 5.66 | 5.68 | 5.48 | 4.99 |
| GMFG | -0.91 | -0.97 | -1.04 | -0.92 | -1.02 | -0.82 | -1.06 | -1.01 |
| GMIP | 2.79 | 3.41 | 3.11 | 3.54 | 3.25 | 2.86 | 3.05 | 3.36 |
| GML | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| GMNN | 7.20 | 6.21 | 5.99 | 6.38 | 5.52 | 6.59 | 6.22 | 6.53 |
| GMPPA | 5.58 | 5.79 | 5.43 | 5.99 | 6.49 | 5.79 | 5.65 | 6.37 |
| GMPPB | 5.86 | 5.44 | 4.93 | 5.69 | 5.19 | 5.21 | 5.52 | 5.62 |
| GMPR | 5.62 | 4.25 | 4.36 | 4.13 | 4.40 | 3.99 | 3.49 | 4.07 |
| GMPR2 | 4.99 | 5.09 | 5.29 | 5.56 | 6.37 | 5.43 | 5.71 | 5.62 |
| GMPS | 5.77 | 5.45 | 5.85 | 5.29 | 5.39 | 5.62 | 5.69 | 5.93 |
| GMPSP1 | -0.86 | -0.78 | -0.69 | -0.86 | -0.82 | -0.77 | -0.72 | -0.56 |
| GNA11 | 5.84 | 6.55 | 7.42 | 6.26 | 5.77 | 6.33 | 7.17 | 5.87 |
| GNA12 | 5.16 | 4.81 | 4.64 | 4.53 | 4.70 | 4.60 | 4.51 | 4.63 |
| GNA13 | 4.48 | 5.29 | 5.19 | 4.80 | 4.87 | 5.01 | 5.58 | 4.77 |
| GNA14 | -0.81 | -0.73 | -0.86 | -0.55 | -0.84 | -0.75 | -0.89 | -0.84 |
| GNA15 | 2.83 | 3.60 | 3.39 | 3.47 | 2.95 | 4.85 | 2.55 | 3.30 |
| GNAI1 | 3.04 | 4.00 | 4.21 | 3.94 | 4.50 | 3.93 | 4.17 | 3.80 |
| GNAI2 | 7.74 | 8.17 | 7.69 | 7.83 | 7.76 | 8.09 | 7.72 | 7.47 |
| GNAI3 | 6.37 | 6.42 | 6.24 | 6.03 | 6.32 | 6.37 | 6.49 | 6.29 |
| GNAL | 1.19 | 2.43 | 0.92 | 1.76 | 1.05 | 0.92 | 1.22 | 1.73 |
| GNAO1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.95 | -1.95 | -1.88 |
| GNAQ | 4.67 | 5.91 | 4.94 | 5.60 | 4.70 | 5.23 | 6.18 | 4.40 |
| GNAS | 9.82 | 9.81 | 9.88 | 9.91 | 10.01 | 9.65 | 9.91 | 10.28 |
| GNAS-AS1 | -1.21 | -1.21 | -0.82 | -1.22 | -1.21 | -1.22 | -1.01 | -1.17 |
| GNAT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GNAT2 | -2.01 | -2.04 | -2.00 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| GNAZ | 4.05 | 3.64 | 4.30 | 3.66 | 3.59 | 2.74 | 4.90 | 2.84 |
| GNB1 | 8.13 | 7.75 | 7.66 | 7.42 | 7.67 | 8.01 | 8.02 | 7.68 |
| GNB1L | 4.36 | 3.98 | 3.86 | 4.45 | 4.67 | 4.60 | 4.13 | 4.59 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| GNB2 | 7.44 | 8.48 | 8.39 | 8.11 | 8.36 | 7.89 | 8.14 | 8.43 |
| GNB3 | -1.03 | -1.09 | -1.08 | -1.10 | -0.94 | -1.04 | -1.04 | -1.11 |
| GNB4 | 0.25 | 1.56 | 0.36 | 1.22 | 0.38 | 0.51 | 0.32 | 1.00 |
| GNB5 | 5.06 | 4.98 | 4.69 | 4.88 | 4.45 | 4.71 | 5.28 | 4.64 |
| GNE | 6.85 | 5.32 | 5.81 | 5.18 | 5.88 | 6.11 | 5.61 | 5.26 |
| GNG10 | -1.89 | -1.85 | -1.88 | -1.85 | -1.89 | -1.88 | -1.90 | -1.91 |
| GNG11 | 2.16 | 2.41 | 1.79 | 2.20 | 1.91 | 1.82 | 2.29 | 2.31 |
| GNG12 | 5.81 | 6.93 | 6.51 | 6.71 | 6.77 | 6.70 | 6.96 | 6.52 |
| GNG12-AS1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| GNG13 | -1.79 | -1.69 | -1.73 | -1.75 | -1.79 | -1.78 | -1.75 | -1.72 |
| GNG2 | -0.41 | 0.18 | -0.13 | 0.01 | -0.36 | 0.18 | -0.34 | -0.37 |
| GNG3 | -1.94 | -1.94 | -1.93 | -1.90 | -1.92 | -1.93 | -1.95 | -1.96 |
| GNG4 | 5.06 | 2.03 | 2.12 | 1.88 | 2.59 | 2.25 | 2.01 | 1.90 |
| GNG5 | 5.35 | 4.79 | 4.42 | 4.70 | 5.09 | 4.81 | 4.87 | 5.30 |
| GNG5P2 | 0.80 | 0.82 | 0.57 | 0.79 | 0.61 | 0.60 | 0.51 | 0.92 |
| GNG7 | -0.05 | 0.04 | 0.07 | -0.05 | 0.63 | 0.35 | 0.23 | -0.08 |
| GNGT1 | -0.57 | -0.48 | -0.55 | -0.49 | -0.44 | -0.20 | -0.58 | 0.22 |
| GNGT2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| GNL1 | 5.80 | 4.78 | 5.54 | 4.64 | 5.08 | 6.30 | 5.12 | 6.43 |
| GNL2 | 6.04 | 6.33 | 6.38 | 6.34 | 5.99 | 6.00 | 6.06 | 5.60 |
| GNL3 | 7.86 | 6.94 | 6.47 | 7.20 | 7.52 | 7.24 | 6.74 | 7.27 |
| GNL3L | 4.86 | 5.62 | 5.53 | 5.74 | 5.32 | 5.47 | 5.73 | 5.31 |
| GNL3LP1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| GNMT | -2.04 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.11 |
| GNPAT | 6.54 | 6.04 | 6.21 | 5.63 | 6.46 | 6.03 | 6.18 | 5.78 |
| GNPDA1 | 5.33 | 5.32 | 5.56 | 5.38 | 5.88 | 5.36 | 4.71 | 5.51 |
| GNPDA2 | 3.21 | 4.00 | 3.67 | 4.13 | 3.77 | 4.06 | 3.93 | 4.21 |
| GNPNAT1 | 5.52 | 6.36 | 5.34 | 6.40 | 5.96 | 6.05 | 5.84 | 5.68 |
| GNPTAB | 5.02 | 5.61 | 4.90 | 5.74 | 4.52 | 4.85 | 5.58 | 5.06 |
| GNPTG | 7.07 | 7.04 | 6.67 | 7.41 | 6.31 | 6.47 | 6.43 | 7.39 |
| GNRH1 | 0.14 | 0.07 | 0.36 | 0.28 | 0.22 | 0.34 | 0.67 | 0.20 |
| GNRHR2 | -1.55 | -1.55 | -1.54 | -1.50 | -1.52 | -1.56 | -1.56 | -1.52 |
| GNS | 5.24 | 6.53 | 6.59 | 6.58 | 6.00 | 6.37 | 6.22 | 6.02 |
| GOLGA1 | 4.76 | 4.68 | 4.31 | 4.86 | 4.22 | 4.49 | 4.75 | 4.18 |
| GOLGA2 | 6.96 | 6.57 | 6.24 | 6.48 | 6.36 | 6.64 | 6.68 | 7.27 |
| GOLGA2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| GOLGA2P10 | -0.23 | -0.30 | -0.16 | -0.02 | -0.34 | -0.29 | -0.39 | -0.29 |
| GOLGA2P5 | 2.06 | 2.16 | 3.55 | 2.29 | 2.39 | 2.54 | 3.28 | 2.23 |
| GOLGA2P7 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.95 | -2.00 | -2.00 |
| GOLGA2P8 | 1.09 | 1.03 | 1.20 | 1.30 | 2.37 | 1.60 | 1.25 | 1.11 |
| GOLGA3 | 5.37 | 6.10 | 6.30 | 6.09 | 5.56 | 5.86 | 6.27 | 6.59 |
| GOLGA4 | 7.65 | 8.26 | 8.04 | 8.18 | 7.83 | 8.09 | 8.74 | 7.73 |
| GOLGA5 | 4.93 | 5.59 | 5.52 | 5.91 | 5.86 | 5.87 | 5.57 | 6.30 |
| GOLGA6L10 | 0.03 | 0.04 | -0.01 | 0.15 | -0.12 | 0.14 | 0.05 | -0.09 |
| GOLGA6L2 | -2.12 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| GOLGA6L9 | 0.55 | 0.40 | 0.68 | 0.64 | 0.60 | 0.70 | 0.84 | 0.59 |
| GOLGA7 | 7.25 | 6.12 | 6.37 | 6.39 | 5.74 | 6.63 | 6.15 | 7.31 |
| GOLGA7B | 0.19 | -0.02 | 0.25 | 0.04 | 0.35 | 0.15 | 0.31 | 0.06 |
| GOLGA8A | 3.02 | 3.88 | 4.36 | 4.22 | 2.97 | 3.36 | 3.90 | 3.39 |
| GOLGA8B | 3.03 | 2.82 | 3.73 | 3.27 | 3.72 | 2.82 | 4.60 | 3.25 |
| GOLGA8H | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GOLGA8IP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GOLGA8N | -1.89 | -1.89 | -1.84 | -1.90 | -1.87 | -1.90 | -1.90 | -1.91 |
| GOLGA8UP | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| GOLGB1 | 7.10 | 7.02 | 8.03 | 7.00 | 7.30 | 7.54 | 8.43 | 8.18 |
| GOLIM4 | 7.25 | 7.35 | 7.26 | 7.54 | 6.21 | 6.63 | 7.89 | 6.43 |
| GOLM1 | 7.46 | 7.73 | 7.71 | 7.73 | 6.93 | 7.44 | 9.12 | 6.28 |
| GOLPH3 | 6.03 | 6.40 | 6.16 | 6.25 | 6.42 | 5.97 | 6.19 | 6.38 |
| GOLPH3L | 4.53 | 4.88 | 5.00 | 4.82 | 4.96 | 5.13 | 5.01 | 5.56 |
| GOLT1A | 5.73 | 3.77 | 4.61 | 4.47 | 4.94 | 4.47 | 4.66 | 5.29 |
| GOLT1B | 6.12 | 4.72 | 5.84 | 4.96 | 7.26 | 5.22 | 5.48 | 6.46 |
| GON4L | 5.96 | 5.91 | 5.60 | 5.84 | 6.37 | 6.36 | 5.77 | 6.61 |
| GON7 | 5.04 | 5.05 | 4.96 | 5.37 | 5.16 | 4.93 | 4.74 | 4.78 |
| GOPC | 5.58 | 5.37 | 5.47 | 5.68 | 5.49 | 6.12 | 5.61 | 5.69 |
| GORAB | 2.83 | 3.24 | 2.79 | 3.03 | 3.36 | 3.33 | 3.17 | 3.53 |
| GORAB-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| GORASP1 | 4.55 | 4.75 | 4.70 | 4.77 | 4.56 | 4.39 | 4.52 | 4.80 |
| GORASP2 | 7.25 | 6.93 | 6.61 | 7.09 | 7.57 | 6.80 | 6.39 | 8.22 |
| GOSR1 | 7.30 | 6.82 | 6.71 | 6.71 | 6.85 | 7.29 | 6.71 | 7.33 |
| GOSR2 | 5.74 | 5.41 | 5.52 | 5.31 | 5.75 | 5.55 | 5.31 | 5.64 |
| GOT1 | 7.14 | 6.98 | 6.27 | 7.13 | 7.56 | 7.06 | 6.90 | 6.72 |
| GOT2 | 6.86 | 6.84 | 6.64 | 6.82 | 6.17 | 6.71 | 6.87 | 6.60 |
| GOT2P3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| GP1BA | -1.84 | -1.84 | -1.75 | -1.84 | -1.84 | -1.83 | -1.80 | -1.86 |
| GP2 | 2.09 | 3.07 | 2.38 | 5.12 | 5.61 | 1.94 | 3.50 | 2.72 |
| GP6 | -1.09 | -1.49 | -1.48 | -1.50 | -1.46 | -1.48 | -1.44 | -1.46 |
| GPA33 | 1.56 | 1.83 | 1.83 | 1.55 | 1.50 | 1.57 | 2.55 | 1.56 |
| GPAA1 | 7.76 | 7.25 | 7.31 | 7.54 | 7.06 | 7.54 | 7.02 | 7.69 |
| GPALPP1 | 4.72 | 5.10 | 5.09 | 4.98 | 5.28 | 4.84 | 5.23 | 5.79 |
| GPAM | 3.73 | 3.89 | 3.86 | 3.36 | 3.37 | 3.69 | 3.68 | 3.37 |
| GPANK1 | 5.54 | 4.94 | 4.97 | 5.15 | 4.77 | 5.30 | 4.96 | 5.73 |
| GPAT2 | -0.46 | -0.53 | -0.43 | -0.53 | -0.41 | -0.02 | -0.54 | -0.22 |
| GPAT3 | 3.77 | 3.47 | 3.95 | 3.17 | 3.79 | 3.79 | 3.31 | 4.47 |
| GPAT4 | 4.93 | 5.46 | 6.81 | 5.09 | 4.64 | 5.25 | 5.79 | 5.55 |
| GPATCH1 | 4.37 | 4.07 | 4.05 | 4.40 | 4.10 | 4.00 | 4.32 | 3.90 |
| GPATCH11 | 4.69 | 4.83 | 4.01 | 4.68 | 4.25 | 4.64 | 4.59 | 4.65 |
| GPATCH2 | 4.75 | 4.98 | 4.76 | 4.70 | 4.61 | 4.98 | 5.05 | 5.12 |
| GPATCH2L | 4.31 | 5.33 | 5.57 | 5.15 | 5.40 | 5.54 | 5.98 | 4.93 |
| GPATCH3 | 3.30 | 3.12 | 3.23 | 3.33 | 3.25 | 3.32 | 3.12 | 2.94 |
| GPATCH4 | 6.99 | 7.15 | 5.91 | 6.99 | 6.58 | 6.79 | 5.90 | 6.68 |
| GPATCH8 | 5.27 | 5.70 | 5.71 | 5.53 | 5.89 | 5.71 | 5.91 | 5.91 |
| GPBAR1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -1.98 | -1.96 | -2.01 |
| GPBP1 | 5.97 | 6.51 | 7.00 | 6.52 | 6.68 | 6.57 | 6.92 | 6.41 |
| GPBP1L1 | 5.50 | 5.60 | 6.13 | 5.50 | 5.88 | 6.18 | 6.44 | 6.44 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| GPC1 | 6.01 | 6.04 | 6.63 | 5.50 | 6.19 | 5.94 | 5.89 | 6.84 |
| GPC2 | 0.85 | 0.65 | 0.85 | 0.84 | 0.72 | 1.04 | 1.01 | 0.63 |
| GPC3 | 1.07 | 4.67 | 1.57 | 5.56 | 1.82 | 1.24 | 1.33 | 1.27 |
| GPC4 | 1.99 | 2.76 | 2.52 | 2.99 | 3.46 | 2.09 | 1.89 | 2.69 |
| GPC6 | -1.13 | -1.05 | -1.03 | -1.14 | -1.13 | -0.44 | -1.14 | -1.15 |
| GPCPD1 | 4.10 | 4.08 | 3.97 | 3.79 | 3.56 | 3.70 | 4.43 | 3.75 |
| GPD1 | 1.24 | 1.34 | 1.35 | 1.30 | 1.45 | 1.14 | 1.65 | 1.47 |
| GPD1L | 3.77 | 4.31 | 3.97 | 4.17 | 3.47 | 3.47 | 4.22 | 3.18 |
| GPD2 | 4.63 | 5.16 | 5.32 | 4.44 | 4.64 | 4.94 | 5.38 | 4.83 |
| GPER1 | 0.03 | -0.03 | -0.02 | -0.12 | 0.04 | 0.16 | 0.28 | -0.09 |
| GPHA2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 | -2.25 | -2.26 |
| GPHN | 3.57 | 4.05 | 4.13 | 4.17 | 4.16 | 3.95 | 4.31 | 3.59 |
| GPI | 8.68 | 8.74 | 8.73 | 8.55 | 9.25 | 8.10 | 9.05 | 7.67 |
| GPKOW | 5.22 | 4.93 | 5.11 | 4.78 | 5.72 | 5.41 | 4.88 | 5.16 |
| GPLD1 | -0.26 | -0.48 | -0.39 | -0.49 | -0.44 | -0.32 | -0.18 | -0.18 |
| GPM6A | -1.35 | -1.41 | -1.40 | -1.35 | -1.38 | -1.39 | -1.42 | -1.33 |
| GPM6B | -0.75 | -0.60 | -0.55 | -0.75 | -0.74 | -0.83 | -0.69 | -0.72 |
| GPN1 | 5.72 | 4.82 | 4.56 | 5.21 | 4.76 | 5.25 | 4.28 | 5.47 |
| GPN2 | 4.63 | 4.28 | 4.63 | 4.32 | 5.00 | 5.02 | 4.75 | 4.21 |
| GPN3 | 5.96 | 5.85 | 5.57 | 5.79 | 5.79 | 6.24 | 5.65 | 6.43 |
| GPN3P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GPNMB | 0.70 | 0.15 | 0.16 | 0.13 | 0.23 | 0.30 | 0.27 | 0.45 |
| GPR1 | -0.62 | -0.61 | -0.68 | -0.70 | -0.70 | -0.41 | -0.71 | 0.07 |
| GPR1-AS | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| GPR107 | 5.18 | 5.20 | 5.76 | 4.94 | 4.65 | 5.37 | 5.06 | 5.23 |
| GPR108 | 6.15 | 6.52 | 6.04 | 6.81 | 6.88 | 6.51 | 6.45 | 6.59 |
| GPR12 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.20 |
| GPR132 | -1.64 | -1.69 | -1.53 | -1.70 | -1.69 | -1.60 | -1.70 | -1.57 |
| GPR135 | -0.38 | -0.29 | -0.29 | -0.19 | -0.11 | -0.29 | -0.10 | -0.34 |
| GPR137 | 4.94 | 3.78 | 4.51 | 4.16 | 4.81 | 3.89 | 4.47 | 4.79 |
| GPR137B | 4.35 | 4.00 | 3.57 | 3.70 | 4.10 | 4.51 | 3.40 | 3.98 |
| GPR137C | -1.22 | -1.21 | -0.93 | -1.08 | -1.21 | -1.16 | -1.02 | -1.18 |
| GPR143 | 2.19 | 2.67 | 1.95 | 3.10 | 2.22 | 2.25 | 1.67 | 1.69 |
| GPR146 | 1.47 | 1.34 | 1.36 | 1.30 | 1.09 | 1.05 | 0.96 | 1.12 |
| GPR150 | -1.59 | -1.54 | -1.53 | -1.54 | -1.54 | -1.58 | -1.55 | -1.56 |
| GPR153 | 3.47 | 3.96 | 3.45 | 4.02 | 3.63 | 4.45 | 4.22 | 4.81 |
| GPR155 | 2.46 | 2.86 | 2.28 | 2.75 | 2.62 | 1.98 | 3.07 | 2.37 |
| GPR156 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| GPR157 | 3.96 | 4.21 | 3.61 | 3.90 | 3.36 | 3.47 | 3.99 | 3.09 |
| GPR158 | -0.01 | 0.08 | -0.22 | -0.24 | -0.15 | 0.46 | -0.24 | -0.09 |
| GPR160 | 5.69 | 5.08 | 5.40 | 5.40 | 5.14 | 4.73 | 5.00 | 4.37 |
| GPR161 | 2.24 | 2.52 | 2.88 | 2.65 | 3.09 | 3.07 | 1.84 | 1.60 |
| GPR162 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| GPR171 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GPR173 | -1.74 | -1.74 | -1.73 | -1.74 | -1.71 | -1.73 | -1.75 | -1.76 |
| GPR176 | 1.42 | 0.44 | 0.46 | 0.41 | 0.52 | 0.40 | 0.41 | 0.49 |
| GPR179 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GPR180 | 4.10 | 5.01 | 4.78 | 4.63 | 5.06 | 4.52 | 5.30 | 4.17 |
| GPR19 | 0.70 | 0.32 | 0.35 | 0.14 | 0.24 | 0.34 | 0.14 | 0.29 |
| GPR20 | -1.70 | -1.74 | -1.73 | -1.74 | -1.74 | -1.71 | -1.75 | -1.68 |
| GPR27 | 1.14 | 1.61 | 1.29 | 1.41 | 1.31 | 1.09 | 1.70 | 1.17 |
| GPR3 | 2.04 | 1.06 | 0.99 | 1.28 | 1.26 | 1.46 | 1.08 | 0.87 |
| GPR35 | 5.08 | 5.89 | 4.92 | 6.01 | 5.78 | 5.29 | 5.36 | 4.47 |
| GPR37 | -0.57 | -0.56 | -0.55 | -0.57 | -0.52 | -0.54 | -0.57 | -0.40 |
| GPR37L1 | 0.51 | 0.36 | 0.57 | 0.50 | 0.44 | 0.41 | 0.42 | 0.50 |
| GPR39 | 2.66 | 3.68 | 3.00 | 3.94 | 2.81 | 3.65 | 3.39 | 4.16 |
| GPR52 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GPR6 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GPR61 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| GPR62 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| GPR63 | 0.52 | 0.18 | 0.47 | 0.25 | 0.33 | 0.36 | 0.50 | 0.27 |
| GPR65 | 0.35 | 0.02 | -0.06 | -0.08 | -0.07 | -0.06 | -0.09 | -0.05 |
| GPR68 | -2.18 | -2.20 | -2.19 | -2.18 | -2.20 | -2.18 | -2.20 | -2.21 |
| GPR75 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 | -1.85 | -1.80 | -1.86 |
| GPR78 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| GPR82 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.88 | -1.95 | -1.96 |
| GPR85 | -0.93 | -1.05 | -1.12 | -1.00 | -1.13 | -1.08 | -1.14 | -0.98 |
| GPR87 | 2.16 | 3.73 | 3.53 | 4.35 | 2.43 | 4.52 | 2.52 | 4.86 |
| GPR89A | 3.24 | 2.83 | 2.90 | 3.29 | 3.16 | 3.22 | 3.12 | 3.39 |
| GPR89B | 2.12 | 1.77 | 2.17 | 2.49 | 2.25 | 2.18 | 2.33 | 2.75 |
| GPR89P | -2.08 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| GPRASP1 | -0.62 | -0.52 | -0.58 | -0.62 | -0.61 | -0.60 | -0.62 | -0.71 |
| GPRASP2 | 1.02 | 0.97 | 1.29 | 1.12 | 0.89 | 0.81 | 1.05 | 1.05 |
| GPRC5A | 9.23 | 8.21 | 9.82 | 8.08 | 9.27 | 8.48 | 9.03 | 9.57 |
| GPRC5B | 2.67 | 3.32 | 3.59 | 3.08 | 4.11 | 2.84 | 2.67 | 2.28 |
| GPRC5C | 6.58 | 6.07 | 6.63 | 6.05 | 7.65 | 6.47 | 6.93 | 6.84 |
| GPRC5D | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| GPRC5D-AS1 | 2.64 | 2.27 | 2.78 | 2.05 | 2.57 | 2.83 | 2.98 | 3.46 |
| GPRIN1 | 2.17 | 2.51 | 2.70 | 2.30 | 2.36 | 2.77 | 2.60 | 2.16 |
| GPRIN2 | 3.64 | 2.38 | 2.83 | 2.43 | 2.29 | 2.64 | 3.10 | 2.50 |
| GPRIN3 | 1.55 | 1.00 | 1.66 | 1.05 | 2.47 | 0.99 | 0.87 | 1.01 |
| GPS1 | 7.77 | 6.84 | 7.20 | 7.05 | 7.14 | 7.38 | 6.65 | 7.42 |
| GPS2 | 2.22 | 2.59 | 2.63 | 2.59 | 2.67 | 2.63 | 3.10 | 2.41 |
| GPS2P1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.08 |
| GPS2P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| GPSM1 | 1.58 | 1.62 | 2.08 | 1.71 | 1.91 | 2.31 | 2.09 | 1.70 |
| GPSM2 | 5.48 | 5.17 | 5.57 | 5.27 | 5.00 | 5.53 | 5.32 | 4.89 |
| GPSM3 | 1.77 | 1.60 | 1.81 | 1.62 | 1.53 | 2.76 | 1.62 | 2.28 |
| GPT | 1.83 | 1.73 | 1.61 | 1.68 | 1.64 | 1.69 | 3.35 | 1.91 |
| GPT2 | 4.93 | 4.36 | 5.85 | 4.29 | 5.55 | 5.18 | 5.52 | 5.45 |
| GPX1 | 8.70 | 9.24 | 8.12 | 8.75 | 8.40 | 8.76 | 7.88 | 8.66 |
| GPX1P1 | -0.95 | -1.01 | -1.00 | -0.95 | -0.86 | -0.99 | -0.95 | -0.86 |
| GPX1P2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.06 | -2.10 | -2.10 | -2.11 |
| GPX2 | 10.20 | 10.38 | 9.97 | 10.26 | 11.29 | 9.94 | 9.83 | 10.20 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| GPX3 | 5.97 | 4.50 | 5.01 | 4.83 | 5.09 | 5.17 | 5.19 | 6.01 |
| GPX4 | 10.89 | 8.58 | 8.76 | 8.53 | 9.67 | 9.79 | 8.91 | 10.07 |
| GPX7 | 1.49 | 2.50 | 1.22 | 2.72 | 1.46 | 0.93 | 1.04 | 1.40 |
| GPX8 | 3.87 | 6.09 | 5.28 | 6.18 | 5.92 | 5.60 | 5.48 | 6.36 |
| GRAMD1A | 4.50 | 5.29 | 4.96 | 5.28 | 5.16 | 5.02 | 4.72 | 4.88 |
| GRAMD1B | 2.90 | 3.21 | 4.55 | 3.34 | 4.26 | 3.90 | 5.56 | 3.04 |
| GRAMD1C | 1.74 | 2.03 | 2.31 | 2.12 | 2.15 | 2.08 | 2.17 | 3.20 |
| GRAMD2A | 1.02 | 0.65 | 0.67 | 0.71 | 0.69 | 1.19 | 0.62 | 1.26 |
| GRAMD2B | 3.78 | 4.59 | 4.26 | 4.48 | 4.01 | 4.72 | 4.28 | 4.66 |
| GRAMD4 | 4.89 | 4.89 | 5.34 | 4.76 | 4.40 | 4.46 | 5.19 | 5.29 |
| GRAP | -1.54 | -1.53 | -1.52 | -1.54 | -1.51 | -1.44 | -1.54 | -1.51 |
| GRAP2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| GRASP | -0.67 | -0.89 | -0.87 | -0.82 | -0.85 | -0.90 | -0.90 | -0.85 |
| GRB10 | 4.27 | 3.98 | 4.61 | 4.49 | 4.80 | 4.85 | 4.42 | 4.19 |
| GRB14 | 3.50 | 3.21 | 3.26 | 3.64 | 3.76 | 3.68 | 4.75 | 3.05 |
| GRB2 | 7.45 | 7.15 | 7.43 | 7.16 | 7.12 | 7.34 | 7.29 | 7.29 |
| GRB7 | 6.07 | 4.48 | 6.24 | 4.45 | 6.06 | 5.46 | 5.46 | 6.25 |
| GREB1 | -1.59 | -1.69 | -1.68 | -1.59 | -1.69 | -1.70 | -1.70 | -1.71 |
| GREB1L | 2.39 | 2.43 | 3.29 | 2.85 | 2.50 | 2.99 | 2.56 | 4.09 |
| GREM1 | 1.07 | 1.05 | 0.95 | 1.13 | 1.16 | 1.14 | 0.93 | 1.06 |
| GRHL1 | 4.15 | 3.67 | 4.12 | 3.29 | 3.70 | 4.29 | 3.71 | 4.07 |
| GRHL2 | 4.23 | 4.32 | 5.14 | 4.28 | 4.23 | 4.87 | 4.25 | 4.71 |
| GRHL3 | 1.50 | 1.44 | 1.51 | 1.32 | 1.40 | 1.54 | 1.96 | 1.80 |
| GRHPR | 6.51 | 6.79 | 6.52 | 6.91 | 7.24 | 6.92 | 6.82 | 6.64 |
| GRIA3 | -1.45 | -1.50 | -1.49 | -1.51 | -1.44 | -1.52 | -1.40 | -1.20 |
| GRID1 | -0.83 | -1.21 | -1.05 | -1.15 | -1.10 | -1.22 | -1.22 | -1.23 |
| GRID2IP | -1.65 | -1.64 | -1.64 | -1.70 | -1.65 | -1.66 | -1.70 | -1.72 |
| GRIK1-AS1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| GRIK2 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.00 |
| GRIK5 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| GRIN1 | -0.70 | -0.85 | -0.60 | -0.78 | -0.73 | -0.65 | -0.79 | -0.64 |
| GRIN2A | 0.02 | 1.09 | 0.04 | 1.25 | 0.50 | 0.08 | 0.01 | -0.02 |
| GRIN2B | -0.47 | -0.46 | -0.37 | -0.47 | -0.42 | -0.34 | -0.48 | -0.50 |
| GRIN2C | -2.15 | -2.15 | -2.14 | -2.12 | -2.13 | -2.15 | -2.15 | -2.16 |
| GRIN2D | 3.56 | 2.89 | 2.91 | 2.81 | 2.49 | 4.03 | 2.44 | 3.81 |
| GRIN3B | 0.20 | -0.20 | -0.19 | -0.29 | -0.20 | -0.26 | -0.29 | -0.14 |
| GRINA | 7.06 | 6.26 | 7.35 | 6.45 | 6.66 | 6.71 | 6.25 | 6.94 |
| GRIP1 | -0.11 | 0.19 | -0.17 | -0.12 | -0.18 | -0.17 | -0.05 | -0.09 |
| GRIP2 | 0.14 | 0.07 | 0.32 | 0.06 | 0.45 | 0.11 | 0.26 | 0.02 |
| GRIPAP1 | 4.72 | 4.85 | 5.21 | 4.70 | 4.64 | 4.50 | 4.91 | 4.22 |
| GRK2 | 7.82 | 7.50 | 7.66 | 8.07 | 8.43 | 8.45 | 7.93 | 8.77 |
| GRK3 | 3.20 | 2.82 | 2.60 | 2.30 | 2.14 | 2.36 | 2.60 | 2.74 |
| GRK4 | 1.50 | 1.89 | 1.73 | 2.05 | 1.97 | 2.05 | 2.25 | 1.88 |
| GRK5 | 3.38 | 2.46 | 3.06 | 2.72 | 4.35 | 2.82 | 2.88 | 2.13 |
| GRK5-IT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GRK6 | 5.14 | 5.18 | 5.76 | 5.45 | 5.52 | 5.44 | 5.00 | 5.03 |
| GRK6P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GRM1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GRM2 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.06 |
| GRM3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| GRM4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| GRM5 | -2.04 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| GRM5-AS1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| GRM6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GRN | 8.05 | 8.68 | 8.49 | 8.85 | 8.62 | 8.52 | 8.17 | 8.53 |
| GRPEL1 | 6.93 | 6.26 | 6.77 | 6.36 | 6.80 | 7.22 | 6.84 | 7.27 |
| GRPEL2 | 3.50 | 4.21 | 4.71 | 3.86 | 4.12 | 4.02 | 4.41 | 3.83 |
| GRPR | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| GRSF1 | 6.12 | 6.87 | 6.65 | 6.92 | 6.28 | 6.87 | 6.75 | 6.94 |
| GRTP1 | 4.97 | 5.17 | 5.06 | 5.64 | 5.78 | 5.09 | 5.42 | 5.31 |
| GRTP1-AS1 | -1.55 | -1.54 | -1.48 | -1.55 | -1.52 | -1.53 | -1.44 | -1.47 |
| GRWD1 | 5.70 | 5.47 | 4.94 | 5.70 | 5.51 | 5.40 | 4.44 | 5.44 |
| GRXCR2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| GSAP | 3.55 | 4.82 | 4.24 | 4.89 | 3.95 | 4.56 | 4.39 | 4.17 |
| GSC | -1.17 | -1.16 | -1.15 | -1.04 | -1.20 | -1.16 | -1.25 | -1.20 |
| GSDMA | -1.69 | -1.69 | -1.68 | -1.74 | -1.66 | -1.70 | -1.74 | -1.76 |
| GSDMB | 4.17 | 4.13 | 4.94 | 4.27 | 5.49 | 4.48 | 3.52 | 3.90 |
| GSDMC | -0.33 | -0.41 | -0.17 | -0.27 | -0.41 | 0.26 | -0.42 | -0.13 |
| GSDMD | 6.04 | 5.91 | 6.70 | 6.12 | 6.35 | 5.68 | 5.36 | 5.91 |
| GSDME | 1.81 | 1.49 | 1.36 | 1.29 | 1.66 | 1.23 | 1.36 | 1.58 |
| GSE1 | 5.41 | 5.55 | 5.85 | 5.00 | 5.16 | 5.20 | 6.03 | 5.66 |
| GSEC | 5.49 | 3.12 | 3.43 | 3.66 | 6.99 | 5.28 | 3.59 | 4.58 |
| SGG1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| GSK3A | 5.56 | 5.56 | 5.28 | 5.32 | 5.64 | 5.35 | 5.06 | 5.52 |
| GSK3B | 5.99 | 5.19 | 6.21 | 5.27 | 5.83 | 6.08 | 6.54 | 6.72 |
| GSKIP | 5.40 | 5.74 | 5.60 | 5.75 | 5.99 | 5.94 | 6.66 | 5.44 |
| GSN | 7.78 | 7.79 | 8.20 | 7.81 | 7.92 | 8.05 | 8.67 | 8.19 |
| GSN-AS1 | -1.69 | -1.73 | -1.73 | -1.74 | -1.71 | -1.72 | -1.74 | -1.71 |
| GSPT1 | 7.95 | 7.67 | 7.94 | 7.67 | 7.27 | 7.75 | 7.67 | 7.81 |
| GSPT2 | 3.77 | 3.84 | 5.29 | 3.99 | 5.50 | 5.25 | 3.93 | 4.39 |
| GSR | 6.90 | 6.53 | 7.26 | 6.56 | 5.75 | 6.71 | 7.35 | 5.87 |
| GSS | 6.38 | 6.44 | 6.56 | 6.48 | 6.55 | 6.55 | 6.25 | 6.23 |
| GSTA1 | 6.62 | 4.59 | 3.97 | 4.52 | 3.68 | 3.15 | 3.40 | 6.55 |
| GSTA2 | 1.51 | 1.61 | 1.34 | 1.39 | 1.42 | 1.16 | 1.92 | 1.95 |
| GSTA3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| GSTA4 | 5.52 | 4.05 | 3.63 | 4.58 | 4.79 | 3.34 | 4.63 | 4.21 |
| GSTA9P | -2.25 | -2.23 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| GSTCD | 3.61 | 4.18 | 3.82 | 3.67 | 3.23 | 3.98 | 4.20 | 3.38 |
| GSTK1 | 6.96 | 7.53 | 6.79 | 7.83 | 8.05 | 7.63 | 7.54 | 8.30 |
| GSTM1 | 0.14 | -0.06 | 0.03 | -0.08 | -0.02 | -0.05 | 0.00 | 0.95 |
| GSTM2 | -1.20 | -1.37 | -1.36 | -1.38 | -1.31 | -1.36 | -1.26 | -1.29 |
| GSTM3 | 9.59 | 8.42 | 7.74 | 9.07 | 9.53 | 8.96 | 8.95 | 7.08 |
| GSTM4 | 6.48 | 6.55 | 5.91 | 6.95 | 5.89 | 5.17 | 7.91 | 6.55 |
| GSTM5 | -1.75 | -1.78 | -1.78 | -1.79 | -1.72 | -1.80 | -1.79 | -1.76 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| GSTO1 | 8.03 | 8.05 | 7.20 | 8.37 | 8.71 | 8.09 | 7.11 | 7.58 |
| GSTO2 | 6.43 | 6.41 | 5.51 | 6.45 | 7.19 | 6.41 | 5.57 | 6.05 |
| GSTO3P | -1.74 | -1.69 | -1.73 | -1.74 | -1.69 | -1.68 | -1.74 | -1.71 |
| GSTP1 | 11.46 | 11.65 | 10.07 | 11.72 | 11.38 | 11.20 | 11.27 | 10.46 |
| GSTP1P1 | -1.06 | -0.98 | -1.04 | -1.06 | -1.02 | -1.00 | -0.99 | -1.01 |
| GSTT2B | -2.04 | -2.04 | -2.01 | -2.02 | -2.04 | -1.99 | -2.05 | -2.06 |
| GSTZ1 | 4.65 | 4.51 | 4.62 | 4.91 | 5.11 | 5.11 | 5.32 | 5.24 |
| GTDC1 | 2.83 | 3.15 | 2.74 | 2.92 | 2.79 | 3.07 | 3.06 | 3.19 |
| GTF2A1 | 4.42 | 5.09 | 4.74 | 4.58 | 5.14 | 5.02 | 5.34 | 4.54 |
| GTF2A2 | 8.57 | 7.49 | 7.31 | 7.44 | 7.31 | 7.82 | 7.17 | 8.07 |
| GTF2B | 6.29 | 5.90 | 5.67 | 6.08 | 6.69 | 6.29 | 5.85 | 6.62 |
| GTF2E1 | 3.14 | 2.84 | 3.68 | 2.94 | 3.34 | 3.25 | 3.10 | 3.99 |
| GTF2E2 | 6.93 | 6.09 | 6.98 | 6.14 | 6.23 | 7.05 | 6.19 | 6.35 |
| GTF2F1 | 6.43 | 6.42 | 6.21 | 6.78 | 6.56 | 6.70 | 6.57 | 6.59 |
| GTF2F2 | 6.11 | 6.63 | 6.03 | 6.27 | 6.51 | 6.38 | 5.74 | 7.07 |
| GTF2F2P1 | -1.99 | -1.99 | -1.95 | -1.96 | -1.97 | -2.00 | -2.00 | -1.94 |
| GTF2H1 | 5.03 | 4.95 | 4.81 | 5.31 | 4.84 | 4.84 | 4.58 | 5.49 |
| GTF2H2 | 2.84 | 2.29 | 3.22 | 2.31 | 2.88 | 2.97 | 2.83 | 3.11 |
| GTF2H2B | -1.35 | -1.41 | -1.20 | -1.42 | -1.38 | -1.33 | -1.30 | -1.33 |
| GTF2H2C | 1.44 | 1.26 | 1.20 | 1.48 | 1.81 | 1.58 | 1.63 | 1.14 |
| GTF2H3 | 4.38 | 5.34 | 5.31 | 5.14 | 4.90 | 5.17 | 5.22 | 5.11 |
| GTF2H4 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| GTF2H5 | 8.01 | 6.78 | 6.52 | 6.50 | 7.22 | 7.56 | 7.11 | 7.08 |
| GTF2I | 5.80 | 6.63 | 5.46 | 6.75 | 6.09 | 5.94 | 6.06 | 6.59 |
| GTF2IP1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.13 |
| GTF2IP12 | 1.37 | 1.28 | 1.42 | 1.52 | 1.27 | 1.29 | 1.51 | 1.43 |
| GTF2IP13 | 0.32 | 0.41 | 0.53 | 0.30 | 0.55 | 0.45 | 0.51 | 0.38 |
| GTF2IP14 | -2.10 | -2.06 | -2.09 | -2.10 | -2.09 | -2.10 | -2.04 | -2.11 |
| GTF2IP20 | 1.02 | 0.70 | 0.89 | 1.00 | 1.05 | 0.79 | 0.88 | 0.80 |
| GTF2IP23 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| GTF2IP4 | -1.03 | -1.09 | -1.08 | -1.10 | -1.09 | -1.04 | -1.10 | -1.05 |
| GTF2IP7 | -0.52 | -0.52 | -0.51 | -0.53 | -0.39 | -0.50 | -0.31 | -0.42 |
| GTF2IRD1 | 3.93 | 4.34 | 4.50 | 4.19 | 4.46 | 4.51 | 4.30 | 5.06 |
| GTF2IRD1P1 | -1.80 | -1.68 | -1.78 | -1.80 | -1.76 | -1.81 | -1.69 | -1.82 |
| GTF2IRD2 | 0.59 | 0.61 | 0.57 | 0.45 | 0.60 | 0.66 | 0.57 | 0.63 |
| GTF2IRD2B | 1.31 | 1.67 | 1.38 | 1.97 | 1.86 | 1.78 | 1.46 | 1.80 |
| GTF2IRD2P1 | -2.04 | -1.98 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| GTF3A | 6.77 | 7.61 | 6.51 | 7.68 | 8.31 | 6.86 | 6.81 | 8.11 |
| GTF3C1 | 5.83 | 5.56 | 6.57 | 5.70 | 5.42 | 5.48 | 5.95 | 5.68 |
| GTF3C2 | 4.89 | 4.74 | 5.02 | 5.01 | 4.46 | 4.81 | 4.52 | 5.38 |
| GTF3C2-AS1 | -2.15 | -2.12 | -2.14 | -2.09 | -2.15 | -2.15 | -2.15 | -2.16 |
| GTF3C3 | 4.82 | 5.08 | 5.35 | 4.65 | 5.39 | 5.08 | 5.14 | 5.53 |
| GTF3C4 | 4.46 | 5.12 | 5.09 | 5.00 | 4.11 | 4.80 | 4.93 | 4.44 |
| GTF3C5 | 6.10 | 5.70 | 6.16 | 5.55 | 5.20 | 6.04 | 5.64 | 5.44 |
| GTF3C6 | 7.32 | 7.61 | 6.25 | 7.69 | 6.42 | 7.36 | 6.47 | 7.17 |
| GTPBP1 | 5.14 | 4.76 | 5.19 | 4.58 | 4.36 | 4.63 | 5.08 | 4.66 |
| GTPBP10 | 3.53 | 3.97 | 3.81 | 4.01 | 3.82 | 3.82 | 3.92 | 4.14 |
| GTPBP2 | 3.36 | 3.19 | 3.55 | 3.16 | 3.03 | 3.18 | 3.65 | 3.68 |
| GTPBP3 | 3.72 | 3.80 | 4.01 | 4.05 | 3.97 | 3.80 | 4.11 | 3.74 |
| GTPBP4 | 6.23 | 6.35 | 6.51 | 6.18 | 7.11 | 6.87 | 6.27 | 6.79 |
| GTPBP8 | 4.93 | 4.06 | 4.25 | 4.06 | 4.53 | 4.24 | 3.85 | 4.71 |
| GTSE1 | 5.00 | 4.93 | 5.09 | 4.60 | 4.28 | 4.93 | 4.99 | 4.87 |
| GTSE1-DT | -0.16 | -0.43 | -0.32 | -0.36 | -0.39 | -0.31 | -0.37 | -0.39 |
| GUCA1B | 0.90 | 0.99 | 0.56 | 0.74 | 1.18 | 1.09 | 0.60 | 1.27 |
| GUCA2A | 1.57 | 1.36 | 1.42 | 1.39 | 1.51 | 1.31 | 1.58 | 1.13 |
| GUCA2B | 0.96 | 1.07 | 0.92 | 0.95 | 1.05 | 0.91 | 1.10 | 0.78 |
| GUCD1 | 5.58 | 6.12 | 5.80 | 5.96 | 5.32 | 5.46 | 6.76 | 5.71 |
| GUCY1A1 | 2.25 | 2.79 | 2.63 | 2.16 | 1.57 | 3.28 | 1.74 | 1.68 |
| GUCY1A2 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.86 |
| GUCY1B1 | 3.28 | 3.18 | 3.65 | 2.42 | 2.02 | 4.33 | 2.22 | 1.79 |
| GUCY1B2 | -1.40 | -1.21 | -1.38 | -1.40 | -1.36 | -1.41 | -1.46 | -1.37 |
| GUCY2C | -0.10 | -0.18 | 0.00 | -0.10 | -0.05 | -0.16 | -0.19 | -0.08 |
| GUCY2D | 0.84 | 1.33 | 0.87 | 0.82 | 1.35 | 0.94 | 0.97 | 1.28 |
| GUCY2GP | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| GUF1 | 4.13 | 5.13 | 4.40 | 4.71 | 3.96 | 4.45 | 5.15 | 4.74 |
| GUK1 | 9.34 | 9.27 | 8.90 | 9.23 | 9.32 | 9.41 | 9.07 | 9.96 |
| GULP1 | 4.98 | 5.07 | 5.04 | 4.55 | 5.20 | 5.86 | 4.70 | 4.62 |
| GUSB | 6.39 | 6.35 | 5.47 | 6.41 | 6.88 | 5.80 | 6.05 | 5.87 |
| GUSBP1 | 1.37 | 0.96 | 1.00 | 1.30 | 1.10 | 0.90 | 1.12 | 1.03 |
| GUSBP11 | -1.37 | -1.49 | -1.42 | -1.50 | -1.43 | -1.47 | -1.50 | -1.46 |
| GUSBP2 | -1.45 | -1.38 | -1.17 | -1.39 | -1.41 | -1.47 | -1.46 | -1.41 |
| GUSBP5 | -0.83 | -0.82 | -0.66 | -0.84 | -0.83 | -0.78 | -0.91 | -0.86 |
| GVINP1 | -0.89 | -0.73 | -0.87 | -0.67 | -0.84 | -0.76 | -0.56 | -0.90 |
| GVQW2 | -0.62 | -0.77 | -0.43 | -0.64 | -0.65 | -0.68 | -0.78 | -0.79 |
| GVQW3 | 1.67 | 1.66 | 1.74 | 1.66 | 2.32 | 1.76 | 1.76 | 1.47 |
| GXYLT1 | 4.37 | 4.57 | 5.04 | 4.26 | 4.21 | 4.88 | 4.79 | 4.21 |
| GXYLT2 | 0.42 | 0.34 | 0.56 | 0.32 | 0.71 | 0.12 | 0.10 | 0.19 |
| GYG1 | 5.66 | 4.69 | 5.48 | 4.47 | 5.62 | 5.44 | 4.78 | 5.83 |
| GYG2 | 2.37 | 1.78 | 2.25 | 1.81 | 1.34 | 1.40 | 1.76 | 1.83 |
| GYG2P1 | -1.00 | -0.99 | -0.98 | -1.00 | -0.95 | -1.01 | -1.00 | -1.02 |
| GYPC | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| GYS1 | 4.13 | 4.80 | 4.71 | 4.19 | 4.05 | 3.88 | 4.70 | 4.09 |
| GZF1 | 3.32 | 3.52 | 3.70 | 3.22 | 3.28 | 3.60 | 3.45 | 3.54 |
| GZMM | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.04 | -2.05 | -2.00 |
| H19 | -1.70 | -1.69 | -1.63 | -1.70 | -1.59 | -1.71 | -1.40 | -1.72 |
| H1F0 | 9.18 | 8.20 | 7.77 | 8.05 | 8.33 | 8.31 | 8.16 | 8.28 |
| H1FX | 9.15 | 7.19 | 8.46 | 6.99 | 8.13 | 8.12 | 7.93 | 8.46 |
| H1FX-AS1 | 0.15 | 0.10 | 0.59 | 0.08 | 0.24 | 0.23 | 0.08 | 0.49 |
| H2AFJ | 9.08 | 7.86 | 7.86 | 7.90 | 9.27 | 8.29 | 8.24 | 8.19 |
| H2AFV | 9.57 | 8.26 | 8.00 | 8.23 | 8.65 | 8.98 | 7.78 | 8.51 |
| H2AFVP1 | -0.99 | -0.98 | -0.90 | -1.00 | -0.77 | -0.98 | -1.07 | -0.91 |
| H2AFX | 7.68 | 7.24 | 7.63 | 7.11 | 6.51 | 7.19 | 6.69 | 7.06 |
| H2AFY | 8.06 | 8.31 | 8.54 | 8.57 | 8.61 | 8.34 | 8.10 | 7.96 |
| H2AFY2 | 4.89 | 5.09 | 4.17 | 5.18 | 5.46 | 3.87 | 4.81 | 3.00 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| H2AFZ | 9.14 | 9.01 | 8.86 | 9.34 | 8.96 | 9.85 | 9.05 | 9.85 |
| H2AFZP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| H2AFZP2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.86 | -1.87 |
| H2AFZP3 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.75 | -1.79 | -1.72 |
| H2AFZP4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| H2AFZP6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| H2BFM | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| H2BFWT | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| H3F3A | 1.32 | 1.20 | 1.42 | 1.31 | 1.22 | 1.29 | 1.55 | 1.25 |
| H3F3AP2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| H3F3AP3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| H3F3AP5 | -1.28 | -1.21 | -1.26 | -1.15 | -1.24 | -1.08 | -1.29 | -1.30 |
| H3F3AP6 | -1.96 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -2.01 |
| H3F3B | 11.14 | 10.37 | 10.41 | 10.25 | 10.54 | 10.77 | 9.92 | 10.09 |
| H3F3BP1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.16 |
| H3F3BP2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| H3F3C | 0.15 | 0.16 | 0.27 | 0.05 | -0.08 | 0.05 | 0.05 | -0.05 |
| H6PD | 4.76 | 4.42 | 4.50 | 4.45 | 4.65 | 4.45 | 4.78 | 4.31 |
| HAAO | 1.87 | 0.85 | 0.81 | 0.82 | 1.17 | 0.85 | 0.74 | 0.68 |
| HABP2 | 0.97 | 1.16 | 1.22 | 1.17 | 0.99 | 1.14 | 1.91 | 0.81 |
| HABP4 | 5.78 | 5.31 | 5.32 | 5.55 | 5.84 | 5.70 | 5.20 | 5.12 |
| HACD1 | 4.17 | 3.98 | 3.88 | 3.84 | 4.74 | 4.30 | 3.77 | 4.12 |
| HACD2 | 6.35 | 6.12 | 6.65 | 6.18 | 5.67 | 5.83 | 6.78 | 7.16 |
| HACD3 | 7.94 | 7.51 | 7.85 | 7.72 | 7.83 | 7.48 | 7.90 | 7.61 |
| HACD4 | 2.68 | 1.25 | 1.36 | 1.28 | 1.29 | 1.21 | 1.19 | 1.79 |
| HACE1 | 2.01 | 1.66 | 2.26 | 1.98 | 1.99 | 1.79 | 2.38 | 1.88 |
| HACL1 | 5.25 | 4.54 | 4.06 | 4.69 | 4.04 | 4.34 | 3.82 | 4.33 |
| HADH | 5.53 | 6.35 | 5.90 | 6.67 | 5.96 | 6.13 | 5.81 | 6.37 |
| HADHA | 7.75 | 7.34 | 7.64 | 7.51 | 6.89 | 7.29 | 7.61 | 7.43 |
| HADHAP1 | -1.98 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| HADHAP2 | -1.39 | -1.39 | -1.44 | -1.46 | -1.42 | -1.43 | -1.34 | -1.42 |
| HADHB | 6.98 | 6.84 | 6.68 | 7.01 | 6.42 | 6.74 | 6.39 | 7.01 |
| HAGH | 7.51 | 6.20 | 6.65 | 6.51 | 6.41 | 6.84 | 6.70 | 7.09 |
| HAGHL | 6.66 | 5.36 | 4.61 | 5.74 | 5.02 | 4.82 | 4.68 | 5.46 |
| HAGLR | -0.68 | -0.75 | -0.81 | -0.83 | -0.67 | -0.80 | -0.76 | -0.52 |
| HAGLROS | 0.75 | 0.79 | 0.20 | 0.73 | 0.23 | 0.30 | 0.32 | 0.73 |
| HAL | 0.41 | 0.01 | 0.13 | -0.01 | 0.05 | 0.01 | 0.06 | -0.11 |
| HAMP | -0.64 | -0.72 | -0.71 | -0.65 | -0.72 | -0.70 | -0.52 | -0.62 |
| HAND1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.24 | -2.26 |
| HAND2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| HAND2-AS1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| HAP1 | 2.34 | 1.28 | 1.16 | 1.36 | 1.24 | 1.27 | 1.22 | 1.13 |
| HAPLN2 | -1.48 | -1.53 | -1.52 | -1.42 | -1.50 | -1.55 | -1.54 | -1.56 |
| HAPLN3 | 1.66 | 1.93 | 1.64 | 2.63 | 1.45 | 2.07 | 1.23 | 1.50 |
| HAR1A | 1.88 | 0.92 | 0.60 | 1.28 | 1.79 | 0.82 | 0.55 | 0.58 |
| HAR1B | 2.06 | 1.68 | 0.74 | 2.24 | 1.31 | 0.86 | 0.68 | 0.77 |
| HARBI1 | 2.95 | 2.61 | 2.54 | 2.42 | 2.70 | 2.52 | 2.30 | 2.81 |
| HARS | 5.86 | 5.98 | 6.14 | 6.20 | 6.16 | 6.03 | 5.69 | 5.29 |
| HARS2 | 3.83 | 4.35 | 4.58 | 4.28 | 4.33 | 4.32 | 3.83 | 4.23 |
| HAS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| HAS2 | 0.72 | 1.49 | 1.09 | 0.86 | 0.97 | 1.62 | 1.45 | 1.21 |
| HAS2-AS1 | 0.55 | 0.50 | 0.62 | 0.48 | 0.58 | 1.10 | 0.80 | 0.97 |
| HAS3 | 1.88 | 2.09 | 2.17 | 1.80 | 2.74 | 1.96 | 2.28 | 1.85 |
| HASPIN | 1.22 | 0.89 | 0.93 | 1.20 | 1.10 | 1.35 | 1.23 | 1.15 |
| HAT1 | 7.64 | 6.48 | 6.74 | 6.78 | 7.05 | 6.90 | 6.79 | 7.30 |
| HAUS1 | 5.63 | 5.10 | 5.38 | 5.29 | 5.34 | 5.25 | 5.39 | 4.70 |
| HAUS1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HAUS2 | 5.27 | 5.05 | 4.34 | 4.76 | 5.24 | 5.14 | 4.79 | 5.12 |
| HAUS3 | 2.98 | 3.33 | 3.70 | 3.67 | 3.34 | 3.36 | 3.53 | 3.52 |
| HAUS4 | 2.26 | 2.75 | 2.24 | 2.84 | 2.98 | 2.59 | 2.57 | 1.90 |
| HAUS5 | 3.69 | 3.17 | 3.65 | 3.39 | 3.51 | 3.39 | 3.19 | 2.81 |
| HAUS6 | 5.55 | 4.28 | 4.27 | 4.31 | 3.95 | 4.89 | 4.76 | 4.22 |
| HAUS6P1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.80 | -1.86 |
| HAUS7 | 3.68 | 3.14 | 3.38 | 3.21 | 3.02 | 3.55 | 2.92 | 3.30 |
| HAUS8 | 4.79 | 4.43 | 4.69 | 4.57 | 4.55 | 4.69 | 4.26 | 4.00 |
| HAVCR1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| HAVCR2 | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| HAX1 | 7.00 | 6.54 | 6.25 | 6.75 | 7.39 | 7.16 | 6.33 | 7.85 |
| HBA1 | -1.22 | -1.35 | -1.33 | -1.29 | -1.28 | -1.21 | -1.36 | -1.37 |
| HBA2 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -2.00 | -2.01 |
| HBB | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| HBEGF | 3.25 | 3.49 | 3.94 | 3.25 | 4.31 | 3.62 | 4.83 | 4.85 |
| HBP1 | 3.75 | 4.19 | 4.61 | 3.91 | 4.63 | 4.49 | 4.76 | 5.35 |
| HBQ1 | 0.22 | -0.49 | -0.47 | -0.50 | -0.41 | -0.46 | -0.50 | -0.51 |
| HBS1L | 5.73 | 4.88 | 5.55 | 4.76 | 5.02 | 5.46 | 5.78 | 5.56 |
| HBZ | -1.92 | -1.99 | -1.95 | -2.00 | -1.97 | -2.00 | -2.00 | -2.01 |
| HCAR1 | 1.17 | 1.35 | 1.30 | 1.28 | 2.18 | 1.77 | 0.99 | 1.05 |
| HCAR2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.91 | -1.95 | -1.96 |
| HCAR3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HCCS | 5.90 | 5.37 | 5.81 | 5.64 | 5.59 | 5.60 | 5.34 | 5.55 |
| HCFC1 | 5.94 | 6.07 | 6.66 | 6.05 | 5.68 | 6.02 | 6.16 | 6.07 |
| HCFC1R1 | 6.98 | 7.90 | 6.06 | 7.86 | 5.99 | 6.62 | 6.44 | 6.29 |
| HCFC2 | 2.40 | 3.00 | 3.20 | 2.90 | 3.11 | 3.21 | 3.52 | 2.85 |
| HCG11 | 4.00 | 4.95 | 3.42 | 4.20 | 3.54 | 4.25 | 2.95 | 4.37 |
| HCG14 | -1.02 | -1.15 | -0.99 | -1.16 | -1.08 | -1.07 | -1.09 | -1.00 |
| HCG17 | -1.85 | -1.85 | -1.88 | -1.89 | -1.89 | -1.84 | -1.89 | -1.83 |
| HCG18 | 5.31 | 4.75 | 4.93 | 4.57 | 4.57 | 5.35 | 5.47 | 6.03 |
| HCG20 | -1.13 | -0.97 | -1.04 | -1.07 | -1.05 | -1.11 | -1.14 | -1.03 |
| HCG21 | -2.25 | -2.25 | -2.21 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| HCG25 | 1.14 | 0.98 | 1.13 | 0.97 | 1.03 | 1.05 | 1.12 | 1.24 |
| HCG27 | -0.44 | -0.58 | -0.57 | -0.36 | -0.45 | -0.49 | -0.25 | -0.48 |
| HCG4 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| HCG4B | -1.74 | -1.69 | -1.68 | -1.74 | -1.71 | -1.66 | -1.74 | -1.67 |
| HCG9 | -1.21 | -1.27 | -1.19 | -1.28 | -1.20 | -1.25 | -1.28 | -1.18 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| HCK | -1.69 | -1.69 | -1.68 | -1.64 | -1.39 | -1.70 | -1.70 | -1.71 |
| HCLS1 | -1.64 | -1.64 | -1.63 | -1.65 | -1.64 | -1.60 | -1.65 | -1.57 |
| HCN1 | -1.04 | -0.57 | -1.02 | -0.49 | -0.99 | -0.80 | -0.97 | -0.99 |
| HCN2 | -1.04 | -0.96 | -1.10 | -1.05 | -1.08 | -1.03 | -1.12 | -1.08 |
| HCN3 | 0.82 | 0.84 | 0.98 | 0.86 | 0.94 | 0.71 | 1.26 | 0.60 |
| HCN4 | -0.42 | -0.56 | -0.63 | -0.65 | -0.64 | -0.65 | -0.50 | -0.66 |
| HCP5 | 4.44 | 4.44 | 3.86 | 4.19 | 4.11 | 4.70 | 4.05 | 3.33 |
| HCRT | -0.23 | -0.36 | -0.17 | -0.23 | -0.32 | -0.26 | -0.30 | -0.40 |
| HCRTR1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HCST | 0.31 | 0.34 | 0.37 | 0.55 | 0.41 | 0.29 | 0.16 | 0.26 |
| HDAC1 | 7.21 | 6.88 | 7.92 | 7.03 | 7.93 | 7.78 | 7.25 | 7.31 |
| HDAC10 | 2.39 | 2.23 | 2.10 | 2.41 | 2.51 | 2.31 | 2.42 | 2.71 |
| HDAC11 | 4.14 | 4.75 | 4.51 | 4.47 | 4.17 | 3.87 | 4.73 | 4.08 |
| HDAC11-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HDAC1P1 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HDAC1P2 | -1.82 | -1.89 | -1.84 | -1.86 | -1.89 | -1.90 | -1.89 | -1.83 |
| HDAC2 | 7.45 | 6.73 | 7.15 | 6.53 | 6.49 | 7.60 | 6.87 | 6.85 |
| HDAC2-AS2 | -1.56 | -1.56 | -1.49 | -1.57 | -1.56 | -1.52 | -1.57 | -1.48 |
| HDAC3 | 6.32 | 5.89 | 6.41 | 6.39 | 6.52 | 6.06 | 5.74 | 5.91 |
| HDAC4 | 4.36 | 5.05 | 4.42 | 5.05 | 4.97 | 5.09 | 4.15 | 4.18 |
| HDAC4-AS1 | 2.82 | 2.29 | 2.80 | 2.38 | 3.30 | 2.16 | 2.50 | 1.93 |
| HDAC5 | 2.42 | 2.03 | 3.27 | 2.29 | 2.84 | 2.43 | 2.31 | 2.98 |
| HDAC6 | 4.30 | 3.90 | 4.43 | 3.89 | 4.42 | 4.03 | 4.29 | 3.74 |
| HDAC7 | 4.84 | 4.48 | 5.38 | 4.33 | 4.38 | 5.11 | 5.72 | 4.81 |
| HDAC8 | 5.23 | 4.94 | 5.74 | 5.11 | 5.16 | 5.00 | 4.94 | 4.69 |
| HDAC9 | 2.85 | 2.11 | 2.70 | 1.81 | 1.98 | 2.82 | 1.80 | 2.73 |
| HDDC2 | 6.66 | 6.10 | 5.88 | 6.39 | 6.56 | 6.36 | 6.28 | 6.95 |
| HDDC3 | 7.43 | 5.94 | 5.44 | 6.23 | 6.61 | 5.72 | 5.74 | 5.82 |
| HDGF | 8.50 | 8.11 | 7.56 | 8.03 | 8.47 | 8.54 | 7.97 | 9.31 |
| HDGFL2 | 5.36 | 5.78 | 5.78 | 5.87 | 5.61 | 5.96 | 5.82 | 5.88 |
| HDGFL3 | 5.55 | 4.62 | 3.61 | 4.23 | 5.55 | 5.90 | 5.23 | 4.36 |
| HDGFP1 | -1.33 | -1.07 | -1.25 | -1.33 | -1.39 | -1.31 | -1.40 | -1.41 |
| HDHD2 | 4.20 | 3.75 | 3.86 | 3.54 | 3.97 | 3.89 | 4.52 | 3.79 |
| HDHD3 | 6.29 | 6.19 | 5.63 | 6.51 | 5.69 | 6.28 | 5.95 | 5.90 |
| HDHD5 | 6.32 | 5.87 | 5.41 | 6.36 | 5.60 | 6.13 | 5.88 | 5.27 |
| HDHD5-AS1 | 0.57 | 0.36 | 0.31 | 0.11 | 0.67 | 0.23 | 0.30 | 0.08 |
| HDLBP | 8.29 | 8.41 | 8.09 | 8.25 | 8.58 | 8.41 | 8.52 | 9.14 |
| HDX | 2.41 | 2.45 | 2.31 | 2.28 | 2.43 | 2.58 | 2.04 | 1.90 |
| HEATR1 | 4.56 | 4.80 | 5.06 | 4.91 | 4.92 | 5.26 | 4.64 | 5.20 |
| HEATR3 | 4.38 | 4.51 | 4.37 | 4.79 | 4.07 | 4.61 | 4.37 | 4.36 |
| HEATR4 | 0.67 | 0.62 | 0.50 | 0.83 | 0.66 | 0.53 | 0.44 | 0.68 |
| HEATR5A | 3.69 | 3.93 | 3.92 | 3.62 | 3.75 | 4.20 | 4.24 | 3.66 |
| HEATR5B | 3.32 | 3.65 | 3.78 | 3.92 | 3.40 | 3.72 | 4.25 | 3.79 |
| HEATR6 | 3.53 | 3.40 | 3.80 | 3.07 | 3.67 | 3.92 | 3.13 | 3.15 |
| HEBP1 | 6.68 | 5.31 | 5.75 | 5.40 | 6.00 | 5.32 | 6.00 | 6.30 |
| HEBP2 | 8.60 | 7.33 | 7.45 | 7.30 | 7.52 | 8.20 | 8.07 | 8.18 |
| HECA | 3.93 | 3.64 | 3.89 | 4.01 | 3.48 | 3.88 | 4.49 | 3.90 |
| HECTD1 | 5.58 | 6.62 | 6.48 | 6.42 | 6.47 | 6.69 | 6.75 | 6.46 |
| HECTD2 | 0.95 | 1.36 | 1.29 | 1.01 | 1.04 | 1.21 | 1.35 | 0.80 |
| HECTD3 | 3.52 | 3.60 | 3.67 | 4.04 | 3.87 | 3.77 | 4.81 | 3.43 |
| HECTD4 | 4.05 | 4.70 | 4.82 | 5.11 | 4.27 | 4.74 | 5.37 | 4.72 |
| HECW1 | -1.54 | -1.68 | -1.63 | -1.59 | -1.66 | -1.70 | -1.64 | -1.71 |
| HECW2 | -1.54 | -1.42 | -1.53 | -1.43 | -1.54 | -1.55 | -1.55 | -1.57 |
| HECW2-AS1 | -0.18 | -0.17 | -0.15 | -0.18 | -0.12 | 0.14 | -0.18 | -0.21 |
| HEG1 | 3.35 | 2.68 | 3.54 | 2.08 | 2.84 | 4.05 | 3.43 | 2.24 |
| HEIH | 4.52 | 4.77 | 4.72 | 5.02 | 5.23 | 4.19 | 4.69 | 4.34 |
| HELB | 1.64 | 1.39 | 1.92 | 1.12 | 1.70 | 1.88 | 1.55 | 1.52 |
| HELLPAR | 1.67 | 1.85 | 2.63 | 1.85 | 1.78 | 2.28 | 2.38 | 1.41 |
| HELLS | 7.67 | 7.18 | 7.57 | 7.26 | 6.20 | 7.05 | 7.56 | 5.32 |
| HELQ | 3.22 | 3.50 | 3.16 | 3.73 | 3.22 | 3.37 | 3.57 | 3.58 |
| HELZ | 5.22 | 5.65 | 5.79 | 5.57 | 5.04 | 5.50 | 5.81 | 5.30 |
| HELZ2 | 5.64 | 4.71 | 5.19 | 4.22 | 4.83 | 4.24 | 4.66 | 4.42 |
| HEMGN | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| HEMK1 | 3.64 | 3.56 | 3.46 | 3.69 | 3.79 | 3.63 | 3.85 | 3.09 |
| HENMT1 | 4.63 | 4.49 | 3.85 | 4.63 | 4.12 | 4.08 | 3.07 | 3.41 |
| HEPACAM2 | -2.25 | -2.21 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| HEPH | 2.58 | 3.36 | 2.78 | 3.75 | 2.59 | 2.38 | 3.47 | 3.17 |
| HEPHL1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.13 |
| HERC1 | 4.31 | 4.90 | 5.42 | 4.83 | 4.81 | 4.81 | 5.57 | 4.49 |
| HERC2 | 5.70 | 5.65 | 5.86 | 5.73 | 5.47 | 5.30 | 6.23 | 5.49 |
| HERC2P2 | 2.74 | 2.51 | 2.34 | 3.00 | 2.84 | 2.59 | 3.14 | 3.08 |
| HERC2P3 | -0.67 | -0.67 | -0.65 | -0.60 | -0.54 | -0.65 | -0.44 | -0.44 |
| HERC2P4 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HERC2P9 | 2.09 | 2.56 | 1.93 | 2.44 | 2.29 | 2.12 | 2.64 | 2.53 |
| HERC3 | 0.36 | 0.11 | 0.25 | 0.34 | 0.10 | 0.18 | 0.41 | 0.17 |
| HERC4 | 4.29 | 4.91 | 5.21 | 5.00 | 5.24 | 5.12 | 5.48 | 4.99 |
| HERC5 | 4.26 | 3.09 | 3.83 | 2.83 | 2.83 | 3.82 | 2.30 | 2.56 |
| HERC6 | 4.27 | 3.42 | 3.86 | 3.16 | 3.29 | 3.77 | 3.28 | 3.28 |
| HERPUD1 | 6.50 | 6.92 | 6.37 | 7.23 | 7.42 | 6.38 | 6.64 | 8.04 |
| HERPUD2 | 4.33 | 4.68 | 4.43 | 4.40 | 4.48 | 4.58 | 4.38 | 4.72 |
| HES1 | 9.08 | 9.04 | 8.58 | 8.93 | 8.87 | 9.09 | 8.39 | 8.92 |
| HES2 | 4.70 | 3.83 | 3.17 | 3.80 | 3.20 | 3.77 | 4.09 | 3.11 |
| HES4 | 7.45 | 5.98 | 6.40 | 5.89 | 6.27 | 5.80 | 6.50 | 5.65 |
| HES5 | -0.89 | -0.80 | -0.87 | -0.81 | -0.84 | -0.82 | -0.56 | -0.84 |
| HES6 | 7.48 | 6.37 | 5.59 | 7.14 | 6.49 | 6.00 | 6.41 | 5.87 |
| HES7 | -0.32 | -0.53 | -0.52 | -0.08 | -0.45 | -0.44 | -0.54 | -0.55 |
| HESX1 | 0.01 | -0.14 | 0.02 | 0.07 | 0.19 | -0.05 | -0.08 | -0.05 |
| HEXA | 6.70 | 6.49 | 5.91 | 6.62 | 6.90 | 6.49 | 5.88 | 6.20 |
| HEXA-AS1 | -0.72 | -0.63 | -0.78 | -0.65 | -0.71 | -0.80 | -0.73 | -0.75 |
| HEXB | 7.85 | 8.54 | 8.08 | 8.83 | 8.44 | 7.62 | 7.82 | 7.54 |
| HEXD | 4.94 | 4.45 | 4.97 | 4.85 | 5.36 | 5.08 | 5.08 | 4.68 |
| HEXD-IT1 | 0.35 | 0.23 | 0.26 | 0.33 | 0.19 | 0.31 | 0.45 | 0.03 |
| HEXIM1 | 5.79 | 6.67 | 6.66 | 6.24 | 6.48 | 6.62 | 6.33 | 5.59 |
| HEXIM2 | 3.19 | 3.57 | 3.70 | 3.68 | 3.79 | 3.49 | 3.00 | 3.38 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| HEY1 | 0.50 | 0.44 | 0.37 | 0.33 | 0.31 | 1.45 | 0.48 | 0.52 |
| HEY2 | -0.87 | -1.14 | -1.05 | -1.08 | -1.14 | -1.16 | -1.15 | -1.16 |
| HEYL | -0.20 | -0.57 | -0.56 | -0.58 | -0.28 | -0.55 | -0.42 | -0.59 |
| HFE | 3.07 | 3.30 | 3.29 | 2.97 | 3.09 | 3.43 | 3.22 | 3.66 |
| HFM1 | -1.59 | -1.58 | -1.63 | -1.64 | -1.61 | -1.65 | -1.64 | -1.36 |
| HGD | 6.18 | 5.66 | 5.80 | 6.19 | 6.34 | 5.34 | 6.69 | 6.44 |
| HGF | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.80 | -1.75 | -1.76 |
| HGFAC | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| HGH1 | 4.77 | 4.43 | 4.89 | 4.73 | 4.46 | 4.42 | 3.95 | 4.46 |
| HGS | 6.39 | 6.22 | 6.53 | 6.12 | 6.31 | 6.39 | 6.27 | 6.59 |
| HGSNAT | 4.51 | 4.40 | 4.69 | 4.55 | 3.79 | 3.96 | 4.91 | 4.57 |
| HHAT | 1.64 | 2.03 | 1.58 | 1.83 | 1.65 | 1.58 | 1.71 | 1.69 |
| HHEX | 5.74 | 4.48 | 4.88 | 4.64 | 5.81 | 6.20 | 5.09 | 4.73 |
| HHIP | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| HHIP-AS1 | -0.64 | -0.62 | -0.53 | -0.71 | -0.63 | -0.68 | -0.71 | -0.37 |
| HHIPL1 | -1.64 | -1.64 | -1.63 | -1.65 | -1.59 | -1.60 | -1.65 | -1.57 |
| HHIPL2 | -1.26 | -1.47 | -1.46 | -1.48 | -1.47 | -1.49 | -1.48 | -1.31 |
| HHLA2 | 1.37 | 1.23 | 1.43 | 1.28 | 1.31 | 1.72 | 2.88 | 1.18 |
| HHLA3 | 3.85 | 3.55 | 3.83 | 4.00 | 3.83 | 3.83 | 3.72 | 3.61 |
| HIBADH | 5.82 | 4.97 | 5.23 | 5.06 | 5.95 | 5.59 | 5.81 | 5.94 |
| HIBCH | 5.96 | 5.66 | 5.41 | 6.15 | 6.68 | 5.87 | 5.78 | 5.81 |
| HIC1 | -0.74 | -0.81 | -0.71 | -0.81 | -0.61 | -0.75 | -0.74 | -0.77 |
| HIC2 | 3.14 | 3.34 | 3.48 | 3.16 | 2.78 | 3.36 | 2.62 | 2.87 |
| HID1 | 6.71 | 5.53 | 6.47 | 5.77 | 6.05 | 5.20 | 6.28 | 5.87 |
| HID1-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| HIF1A | 8.04 | 8.19 | 8.49 | 8.00 | 8.41 | 8.84 | 9.02 | 8.44 |
| HIF1A-AS1 | -0.31 | -0.38 | -0.30 | -0.26 | -0.27 | -0.20 | -0.32 | -0.35 |
| HIF1A-AS2 | 0.96 | 0.98 | 1.37 | 0.80 | 1.23 | 0.91 | 1.47 | 0.96 |
| HIF1AN | 5.23 | 5.15 | 5.20 | 5.17 | 5.28 | 5.09 | 5.32 | 4.75 |
| HIF3A | -0.41 | -0.25 | -0.31 | -0.41 | -0.33 | -0.39 | -0.09 | -0.26 |
| HIGD1A | 8.95 | 8.12 | 7.65 | 8.41 | 8.56 | 8.37 | 8.44 | 8.44 |
| HIGD1AP1 | -1.09 | -1.22 | -1.13 | -1.23 | -1.04 | -1.10 | -1.23 | -1.18 |
| HIGD1AP10 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.02 |
| HIGD1AP14 | -1.49 | -1.48 | -1.41 | -1.49 | -1.45 | -1.44 | -1.50 | -1.51 |
| HIGD1AP15 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HIGD2A | 7.73 | 8.43 | 7.53 | 8.51 | 8.98 | 8.02 | 8.13 | 7.85 |
| HIGD2B | -1.59 | -1.58 | -1.58 | -1.54 | -1.50 | -1.52 | -1.54 | -1.61 |
| HIKESHI | 7.01 | 6.24 | 6.51 | 6.47 | 7.08 | 6.40 | 5.89 | 7.02 |
| HILPDA | 5.14 | 5.04 | 5.64 | 5.07 | 5.41 | 5.24 | 5.59 | 4.88 |
| HINFP | 4.11 | 3.31 | 3.81 | 3.96 | 4.10 | 3.91 | 3.49 | 3.83 |
| HINT1 | 9.35 | 10.13 | 9.45 | 10.32 | 10.35 | 9.73 | 9.34 | 9.56 |
| HINT1P1 | -1.14 | -1.14 | -1.12 | -1.15 | -1.07 | -1.23 | -1.15 | -1.17 |
| HINT1P2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| HINT2 | 0.74 | 0.90 | 0.61 | 1.02 | 1.08 | 0.82 | 0.94 | 0.53 |
| HINT3 | 4.63 | 3.90 | 4.27 | 3.70 | 3.96 | 4.29 | 4.74 | 4.49 |
| HIP1 | 3.65 | 3.30 | 3.86 | 3.38 | 3.60 | 3.91 | 3.57 | 2.60 |
| HIP1R | 3.54 | 4.39 | 4.07 | 4.72 | 3.26 | 3.62 | 4.26 | 3.14 |
| HIPK1 | 5.96 | 5.98 | 5.59 | 5.81 | 5.33 | 5.82 | 6.14 | 5.24 |
| HIPK1-AS1 | 0.27 | 0.06 | 0.14 | -0.03 | 0.37 | 0.08 | 0.04 | -0.06 |
| HIPK2 | 4.76 | 6.47 | 5.91 | 6.22 | 7.15 | 6.23 | 6.88 | 6.23 |
| HIPK3 | 5.42 | 5.60 | 5.49 | 5.75 | 5.47 | 5.45 | 6.05 | 5.88 |
| HIPK4 | -2.12 | -2.14 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| HIRA | 4.00 | 4.69 | 4.55 | 4.46 | 3.55 | 3.94 | 4.55 | 3.99 |
| HIRIP3 | 5.49 | 5.49 | 5.70 | 5.60 | 5.10 | 5.37 | 4.96 | 5.15 |
| HIST1H1A | 2.10 | 4.20 | 2.90 | 4.33 | 2.33 | 2.29 | 5.17 | 2.03 |
| HIST1H1B | 4.54 | 4.44 | 3.90 | 4.79 | 4.30 | 4.95 | 4.87 | 4.90 |
| HIST1H1C | 9.22 | 8.08 | 7.26 | 8.26 | 7.59 | 7.79 | 7.12 | 8.35 |
| HIST1H1D | 5.49 | 4.87 | 4.37 | 5.16 | 5.60 | 4.61 | 5.25 | 4.48 |
| HIST1H1E | 7.08 | 6.23 | 5.84 | 6.44 | 5.95 | 6.80 | 6.89 | 6.60 |
| HIST1H1PS1 | -2.25 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.24 | -2.26 |
| HIST1H1T | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HIST1H2AB | -0.36 | -0.27 | -0.42 | -0.10 | -0.35 | -0.26 | -0.30 | -0.40 |
| HIST1H2AC | 7.80 | 7.58 | 6.22 | 7.94 | 6.59 | 7.09 | 5.76 | 8.23 |
| HIST1H2AD | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| HIST1H2AE | 4.00 | 3.37 | 3.30 | 3.75 | 3.90 | 2.69 | 3.12 | 2.61 |
| HIST1H2AG | 4.02 | 4.01 | 3.29 | 4.28 | 3.27 | 3.64 | 3.57 | 3.66 |
| HIST1H2AH | 5.00 | 3.75 | 3.38 | 3.84 | 3.33 | 4.09 | 4.07 | 4.15 |
| HIST1H2AI | 2.37 | 1.90 | 1.75 | 2.63 | 1.89 | 2.30 | 2.07 | 1.88 |
| HIST1H2AJ | 4.00 | 3.65 | 2.61 | 3.11 | 2.94 | 3.16 | 3.21 | 3.57 |
| HIST1H2AK | -0.58 | -0.65 | -0.63 | -0.50 | -0.69 | -0.54 | -0.73 | -0.59 |
| HIST1H2AL | 1.71 | 1.73 | 1.44 | 1.94 | 1.71 | 1.83 | 1.74 | 1.59 |
| HIST1H2AM | 0.25 | 0.13 | 0.06 | 0.03 | 0.05 | 0.38 | 0.15 | 0.10 |
| HIST1H2APS5 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HIST1H2BB | -1.46 | -1.27 | -1.44 | -1.46 | -1.45 | -1.44 | -1.46 | -1.48 |
| HIST1H2BC | 5.61 | 4.66 | 4.81 | 4.70 | 4.79 | 4.88 | 3.86 | 5.95 |
| HIST1H2BD | 6.04 | 6.11 | 5.29 | 6.44 | 6.07 | 6.31 | 4.34 | 6.75 |
| HIST1H2BE | 0.61 | 0.72 | 0.42 | 1.05 | 0.48 | 0.48 | 0.46 | 0.57 |
| HIST1H2BF | 0.20 | 0.43 | 0.22 | 0.52 | 0.50 | 0.45 | 0.38 | 0.70 |
| HIST1H2BG | 2.80 | 2.12 | 2.47 | 1.84 | 2.73 | 1.75 | 2.26 | 2.06 |
| HIST1H2BH | 2.52 | 2.08 | 2.08 | 2.07 | 2.19 | 1.71 | 1.68 | 1.57 |
| HIST1H2BI | -1.99 | -1.96 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| HIST1H2BJ | 5.36 | 4.43 | 3.78 | 4.91 | 4.24 | 4.27 | 3.45 | 4.87 |
| HIST1H2BK | 1.39 | 1.07 | 0.88 | 1.03 | 0.94 | 0.96 | 1.19 | 1.13 |
| HIST1H2BL | -0.79 | -1.00 | -0.99 | -0.80 | -0.89 | -0.91 | -1.01 | -0.91 |
| HIST1H2BM | -1.36 | -1.35 | -1.40 | -1.42 | -1.35 | -1.37 | -1.43 | -1.28 |
| HIST1H2BN | 3.35 | 2.89 | 2.66 | 2.54 | 3.08 | 3.14 | 2.56 | 3.65 |
| HIST1H2BO | -0.86 | -0.86 | -0.84 | -0.81 | -0.90 | -0.76 | -0.80 | -0.80 |
| HIST1H2BPS2 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| HIST1H3A | 0.02 | -0.36 | -0.35 | -0.23 | -0.32 | -0.38 | -0.24 | -0.33 |
| HIST1H3B | 2.93 | 3.46 | 2.56 | 3.90 | 2.83 | 3.63 | 3.11 | 4.32 |
| HIST1H3C | 2.84 | 2.50 | 2.12 | 3.22 | 2.12 | 2.66 | 2.74 | 2.87 |
| HIST1H3E | 1.79 | 1.18 | 1.31 | 1.31 | 1.59 | 1.23 | 1.54 | 1.34 |
| HIST1H3F | -1.39 | -1.50 | -1.49 | -1.50 | -1.50 | -1.51 | -1.51 | -1.52 |
| HIST1H3G | -0.09 | -0.16 | -0.05 | -0.10 | 0.07 | -0.12 | -0.04 | -0.13 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| HIST1H3H | 3.64 | 4.23 | 3.25 | 3.92 | 3.01 | 3.32 | 2.76 | 3.71 |
| HIST1H3I | 0.98 | 1.18 | 0.86 | 1.34 | 0.90 | 1.06 | 1.01 | 1.01 |
| HIST1H3J | -1.60 | -1.69 | -1.68 | -1.69 | -1.66 | -1.65 | -1.60 | -1.57 |
| HIST1H3PS1 | -1.45 | -1.51 | -1.50 | -1.46 | -1.51 | -1.49 | -1.52 | -1.39 |
| HIST1H4A | -1.14 | -1.44 | -1.37 | -1.45 | -1.44 | -1.43 | -1.39 | -1.41 |
| HIST1H4B | -1.59 | -1.59 | -1.48 | -1.55 | -1.56 | -1.53 | -1.60 | -1.52 |
| HIST1H4C | 9.64 | 9.25 | 8.23 | 9.56 | 8.75 | 9.52 | 9.09 | 9.39 |
| HIST1H4D | 0.86 | 1.33 | 1.00 | 1.24 | 1.03 | 1.18 | 1.05 | 1.07 |
| HIST1H4E | 4.15 | 2.37 | 2.84 | 2.30 | 3.08 | 3.04 | 3.33 | 3.06 |
| HIST1H4F | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.95 | -1.94 | -1.96 |
| HIST1H4H | 5.76 | 5.09 | 4.35 | 5.81 | 4.32 | 4.10 | 3.71 | 4.73 |
| HIST1H4I | -0.22 | -0.37 | -0.28 | -0.17 | -0.12 | -0.32 | -0.11 | -0.28 |
| HIST1H4J | 0.40 | 0.63 | 0.54 | 0.52 | 0.48 | 0.49 | 0.24 | 0.39 |
| HIST1H4K | -2.15 | -2.14 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| HIST1H4L | -1.69 | -1.64 | -1.73 | -1.74 | -1.71 | -1.70 | -1.70 | -1.67 |
| HIST2H2AA3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HIST2H2AB | 0.78 | 0.80 | 0.85 | 0.76 | 0.81 | 0.95 | 0.76 | 0.99 |
| HIST2H2AC | 5.68 | 4.74 | 4.56 | 5.92 | 5.18 | 5.61 | 5.54 | 5.53 |
| HIST2H2BC | 3.47 | 3.99 | 3.65 | 3.87 | 3.17 | 3.10 | 3.36 | 3.55 |
| HIST2H2BD | 4.01 | 3.98 | 4.28 | 4.20 | 3.66 | 3.56 | 3.52 | 3.61 |
| HIST2H2BE | 4.82 | 5.29 | 4.64 | 5.04 | 4.15 | 4.52 | 3.85 | 4.78 |
| HIST2H2BF | 0.85 | 0.52 | 0.86 | 0.57 | 0.63 | 0.51 | 0.74 | 0.72 |
| HIST2H3PS2 | -0.94 | -1.20 | -1.26 | -1.28 | -1.23 | -1.16 | -1.28 | -1.18 |
| HIST2H4A | -1.31 | -1.36 | -1.35 | -1.31 | -1.30 | -1.38 | -1.38 | -1.34 |
| HIST2H4B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HIST3H2A | 7.10 | 6.74 | 5.39 | 6.91 | 6.60 | 6.40 | 5.21 | 5.72 |
| HIST3H2BB | 1.69 | 1.23 | 1.51 | 1.39 | 1.53 | 1.45 | 1.25 | 1.10 |
| HIST4H4 | 1.31 | 0.83 | 0.86 | 0.80 | 1.14 | 0.92 | 1.06 | 0.97 |
| HIVEP1 | 3.67 | 3.36 | 3.27 | 3.10 | 3.00 | 3.02 | 4.13 | 4.41 |
| HIVEP2 | 2.80 | 4.02 | 4.42 | 3.55 | 3.60 | 4.20 | 3.80 | 3.85 |
| HIVEP3 | 2.69 | 3.83 | 3.03 | 3.63 | 3.60 | 4.08 | 2.80 | 2.83 |
| HJURP | 5.91 | 4.73 | 5.41 | 4.89 | 5.18 | 6.13 | 5.09 | 5.58 |
| HJV | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| HK1 | 6.43 | 6.27 | 6.49 | 6.10 | 6.31 | 6.06 | 6.80 | 5.55 |
| HK2 | 4.33 | 5.10 | 5.84 | 4.72 | 5.41 | 4.96 | 5.99 | 4.35 |
| HKDC1 | 4.21 | 5.70 | 5.17 | 5.30 | 4.96 | 4.54 | 5.71 | 4.05 |
| HLA-A | 9.88 | 9.65 | 10.19 | 9.77 | 10.52 | 10.97 | 10.61 | 9.91 |
| HLA-B | 10.46 | 10.26 | 10.60 | 10.38 | 10.36 | 10.63 | 10.53 | 9.09 |
| HLA-C | 9.07 | 9.81 | 9.07 | 10.00 | 9.83 | 10.22 | 9.13 | 9.31 |
| HLA-DMA | 7.06 | 6.13 | 5.60 | 6.34 | 5.64 | 6.26 | 4.64 | 5.81 |
| HLA-DMB | 5.22 | 4.52 | 3.70 | 4.79 | 3.27 | 4.03 | 3.43 | 3.03 |
| HLA-DOA | -1.53 | -1.69 | -1.68 | -1.64 | -1.69 | -1.62 | -1.70 | -1.71 |
| HLA-DOB | 0.41 | 0.57 | 0.19 | 0.84 | 0.26 | 0.46 | 0.24 | 0.32 |
| HLA-DPA1 | 7.26 | 4.13 | 5.18 | 4.87 | 4.63 | 6.23 | 3.80 | 3.72 |
| HLA-DPB1 | 5.41 | 3.38 | 3.42 | 3.99 | 4.18 | 4.22 | 3.42 | 2.57 |
| HLA-DQA1 | -0.55 | -0.91 | -0.90 | -0.92 | -0.87 | -0.78 | -0.92 | -0.94 |
| HLA-DQA2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| HLA-DQB1 | 4.30 | 6.59 | 6.22 | 7.07 | 3.96 | 7.09 | 5.02 | 3.23 |
| HLA-DQB1-AS1 | -1.75 | -1.68 | -1.67 | -1.75 | -1.71 | -1.70 | -1.75 | -1.71 |
| HLA-DQB2 | -0.45 | -0.21 | -0.34 | 0.14 | -0.41 | -0.06 | -0.17 | -0.47 |
| HLA-DRA | 8.67 | 8.08 | 7.03 | 8.29 | 5.10 | 6.91 | 5.15 | 4.98 |
| HLA-DRB1 | 6.53 | 8.16 | 7.53 | 8.26 | 4.49 | 7.77 | 4.89 | 5.43 |
| HLA-DRB5 | 3.70 | 2.55 | 5.58 | 2.78 | 2.11 | 2.28 | 2.17 | 1.85 |
| HLA-DRB6 | 4.12 | 4.25 | 2.11 | 4.36 | 2.06 | 2.30 | 2.23 | 1.80 |
| HLA-E | 8.72 | 7.58 | 8.56 | 7.61 | 8.01 | 8.69 | 7.99 | 8.82 |
| HLA-F | 7.19 | 5.52 | 6.47 | 5.71 | 6.39 | 7.47 | 6.14 | 5.20 |
| HLA-F-AS1 | 2.23 | 2.28 | 2.75 | 2.07 | 2.06 | 2.74 | 4.39 | 2.83 |
| HLA-G | 2.06 | 2.03 | 2.32 | 2.28 | 2.52 | 2.24 | 2.79 | 3.32 |
| HLA-H | 1.69 | 1.61 | 1.55 | 1.59 | 1.37 | 2.02 | 1.28 | 1.26 |
| HLA-J | 3.76 | 4.24 | 3.91 | 4.34 | 5.12 | 4.37 | 4.24 | 4.36 |
| HLA-K | -1.16 | -1.08 | -0.99 | -1.16 | -1.01 | -1.10 | -1.02 | -1.06 |
| HLA-L | 0.59 | 0.45 | 0.84 | 0.42 | 0.69 | 0.63 | 0.83 | 0.55 |
| HLA-S | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| HLA-U | -2.01 | -2.01 | -2.04 | -2.05 | -2.04 | -2.01 | -2.05 | -2.03 |
| HLA-V | 2.51 | 2.51 | 3.30 | 2.53 | 2.73 | 3.13 | 3.77 | 2.85 |
| HLA-W | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| HLCS | 3.82 | 4.25 | 4.24 | 4.00 | 3.76 | 3.53 | 4.41 | 4.44 |
| HLF | -1.79 | -1.74 | -1.78 | -1.66 | -1.76 | -1.78 | -1.70 | -1.81 |
| HLTF | 7.10 | 5.81 | 7.13 | 5.70 | 6.31 | 6.77 | 6.73 | 6.91 |
| HLTF-AS1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| HLX | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| HM13 | 8.50 | 8.16 | 8.36 | 8.54 | 9.16 | 7.98 | 8.32 | 8.56 |
| HM13-AS1 | -1.29 | -1.34 | -1.33 | -1.35 | -1.40 | -1.42 | -1.41 | -1.37 |
| HM13-IT1 | 0.03 | 0.27 | 0.24 | 0.16 | 0.04 | 0.14 | 0.14 | 0.10 |
| HMBX1 | 3.95 | 4.23 | 4.82 | 4.29 | 3.74 | 4.23 | 4.76 | 3.92 |
| HMBX1-IT1 | -1.49 | -1.42 | -1.41 | -1.43 | -1.46 | -1.47 | -1.38 | -1.51 |
| HMBS | 7.00 | 6.15 | 5.87 | 6.23 | 6.47 | 6.39 | 5.78 | 6.45 |
| HMCES | 7.19 | 5.65 | 7.11 | 5.30 | 6.05 | 6.55 | 6.46 | 7.41 |
| HMCN2 | 0.48 | 0.10 | 0.36 | 0.16 | 0.25 | 0.21 | 0.22 | 0.06 |
| HMG20A | 4.20 | 4.74 | 4.72 | 4.60 | 4.54 | 4.23 | 4.50 | 4.50 |
| HMG20B | 6.78 | 6.74 | 6.88 | 6.83 | 7.18 | 7.92 | 6.88 | 7.60 |
| HMG1A | 9.31 | 8.80 | 9.52 | 8.83 | 9.43 | 10.48 | 8.91 | 10.14 |
| HMG1A1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| HMG1A1P2 | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.03 |
| HMG1A1P3 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.04 |
| HMG1A1P4 | 1.14 | 1.04 | 0.78 | 0.91 | 0.95 | 1.11 | 0.85 | 1.14 |
| HMG1A1P8 | -0.80 | -0.94 | -0.77 | -0.87 | -0.94 | -0.69 | -0.95 | -0.69 |
| HMG1A2 | 3.26 | 3.99 | 4.24 | 4.09 | 3.74 | 7.01 | 4.03 | 5.02 |
| HMG1A2-AS1 | -1.41 | -1.26 | -1.32 | -1.27 | -1.33 | -1.25 | -1.34 | -1.37 |
| HMGB1 | 9.35 | 8.48 | 8.02 | 8.27 | 8.04 | 8.00 | 8.14 | 8.77 |
| HMGB1P1 | -0.45 | -0.29 | -0.36 | -0.12 | -0.37 | -0.30 | -0.39 | -0.35 |
| HMGB1P10 | -1.65 | -1.69 | -1.73 | -1.74 | -1.74 | -1.75 | -1.74 | -1.71 |
| HMGB1P11 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.75 | -1.79 | -1.76 |
| HMGB1P13 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| HMGB1P16 | -2.20 | -2.20 | -2.17 | -2.16 | -2.19 | -2.20 | -2.20 | -2.21 |
| HMGB1P17 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| HMGB1P19 | -1.69 | -1.68 | -1.63 | -1.69 | -1.64 | -1.62 | -1.64 | -1.71 |
| HMGB1P20 | -1.19 | -1.19 | -1.17 | -1.26 | -1.22 | -1.18 | -1.20 | -1.17 |
| HMGB1P21 | 0.39 | 0.63 | 0.68 | 0.60 | 0.52 | 0.47 | 0.87 | 0.40 |
| HMGB1P23 | 0.07 | -0.69 | -0.68 | -0.70 | -0.69 | -0.71 | -0.70 | -0.59 |
| HMGB1P24 | 0.10 | 0.33 | 0.21 | 0.16 | 0.03 | 0.06 | 0.38 | -0.02 |
| HMGB1P26 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| HMGB1P29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| HMGB1P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| HMGB1P30 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HMGB1P31 | -0.57 | -0.48 | -0.46 | -0.36 | -0.45 | -0.45 | -0.43 | -0.38 |
| HMGB1P33 | -2.20 | -2.20 | -2.19 | -2.14 | -2.20 | -2.20 | -2.20 | -2.21 |
| HMGB1P36 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HMGB1P37 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| HMGB1P39 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| HMGB1P4 | -1.96 | -1.95 | -1.98 | -2.00 | -1.97 | -1.98 | -2.00 | -1.97 |
| HMGB1P40 | -1.54 | -1.59 | -1.58 | -1.60 | -1.56 | -1.58 | -1.60 | -1.51 |
| HMGB1P41 | -1.69 | -1.69 | -1.63 | -1.69 | -1.66 | -1.68 | -1.50 | -1.71 |
| HMGB1P44 | -0.59 | -0.93 | -0.83 | -0.79 | -0.89 | -0.94 | -0.87 | -0.83 |
| HMGB1P45 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| HMGB1P49 | -2.25 | -2.23 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| HMGB1P5 | 2.09 | 1.47 | 1.40 | 1.44 | 1.54 | 1.50 | 1.37 | 1.53 |
| HMGB1P51 | -0.81 | -0.92 | -0.90 | -0.73 | -0.96 | -0.91 | -0.82 | -0.90 |
| HMGB1P6 | 1.97 | 1.30 | 1.25 | 1.40 | 1.53 | 1.44 | 1.12 | 1.64 |
| HMGB1P7 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| HMGB1P8 | 0.22 | -0.04 | -0.04 | -0.14 | 0.13 | -0.11 | 0.13 | 0.11 |
| HMGB1P9 | -2.12 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| HMGB2 | 8.55 | 8.60 | 8.25 | 8.92 | 8.76 | 9.79 | 8.30 | 9.34 |
| HMGB2P1 | -1.32 | -1.38 | -1.37 | -1.39 | -1.38 | -1.33 | -1.40 | -1.41 |
| HMGB3 | 6.71 | 6.71 | 6.59 | 6.21 | 6.33 | 8.10 | 5.92 | 6.80 |
| HMGB3P11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| HMGB3P17 | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| HMGB3P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| HMGB3P20 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.07 | -2.10 | -2.11 |
| HMGB3P22 | -1.28 | -1.21 | -1.33 | -1.22 | -1.34 | -1.30 | -1.35 | -1.31 |
| HMGB3P31 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| HMGB3P4 | -1.85 | -1.85 | -1.83 | -1.86 | -1.81 | -1.83 | -1.86 | -1.88 |
| HMGB3P6 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.06 |
| HMGB3P9 | -1.74 | -1.74 | -1.67 | -1.75 | -1.74 | -1.76 | -1.75 | -1.77 |
| HMGCL | 6.16 | 5.70 | 6.31 | 5.98 | 6.96 | 6.76 | 6.60 | 6.69 |
| HMGCR | 6.28 | 7.00 | 6.80 | 6.84 | 7.56 | 6.79 | 7.79 | 6.81 |
| HMGCS1 | 7.18 | 7.13 | 7.38 | 7.37 | 7.44 | 6.61 | 7.94 | 6.99 |
| HMGCS2 | 4.62 | 4.18 | 4.37 | 6.35 | 3.42 | 3.66 | 4.15 | 6.27 |
| HMGN1 | 8.82 | 8.63 | 7.86 | 8.61 | 7.83 | 8.00 | 8.37 | 8.76 |
| HMGN1P15 | -1.37 | -1.23 | -1.09 | -1.31 | -1.33 | -1.35 | -1.19 | -1.38 |
| HMGN1P16 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HMGN1P17 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| HMGN1P24 | -2.15 | -2.09 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.13 |
| HMGN1P26 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HMGN1P36 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| HMGN1P37 | -1.48 | -1.47 | -1.46 | -1.48 | -1.47 | -1.49 | -1.49 | -1.35 |
| HMGN1P38 | 1.86 | 2.02 | 1.84 | 1.83 | 1.74 | 1.86 | 1.96 | 2.07 |
| HMGN1P4 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| HMGN1P7 | -1.62 | -1.61 | -1.60 | -1.62 | -1.61 | -1.55 | -1.62 | -1.41 |
| HMGN1P8 | -0.01 | -0.08 | 0.06 | -0.04 | -0.13 | -0.08 | 0.39 | -0.02 |
| HMGN2 | 5.64 | 4.92 | 4.74 | 5.04 | 5.04 | 5.77 | 5.53 | 4.67 |
| HMGN2P17 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HMGN2P22 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HMGN2P24 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HMGN2P25 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| HMGN2P46 | 1.07 | 0.68 | 0.96 | 0.95 | 0.88 | 1.00 | 1.58 | 0.74 |
| HMGN2P5 | -0.61 | -0.69 | -0.60 | -0.55 | -0.61 | -0.61 | -0.70 | -0.65 |
| HMGN2P7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HMGN2P8 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.12 | -2.13 | -2.16 |
| HMGN3 | 7.86 | 7.94 | 6.88 | 8.03 | 7.15 | 7.53 | 7.08 | 7.26 |
| HMGN3-AS1 | 1.94 | 1.97 | 1.78 | 2.00 | 1.64 | 1.48 | 1.58 | 1.50 |
| HMGN3P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 | -2.20 | -2.21 |
| HMGN4 | 6.70 | 6.59 | 5.72 | 6.58 | 6.01 | 7.12 | 5.73 | 6.37 |
| HMGN5 | 4.22 | 5.61 | 6.02 | 5.74 | 5.29 | 5.28 | 5.27 | 5.12 |
| HMGXB3 | 4.60 | 5.34 | 5.46 | 5.08 | 4.97 | 4.94 | 4.81 | 4.98 |
| HMGXB4 | 6.41 | 6.42 | 6.03 | 6.05 | 5.67 | 6.28 | 6.37 | 6.60 |
| HMMR | 5.39 | 5.64 | 6.55 | 5.72 | 5.92 | 6.46 | 5.77 | 5.64 |
| HMMR-AS1 | -2.15 | -2.15 | -2.14 | -2.12 | -2.13 | -2.15 | -2.13 | -2.16 |
| HMOX1 | 3.21 | 4.05 | 3.46 | 3.49 | 3.13 | 4.35 | 2.96 | 5.00 |
| HMOX2 | 7.20 | 6.97 | 6.89 | 7.43 | 6.46 | 6.92 | 6.63 | 6.65 |
| HMSD | 1.12 | 0.76 | 1.63 | 1.04 | 1.21 | 1.58 | 1.08 | 1.05 |
| HMX2 | 0.52 | 0.07 | 0.19 | 0.14 | 0.58 | 0.05 | 0.94 | 0.10 |
| HMX3 | 3.27 | 4.11 | 2.05 | 4.44 | 3.68 | 2.07 | 3.89 | 1.96 |
| HNF1A | 2.79 | 3.08 | 3.08 | 2.87 | 3.00 | 2.74 | 3.68 | 2.74 |
| HNF1A-AS1 | 2.49 | 2.80 | 2.70 | 3.60 | 3.33 | 2.67 | 3.94 | 2.41 |
| HNF1B | 4.00 | 4.18 | 4.11 | 4.11 | 3.85 | 3.90 | 4.70 | 3.99 |
| HNF4A | 4.81 | 5.54 | 5.03 | 5.41 | 4.90 | 4.27 | 5.74 | 3.79 |
| HNF4A-AS1 | -0.19 | -0.10 | 0.00 | 0.13 | -0.22 | -0.21 | 0.07 | -0.17 |
| HNF4G | 3.01 | 3.26 | 3.84 | 3.05 | 3.10 | 3.59 | 4.12 | 3.01 |
| HNMT | 6.32 | 5.40 | 4.94 | 6.05 | 5.65 | 4.92 | 5.61 | 6.07 |
| HNRNPA0 | 7.17 | 7.79 | 7.43 | 7.73 | 7.71 | 7.57 | 7.10 | 7.15 |
| HNRNPA1 | 8.96 | 9.16 | 8.86 | 9.23 | 9.23 | 9.54 | 8.83 | 8.86 |
| HNRNPA1L2 | 1.03 | 1.06 | 0.80 | 1.03 | 1.09 | 0.98 | 0.96 | 1.12 |
| HNRNPA1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| HNRNPA1P10 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| HNRNPA1P12 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.89 | -1.95 | -1.92 |
| HNRNPA1P16 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HNRNPA1P20 | -2.25 | -2.22 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| HNRNPA1P21 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HNRNPA1P22 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HNRNPA1P26 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.18 | -2.20 | -2.21 |
| HNRNPA1P27 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HNRNPA1P28 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| HNRNPA1P35 | -2.15 | -2.10 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| HNRNPA1P37 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| HNRNPA1P4 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.24 | -2.24 |
| HNRNPA1P40 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| HNRNPA1P41 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| HNRNPA1P48 | 4.86 | 5.02 | 4.65 | 5.03 | 4.99 | 5.43 | 4.79 | 4.75 |
| HNRNPA1P5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| HNRNPA1P51 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| HNRNPA1P52 | -2.15 | -2.15 | -2.11 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| HNRNPA1P53 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| HNRNPA1P54 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| HNRNPA1P55 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HNRNPA1P57 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HNRNPA1P59 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| HNRNPA1P6 | -1.74 | -1.74 | -1.78 | -1.79 | -1.76 | -1.71 | -1.70 | -1.81 |
| HNRNPA1P64 | -2.30 | -2.30 | -2.29 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 |
| HNRNPA1P68 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HNRNPA1P7 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| HNRNPA1P8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| HNRNPA2B1 | 10.11 | 9.92 | 9.84 | 9.92 | 10.12 | 10.31 | 9.61 | 9.92 |
| HNRNPA3 | 6.94 | 7.30 | 7.17 | 7.15 | 7.40 | 7.19 | 7.46 | 6.94 |
| HNRNPA3P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| HNRNPA3P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| HNRNPA3P4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 |
| HNRNPA3P5 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| HNRNPA3P6 | 1.15 | 0.82 | 1.00 | 1.22 | 1.82 | 1.22 | 1.07 | 1.20 |
| HNRNPAB | 7.84 | 8.52 | 8.63 | 8.82 | 8.38 | 8.35 | 8.36 | 8.01 |
| HNRNPABP1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.18 | -2.21 |
| HNRNPC | 7.86 | 7.97 | 7.48 | 8.02 | 8.20 | 8.69 | 7.53 | 8.41 |
| HNRNPCL1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| HNRNPCP10 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HNRNPCP2 | -0.39 | -0.09 | -0.35 | -0.20 | -0.34 | -0.19 | -0.39 | -0.37 |
| HNRNPCP3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HNRNPCP4 | -0.63 | -0.70 | -0.77 | -0.72 | -0.74 | -0.60 | -0.72 | -0.68 |
| HNRNPCP7 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 |
| HNRNPD | 8.42 | 8.32 | 8.12 | 8.40 | 8.26 | 9.02 | 8.39 | 8.67 |
| HNRNPDL | 8.60 | 7.95 | 8.01 | 8.32 | 8.02 | 8.37 | 8.17 | 8.22 |
| HNRNPDP1 | -1.79 | -1.79 | -1.73 | -1.70 | -1.79 | -1.80 | -1.75 | -1.81 |
| HNRNPF | 8.45 | 8.34 | 7.91 | 8.30 | 8.38 | 8.23 | 7.87 | 7.82 |
| HNRNPH1 | 6.50 | 6.82 | 7.56 | 7.25 | 7.32 | 7.41 | 7.32 | 6.75 |
| HNRNPH1P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| HNRNPH2 | 6.16 | 6.25 | 6.57 | 6.36 | 6.01 | 5.97 | 6.13 | 5.63 |
| HNRNPH3 | 7.49 | 6.69 | 7.37 | 6.80 | 7.01 | 7.66 | 6.95 | 7.52 |
| HNRNPK | 8.50 | 8.32 | 8.19 | 8.22 | 8.08 | 8.33 | 8.04 | 8.24 |
| HNRNPKP1 | -1.94 | -1.90 | -1.93 | -1.94 | -1.94 | -1.89 | -1.95 | -1.92 |
| HNRNPKP2 | -1.20 | -1.26 | -1.25 | -1.14 | -1.16 | -1.25 | -1.15 | -1.23 |
| HNRNPKP4 | -1.69 | -1.69 | -1.58 | -1.70 | -1.69 | -1.68 | -1.65 | -1.71 |
| HNRNPL | 6.92 | 6.90 | 7.34 | 6.99 | 7.21 | 7.26 | 7.22 | 7.17 |
| HNRNPLL | 4.64 | 4.93 | 4.80 | 5.01 | 5.41 | 5.23 | 5.08 | 5.17 |
| HNRNPLP1 | -2.18 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| HNRNPLP2 | -1.50 | -1.55 | -1.54 | -1.56 | -1.53 | -1.49 | -1.56 | -1.43 |
| HNRNPM | 7.40 | 7.78 | 8.14 | 7.62 | 7.44 | 7.79 | 7.35 | 7.26 |
| HNRNPMP1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| HNRNPR | 7.31 | 7.41 | 7.62 | 7.38 | 7.64 | 7.73 | 7.56 | 7.46 |
| HNRNPRP1 | -2.04 | -2.01 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 |
| HNRNPU | 8.50 | 8.75 | 8.84 | 8.75 | 8.71 | 9.05 | 8.68 | 8.57 |
| HNRNPUL1 | 6.83 | 6.82 | 7.01 | 6.88 | 6.79 | 6.93 | 7.12 | 6.75 |
| HNRNPUL2 | 5.91 | 6.33 | 6.99 | 5.92 | 6.05 | 5.78 | 6.29 | 5.95 |
| HNRNPUP1 | -1.31 | -1.31 | -1.29 | -1.32 | -1.31 | -1.32 | -1.25 | -1.27 |
| HOGA1 | 0.25 | -0.22 | -0.21 | -0.04 | -0.22 | -0.17 | -0.09 | -0.19 |
| HOMER1 | 3.19 | 3.72 | 4.25 | 3.35 | 3.48 | 3.08 | 3.32 | 3.81 |
| HOMER2 | 5.72 | 4.42 | 4.79 | 3.93 | 5.38 | 4.66 | 5.26 | 3.13 |
| HOMER3 | 4.29 | 4.42 | 4.38 | 3.95 | 4.50 | 5.12 | 3.63 | 5.22 |
| HOMER3-AS1 | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| HOMEZ | 3.72 | 4.03 | 4.26 | 3.91 | 4.06 | 4.09 | 3.94 | 3.97 |
| HOOK1 | 4.92 | 6.00 | 6.10 | 5.95 | 5.86 | 6.02 | 6.46 | 5.96 |
| HOOK2 | 5.14 | 5.94 | 6.03 | 6.48 | 6.31 | 6.12 | 6.13 | 5.75 |
| HOOK3 | 6.06 | 6.34 | 6.94 | 5.90 | 5.26 | 6.88 | 6.79 | 6.26 |
| HOPX | 1.15 | 1.53 | 1.05 | 1.14 | 1.06 | 1.52 | 0.97 | 2.76 |
| HORMAD1 | 1.77 | 0.48 | 0.61 | 0.55 | 0.60 | 0.48 | 0.45 | 1.43 |
| HOTAIR | 1.44 | 1.14 | 0.82 | 1.13 | 0.70 | 1.01 | 0.59 | 0.86 |
| HOTAIRM1 | 1.78 | 0.73 | 0.85 | 0.70 | 0.92 | 0.79 | 0.95 | 1.44 |
| HOTTIP | 1.15 | 0.67 | 0.69 | 0.64 | 0.83 | 1.68 | 0.64 | 1.26 |
| HOXA-AS2 | 2.47 | 3.04 | 2.94 | 2.93 | 3.50 | 3.63 | 1.87 | 3.00 |
| HOXA-AS3 | 1.73 | 1.63 | 1.48 | 1.55 | 0.92 | 1.36 | 1.01 | 1.67 |
| HOXA1 | -0.56 | -0.65 | -0.63 | -0.65 | -0.65 | -0.62 | -0.66 | -0.12 |
| HOXA10 | 4.64 | 4.55 | 3.64 | 4.41 | 4.36 | 5.04 | 2.66 | 4.80 |
| HOXA10-AS | 5.06 | 2.87 | 2.08 | 2.48 | 1.98 | 3.85 | 2.05 | 1.93 |
| HOXA11 | 2.56 | 2.39 | 1.67 | 2.44 | 1.52 | 3.15 | 1.74 | 2.67 |
| HOXA11-AS | 2.12 | 1.56 | 1.53 | 1.80 | 1.70 | 2.73 | 1.34 | 2.63 |
| HOXA13 | 3.76 | 1.95 | 2.28 | 2.10 | 2.88 | 4.24 | 2.31 | 3.63 |
| HOXA2 | -1.27 | -1.26 | -1.25 | -1.27 | -1.26 | -0.80 | -1.28 | -1.13 |
| HOXA3 | 2.22 | 3.22 | 2.95 | 2.25 | 2.16 | 2.83 | 1.67 | 2.60 |
| HOXA4 | -1.01 | -1.12 | -1.18 | -1.20 | -1.16 | -1.03 | -1.20 | -0.91 |
| HOXA5 | 1.58 | 1.36 | 1.42 | 1.32 | 1.10 | 1.55 | 1.10 | 2.23 |
| HOXA6 | 1.06 | 1.00 | 1.18 | 1.07 | 0.68 | 1.39 | 0.57 | 1.67 |
| HOXA7 | 2.49 | 0.80 | 0.84 | 0.76 | 0.84 | 0.81 | 0.66 | 0.60 |
| HOXA9 | 4.46 | 1.64 | 2.20 | 1.89 | 1.63 | 1.79 | 1.64 | 1.81 |
| HOXB-AS1 | 1.75 | 0.94 | 1.58 | 1.11 | 0.98 | 1.72 | 1.24 | 1.60 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| HOXB-AS3 | 0.86 | 0.84 | 0.40 | 0.88 | 0.82 | 1.13 | 0.36 | 0.58 |
| HOXB1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 | -2.15 | -2.15 | -2.16 |
| HOXB13 | 2.50 | 1.30 | 1.33 | 1.26 | 1.42 | 2.26 | 1.17 | 2.34 |
| HOXB2 | 4.62 | 3.02 | 4.52 | 2.73 | 2.86 | 5.89 | 3.11 | 4.58 |
| HOXB3 | 2.23 | 2.34 | 3.61 | 2.43 | 2.91 | 3.03 | 2.11 | 2.38 |
| HOXB4 | 0.43 | 0.07 | 0.17 | 0.05 | 0.52 | 0.33 | 0.05 | 0.16 |
| HOXB5 | 1.87 | 2.08 | 2.77 | 2.13 | 1.68 | 2.58 | 1.44 | 1.54 |
| HOXB6 | 3.56 | 3.52 | 4.99 | 4.01 | 3.42 | 5.44 | 2.87 | 3.56 |
| HOXB7 | 6.63 | 5.97 | 5.74 | 6.19 | 5.09 | 6.57 | 3.72 | 5.96 |
| HOXB8 | 0.84 | 0.45 | 0.38 | 0.42 | 0.40 | 1.39 | 0.34 | 0.89 |
| HOXB9 | 3.68 | 3.24 | 3.43 | 3.06 | 3.25 | 3.74 | 2.05 | 2.72 |
| HOXC-AS1 | 1.70 | 0.72 | 0.48 | 0.75 | 0.50 | 0.59 | 0.65 | 0.53 |
| HOXC-AS2 | -0.55 | -0.40 | -0.61 | -0.36 | -0.47 | -0.28 | -0.63 | -0.59 |
| HOXC-AS3 | 1.61 | 0.73 | 0.69 | 1.11 | 0.52 | 1.02 | 0.46 | 0.42 |
| HOXC10 | 4.94 | 4.98 | 2.26 | 5.04 | 2.36 | 3.04 | 2.29 | 2.09 |
| HOXC11 | 3.50 | 2.87 | 2.20 | 2.88 | 2.14 | 3.67 | 2.16 | 2.74 |
| HOXC12 | 1.15 | 0.46 | 0.31 | 0.27 | 0.38 | 0.34 | 0.51 | 0.23 |
| HOXC13 | 1.46 | 0.53 | 0.46 | 0.58 | 0.44 | 0.70 | 0.42 | 0.45 |
| HOXC13-AS | -0.76 | -0.95 | -1.02 | -0.96 | -1.03 | -1.05 | -1.04 | -1.06 |
| HOXC4 | 0.58 | 0.39 | 0.30 | 0.48 | 0.15 | 0.25 | 0.09 | 0.13 |
| HOXC5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| HOXC6 | 2.06 | 1.80 | 1.67 | 2.09 | 1.82 | 1.77 | 1.29 | 1.14 |
| HOXC8 | 1.54 | 1.80 | 1.53 | 2.14 | 2.14 | 1.74 | 1.04 | 0.91 |
| HOXC9 | 4.11 | 3.66 | 2.27 | 3.94 | 2.75 | 3.74 | 2.11 | 2.02 |
| HOXD-AS2 | -1.35 | -1.41 | -1.40 | -1.42 | -1.41 | -1.43 | -1.42 | -0.70 |
| HOXD1 | -0.51 | -0.92 | -0.83 | -0.93 | -0.88 | -0.93 | -0.93 | -0.36 |
| HOXD11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HOXD13 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| HOXD3 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.21 |
| HOXD4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.16 |
| HP | -2.20 | -2.20 | -2.18 | -2.20 | -2.20 | -2.20 | -2.20 | -2.17 |
| HP1BP3 | 6.72 | 7.04 | 7.86 | 6.65 | 7.45 | 7.64 | 7.75 | 7.72 |
| HPCA | -0.18 | -0.17 | -0.08 | -0.03 | -0.05 | 0.04 | -0.04 | 0.02 |
| HPCAL1 | 6.32 | 6.36 | 7.31 | 6.52 | 6.74 | 7.48 | 6.92 | 7.35 |
| HPCAL4 | -0.60 | -0.96 | -0.94 | -0.97 | -0.92 | -0.97 | -0.97 | -0.92 |
| HPD | -1.78 | -1.73 | -1.77 | -1.78 | -1.77 | -1.77 | -1.66 | -1.55 |
| HPDL | 2.69 | 3.72 | 2.68 | 4.14 | 3.36 | 2.60 | 3.09 | 2.76 |
| HPF1 | 6.22 | 5.63 | 5.55 | 5.54 | 5.37 | 6.12 | 5.23 | 5.74 |
| HPGD | 4.27 | 7.47 | 5.51 | 7.31 | 5.93 | 7.32 | 6.21 | 6.69 |
| HPN | 0.07 | 0.08 | 0.10 | 0.07 | 0.21 | 0.25 | 0.57 | 1.43 |
| HPN-AS1 | -2.30 | -2.29 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| HPRT1 | 7.55 | 7.00 | 7.09 | 7.27 | 7.64 | 7.83 | 6.53 | 7.08 |
| HPS1 | 6.12 | 6.10 | 5.85 | 5.86 | 6.05 | 5.42 | 5.88 | 4.95 |
| HPS3 | 5.06 | 4.06 | 5.42 | 3.99 | 4.80 | 4.82 | 4.75 | 5.02 |
| HPS4 | 4.48 | 4.79 | 4.26 | 5.02 | 4.53 | 4.57 | 5.12 | 5.21 |
| HPS5 | 4.21 | 4.43 | 4.71 | 4.00 | 4.09 | 4.23 | 4.38 | 4.43 |
| HPS6 | 4.51 | 4.51 | 4.42 | 4.36 | 4.32 | 4.20 | 4.32 | 4.15 |
| HPSE | 3.52 | 3.23 | 3.12 | 3.62 | 3.23 | 3.65 | 3.20 | 2.86 |
| HPSE2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| HPX | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.19 | -2.18 | -2.21 |
| HR | 4.44 | 2.96 | 4.93 | 3.75 | 3.57 | 3.40 | 3.83 | 2.80 |
| HRAS | 6.73 | 6.40 | 6.39 | 6.15 | 5.95 | 6.16 | 5.44 | 5.99 |
| HRC | 0.49 | 0.10 | 0.30 | 0.16 | 0.06 | 0.16 | 0.08 | -0.02 |
| HRCT1 | 3.28 | 3.99 | 3.42 | 3.87 | 5.20 | 3.31 | 4.04 | 2.48 |
| HRG | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HRH1 | 3.60 | 3.29 | 3.35 | 3.45 | 3.32 | 3.54 | 3.81 | 3.10 |
| HRH2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| HRH3 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| HRK | -0.71 | -0.70 | -0.62 | -0.79 | -0.51 | -0.79 | -0.79 | -0.74 |
| HRNR | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| HS1BP3 | 4.71 | 4.33 | 4.21 | 4.12 | 4.16 | 4.17 | 4.35 | 4.78 |
| HS1BP3-IT1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.94 | -1.96 |
| HS2ST1 | 4.17 | 5.25 | 5.25 | 4.87 | 4.97 | 5.01 | 5.53 | 4.81 |
| HS3ST1 | 6.02 | 5.51 | 6.46 | 5.37 | 5.76 | 6.19 | 6.30 | 6.88 |
| HS3ST2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| HS3ST3A1 | -2.30 | -2.28 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| HS3ST3B1 | 0.67 | 1.11 | 0.71 | 0.93 | 0.57 | 0.53 | 0.66 | 0.78 |
| HS3ST5 | 0.09 | 0.02 | 0.34 | -0.08 | -0.03 | 0.16 | 0.29 | -0.11 |
| HS3ST6 | 0.21 | -0.97 | -0.95 | -0.89 | -0.97 | -0.98 | -0.98 | -0.93 |
| HS6ST1 | 3.90 | 3.72 | 4.40 | 3.51 | 3.77 | 3.65 | 3.90 | 3.73 |
| HS6ST2 | 0.71 | 0.65 | 0.59 | 0.55 | 0.79 | 0.77 | 0.86 | 1.20 |
| HS6ST3 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| HSBP1 | 9.78 | 8.88 | 8.79 | 8.92 | 9.36 | 9.26 | 8.47 | 9.19 |
| HSBP1L1 | 6.37 | 6.78 | 6.02 | 7.03 | 6.20 | 5.96 | 6.48 | 6.14 |
| HSBP1P1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| HSBP1P2 | -1.38 | -1.49 | -1.48 | -1.45 | -1.41 | -1.40 | -1.51 | -1.42 |
| HSCB | 5.47 | 4.73 | 4.03 | 5.04 | 4.79 | 4.89 | 4.74 | 5.30 |
| HSD11B1 | 0.88 | 1.11 | 5.65 | 1.03 | 0.95 | 2.26 | 0.85 | 1.32 |
| HSD11B1-AS1 | 1.33 | 0.99 | 1.28 | 1.17 | 1.33 | 1.68 | 1.10 | 2.80 |
| HSD11B1L | 3.53 | 3.28 | 3.71 | 3.27 | 3.85 | 3.59 | 3.87 | 3.35 |
| HSD11B2 | 4.86 | 5.89 | 4.22 | 5.85 | 4.05 | 3.97 | 6.75 | 4.31 |
| HSD17B1 | 3.03 | 4.10 | 3.03 | 4.43 | 3.13 | 4.30 | 2.63 | 4.09 |
| HSD17B10 | 8.43 | 7.39 | 7.34 | 7.52 | 7.49 | 6.98 | 6.80 | 6.59 |
| HSD17B11 | 6.26 | 6.75 | 6.42 | 7.50 | 7.57 | 7.15 | 6.23 | 7.06 |
| HSD17B12 | 7.59 | 7.75 | 7.84 | 7.64 | 7.79 | 7.03 | 8.20 | 7.64 |
| HSD17B13 | -1.04 | -0.96 | -1.03 | -0.97 | -0.89 | -0.92 | -0.98 | -0.95 |
| HSD17B14 | -1.80 | -1.84 | -1.83 | -1.84 | -1.75 | -1.83 | -1.85 | -1.86 |
| HSD17B2 | 5.73 | 5.56 | 4.47 | 7.24 | 4.68 | 4.63 | 5.34 | 5.28 |
| HSD17B4 | 5.46 | 5.95 | 6.70 | 6.37 | 6.37 | 5.56 | 6.52 | 6.13 |
| HSD17B6 | 0.24 | 0.19 | 0.38 | 0.30 | 0.17 | 0.37 | 0.08 | 0.11 |
| HSD17B7 | 4.66 | 4.30 | 4.28 | 4.95 | 5.15 | 4.49 | 4.42 | 4.80 |
| HSD17B7P2 | 0.89 | 0.75 | 1.23 | 1.18 | 1.17 | 1.03 | 1.12 | 1.08 |
| HSD17B8 | 4.64 | 4.58 | 4.23 | 4.18 | 4.90 | 5.09 | 5.01 | 5.85 |
| HSD3B1 | -2.15 | -2.15 | -2.14 | -2.08 | -2.15 | -2.15 | -2.15 | -2.16 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| HSD3B2 | -2.20 | -2.20 | -2.18 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 |
| HSD3B7 | 4.56 | 4.74 | 4.21 | 4.65 | 4.12 | 3.69 | 3.95 | 3.81 |
| HSDL1 | 3.29 | 3.60 | 3.53 | 3.13 | 2.96 | 3.19 | 3.41 | 2.95 |
| HSDL2 | 6.22 | 6.30 | 5.67 | 6.31 | 5.41 | 5.73 | 6.16 | 5.68 |
| HSF1 | 6.52 | 6.38 | 7.21 | 6.35 | 6.34 | 6.61 | 6.01 | 6.80 |
| HSF2 | 3.92 | 2.85 | 3.40 | 2.87 | 3.02 | 3.28 | 3.76 | 3.10 |
| HSF2BP | -0.42 | -0.42 | -0.31 | -0.50 | -0.38 | -0.39 | -0.30 | -0.30 |
| HSF4 | 1.61 | 1.28 | 1.41 | 1.85 | 1.37 | 1.51 | 1.41 | 1.09 |
| HS2D | 4.51 | 4.07 | 4.13 | 4.18 | 4.22 | 4.09 | 3.85 | 3.86 |
| HSP90AA1 | 10.54 | 11.49 | 11.99 | 11.20 | 11.19 | 11.87 | 11.38 | 10.51 |
| HSP90AA2P | 2.82 | 3.41 | 3.64 | 3.47 | 3.30 | 3.74 | 3.40 | 2.53 |
| HSP90AA4P | -0.73 | -0.96 | -0.86 | -0.81 | -0.84 | -0.77 | -0.89 | -0.85 |
| HSP90AA5P | -2.20 | -2.20 | -2.17 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| HSP90AA6P | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.11 |
| HSP90AB1 | 10.47 | 10.12 | 10.24 | 10.08 | 10.30 | 10.86 | 9.71 | 10.31 |
| HSP90AB2P | -0.49 | -0.56 | -0.38 | -0.57 | -0.38 | -0.31 | -0.50 | -0.36 |
| HSP90AB3P | 3.24 | 2.95 | 2.58 | 2.93 | 3.35 | 3.44 | 2.45 | 3.02 |
| HSP90AB4P | 0.12 | 0.20 | 0.23 | 0.18 | 0.16 | 0.21 | 0.42 | 0.01 |
| HSP90AB6P | -1.59 | -1.63 | -1.63 | -1.54 | -1.64 | -1.55 | -1.64 | -1.66 |
| HSP90AB7P | -1.75 | -1.74 | -1.78 | -1.70 | -1.76 | -1.78 | -1.79 | -1.76 |
| HSP90B1 | 8.98 | 10.18 | 10.53 | 10.31 | 10.65 | 9.68 | 9.88 | 10.35 |
| HSP90B2P | 1.72 | 2.22 | 1.79 | 2.24 | 2.25 | 1.99 | 2.14 | 2.29 |
| HSP90B3P | -1.61 | -1.60 | -1.64 | -1.61 | -1.65 | -1.61 | -1.66 | -1.54 |
| HSPA12A | 2.86 | 3.39 | 2.95 | 3.10 | 2.93 | 2.49 | 2.80 | 2.10 |
| HSPA12B | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HSPA13 | 4.80 | 4.12 | 4.70 | 4.29 | 4.44 | 4.65 | 5.02 | 4.04 |
| HSPA1A | 7.52 | 7.38 | 8.58 | 7.48 | 7.04 | 7.98 | 7.49 | 7.85 |
| HSPA1B | 7.46 | 6.74 | 7.86 | 6.56 | 6.63 | 7.39 | 6.92 | 7.27 |
| HSPA1L | 0.46 | 0.24 | 0.74 | 0.63 | 0.28 | 0.39 | 0.51 | 0.53 |
| HSPA2 | 4.79 | 3.24 | 3.62 | 2.77 | 3.53 | 3.75 | 3.43 | 3.07 |
| HSPA4 | 6.44 | 7.06 | 7.37 | 7.09 | 7.21 | 7.02 | 7.11 | 6.33 |
| HSPA4L | 4.53 | 5.76 | 5.38 | 5.70 | 4.50 | 5.60 | 5.98 | 5.01 |
| HSPA5 | 8.79 | 9.04 | 8.69 | 9.07 | 8.94 | 8.76 | 8.41 | 8.82 |
| HSPA6 | -0.59 | -0.35 | -0.49 | -0.38 | -0.28 | -0.35 | -0.52 | -0.49 |
| HSPA8 | 9.10 | 8.75 | 8.55 | 8.87 | 8.85 | 8.71 | 7.80 | 8.92 |
| HSPA8P1 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.01 | -2.05 | -2.03 |
| HSPA8P14 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| HSPA8P3 | -2.20 | -2.18 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| HSPA8P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 |
| HSPA8P5 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.13 | -2.13 |
| HSPA8P8 | -1.96 | -1.96 | -1.95 | -1.99 | -1.99 | -1.98 | -2.00 | -2.01 |
| HSPA8P9 | -1.94 | -1.90 | -1.93 | -1.91 | -1.88 | -1.93 | -1.95 | -1.92 |
| HSPA9 | 7.48 | 7.62 | 8.35 | 7.77 | 8.04 | 7.70 | 7.91 | 7.52 |
| HSPA9P1 | -1.42 | -1.25 | -1.32 | -1.34 | -1.41 | -1.35 | -1.42 | -1.37 |
| HSPB1 | 7.49 | 8.54 | 8.71 | 8.65 | 8.78 | 8.63 | 8.07 | 8.22 |
| HSPB11 | 7.84 | 7.84 | 7.19 | 7.63 | 7.35 | 8.27 | 6.97 | 7.17 |
| HSPB1P1 | -0.97 | -0.89 | -0.80 | -0.77 | -0.89 | -0.82 | -0.91 | -0.93 |
| HSPB1P2 | -1.64 | -1.64 | -1.58 | -1.64 | -1.61 | -1.60 | -1.55 | -1.66 |
| HSPB2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| HSPB6 | -1.44 | -1.55 | -1.54 | -1.56 | -1.49 | -1.56 | -1.56 | -1.57 |
| HSPB7 | -1.79 | -1.79 | -1.78 | -1.75 | -1.74 | -1.75 | -1.80 | -1.81 |
| HSPB8 | 0.72 | 0.55 | 0.69 | 0.53 | 0.55 | 0.59 | 1.07 | 0.47 |
| HSPB9 | -0.69 | -0.83 | -0.90 | -0.92 | -0.87 | -0.85 | -0.84 | -0.93 |
| HSPBAP1 | 1.63 | 1.51 | 1.89 | 1.73 | 2.20 | 2.11 | 1.93 | 2.36 |
| HSPBP1 | 6.61 | 6.02 | 5.88 | 6.01 | 6.29 | 6.28 | 5.61 | 5.69 |
| HSPD1 | 9.45 | 8.82 | 9.14 | 8.99 | 9.34 | 9.22 | 8.75 | 8.52 |
| HSPD1P1 | -0.56 | -0.40 | -0.54 | -0.43 | -0.30 | -0.47 | -0.49 | -0.58 |
| HSPD1P10 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| HSPD1P11 | -0.88 | -0.79 | -0.68 | -0.81 | -0.88 | -0.47 | -0.65 | -0.83 |
| HSPD1P12 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| HSPD1P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HSPD1P4 | -0.70 | -0.77 | -0.75 | -0.86 | -0.46 | -0.79 | -0.78 | -0.81 |
| HSPD1P5 | -1.20 | -1.32 | -1.25 | -1.33 | -1.29 | -1.22 | -1.34 | -1.19 |
| HSPD1P6 | -2.02 | -2.04 | -1.98 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| HSPD1P7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 |
| HSPD1P9 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 |
| HSPE1 | 10.19 | 9.45 | 9.38 | 9.57 | 9.80 | 9.51 | 8.99 | 9.41 |
| HSPE1P11 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.91 | -1.91 | -1.89 |
| HSPE1P13 | -2.20 | -2.20 | -2.19 | -2.17 | -2.20 | -2.21 | -2.21 | -2.22 |
| HSPE1P18 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| HSPE1P2 | 1.43 | 1.28 | 1.30 | 0.98 | 1.25 | 1.24 | 1.06 | 1.13 |
| HSPE1P25 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.10 | -2.11 |
| HSPE1P26 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HSPE1P28 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HSPE1P3 | -0.98 | -1.05 | -0.96 | -1.13 | -1.09 | -1.04 | -0.99 | -0.99 |
| HSPE1P4 | -1.59 | -1.63 | -1.63 | -1.59 | -1.63 | -1.65 | -1.60 | -1.61 |
| HSPE1P5 | -1.20 | -1.19 | -1.18 | -0.91 | -1.08 | -1.14 | -1.21 | -1.16 |
| HSPE1P6 | -1.01 | -1.21 | -1.20 | -1.22 | -1.10 | -1.19 | -1.22 | -1.02 |
| HSPE1P7 | -1.06 | -0.99 | -1.05 | -1.14 | -1.10 | -1.02 | -1.14 | -0.98 |
| HSPE1P8 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| HSPE1P9 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| HSPG2 | 6.33 | 6.56 | 7.54 | 6.71 | 6.69 | 6.90 | 8.06 | 6.12 |
| HSPH1 | 7.53 | 7.44 | 8.37 | 7.15 | 7.67 | 7.43 | 7.31 | 7.55 |
| HTATIP2 | 7.65 | 7.47 | 7.08 | 7.66 | 7.85 | 6.95 | 6.50 | 7.82 |
| HTATSF1 | 6.10 | 6.21 | 6.80 | 5.91 | 6.11 | 6.91 | 5.95 | 6.76 |
| HTATSF1P2 | -1.43 | -1.59 | -1.53 | -1.60 | -1.59 | -1.58 | -1.60 | -1.57 |
| HTD2 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| HTR1B | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| HTR1D | 0.04 | 0.43 | 0.06 | 0.31 | 0.12 | 0.02 | 0.59 | 0.07 |
| HTR2B | 0.12 | 1.65 | 0.17 | 1.84 | 0.08 | 0.13 | 0.01 | -0.02 |
| HTR2C | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| HTR3A | -1.74 | -1.79 | -1.78 | -1.79 | -1.76 | -1.80 | -1.79 | -1.81 |
| HTR3B | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| HTR3C | -1.74 | -1.49 | -1.73 | -1.64 | -1.71 | -1.73 | -1.75 | -1.76 |

| | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| HTR3E | -1.94 | -1.90 | -1.93 | -1.87 | -1.84 | -1.95 | -1.95 | -1.92 |
| HTR5BP | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| HTR6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| HTR7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| HTR7P1 | 0.23 | 0.33 | 0.72 | 0.31 | 0.28 | 0.38 | 0.44 | 0.32 |
| HTRA1 | 5.62 | 6.05 | 4.76 | 6.19 | 6.83 | 3.79 | 4.89 | 5.29 |
| HTRA2 | 4.85 | 4.80 | 4.87 | 4.83 | 5.25 | 5.25 | 4.30 | 4.97 |
| HTRA3 | -1.46 | -1.40 | -1.39 | -1.47 | -1.46 | -1.47 | -1.35 | -1.48 |
| HTRA4 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| HTT | 4.84 | 5.77 | 5.75 | 5.55 | 4.42 | 5.10 | 5.91 | 5.40 |
| HULC | 1.89 | 1.31 | 1.18 | 1.45 | 1.26 | 1.13 | 1.33 | 1.58 |
| HUNK | -1.04 | -0.81 | -1.09 | -0.85 | -1.07 | -1.12 | -0.85 | -1.13 |
| HUS1 | 4.84 | 4.81 | 3.99 | 4.47 | 5.00 | 4.41 | 4.45 | 4.62 |
| HUS1B | -1.71 | -1.79 | -1.78 | -1.80 | -1.77 | -1.80 | -1.80 | -1.65 |
| HUWE1 | 5.91 | 6.34 | 7.04 | 6.27 | 6.05 | 6.48 | 6.77 | 6.11 |
| HVCN1 | 2.19 | 2.07 | 1.85 | 2.21 | 1.63 | 1.77 | 1.52 | 2.31 |
| HYAL1 | 4.68 | 6.88 | 4.76 | 6.79 | 6.08 | 4.58 | 5.94 | 5.22 |
| HYAL2 | 7.40 | 7.16 | 6.72 | 7.06 | 7.27 | 7.45 | 6.66 | 7.54 |
| HYAL3 | 2.15 | 1.50 | 1.80 | 1.51 | 1.57 | 1.76 | 1.64 | 1.51 |
| HYAL4 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.11 | -2.15 | -2.16 |
| HYDIN | -2.15 | -2.15 | -2.11 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| HYDIN2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| HYI | 3.15 | 4.20 | 2.87 | 4.15 | 3.51 | 3.42 | 3.75 | 3.65 |
| HYI-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| HYKK | 3.45 | 2.51 | 2.80 | 3.01 | 3.68 | 2.44 | 2.70 | 3.35 |
| HYLS1 | 4.96 | 4.46 | 4.21 | 4.46 | 4.95 | 4.18 | 3.78 | 4.32 |
| HYMAI | 0.34 | 0.44 | 0.59 | 0.56 | 0.35 | 0.61 | 1.11 | 0.47 |
| HYOU1 | 6.92 | 6.63 | 7.23 | 6.90 | 7.27 | 6.42 | 7.04 | 7.12 |
| HYPK | -0.07 | -0.06 | -0.20 | 0.05 | -0.07 | -0.07 | -0.15 | 0.07 |
| HYPM | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| IAH1 | 7.26 | 6.89 | 6.37 | 7.14 | 6.64 | 6.63 | 6.18 | 7.15 |
| IAPP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| IARS | 6.02 | 6.18 | 6.02 | 6.23 | 5.80 | 6.39 | 6.83 | 6.76 |
| IARS2 | 6.97 | 6.94 | 6.88 | 7.25 | 7.21 | 7.40 | 7.44 | 7.81 |
| IBA57 | 3.16 | 3.26 | 3.17 | 3.45 | 3.17 | 3.33 | 2.93 | 3.05 |
| IBA57-DT | -2.04 | -2.04 | -1.98 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| IBTK | 5.94 | 6.79 | 6.41 | 6.34 | 5.96 | 6.21 | 7.12 | 7.03 |
| ICA1 | 5.60 | 5.89 | 4.97 | 5.83 | 6.52 | 5.70 | 5.67 | 6.49 |
| ICA1L | 0.95 | 0.91 | 0.87 | 1.23 | 1.09 | 1.13 | 1.00 | 0.88 |
| ICAM1 | 4.05 | 3.02 | 4.56 | 2.97 | 3.74 | 3.92 | 2.88 | 2.94 |
| ICAM2 | 3.72 | 3.19 | 3.22 | 2.51 | 4.50 | 3.74 | 2.10 | 3.21 |
| ICAM3 | 4.32 | 4.67 | 3.44 | 4.82 | 3.74 | 4.24 | 3.59 | 4.83 |
| ICAM4 | -0.51 | -0.79 | -0.70 | -0.80 | -0.72 | -0.74 | -0.80 | -0.75 |
| ICAM5 | 0.74 | 0.44 | 0.64 | 0.58 | 0.43 | 0.87 | 0.65 | 0.45 |
| ICE1 | 5.77 | 5.85 | 5.79 | 5.85 | 5.86 | 5.54 | 5.73 | 5.72 |
| ICE2 | 5.55 | 5.69 | 5.49 | 5.35 | 5.47 | 5.33 | 5.76 | 5.68 |
| ICK | 3.76 | 4.64 | 3.98 | 4.65 | 4.39 | 4.35 | 4.51 | 4.86 |
| ICMT | 7.16 | 6.63 | 6.86 | 6.55 | 6.61 | 6.55 | 7.22 | 6.58 |
| ICOSLG | -1.79 | -1.78 | -1.78 | -1.71 | -1.79 | -1.78 | -1.79 | -1.81 |
| ID1 | 9.66 | 8.81 | 8.59 | 8.20 | 9.31 | 8.30 | 9.97 | 9.28 |
| ID2 | 6.77 | 6.93 | 5.86 | 7.67 | 7.05 | 6.91 | 8.54 | 5.38 |
| ID2-AS1 | -0.41 | -0.33 | -0.40 | -0.20 | -0.41 | -0.32 | 0.04 | -0.38 |
| ID3 | 6.11 | 4.93 | 5.13 | 5.10 | 4.94 | 4.72 | 7.76 | 4.86 |
| ID4 | 2.56 | 2.56 | 2.89 | 2.58 | 2.47 | 2.40 | 5.38 | 2.72 |
| IDE | 5.57 | 5.25 | 5.10 | 5.33 | 5.16 | 4.88 | 5.57 | 4.97 |
| IDH1 | 7.81 | 7.56 | 7.09 | 7.59 | 7.35 | 7.36 | 7.67 | 8.23 |
| IDH1-AS1 | 3.19 | 2.70 | 3.22 | 3.11 | 4.06 | 3.84 | 2.48 | 2.60 |
| IDH2 | 7.61 | 6.24 | 7.62 | 6.13 | 7.67 | 7.25 | 7.42 | 7.05 |
| IDH2-DT | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| IDH3A | 6.72 | 6.20 | 5.89 | 5.95 | 6.00 | 5.97 | 5.74 | 5.56 |
| IDH3B | 7.31 | 6.63 | 6.54 | 6.72 | 6.91 | 6.83 | 6.28 | 6.76 |
| IDH3G | 6.54 | 6.42 | 6.76 | 6.52 | 6.67 | 7.32 | 6.14 | 7.30 |
| IDI1 | 7.95 | 8.03 | 7.59 | 8.37 | 9.03 | 8.21 | 8.45 | 8.72 |
| IDI2 | -2.04 | -2.04 | -2.01 | -2.05 | -2.03 | -2.04 | -2.05 | -2.03 |
| IDI2-AS1 | -1.64 | -1.58 | -1.63 | -1.59 | -1.58 | -1.60 | -1.59 | -1.66 |
| IDNK | 3.30 | 3.27 | 2.58 | 3.66 | 3.11 | 3.04 | 2.38 | 3.00 |
| IDO1 | 1.81 | 1.01 | 1.15 | 0.90 | 0.88 | 1.16 | 1.02 | 0.76 |
| IDS | 3.38 | 3.15 | 4.14 | 3.26 | 3.73 | 4.74 | 3.46 | 3.83 |
| IDUA | 3.59 | 4.21 | 4.14 | 4.21 | 3.55 | 4.16 | 4.42 | 3.86 |
| IER2 | 6.75 | 6.31 | 6.57 | 6.45 | 6.95 | 6.62 | 6.30 | 6.78 |
| IER3 | 7.58 | 6.12 | 7.25 | 6.21 | 7.72 | 7.74 | 7.41 | 9.21 |
| IER3-AS1 | 3.03 | 2.55 | 2.43 | 2.78 | 3.08 | 3.08 | 2.92 | 2.97 |
| IER3IP1 | 7.06 | 6.69 | 6.58 | 7.10 | 6.91 | 6.54 | 6.86 | 6.78 |
| IER5 | 6.79 | 6.16 | 5.93 | 6.75 | 6.73 | 7.58 | 5.80 | 7.08 |
| IER5L | 7.38 | 5.81 | 6.60 | 5.64 | 6.26 | 6.21 | 7.33 | 6.54 |
| IFFO1 | -1.19 | -1.26 | -1.17 | -1.27 | -1.18 | -1.24 | -1.20 | -1.29 |
| IFFO2 | 3.56 | 3.70 | 4.64 | 3.41 | 3.77 | 4.34 | 4.21 | 3.87 |
| IFI16 | 5.71 | 5.75 | 5.84 | 5.34 | 3.74 | 6.41 | 4.31 | 5.83 |
| IFI27 | 11.72 | 10.20 | 9.69 | 10.04 | 11.01 | 10.19 | 8.03 | 9.42 |
| IFI27L1 | 5.38 | 5.08 | 5.43 | 5.26 | 5.86 | 5.20 | 4.96 | 4.23 |
| IFI27L2 | 7.15 | 7.85 | 7.15 | 7.78 | 7.88 | 7.41 | 5.96 | 6.38 |
| IFI30 | -0.52 | -0.43 | -0.18 | -0.52 | -0.48 | -0.49 | -0.45 | -0.42 |
| IFI35 | 6.46 | 5.30 | 5.57 | 5.36 | 6.73 | 6.28 | 5.02 | 6.27 |
| IFI44 | 5.81 | 5.19 | 5.22 | 5.07 | 4.07 | 5.80 | 4.69 | 5.06 |
| IFI44L | 5.91 | 3.82 | 4.29 | 3.42 | 3.72 | 3.80 | 3.45 | 3.79 |
| IFI6 | 9.46 | 7.67 | 8.55 | 7.99 | 9.37 | 8.08 | 7.62 | 7.38 |
| IFIH1 | 5.43 | 4.48 | 4.78 | 4.12 | 4.96 | 4.60 | 4.58 | 4.00 |
| IFIT1 | 7.15 | 4.30 | 4.87 | 4.50 | 5.75 | 4.94 | 4.55 | 4.11 |
| IFIT1P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.18 | -2.21 |
| IFIT2 | 6.05 | 4.66 | 5.15 | 4.20 | 4.70 | 4.75 | 3.88 | 4.08 |
| IFIT3 | 6.65 | 5.49 | 5.38 | 4.91 | 5.53 | 5.17 | 4.56 | 3.91 |
| IFIT5 | 4.70 | 3.90 | 4.09 | 3.97 | 4.35 | 4.43 | 4.00 | 3.56 |
| IFITM1 | 5.55 | 2.92 | 3.14 | 3.02 | 4.03 | 3.09 | 2.83 | 2.79 |
| IFITM10 | 0.52 | 0.55 | 0.65 | 0.36 | 0.49 | 0.56 | 0.88 | 0.90 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| IFITM2 | 9.23 | 8.70 | 7.24 | 8.70 | 9.92 | 7.81 | 7.09 | 7.50 |
| IFITM3 | 10.62 | 8.92 | 8.88 | 9.01 | 10.76 | 8.97 | 8.62 | 8.27 |
| IFITM4P | -1.64 | -1.68 | -1.63 | -1.69 | -1.69 | -1.67 | -1.64 | -1.71 |
| IFITM9P | -0.74 | -0.51 | -0.54 | -0.67 | -0.54 | -0.68 | -0.74 | -0.04 |
| IFNAR1 | 6.37 | 6.53 | 6.01 | 6.31 | 5.70 | 6.16 | 6.49 | 6.56 |
| IFNAR2 | 5.01 | 4.75 | 5.27 | 4.35 | 4.83 | 4.89 | 5.02 | 4.53 |
| IFNB1 | -1.31 | -1.48 | -1.47 | -1.43 | -1.48 | -1.49 | -1.49 | -1.45 |
| IFNE | 0.48 | 0.42 | 0.76 | 0.62 | 0.66 | 0.88 | 0.69 | 0.43 |
| IFNGR1 | 7.56 | 6.87 | 6.49 | 6.95 | 5.95 | 6.40 | 6.82 | 6.70 |
| IFNGR2 | 6.38 | 6.73 | 6.74 | 6.95 | 7.30 | 6.49 | 6.15 | 8.60 |
| IFNL1 | 0.74 | 0.21 | 0.23 | 0.29 | 0.42 | 0.49 | 0.19 | 0.23 |
| IFNL2 | -1.15 | -1.15 | -1.13 | -1.16 | -1.10 | -1.13 | -1.07 | -1.18 |
| IFNL3 | -0.81 | -0.90 | -0.88 | -0.91 | -0.90 | -0.91 | -0.91 | -0.86 |
| IFNLR1 | 1.48 | 1.29 | 1.57 | 1.26 | 1.47 | 1.68 | 1.80 | 1.41 |
| IFNWP19 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| IFRD1 | 4.48 | 4.00 | 5.22 | 4.14 | 5.46 | 5.02 | 4.79 | 6.01 |
| IFRD2 | 7.30 | 6.86 | 6.67 | 7.35 | 6.86 | 6.68 | 6.57 | 7.00 |
| IFT122 | 2.68 | 2.74 | 3.14 | 2.53 | 2.91 | 2.99 | 2.90 | 2.94 |
| IFT140 | 2.36 | 2.73 | 3.27 | 2.48 | 2.72 | 3.01 | 2.84 | 2.77 |
| IFT172 | 5.06 | 6.59 | 5.10 | 6.22 | 5.54 | 3.89 | 4.38 | 4.10 |
| IFT20 | 6.56 | 5.70 | 5.69 | 6.22 | 6.65 | 6.28 | 5.96 | 6.79 |
| IFT22 | 5.09 | 5.29 | 4.46 | 5.32 | 5.21 | 5.52 | 4.94 | 4.49 |
| IFT27 | 6.07 | 5.69 | 5.63 | 5.80 | 5.76 | 5.94 | 5.92 | 6.25 |
| IFT43 | 5.78 | 5.61 | 5.96 | 5.91 | 6.23 | 6.25 | 5.83 | 5.68 |
| IFT46 | 5.26 | 4.69 | 4.74 | 4.62 | 4.74 | 4.22 | 3.84 | 3.94 |
| IFT52 | 5.83 | 5.31 | 4.96 | 5.19 | 5.38 | 5.07 | 4.53 | 4.54 |
| IFT57 | 6.72 | 5.39 | 6.52 | 5.70 | 6.34 | 6.69 | 5.99 | 5.89 |
| IFT74 | 4.64 | 5.11 | 5.00 | 5.06 | 4.73 | 4.49 | 5.36 | 4.16 |
| IFT74-AS1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -1.96 | -1.97 |
| IFT80 | 3.38 | 2.82 | 3.61 | 2.87 | 3.01 | 3.28 | 3.55 | 3.30 |
| IFT81 | 3.91 | 3.95 | 4.37 | 4.12 | 3.85 | 4.27 | 4.21 | 3.66 |
| IFT88 | 4.16 | 4.89 | 4.15 | 4.81 | 4.47 | 3.84 | 4.64 | 3.67 |
| IGBP1 | 6.33 | 6.97 | 6.26 | 7.18 | 7.51 | 6.97 | 6.38 | 6.71 |
| IGBP1-AS2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| IGBP1P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| IGBP1P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| IGDCC4 | -1.79 | -1.79 | -1.73 | -1.79 | -1.79 | -1.71 | -1.75 | -1.81 |
| IGF1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| IGF1R | 3.92 | 3.78 | 3.57 | 4.08 | 4.86 | 4.80 | 4.57 | 4.07 |
| IGF2 | -1.91 | -1.94 | -1.93 | -1.87 | -1.94 | -1.93 | -1.95 | -1.88 |
| IGF2-AS | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.16 | -2.20 | -2.21 |
| IGF2BP1 | 1.63 | 1.11 | 1.15 | 1.07 | 1.01 | 2.76 | 0.97 | 2.79 |
| IGF2BP2 | 5.22 | 5.02 | 6.30 | 4.99 | 6.02 | 6.25 | 6.23 | 6.44 |
| IGF2BP2-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| IGF2BP3 | 4.82 | 3.53 | 4.91 | 3.23 | 4.53 | 4.82 | 4.78 | 5.19 |
| IGF2R | 5.88 | 6.31 | 7.09 | 6.22 | 5.79 | 6.57 | 7.13 | 6.27 |
| IGFALS | -1.01 | -1.08 | -0.99 | -1.09 | -1.08 | -1.10 | -1.01 | -1.10 |
| IGFBP1 | 2.01 | 2.42 | 2.43 | 2.56 | 3.69 | 2.18 | 3.22 | 1.81 |
| IGFBP2 | 7.54 | 9.44 | 8.22 | 9.55 | 10.50 | 5.32 | 5.58 | 5.03 |
| IGFBP3 | 5.83 | 6.58 | 7.75 | 6.08 | 6.33 | 6.58 | 6.85 | 5.49 |
| IGFBP4 | 6.81 | 7.85 | 6.78 | 7.93 | 8.66 | 7.63 | 6.09 | 7.75 |
| IGFBP5 | 1.09 | 1.23 | 1.58 | 1.18 | 1.31 | 1.31 | 1.25 | 1.79 |
| IGFBP6 | 4.88 | 6.53 | 5.41 | 4.32 | 5.47 | 5.09 | 3.91 | 3.87 |
| IGFBP7 | 2.27 | 2.26 | 3.21 | 2.25 | 2.97 | 4.54 | 4.24 | 5.19 |
| IGFBPL1 | 2.08 | 3.38 | 1.51 | 3.52 | 1.55 | 2.05 | 2.03 | 1.52 |
| IGFL1 | 1.49 | 1.21 | 1.18 | 1.18 | 1.69 | 1.26 | 1.31 | 0.93 |
| IGFL1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| IGFL2 | 2.99 | 4.75 | 3.03 | 4.27 | 3.72 | 3.39 | 5.13 | 2.50 |
| IGFL2-AS1 | 5.09 | 4.90 | 4.78 | 5.03 | 5.17 | 7.27 | 6.36 | 4.56 |
| IGFL3 | -1.54 | -1.35 | -1.53 | -0.81 | -1.54 | -1.55 | -1.55 | -1.57 |
| IGFL4 | -1.25 | -1.37 | -1.36 | -1.31 | -1.37 | -1.18 | -1.38 | -1.34 |
| IGFLR1 | 2.43 | 1.68 | 1.60 | 1.49 | 1.38 | 1.37 | 1.76 | 1.35 |
| IGFN1 | -2.10 | -2.09 | -2.03 | -2.10 | -2.08 | -2.06 | -2.07 | -2.11 |
| IGHE | -1.89 | -1.84 | -1.84 | -1.90 | -1.87 | -1.90 | -1.90 | -1.91 |
| IGHEP1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| IGHEP2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| IGHMBP2 | 3.82 | 4.06 | 4.66 | 4.01 | 4.27 | 4.03 | 4.21 | 4.20 |
| IGIP | 2.44 | 2.94 | 3.24 | 2.87 | 2.96 | 2.84 | 3.87 | 3.06 |
| IGLL1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| IGLON5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| IGSF1 | -1.57 | -1.45 | -1.44 | -1.51 | -1.56 | -1.55 | -1.57 | -1.59 |
| IGSF10 | -1.80 | -1.79 | -1.79 | -1.84 | -1.82 | -1.83 | -1.80 | -1.86 |
| IGSF11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.37 |
| IGSF22 | 2.49 | 1.49 | 1.85 | 1.61 | 1.99 | 1.73 | 1.91 | 2.40 |
| IGSF3 | 3.79 | 3.97 | 4.40 | 3.68 | 3.26 | 4.41 | 4.06 | 3.39 |
| IGSF5 | -0.21 | 0.43 | -0.18 | 0.02 | -0.20 | -0.15 | -0.22 | -0.12 |
| IGSF6 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| IGSF8 | 5.90 | 6.09 | 5.37 | 6.33 | 5.64 | 5.58 | 6.03 | 5.97 |
| IGSF9 | 2.78 | 2.24 | 2.54 | 2.78 | 2.86 | 2.88 | 3.51 | 2.56 |
| IGSF9B | -1.08 | -0.62 | -1.06 | -0.89 | -0.92 | -1.05 | -0.88 | -1.03 |
| IHH | 3.43 | 3.11 | 3.59 | 3.58 | 3.46 | 2.76 | 3.01 | 3.37 |
| IK | 7.29 | 7.45 | 7.75 | 7.54 | 7.74 | 7.60 | 7.25 | 7.48 |
| IKBIP | 3.81 | 4.75 | 4.38 | 4.79 | 5.48 | 4.23 | 4.00 | 4.64 |
| IKBBK | 4.72 | 4.66 | 5.77 | 5.16 | 4.91 | 5.23 | 6.33 | 5.04 |
| IKBKE | 3.76 | 3.32 | 3.27 | 3.31 | 3.05 | 2.88 | 2.74 | 2.88 |
| IKBKG | -0.10 | -0.28 | -0.36 | -0.37 | -0.18 | -0.23 | -0.30 | -0.16 |
| IKZF1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| IKZF2 | 3.32 | 4.62 | 4.68 | 3.59 | 3.83 | 4.64 | 4.67 | 4.32 |
| IKZF3 | -0.58 | -0.36 | -0.17 | -0.32 | -0.65 | -0.42 | -0.59 | -0.49 |
| IKZF4 | 1.76 | 1.56 | 1.94 | 1.69 | 1.65 | 1.91 | 1.67 | 1.50 |
| IKZF5 | 3.62 | 3.35 | 3.48 | 3.52 | 3.74 | 3.28 | 3.35 | 3.40 |
| IL10 | -0.39 | -0.29 | -0.26 | -0.40 | -0.20 | 1.01 | -0.31 | -0.42 |
| IL10RA | -0.38 | -0.37 | -0.26 | -0.39 | -0.33 | -0.33 | -0.25 | -0.48 |
| IL10RB | 2.96 | 3.04 | 2.69 | 3.16 | 2.46 | 2.71 | 2.84 | 3.06 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| IL10RB-DT | 0.57 | 0.52 | 0.31 | 0.36 | 0.38 | 0.36 | 0.20 | 0.36 |
| IL11 | -0.65 | -0.48 | -0.39 | -0.65 | -0.25 | -0.55 | -0.58 | -0.54 |
| IL11RA | 0.44 | 0.69 | 0.72 | 0.59 | 0.75 | 0.84 | 0.72 | 0.64 |
| IL12A | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.89 |
| IL12A-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| IL12B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| IL12RB1 | -2.20 | -2.20 | -2.19 | -2.14 | -2.20 | -2.19 | -2.20 | -2.21 |
| IL12RB2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| IL13RA1 | 6.13 | 6.26 | 6.56 | 5.90 | 6.36 | 5.72 | 6.34 | 6.27 |
| IL13RA2 | -1.60 | -1.73 | -1.68 | -1.74 | -1.74 | -1.75 | -1.74 | -1.67 |
| IL15 | 2.11 | 1.97 | 1.96 | 1.93 | 2.31 | 1.92 | 2.51 | 2.18 |
| IL15RA | 4.19 | 3.96 | 5.30 | 4.36 | 6.65 | 4.78 | 4.21 | 4.05 |
| IL16 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.07 | -2.10 | -2.11 |
| IL17B | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| IL17C | 3.24 | 1.56 | 1.79 | 1.58 | 1.75 | 1.92 | 1.58 | 1.83 |
| IL17D | -1.11 | -1.10 | -1.16 | -0.90 | -1.14 | -1.26 | -1.12 | -1.26 |
| IL17RA | 4.46 | 4.75 | 4.38 | 4.59 | 4.08 | 4.25 | 4.56 | 4.19 |
| IL17RB | 5.62 | 4.14 | 4.28 | 4.64 | 4.04 | 4.04 | 4.14 | 2.86 |
| IL17RC | 4.45 | 4.81 | 4.33 | 4.63 | 4.27 | 4.71 | 4.71 | 4.21 |
| IL17RD | 1.18 | 1.84 | 1.51 | 1.59 | 1.58 | 2.76 | 1.23 | 1.22 |
| IL17RE | 2.72 | 3.01 | 2.62 | 3.22 | 2.55 | 2.61 | 3.22 | 2.55 |
| IL17REL | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| IL18 | 6.02 | 6.26 | 5.29 | 6.21 | 5.49 | 6.25 | 5.60 | 5.87 |
| IL18BP | 0.85 | 0.88 | 0.74 | 0.95 | 0.97 | 0.79 | 0.92 | 0.82 |
| IL18R1 | 0.73 | 1.20 | 1.30 | 1.43 | 1.05 | 1.04 | 0.87 | 1.15 |
| IL19 | 0.19 | -0.20 | -0.27 | -0.14 | -0.20 | 0.16 | -0.22 | -0.31 |
| IL1A | 0.50 | 0.01 | -0.06 | -0.08 | 0.05 | -0.02 | 0.13 | 0.12 |
| IL1B | 2.98 | 1.58 | 1.62 | 1.68 | 3.16 | 1.89 | 2.42 | 2.07 |
| IL1F10 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| IL1R1 | 2.66 | 3.11 | 2.43 | 2.77 | 2.70 | 2.93 | 3.17 | 2.71 |
| IL1R2 | 3.31 | 4.22 | 4.21 | 5.34 | 5.57 | 4.14 | 3.14 | 5.60 |
| IL1RAP | 3.83 | 4.23 | 5.48 | 3.54 | 3.56 | 3.71 | 3.95 | 3.91 |
| IL1RAPL1 | -1.20 | -1.26 | -1.25 | -1.27 | -1.26 | -1.22 | -1.27 | -1.12 |
| IL1RAPL2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| IL1RL1 | 0.63 | 0.65 | 1.39 | 0.62 | 0.73 | 1.18 | 0.77 | 1.32 |
| IL1RL2 | -0.59 | -0.67 | -0.51 | -0.68 | -0.55 | -0.68 | -0.46 | -0.69 |
| IL1RN | 7.41 | 7.07 | 6.56 | 6.94 | 5.90 | 5.39 | 6.67 | 6.89 |
| IL20 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| IL20RA | 4.86 | 4.64 | 4.35 | 4.66 | 4.03 | 4.51 | 4.77 | 5.17 |
| IL20RB | 3.36 | 2.88 | 6.83 | 2.94 | 2.87 | 3.06 | 2.85 | 6.14 |
| IL22RA1 | 2.23 | 2.17 | 2.22 | 2.43 | 2.47 | 2.47 | 3.05 | 2.09 |
| IL23A | 1.05 | 0.79 | 1.00 | 0.77 | 1.09 | 1.12 | 0.75 | 0.93 |
| IL23R | -1.85 | -1.72 | -1.88 | -1.81 | -1.89 | -1.90 | -1.90 | -1.91 |
| IL24 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| IL27RA | 2.06 | 2.76 | 1.99 | 2.59 | 1.94 | 2.47 | 1.75 | 1.82 |
| IL2RG | 5.98 | 3.07 | 5.09 | 3.17 | 5.65 | 2.85 | 2.98 | 4.68 |
| IL31RA | -1.16 | -1.08 | -1.06 | -1.17 | -1.12 | -1.14 | -1.17 | -0.84 |
| IL32 | 6.29 | 4.80 | 4.97 | 4.28 | 5.51 | 5.18 | 5.38 | 5.54 |
| IL33 | 0.02 | -0.04 | -0.12 | 0.02 | -0.09 | -0.16 | 0.01 | -0.11 |
| IL34 | -0.71 | -0.92 | -0.90 | -0.92 | -0.70 | -0.74 | -0.92 | -0.82 |
| IL36G | -2.04 | -2.01 | -2.04 | -2.05 | -2.01 | -2.04 | -2.05 | -2.06 |
| IL36RN | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.07 | -2.10 | -2.11 |
| IL37 | -1.64 | -1.63 | -1.63 | -1.69 | -1.66 | -1.70 | -1.54 | -1.66 |
| IL4I1 | 0.59 | 0.05 | 0.25 | 0.04 | 0.13 | 0.39 | 0.03 | 0.14 |
| IL4R | 5.08 | 4.97 | 5.78 | 4.59 | 4.53 | 4.68 | 5.03 | 4.97 |
| IL5 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| IL5RA | -2.00 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 | -2.05 | -2.07 |
| IL6 | -1.95 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| IL6R | 2.22 | 3.12 | 3.04 | 2.25 | 2.70 | 2.96 | 3.09 | 3.03 |
| IL6R-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| IL6ST | 5.13 | 6.31 | 6.12 | 5.97 | 5.79 | 5.77 | 6.20 | 5.41 |
| IL6STP1 | -1.74 | -1.69 | -1.68 | -1.74 | -1.71 | -1.75 | -1.75 | -1.76 |
| IL7 | 0.77 | 1.07 | 0.80 | 1.23 | 0.71 | 1.00 | 0.74 | 1.35 |
| IL7R | -1.22 | -1.21 | -1.20 | -1.22 | -1.21 | -1.07 | -1.22 | -0.69 |
| IL9RP3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| ILD1R | 3.30 | 2.73 | 2.92 | 2.96 | 2.76 | 2.18 | 2.41 | 2.52 |
| ILD1R2 | -1.75 | -1.70 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.81 |
| ILF2 | 8.51 | 7.54 | 7.10 | 7.85 | 8.20 | 8.74 | 7.17 | 8.49 |
| ILF2P1 | -2.12 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| ILF3 | 7.32 | 7.72 | 7.77 | 8.07 | 7.66 | 7.96 | 7.79 | 7.76 |
| ILF3-DT | 5.89 | 4.74 | 4.85 | 5.02 | 5.00 | 4.83 | 4.52 | 4.94 |
| ILK | 7.04 | 6.71 | 6.51 | 6.81 | 6.99 | 6.71 | 6.47 | 6.33 |
| ILKAP | 6.18 | 5.34 | 5.18 | 5.36 | 5.49 | 6.15 | 5.17 | 5.32 |
| ILRUN | 6.18 | 5.98 | 6.35 | 6.01 | 5.30 | 6.19 | 6.35 | 6.31 |
| ILVBL | 4.84 | 6.34 | 5.85 | 6.60 | 5.67 | 6.11 | 5.55 | 5.04 |
| IMMP1L | 6.10 | 5.63 | 5.89 | 5.34 | 6.25 | 6.08 | 5.32 | 5.83 |
| IMMP1LP1 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| IMMP1LP2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.25 | -2.26 |
| IMMP1LP3 | -2.20 | -2.20 | -2.17 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| IMMP2L | 4.29 | 4.02 | 4.10 | 4.08 | 4.62 | 4.67 | 4.15 | 4.79 |
| IMMT | 6.72 | 6.58 | 6.74 | 6.67 | 6.98 | 6.56 | 7.00 | 6.94 |
| IMMTP1 | -1.51 | -1.50 | -1.44 | -1.51 | -1.48 | -1.49 | -1.46 | -1.53 |
| IMP3 | 6.64 | 6.83 | 6.27 | 6.88 | 6.43 | 5.91 | 6.19 | 5.90 |
| IMP4 | 6.91 | 6.47 | 6.11 | 6.55 | 6.83 | 6.32 | 6.05 | 6.41 |
| IMPA1 | 4.74 | 4.71 | 4.76 | 4.22 | 4.74 | 4.87 | 4.58 | 5.04 |
| IMPA1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| IMPA2 | 7.32 | 6.47 | 6.08 | 6.70 | 7.38 | 5.98 | 6.64 | 6.63 |
| IMPACT | 4.75 | 5.34 | 5.29 | 5.14 | 4.75 | 4.70 | 5.05 | 5.14 |
| IMPAD1 | 6.12 | 6.02 | 6.67 | 5.73 | 5.92 | 5.85 | 6.50 | 6.46 |
| IMPDH1 | 5.86 | 5.83 | 6.03 | 6.39 | 6.25 | 6.31 | 5.08 | 6.26 |
| IMPDH1P10 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| IMPDH1P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| IMPDH2 | 8.24 | 8.70 | 7.67 | 8.86 | 9.15 | 8.59 | 7.69 | 7.52 |
| IMPG2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| INA | 0.95 | 0.96 | 1.01 | 0.77 | 0.79 | 0.86 | 1.13 | 0.79 |
| INAFM1 | 5.70 | 4.41 | 4.46 | 4.20 | 4.46 | 4.37 | 4.69 | 4.49 |
| INAFM2 | 4.21 | 4.21 | 4.25 | 4.33 | 3.52 | 3.78 | 4.28 | 3.78 |
| INAVA | 3.81 | 4.47 | 4.29 | 4.66 | 4.01 | 4.08 | 4.66 | 4.51 |
| INCA1 | 0.55 | 0.73 | 0.67 | 0.70 | 0.64 | 0.67 | 0.83 | 0.69 |
| INCENP | 3.26 | 3.77 | 3.91 | 3.46 | 3.60 | 3.60 | 3.72 | 3.74 |
| INE1 | -0.75 | -0.82 | -0.64 | -0.75 | -0.74 | -0.83 | -0.56 | -0.78 |
| INE2 | -1.91 | -1.90 | -1.93 | -1.94 | -1.92 | -1.95 | -1.91 | -1.96 |
| INF2 | 6.37 | 6.78 | 7.28 | 6.87 | 6.49 | 6.88 | 7.35 | 6.44 |
| ING1 | 4.42 | 4.47 | 4.67 | 4.36 | 5.51 | 4.73 | 4.57 | 4.59 |
| ING2 | 5.99 | 6.34 | 5.65 | 6.37 | 5.41 | 5.98 | 5.96 | 6.54 |
| ING3 | 4.24 | 5.02 | 4.67 | 5.06 | 4.54 | 4.50 | 4.92 | 4.64 |
| ING4 | 4.47 | 4.45 | 4.77 | 4.26 | 4.32 | 4.10 | 4.44 | 4.76 |
| ING5 | 4.99 | 4.66 | 4.64 | 5.10 | 4.64 | 4.92 | 4.55 | 4.72 |
| INH8A | -0.16 | -0.30 | -0.12 | -0.17 | -0.02 | -0.36 | -0.25 | -0.12 |
| INHBA | -1.10 | -1.09 | -0.77 | -1.02 | -1.01 | -0.97 | -1.10 | -1.11 |
| INHBB | 5.89 | 4.56 | 4.63 | 4.18 | 4.08 | 5.08 | 4.03 | 3.84 |
| INHBC | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| INHBE | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.18 | -2.19 |
| INHCAP | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| INIP | 5.84 | 5.23 | 4.85 | 5.14 | 4.84 | 5.47 | 5.43 | 5.05 |
| INKA1 | 0.73 | 0.09 | 0.02 | 0.15 | 0.16 | 0.28 | 0.20 | 0.03 |
| INKA2 | 2.25 | 2.44 | 2.18 | 2.49 | 2.02 | 2.32 | 2.56 | 1.64 |
| INKA2-AS1 | -1.64 | -1.58 | -1.63 | -1.59 | -1.61 | -1.57 | -1.54 | -1.66 |
| INO80 | 5.52 | 5.31 | 5.42 | 5.39 | 5.24 | 5.12 | 5.30 | 5.49 |
| INO80-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| INO80B | 2.54 | 2.28 | 2.14 | 2.38 | 2.76 | 2.59 | 2.65 | 2.79 |
| INO80C | 5.62 | 5.70 | 5.76 | 6.02 | 6.75 | 6.42 | 7.00 | 5.92 |
| INO80D | 4.72 | 5.25 | 4.66 | 5.08 | 4.99 | 5.00 | 5.44 | 5.26 |
| INO80E | 5.93 | 5.21 | 5.54 | 5.76 | 5.61 | 5.46 | 5.29 | 5.80 |
| INPP1 | 6.66 | 6.72 | 5.98 | 7.00 | 6.66 | 6.10 | 6.80 | 6.89 |
| INPP4A | 3.67 | 3.54 | 3.91 | 3.95 | 3.86 | 3.69 | 3.47 | 3.46 |
| INPP4B | 3.85 | 7.02 | 6.20 | 6.09 | 4.41 | 6.07 | 4.99 | 5.13 |
| INPP5A | 3.50 | 3.54 | 3.52 | 3.52 | 4.12 | 3.48 | 3.35 | 2.97 |
| INPP5B | 2.55 | 2.99 | 2.94 | 2.97 | 3.11 | 3.20 | 3.51 | 3.16 |
| INPP5D | 3.39 | 4.44 | 2.56 | 5.05 | 2.46 | 2.17 | 3.92 | 2.11 |
| INPP5E | 2.56 | 3.01 | 3.07 | 2.91 | 2.61 | 2.94 | 2.70 | 2.59 |
| INPP5F | 3.78 | 3.73 | 4.15 | 3.90 | 3.85 | 3.91 | 4.11 | 3.11 |
| INPP5J | 2.41 | 1.56 | 1.44 | 1.70 | 1.48 | 1.47 | 1.80 | 1.97 |
| INPP5K | 4.12 | 3.35 | 4.03 | 3.31 | 3.83 | 3.40 | 3.46 | 3.99 |
| INPPL1 | 4.62 | 5.08 | 5.68 | 4.91 | 4.76 | 4.91 | 5.15 | 5.08 |
| INS | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| INSC | 1.22 | 2.13 | 1.74 | 1.60 | 1.36 | 1.74 | 1.62 | 1.93 |
| INSIG1 | 7.14 | 7.71 | 7.44 | 7.33 | 8.37 | 7.34 | 8.63 | 7.50 |
| INSIG2 | 6.02 | 6.19 | 6.56 | 6.20 | 6.19 | 5.72 | 6.38 | 6.65 |
| INSL3 | -0.99 | -1.12 | -1.11 | -1.13 | -1.12 | -0.96 | -1.06 | -1.15 |
| INSL4 | -0.28 | -0.19 | -0.35 | -0.29 | -0.36 | -0.38 | -0.30 | 0.89 |
| INSL6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| INSM1 | -1.15 | -1.14 | -1.13 | -1.00 | -0.52 | -1.16 | -1.16 | -1.17 |
| INSM2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| INSR | 5.02 | 6.04 | 6.54 | 5.98 | 6.53 | 5.53 | 7.02 | 5.53 |
| INSYN1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| INSYN2A | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| INTS1 | 5.30 | 5.53 | 6.06 | 5.19 | 5.26 | 5.29 | 5.73 | 5.26 |
| INTS10 | 5.37 | 6.00 | 6.16 | 6.14 | 5.45 | 5.91 | 6.19 | 5.48 |
| INTS11 | 6.91 | 6.35 | 6.30 | 6.52 | 6.36 | 6.45 | 6.25 | 6.49 |
| INTS12 | 4.94 | 4.87 | 4.65 | 5.35 | 5.03 | 5.14 | 4.86 | 5.09 |
| INTS13 | 5.31 | 5.12 | 5.43 | 4.74 | 5.94 | 4.33 | 5.20 | 5.03 |
| INTS14 | 5.61 | 4.99 | 5.69 | 5.22 | 5.32 | 5.15 | 4.76 | 5.33 |
| INTS2 | 4.16 | 4.04 | 4.38 | 4.08 | 4.21 | 4.30 | 4.66 | 3.62 |
| INTS3 | 4.15 | 4.36 | 4.92 | 4.28 | 4.34 | 4.73 | 4.92 | 4.47 |
| INTS4 | 3.88 | 3.02 | 3.60 | 3.50 | 3.61 | 3.52 | 3.69 | 3.47 |
| INTS4P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| INTS5 | 4.26 | 4.35 | 4.67 | 4.46 | 4.44 | 4.15 | 4.37 | 4.36 |
| INTS6 | 4.24 | 5.13 | 5.70 | 5.16 | 5.14 | 5.00 | 6.06 | 5.83 |
| INTS6-AS1 | 2.27 | 1.94 | 2.05 | 1.94 | 2.02 | 1.93 | 1.91 | 2.16 |
| INTS6L | 1.80 | 1.90 | 2.14 | 2.08 | 2.03 | 2.16 | 2.30 | 1.98 |
| INTS6L-AS1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.85 | -1.88 | -1.89 | -1.83 |
| INTS6P1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| INTS7 | 4.02 | 4.07 | 4.17 | 3.67 | 3.67 | 3.86 | 4.38 | 3.97 |
| INTS8 | 5.33 | 5.27 | 5.75 | 4.98 | 4.96 | 5.51 | 5.33 | 5.65 |
| INTS9 | 3.13 | 3.39 | 3.95 | 3.48 | 2.93 | 3.50 | 3.01 | 3.34 |
| INTU | 3.15 | 3.92 | 3.82 | 3.73 | 3.11 | 3.66 | 3.91 | 3.86 |
| INVS | 3.41 | 3.13 | 2.99 | 3.02 | 2.70 | 2.85 | 2.91 | 2.55 |
| IP6K1 | 4.21 | 4.41 | 3.84 | 4.14 | 4.09 | 3.92 | 3.83 | 3.76 |
| IP6K2 | 6.21 | 6.21 | 6.04 | 6.40 | 6.86 | 6.66 | 6.17 | 6.28 |
| IPCEF1 | -1.70 | -1.56 | -1.69 | -1.70 | -1.68 | -1.69 | -1.71 | -1.55 |
| IPMK | 4.01 | 3.69 | 3.79 | 3.68 | 3.48 | 3.64 | 4.01 | 3.28 |
| IPO11 | 3.16 | 3.59 | 3.99 | 3.60 | 3.26 | 3.43 | 3.92 | 3.31 |
| IPO13 | 3.71 | 4.03 | 3.87 | 4.01 | 3.45 | 3.24 | 3.66 | 3.11 |
| IPO4 | 3.71 | 4.05 | 3.95 | 4.50 | 4.27 | 4.23 | 4.00 | 3.74 |
| IPO5 | 5.24 | 5.89 | 5.98 | 5.80 | 6.43 | 5.79 | 6.37 | 5.81 |
| IPO5P1 | -0.59 | -0.59 | -0.49 | -0.60 | -0.59 | -0.44 | -0.60 | -0.55 |
| IPO7 | 6.90 | 7.21 | 7.64 | 6.95 | 7.20 | 7.02 | 7.48 | 7.01 |
| IPO7P2 | -1.64 | -1.58 | -1.63 | -1.64 | -1.56 | -1.65 | -1.65 | -1.61 |
| IPO8 | 4.42 | 5.01 | 5.06 | 4.74 | 4.87 | 4.15 | 4.76 | 4.69 |
| IPO8P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| IPO9 | 5.47 | 5.84 | 6.17 | 5.76 | 5.33 | 5.86 | 6.00 | 5.61 |
| IPO9-AS1 | -1.24 | -1.23 | -1.22 | -1.18 | -1.20 | -1.22 | -1.18 | -1.26 |
| IPP | 2.92 | 3.30 | 3.04 | 2.68 | 3.25 | 3.15 | 3.36 | 3.35 |
| IPPK | 3.33 | 3.38 | 3.77 | 3.33 | 3.23 | 3.32 | 3.36 | 3.08 |
| IQANK1 | 4.10 | 4.57 | 4.82 | 4.49 | 3.91 | 4.07 | 3.97 | 4.80 |
| IQCA1 | -1.30 | -1.30 | -1.29 | -1.31 | -1.26 | -1.32 | -1.24 | -1.32 |
| IQCB1 | 4.05 | 2.95 | 3.85 | 3.35 | 3.37 | 3.55 | 4.00 | 4.20 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| IQCC | 1.76 | 1.53 | 1.85 | 1.73 | 1.94 | 2.07 | 2.02 | 1.88 |
| IQCD | 4.10 | 2.84 | 3.14 | 3.09 | 2.96 | 3.91 | 3.32 | 3.25 |
| IQCE | 5.39 | 5.76 | 5.47 | 5.99 | 5.52 | 5.62 | 5.88 | 5.73 |
| IQCG | 3.68 | 3.67 | 3.56 | 3.50 | 2.97 | 3.56 | 3.36 | 3.54 |
| IQCH | 1.35 | 1.25 | 1.60 | 1.34 | 1.56 | 1.43 | 1.59 | 1.33 |
| IQCH-AS1 | 2.60 | 3.11 | 2.98 | 2.93 | 2.73 | 2.24 | 2.41 | 2.27 |
| IQCJ-SCHIP1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.19 |
| IQCK | 2.91 | 3.63 | 3.37 | 3.68 | 3.94 | 4.27 | 3.52 | 3.59 |
| IQCM | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| IQCN | -0.05 | 0.24 | -0.03 | 0.02 | 0.00 | 0.11 | 0.15 | 0.15 |
| IQGAP1 | 7.05 | 7.54 | 7.77 | 7.43 | 8.01 | 7.38 | 7.95 | 7.36 |
| IQGAP2 | 7.59 | 8.27 | 6.37 | 8.59 | 7.57 | 4.34 | 7.38 | 5.69 |
| IQGAP3 | 3.48 | 3.56 | 4.00 | 3.72 | 3.50 | 4.32 | 3.90 | 3.34 |
| IQSEC1 | 4.28 | 4.88 | 4.16 | 4.37 | 3.82 | 4.61 | 3.67 | 4.78 |
| IQSEC2 | 5.16 | 4.12 | 4.48 | 4.09 | 4.17 | 3.96 | 3.92 | 3.58 |
| IQSEC3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| IQUB | -1.34 | -1.33 | -1.11 | -1.34 | -1.33 | -1.17 | -1.34 | -1.30 |
| IRAIN | -1.89 | -1.89 | -1.88 | -1.89 | -1.83 | -1.82 | -1.89 | -1.91 |
| IRAK1 | 6.84 | 7.37 | 7.84 | 7.21 | 6.49 | 7.32 | 6.79 | 7.65 |
| IRAK1BP1 | 2.66 | 2.93 | 2.16 | 2.92 | 2.54 | 2.84 | 3.19 | 2.42 |
| IRAK2 | 3.89 | 3.33 | 3.96 | 3.22 | 3.75 | 3.35 | 2.75 | 4.05 |
| IRAK3 | 2.38 | 3.42 | 2.00 | 3.32 | 1.70 | 3.17 | 1.86 | 2.83 |
| IRAK4 | 4.05 | 3.96 | 4.33 | 4.02 | 4.14 | 4.23 | 4.27 | 4.43 |
| IREB2 | 5.36 | 6.01 | 6.33 | 5.54 | 5.18 | 5.59 | 6.01 | 5.59 |
| IRF1 | 5.83 | 5.39 | 6.36 | 5.24 | 6.07 | 5.76 | 5.76 | 4.64 |
| IRF2 | 6.31 | 5.51 | 5.32 | 5.94 | 5.85 | 6.01 | 5.80 | 6.53 |
| IRF2BP1 | 4.13 | 3.76 | 3.69 | 3.96 | 3.94 | 3.70 | 3.68 | 3.74 |
| IRF2BP2 | 7.78 | 8.23 | 7.98 | 7.84 | 7.11 | 8.22 | 7.75 | 7.92 |
| IRF2BPL | 4.29 | 4.38 | 4.83 | 4.51 | 4.75 | 4.49 | 4.74 | 4.68 |
| IRF3 | 6.67 | 6.05 | 6.19 | 6.33 | 6.26 | 6.27 | 5.91 | 6.47 |
| IRF4 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| IRF5 | 2.74 | 2.58 | 3.46 | 2.48 | 2.53 | 3.24 | 3.08 | 2.92 |
| IRF6 | 5.16 | 5.37 | 5.74 | 4.99 | 5.53 | 5.69 | 5.32 | 5.56 |
| IRF7 | 3.72 | 4.98 | 5.20 | 4.71 | 5.42 | 5.16 | 4.64 | 5.21 |
| IRF8 | 5.15 | 5.54 | 4.97 | 5.37 | 5.24 | 3.31 | 3.79 | 5.71 |
| IRF9 | 5.45 | 4.87 | 4.71 | 4.77 | 4.76 | 5.00 | 4.61 | 4.42 |
| IRGQ | 3.52 | 4.16 | 3.83 | 3.99 | 3.57 | 3.76 | 3.95 | 3.12 |
| IRS1 | 5.43 | 5.63 | 4.89 | 4.49 | 4.99 | 6.69 | 5.34 | 4.98 |
| IRS2 | 4.16 | 5.09 | 5.37 | 4.26 | 5.67 | 4.90 | 4.77 | 5.02 |
| IRS3P | 0.12 | 0.05 | 0.13 | 0.04 | 0.05 | 0.30 | 0.17 | -0.07 |
| IRX2 | -0.69 | -0.69 | -0.67 | -0.61 | -0.69 | -0.66 | -0.61 | -0.72 |
| IRX3 | 1.98 | 3.69 | 1.54 | 3.08 | 2.18 | 1.97 | 1.51 | 3.38 |
| IRX4 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| IRX5 | 2.23 | 2.88 | 1.95 | 2.99 | 2.18 | 2.50 | 1.83 | 2.56 |
| ISCA1 | 5.39 | 4.64 | 4.13 | 4.72 | 4.16 | 4.84 | 4.46 | 4.37 |
| ISCA1P1 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| ISCA1P4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| ISCA2 | 5.86 | 6.12 | 5.42 | 6.16 | 6.59 | 6.51 | 5.64 | 6.01 |
| ISCU | 6.68 | 6.97 | 5.97 | 7.35 | 6.66 | 6.98 | 6.08 | 7.40 |
| ISG15 | 10.60 | 8.03 | 8.00 | 7.93 | 8.70 | 8.36 | 6.88 | 7.30 |
| ISG20 | 7.23 | 5.53 | 7.12 | 5.43 | 7.84 | 6.31 | 6.60 | 6.63 |
| ISG20L2 | 5.10 | 5.30 | 5.06 | 5.08 | 5.13 | 5.18 | 5.06 | 5.49 |
| ISL1 | 1.55 | 2.08 | 2.12 | 1.89 | 1.60 | 1.67 | 2.62 | 2.67 |
| ISL2 | 0.46 | 0.68 | 0.26 | 0.99 | 0.88 | 0.32 | 0.22 | 0.59 |
| ISLR2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| ISM1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.87 | -1.86 | -1.95 | -1.92 |
| ISM2 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 |
| ISOC1 | 5.13 | 4.84 | 5.15 | 5.03 | 5.26 | 5.18 | 5.18 | 5.19 |
| ISOC2 | 6.82 | 6.91 | 6.18 | 7.10 | 7.31 | 6.87 | 6.38 | 7.01 |
| IST1 | 6.45 | 6.38 | 6.70 | 6.42 | 6.43 | 6.30 | 6.22 | 6.96 |
| ISY1 | 6.01 | 5.03 | 5.81 | 4.87 | 5.52 | 5.64 | 5.17 | 6.25 |
| ISYNA1 | 4.16 | 5.32 | 4.26 | 5.10 | 4.88 | 4.99 | 3.66 | 3.84 |
| ITCH | 5.49 | 5.22 | 5.87 | 5.08 | 5.50 | 5.66 | 5.69 | 5.84 |
| ITCH-AS1 | -1.89 | -1.85 | -1.88 | -1.89 | -1.85 | -1.90 | -1.90 | -1.91 |
| ITCH-IT1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| ITFG1 | 6.62 | 6.33 | 6.52 | 6.87 | 6.12 | 6.31 | 6.62 | 7.16 |
| ITFG1-AS1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| ITFG2 | 4.58 | 4.05 | 3.82 | 4.28 | 3.63 | 3.29 | 3.62 | 3.76 |
| ITGA1 | 3.45 | 5.27 | 5.25 | 5.24 | 3.55 | 5.59 | 5.24 | 3.97 |
| ITGA10 | 0.77 | 1.03 | 0.58 | 1.54 | 1.73 | 0.74 | 0.70 | 1.41 |
| ITGA11 | -1.08 | -1.07 | -1.13 | -1.08 | -1.11 | -1.12 | -1.15 | -1.10 |
| ITGA2 | 5.75 | 7.76 | 8.10 | 7.83 | 6.38 | 7.41 | 7.35 | 7.18 |
| ITGA2B | -1.05 | -1.18 | -1.17 | -1.19 | -0.94 | -1.16 | -1.19 | -1.09 |
| ITGA3 | 7.58 | 8.03 | 9.04 | 7.63 | 7.78 | 7.90 | 8.25 | 8.63 |
| ITGA4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| ITGA5 | 3.43 | 3.49 | 4.45 | 3.32 | 3.26 | 2.79 | 3.69 | 3.79 |
| ITGA6 | 8.72 | 9.67 | 9.16 | 9.87 | 9.44 | 8.87 | 9.06 | 9.56 |
| ITGA6-AS1 | -0.91 | -0.82 | -0.97 | -0.92 | -0.82 | -0.89 | -0.66 | -0.94 |
| ITGA7 | 0.49 | 0.51 | 0.87 | 0.72 | 0.67 | 1.12 | 1.07 | 0.51 |
| ITGA9 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.94 | -1.96 |
| ITGA9-AS1 | 2.97 | 2.61 | 2.04 | 3.24 | 2.61 | 2.29 | 3.00 | 2.05 |
| ITGAE | 7.02 | 5.90 | 5.81 | 6.36 | 5.84 | 6.21 | 5.55 | 5.89 |
| ITGAL | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| ITGAM | -1.91 | -1.90 | -1.93 | -1.94 | -1.92 | -1.93 | -1.95 | -1.96 |
| ITGAV | 5.71 | 5.65 | 6.36 | 5.50 | 5.63 | 5.56 | 5.78 | 6.40 |
| ITGAX | -2.15 | -2.15 | -2.06 | -2.12 | -2.13 | -2.14 | -2.15 | -2.16 |
| ITGB1 | 7.22 | 8.34 | 7.91 | 8.20 | 7.86 | 8.46 | 8.47 | 8.60 |
| ITGB1-DT | 1.15 | 1.25 | 1.63 | 1.21 | 1.16 | 1.28 | 1.28 | 1.27 |
| ITGB1BP1 | 7.08 | 6.67 | 6.48 | 7.05 | 6.64 | 6.99 | 6.32 | 6.75 |
| ITGB1BP2 | -1.17 | -1.16 | -1.22 | -1.25 | -1.16 | -1.26 | -1.18 | -1.20 |
| ITGB2 | 4.05 | 6.23 | 3.41 | 6.20 | 3.36 | 3.39 | 3.36 | 3.60 |
| ITGB2-AS1 | 2.65 | 3.51 | 1.80 | 3.94 | 1.97 | 1.97 | 1.43 | 1.94 |
| ITGB3 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| ITGB3BP | 5.62 | 5.81 | 6.04 | 5.81 | 6.09 | 6.33 | 5.96 | 5.78 |

| | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ITGB4 | 7.39 | 8.14 | 8.66 | 7.95 | 8.81 | 7.92 | 8.77 | 8.22 |
| ITGB5 | 6.54 | 6.08 | 6.93 | 6.06 | 6.08 | 6.51 | 6.60 | 7.31 |
| ITGB6 | 4.47 | 5.22 | 6.03 | 4.96 | 4.75 | 4.90 | 4.75 | 7.25 |
| ITGB7 | 3.75 | 4.91 | 4.06 | 4.80 | 3.14 | 4.14 | 3.91 | 3.14 |
| ITGB8 | 5.38 | 5.17 | 5.31 | 5.04 | 4.59 | 6.00 | 4.72 | 5.48 |
| ITGBL1 | 0.48 | 0.48 | 1.25 | 0.55 | 0.29 | 0.85 | 0.23 | 0.66 |
| ITIH1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ITIH2 | -0.66 | -0.22 | -0.64 | -0.32 | -0.66 | -0.60 | -0.66 | -0.68 |
| ITIH3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ITIH4 | -1.41 | -1.40 | -1.39 | -1.42 | -1.37 | -1.39 | -1.42 | -1.43 |
| ITIH5 | 0.67 | 0.51 | 0.64 | 0.58 | 0.55 | 0.59 | 0.87 | 0.71 |
| ITIH6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.21 | -2.26 | -2.25 | -2.26 |
| ITLN1 | -1.42 | -1.48 | -1.47 | -1.19 | -1.54 | -1.53 | -1.55 | -1.57 |
| ITM2A | 1.06 | 1.54 | 0.99 | 1.52 | 0.66 | 0.58 | 0.83 | 0.55 |
| ITM2B | 8.51 | 9.33 | 8.90 | 9.57 | 9.50 | 8.04 | 9.13 | 10.01 |
| ITM2C | 8.50 | 7.95 | 7.65 | 8.31 | 8.32 | 8.06 | 7.70 | 9.81 |
| ITPA | 7.84 | 6.84 | 6.53 | 6.95 | 6.89 | 6.64 | 6.26 | 7.24 |
| ITPK1 | 5.68 | 6.36 | 6.53 | 6.36 | 5.80 | 5.61 | 6.19 | 5.81 |
| ITPK1-AS1 | -0.49 | -0.40 | -0.62 | -0.42 | -0.59 | -0.58 | -0.51 | -0.48 |
| ITPKA | 5.01 | 4.82 | 3.90 | 4.84 | 4.32 | 5.08 | 3.61 | 3.58 |
| ITPKB | 2.27 | 2.34 | 2.57 | 2.49 | 2.42 | 2.45 | 2.50 | 2.49 |
| ITPKB-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| ITPKC | 4.41 | 3.95 | 4.40 | 3.82 | 4.41 | 4.10 | 3.98 | 4.21 |
| ITPR1 | 2.41 | 2.34 | 4.16 | 2.05 | 2.67 | 2.01 | 2.19 | 2.28 |
| ITPR1-DT | -1.79 | -1.79 | -1.73 | -1.79 | -1.67 | -1.80 | -1.80 | -1.81 |
| ITPR2 | 4.64 | 4.54 | 4.57 | 4.77 | 4.15 | 3.16 | 6.04 | 4.15 |
| ITPR3 | 6.26 | 6.46 | 6.69 | 6.23 | 5.55 | 6.04 | 6.46 | 7.03 |
| ITPRID1 | -2.25 | -2.21 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| ITPRID2 | 7.15 | 6.85 | 7.11 | 6.86 | 7.04 | 7.73 | 7.20 | 8.13 |
| ITPRIP | 1.94 | 1.92 | 2.18 | 1.79 | 2.06 | 2.65 | 1.88 | 1.69 |
| ITPRIP-AS1 | -2.07 | -2.07 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.11 |
| ITPRIPL1 | 1.28 | 0.35 | 0.59 | 0.41 | 0.67 | 0.56 | 0.32 | 0.36 |
| ITPRIPL2 | 5.94 | 7.07 | 6.60 | 6.78 | 5.97 | 6.19 | 5.88 | 6.51 |
| ITSN1 | 5.15 | 5.81 | 5.16 | 5.44 | 5.14 | 4.51 | 6.21 | 5.40 |
| ITSN2 | 5.90 | 5.87 | 6.18 | 5.91 | 5.49 | 5.77 | 6.14 | 6.27 |
| IVD | 5.80 | 5.94 | 5.37 | 6.20 | 6.07 | 5.73 | 5.86 | 6.07 |
| IVL | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| IVNS1ABP | 5.48 | 5.60 | 5.63 | 5.24 | 6.16 | 5.59 | 5.70 | 5.61 |
| IWS1 | 6.36 | 6.45 | 6.36 | 6.34 | 6.58 | 6.47 | 6.47 | 6.62 |
| IYD | 1.85 | 2.91 | 1.95 | 2.87 | 1.73 | 1.66 | 2.16 | 1.56 |
| IZUMO1 | -1.29 | -1.41 | -1.34 | -1.42 | -1.32 | -1.37 | -1.43 | -1.33 |
| IZUMO2 | -1.31 | -1.38 | -1.36 | -1.39 | -1.34 | -1.40 | -1.39 | -1.40 |
| IZUMO4 | 0.32 | 0.33 | 0.53 | 0.67 | 0.41 | 0.53 | 0.66 | 0.35 |
| JADE1 | 3.50 | 4.85 | 4.60 | 4.32 | 3.63 | 4.26 | 4.74 | 4.30 |
| JADE2 | 3.26 | 3.96 | 4.39 | 3.94 | 3.77 | 4.34 | 3.51 | 3.64 |
| JADE3 | 2.78 | 2.64 | 3.74 | 2.50 | 2.37 | 2.46 | 2.77 | 2.25 |
| JAG1 | 4.58 | 5.65 | 5.71 | 5.52 | 5.15 | 5.36 | 5.20 | 4.38 |
| JAG2 | 3.33 | 3.80 | 4.36 | 3.91 | 3.60 | 3.35 | 3.76 | 3.49 |
| JAGN1 | 7.26 | 6.64 | 5.90 | 7.07 | 6.74 | 6.55 | 6.48 | 6.12 |
| JAK1 | 6.24 | 7.16 | 6.92 | 7.00 | 7.02 | 6.81 | 7.16 | 6.97 |
| JAK2 | 3.58 | 3.29 | 3.69 | 3.59 | 3.78 | 4.04 | 4.13 | 3.13 |
| JAK3 | 1.95 | 1.78 | 2.19 | 2.04 | 2.00 | 2.25 | 2.26 | 1.96 |
| JAKMIP2 | -1.89 | -1.89 | -1.54 | -1.89 | -1.89 | -1.86 | -1.90 | -1.91 |
| JAKMIP3 | -1.25 | -1.24 | -1.29 | -1.19 | -1.24 | -1.23 | -1.32 | -1.13 |
| JAM2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| JAM3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| JAML | 0.33 | 0.34 | 0.55 | 0.41 | 0.38 | 0.39 | 1.41 | 0.41 |
| JARID2 | 3.72 | 4.12 | 4.74 | 3.47 | 3.77 | 4.15 | 4.11 | 5.15 |
| JARID2-AS1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| JAZF1 | 2.29 | 2.75 | 2.30 | 2.32 | 2.27 | 2.31 | 2.41 | 2.24 |
| JAZF1-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.23 |
| JCAD | 1.35 | 1.99 | 1.80 | 1.58 | 1.88 | 3.13 | 1.43 | 1.47 |
| JDP2 | 3.83 | 4.96 | 4.46 | 4.71 | 5.15 | 4.46 | 4.98 | 5.98 |
| JHY | 2.47 | 2.66 | 2.76 | 2.53 | 2.17 | 2.75 | 1.82 | 3.06 |
| JKAMP | 5.68 | 5.95 | 5.74 | 6.34 | 6.44 | 6.41 | 5.77 | 5.84 |
| JMJD1C | 6.72 | 7.03 | 6.71 | 7.37 | 7.45 | 7.19 | 7.09 | 7.18 |
| JMJD1C-AS1 | 0.51 | 0.45 | 0.62 | 0.51 | 0.57 | 0.88 | 0.75 | 0.87 |
| JMJD4 | 4.96 | 4.48 | 4.45 | 4.75 | 4.71 | 4.86 | 4.30 | 5.06 |
| JMJD6 | 5.73 | 5.11 | 5.81 | 5.28 | 5.80 | 5.94 | 5.09 | 5.52 |
| JMJD7 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| JMJD7-PLA2G4B | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| JMJD8 | 7.17 | 6.31 | 6.59 | 6.80 | 5.98 | 6.07 | 6.35 | 6.58 |
| JMY | 3.52 | 3.61 | 4.40 | 3.47 | 4.82 | 4.05 | 4.03 | 3.91 |
| JOSD1 | 5.52 | 5.15 | 5.69 | 5.01 | 4.79 | 5.45 | 5.79 | 5.31 |
| JOSD2 | 6.57 | 6.14 | 5.78 | 5.98 | 6.53 | 5.26 | 5.12 | 5.22 |
| JPH1 | 3.53 | 3.94 | 4.14 | 3.89 | 3.86 | 4.77 | 3.62 | 4.24 |
| JPH2 | -1.42 | -1.36 | -1.53 | -1.43 | -1.51 | -1.56 | -1.55 | -1.45 |
| JPH3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| JPT1 | 9.58 | 8.96 | 9.55 | 9.02 | 9.11 | 10.04 | 8.99 | 9.22 |
| JPT2 | 7.44 | 7.11 | 7.26 | 6.93 | 6.22 | 7.08 | 6.95 | 7.22 |
| JPX | 7.08 | 6.41 | 6.77 | 6.50 | 6.28 | 6.02 | 6.81 | 5.70 |
| JRK | 3.38 | 4.16 | 4.83 | 3.97 | 3.56 | 3.86 | 3.51 | 4.35 |
| JRKL | 4.07 | 4.41 | 4.75 | 4.20 | 4.93 | 4.46 | 4.08 | 4.81 |
| JSRP1 | 3.03 | 1.88 | 1.94 | 2.22 | 2.17 | 2.53 | 1.80 | 4.72 |
| JTB | 8.54 | 8.43 | 7.40 | 8.81 | 8.71 | 8.27 | 7.69 | 8.92 |
| JUN | 6.71 | 7.50 | 6.99 | 7.00 | 7.64 | 7.12 | 7.21 | 7.58 |
| JUNB | 7.68 | 7.54 | 7.85 | 7.41 | 7.86 | 7.95 | 7.73 | 8.23 |
| JUND | 7.45 | 7.56 | 7.49 | 7.65 | 7.97 | 6.93 | 7.95 | 7.09 |
| JUP | 9.14 | 7.85 | 8.67 | 7.54 | 7.53 | 7.93 | 7.93 | 7.75 |
| KAAG1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.06 | -2.10 | -2.11 |
| KALRN | 4.23 | 4.68 | 4.43 | 4.40 | 4.31 | 4.44 | 5.82 | 3.82 |
| KANK1 | 2.97 | 3.84 | 3.39 | 3.89 | 3.22 | 3.44 | 3.96 | 2.84 |
| KANK2 | 4.77 | 4.90 | 4.81 | 4.14 | 3.81 | 4.44 | 5.41 | 5.15 |
| KANK3 | 0.68 | 0.37 | 0.23 | 0.60 | 0.33 | 0.26 | 0.54 | 0.29 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| KANK4 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| KANSL1 | 5.11 | 5.51 | 5.93 | 5.20 | 4.92 | 5.61 | 6.07 | 5.05 |
| KANSL1-AS1 | 5.71 | 4.50 | 4.00 | 4.25 | 4.02 | 3.68 | 3.96 | 3.49 |
| KANSL1L | 2.65 | 2.97 | 2.62 | 2.83 | 2.00 | 3.13 | 3.03 | 2.70 |
| KANSL2 | 4.66 | 4.70 | 4.83 | 5.01 | 4.79 | 5.34 | 4.65 | 5.13 |
| KANSL3 | 4.68 | 4.49 | 5.05 | 4.48 | 4.29 | 4.23 | 4.38 | 3.95 |
| KANTR | 2.03 | 1.51 | 2.57 | 1.55 | 1.94 | 2.04 | 2.66 | 2.06 |
| KARS | 7.39 | 7.20 | 7.55 | 7.11 | 7.10 | 7.18 | 6.89 | 7.55 |
| KARSP1 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| KAT14 | 3.76 | 3.91 | 3.82 | 4.07 | 3.57 | 3.74 | 3.81 | 3.73 |
| KAT2A | 4.54 | 4.24 | 4.69 | 4.42 | 4.37 | 4.38 | 4.72 | 3.95 |
| KAT2B | 2.42 | 3.17 | 3.29 | 2.93 | 2.70 | 2.32 | 3.03 | 2.51 |
| KAT5 | 4.49 | 4.12 | 4.84 | 3.91 | 4.86 | 4.71 | 4.68 | 4.91 |
| KAT6A | 5.76 | 5.74 | 6.79 | 5.67 | 5.10 | 5.83 | 6.06 | 5.98 |
| KAT6B | 4.66 | 5.68 | 5.47 | 5.44 | 5.06 | 5.09 | 5.94 | 5.54 |
| KAT7 | 4.86 | 4.89 | 5.08 | 4.30 | 4.61 | 4.86 | 4.68 | 4.84 |
| KAT8 | 4.71 | 4.57 | 5.03 | 4.67 | 5.45 | 5.16 | 5.00 | 5.24 |
| KATNA1 | 4.87 | 4.04 | 4.45 | 3.87 | 4.32 | 4.55 | 4.07 | 4.35 |
| KATNAL1 | 1.89 | 2.15 | 2.25 | 2.15 | 1.85 | 2.07 | 1.62 | 1.57 |
| KATNAL2 | 1.48 | 1.19 | 1.36 | 1.40 | 1.51 | 0.98 | 1.66 | 1.05 |
| KATNB1 | 4.56 | 4.02 | 4.67 | 4.15 | 4.02 | 4.15 | 4.21 | 4.59 |
| KATNBL1 | 5.68 | 5.74 | 5.41 | 5.52 | 5.54 | 5.51 | 5.76 | 5.36 |
| KATNBL1P6 | -1.37 | -1.36 | -1.35 | -1.37 | -1.36 | -1.32 | -1.31 | -1.33 |
| KAZALD1 | 3.38 | 3.92 | 3.63 | 4.18 | 4.35 | 3.53 | 4.98 | 3.27 |
| KAZN | 2.52 | 2.78 | 2.34 | 2.56 | 2.94 | 2.11 | 2.43 | 2.34 |
| KBTBD11 | 2.74 | 3.29 | 3.48 | 3.17 | 3.01 | 2.66 | 3.91 | 3.00 |
| KBTBD11-OT1 | 0.42 | 0.22 | 0.34 | 0.49 | 0.50 | 0.39 | 0.35 | 0.17 |
| KBTBD12 | 1.39 | 1.67 | 1.25 | 2.04 | 1.55 | 1.55 | 1.46 | 1.41 |
| KBTBD2 | 4.24 | 4.33 | 4.45 | 4.30 | 4.50 | 4.42 | 4.44 | 4.85 |
| KBTBD3 | 4.43 | 3.86 | 4.03 | 4.00 | 4.98 | 4.23 | 3.98 | 4.47 |
| KBTBD4 | 4.32 | 4.39 | 4.10 | 4.02 | 4.26 | 3.93 | 3.62 | 4.39 |
| KBTBD6 | 2.85 | 3.16 | 3.20 | 3.20 | 3.39 | 2.93 | 3.09 | 2.90 |
| KBTBD7 | 3.39 | 4.10 | 3.98 | 4.20 | 4.20 | 3.66 | 3.99 | 4.20 |
| KBTBD8 | 0.36 | 0.59 | 0.54 | 0.53 | 0.33 | 0.29 | 0.19 | 0.23 |
| KC877982.1 | -2.36 | -2.36 | -2.33 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KCMF1 | 6.71 | 6.55 | 6.02 | 6.51 | 6.85 | 6.32 | 6.36 | 7.33 |
| KCNA2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| KCNA7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KCNAB1 | -0.45 | -0.43 | -0.41 | -0.24 | -0.25 | -0.53 | -0.18 | -0.54 |
| KCNAB2 | 3.87 | 2.32 | 2.68 | 2.70 | 3.56 | 3.12 | 2.67 | 3.20 |
| KCNAB3 | -1.84 | -1.84 | -1.79 | -1.84 | -1.84 | -1.85 | -1.72 | -1.86 |
| KCNB1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| KCNC1 | -1.27 | -1.49 | -1.54 | -1.44 | -1.55 | -1.56 | -1.50 | -1.42 |
| KCNC2 | -1.42 | -1.42 | -1.32 | -1.43 | -1.42 | -1.43 | -1.43 | -1.32 |
| KCNC3 | 0.49 | 0.59 | 0.39 | 0.74 | 0.43 | 0.42 | 0.61 | 0.22 |
| KCNC4 | 3.62 | 4.64 | 4.24 | 3.98 | 4.01 | 3.72 | 5.03 | 2.88 |
| KCND1 | -1.01 | -1.08 | -0.92 | -1.09 | -0.93 | -0.96 | -1.02 | -1.05 |
| KCND2 | -1.49 | -1.54 | -1.41 | -1.55 | -1.54 | -1.56 | -1.55 | -1.46 |
| KCND3 | 0.48 | 0.60 | 0.62 | 0.94 | 0.50 | 0.50 | 0.86 | 0.64 |
| KCNE1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| KCNE2 | -1.79 | -1.79 | -1.78 | -1.80 | -1.56 | -1.80 | -1.80 | -1.81 |
| KCNE3 | 6.29 | 6.22 | 5.60 | 5.95 | 5.41 | 4.91 | 6.30 | 4.58 |
| KCNE4 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 |
| KCNE5 | -2.07 | -2.07 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| KCNF1 | -0.43 | -0.78 | -0.67 | -0.78 | -0.74 | -0.20 | -0.79 | -0.80 |
| KCG1 | -0.46 | -0.29 | -0.35 | -0.12 | -0.39 | -0.44 | -0.13 | -0.49 |
| KCG3 | -0.66 | -0.77 | -0.84 | -0.86 | -0.81 | -0.86 | -0.86 | -0.81 |
| KCNH2 | 1.44 | 0.94 | 1.43 | 0.99 | 1.43 | 1.68 | 1.05 | 0.78 |
| KCNH3 | -1.19 | -1.26 | -1.10 | -1.27 | -1.15 | -1.21 | -1.14 | -1.22 |
| KCNH6 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.29 | -2.30 |
| KCNH8 | 0.37 | 0.26 | 0.45 | 0.24 | 0.74 | 0.29 | 0.38 | 0.32 |
| KCNIP2 | -1.47 | -1.60 | -1.59 | -1.61 | -1.47 | -1.58 | -1.61 | -1.57 |
| KCNIP2-AS1 | -1.15 | -1.28 | -1.27 | -1.29 | -1.22 | -1.15 | -1.10 | -1.19 |
| KCNIP3 | 0.40 | 0.15 | 0.08 | 0.06 | 0.22 | 0.22 | 0.13 | 0.03 |
| KCNIP4 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.80 | -1.82 |
| KCNIP4-IT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| KCNJ10 | -1.59 | -1.59 | -1.58 | -1.54 | -1.53 | -1.60 | -1.60 | -1.61 |
| KCNJ11 | -0.41 | -0.48 | -0.47 | -0.42 | -0.31 | -0.51 | -0.36 | -0.52 |
| KCNJ12 | 1.24 | 0.21 | 0.15 | 0.18 | 0.03 | 0.04 | 0.16 | -0.01 |
| KCNJ13 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| KCNJ14 | 1.68 | 1.78 | 2.01 | 1.86 | 1.89 | 2.05 | 1.77 | 1.84 |
| KCNJ15 | -1.94 | -1.94 | -1.89 | -1.95 | -1.94 | -1.95 | -1.87 | -1.96 |
| KCNJ16 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KCNJ2 | 1.56 | 1.36 | 1.33 | 1.47 | 1.24 | 1.25 | 1.56 | 1.16 |
| KCNJ2-AS1 | -0.93 | -0.91 | -1.11 | -1.07 | -1.06 | -1.08 | -1.07 | -1.15 |
| KCNJ3 | -1.69 | -1.63 | -1.62 | -1.69 | -1.66 | -1.70 | -1.59 | -1.71 |
| KCNJ4 | -1.75 | -1.79 | -1.79 | -1.84 | -1.84 | -1.85 | -1.85 | -1.86 |
| KCNJ5 | -1.20 | -1.19 | -1.17 | -1.20 | -0.73 | -1.02 | -1.12 | -1.21 |
| KCNJ6 | -1.53 | -1.58 | -1.52 | -1.59 | -1.47 | -1.60 | -1.59 | -1.61 |
| KCNJ8 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| KCNK1 | 6.87 | 7.26 | 6.93 | 7.23 | 7.33 | 7.03 | 7.57 | 8.18 |
| KCNK10 | -1.11 | -0.95 | -0.93 | -0.71 | -0.99 | -1.12 | -1.11 | -1.12 |
| KCNK12 | -1.34 | -1.33 | -1.32 | -1.34 | -1.23 | -1.32 | -1.28 | -1.30 |
| KCNK13 | 0.30 | -0.22 | -0.21 | -0.23 | -0.18 | -0.17 | -0.02 | -0.25 |
| KCNK15 | 2.05 | 3.11 | 2.24 | 3.43 | 2.96 | 2.20 | 3.10 | 3.45 |
| KCNK15-AS1 | -0.94 | -0.93 | -1.07 | -1.01 | -0.93 | -1.03 | -1.02 | -1.04 |
| KCNK17 | -0.45 | -0.74 | -0.73 | -0.68 | -0.70 | -0.75 | -0.54 | -0.76 |
| KCNK2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| KCNK3 | 1.20 | 0.34 | 0.44 | 0.32 | 0.34 | 0.38 | 0.59 | 0.35 |
| KCNK5 | 5.63 | 5.50 | 5.34 | 5.45 | 5.24 | 4.99 | 5.97 | 5.24 |
| KCNK6 | 4.98 | 5.92 | 5.91 | 5.62 | 5.59 | 5.52 | 5.92 | 6.03 |
| KCNK7 | 0.52 | 0.27 | 0.54 | 0.38 | 0.30 | 0.46 | 0.08 | 0.18 |
| KCNK9 | 1.03 | -0.11 | 0.17 | -0.13 | -0.03 | -0.06 | -0.05 | 0.05 |
| KCNMA1 | 1.12 | 2.45 | 1.18 | 2.14 | 1.85 | 1.16 | 1.88 | 1.28 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| KCNMB2-AS1 | -0.06 | 0.13 | -0.04 | -0.07 | -0.06 | 0.04 | 0.01 | 1.42 |
| KCNMB3 | -0.37 | -0.28 | -0.43 | -0.31 | -0.37 | -0.36 | -0.24 | -0.41 |
| KCNMB3P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| KCNMB4 | 2.96 | 2.77 | 3.21 | 2.38 | 2.55 | 4.09 | 2.47 | 3.63 |
| KCNN1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.07 | -2.08 |
| KCNN2 | -2.04 | -2.01 | -2.04 | -2.02 | -2.04 | -2.04 | -2.02 | -2.06 |
| KCNN3 | -1.85 | -1.89 | -1.84 | -1.85 | -1.89 | -1.90 | -1.90 | -1.91 |
| KCNN4 | 6.74 | 6.93 | 6.95 | 6.49 | 6.71 | 6.09 | 6.13 | 7.27 |
| KCNQ1 | 5.54 | 5.73 | 5.84 | 5.24 | 5.46 | 3.91 | 6.12 | 4.58 |
| KCNQ1-AS1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| KCNQ1OT1 | 4.55 | 4.66 | 5.32 | 4.67 | 4.97 | 5.40 | 5.56 | 4.98 |
| KCNQ2 | 0.01 | -0.06 | -0.05 | -0.17 | 1.18 | -0.14 | -0.17 | -0.20 |
| KCNQ3 | -1.50 | -1.44 | -1.43 | -1.50 | -1.49 | -1.23 | -1.50 | -1.42 |
| KCNQ4 | -0.58 | -0.49 | -0.39 | -0.51 | -0.32 | -0.52 | -0.31 | -0.32 |
| KCNRG | -0.63 | -0.55 | -0.53 | -0.44 | -0.53 | -0.62 | -0.72 | -0.67 |
| KCNS1 | -0.10 | -0.10 | -0.09 | -0.19 | -0.14 | -0.06 | 0.14 | -0.04 |
| KCNS3 | 4.69 | 3.45 | 2.78 | 3.35 | 3.24 | 4.20 | 3.12 | 3.55 |
| KCNT1 | -0.22 | -0.36 | -0.35 | -0.29 | -0.21 | -0.34 | -0.03 | -0.39 |
| KCNT2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.80 |
| KCNU1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| KCNV1 | -1.77 | -1.76 | -1.76 | -1.77 | -1.77 | -1.78 | -1.78 | -1.32 |
| KCP | 2.45 | 2.39 | 2.33 | 2.62 | 2.33 | 2.35 | 2.58 | 2.90 |
| KCTD1 | 3.83 | 3.95 | 4.34 | 3.60 | 3.48 | 3.92 | 4.53 | 4.33 |
| KCTD10 | 3.92 | 4.43 | 4.53 | 4.51 | 4.24 | 4.68 | 4.49 | 4.58 |
| KCTD11 | 3.17 | 3.37 | 4.35 | 3.25 | 3.07 | 3.37 | 4.15 | 2.90 |
| KCTD12 | 2.25 | 3.15 | 2.70 | 2.72 | 2.31 | 2.09 | 2.47 | 2.36 |
| KCTD13 | 4.56 | 3.95 | 4.19 | 3.98 | 4.63 | 4.42 | 3.76 | 4.41 |
| KCTD14 | 4.12 | 4.23 | 4.14 | 4.49 | 4.59 | 3.25 | 4.26 | 4.06 |
| KCTD15 | 1.25 | 1.58 | 1.17 | 1.65 | 1.55 | 1.19 | 1.39 | 1.70 |
| KCTD16 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.02 | -2.06 |
| KCTD17 | 5.08 | 4.18 | 4.19 | 4.68 | 3.62 | 4.52 | 3.78 | 2.93 |
| KCTD18 | 3.22 | 3.24 | 3.50 | 3.10 | 3.27 | 3.01 | 3.08 | 3.23 |
| KCTD19 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| KCTD2 | 3.99 | 3.73 | 4.19 | 3.63 | 3.62 | 3.73 | 3.97 | 4.18 |
| KCTD20 | 4.75 | 4.18 | 4.81 | 3.99 | 4.07 | 4.59 | 4.64 | 4.83 |
| KCTD21 | 2.66 | 3.26 | 2.89 | 3.10 | 2.88 | 2.73 | 3.29 | 2.70 |
| KCTD21-AS1 | 2.09 | 1.32 | 1.53 | 1.46 | 1.54 | 1.35 | 1.54 | 1.68 |
| KCTD3 | 5.05 | 5.76 | 5.97 | 5.49 | 5.10 | 5.98 | 5.92 | 5.23 |
| KCTD5 | 5.98 | 5.72 | 5.67 | 5.42 | 5.13 | 5.71 | 5.68 | 6.72 |
| KCTD6 | 4.17 | 3.90 | 3.94 | 4.16 | 4.65 | 4.22 | 4.08 | 4.32 |
| KCTD7 | 1.38 | 1.47 | 1.47 | 1.54 | 1.71 | 1.41 | 1.56 | 1.55 |
| KCTD8 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.80 | -1.86 |
| KCTD9 | 3.98 | 4.89 | 4.93 | 4.80 | 4.07 | 4.58 | 5.12 | 4.81 |
| KCTD9P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| KCTD9P4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| KDELC1P1 | -1.35 | -1.22 | -1.33 | -1.11 | -1.35 | -1.27 | -1.17 | -1.37 |
| KDELR1 | 8.95 | 8.97 | 8.09 | 9.37 | 9.42 | 8.49 | 8.72 | 9.23 |
| KDELR2 | 8.90 | 8.79 | 8.00 | 8.90 | 9.10 | 8.51 | 8.30 | 9.18 |
| KDELR3 | 6.62 | 6.81 | 5.34 | 7.62 | 7.04 | 6.17 | 5.39 | 6.99 |
| KDF1 | 4.94 | 4.64 | 4.89 | 4.82 | 5.16 | 5.03 | 4.88 | 4.56 |
| KDM1A | 5.61 | 5.43 | 6.51 | 5.41 | 5.88 | 6.56 | 5.89 | 6.24 |
| KDM1B | 3.95 | 3.70 | 3.47 | 2.93 | 3.34 | 3.20 | 4.00 | 4.19 |
| KDM2A | 5.51 | 5.58 | 6.41 | 5.68 | 5.86 | 5.71 | 6.26 | 6.30 |
| KDM2B | 3.23 | 3.68 | 3.91 | 3.66 | 3.28 | 3.27 | 3.50 | 3.88 |
| KDM3A | 4.28 | 4.48 | 4.93 | 4.28 | 4.33 | 4.19 | 4.90 | 4.55 |
| KDM3B | 5.08 | 5.41 | 5.71 | 5.58 | 5.28 | 5.50 | 5.61 | 5.23 |
| KDM4A | 3.63 | 4.79 | 4.47 | 4.52 | 4.48 | 4.32 | 4.94 | 4.25 |
| KDM4A-AS1 | 1.45 | 0.95 | 1.12 | 1.03 | 1.11 | 1.06 | 1.27 | 0.84 |
| KDM4B | 4.18 | 5.76 | 5.29 | 5.33 | 4.69 | 4.88 | 6.01 | 4.70 |
| KDM4C | 3.49 | 4.60 | 4.49 | 4.47 | 3.72 | 4.08 | 4.68 | 3.57 |
| KDM4D | 0.99 | 0.85 | 1.02 | 0.80 | 0.83 | 0.67 | 0.74 | 0.88 |
| KDM5A | 5.89 | 6.24 | 6.82 | 6.03 | 5.30 | 5.37 | 6.55 | 5.80 |
| KDM5B | 5.27 | 6.07 | 6.08 | 5.86 | 6.27 | 6.43 | 6.52 | 6.77 |
| KDM5C | 5.42 | 3.38 | 6.62 | 3.92 | 5.03 | 5.30 | 5.84 | 5.05 |
| KDM5C-IT1 | -1.89 | -1.89 | -1.84 | -1.90 | -1.87 | -1.90 | -1.90 | -1.91 |
| KDM5D | 0.67 | 0.60 | 0.64 | 0.47 | 0.64 | 0.53 | 0.47 | 0.42 |
| KDM6A | 3.78 | 3.58 | 4.89 | 3.53 | 3.67 | 3.64 | 4.44 | 2.61 |
| KDM6B | 3.64 | 4.21 | 4.94 | 4.31 | 4.01 | 4.68 | 4.96 | 4.58 |
| KDM7A | 3.54 | 4.21 | 4.41 | 4.30 | 4.65 | 4.08 | 4.96 | 4.98 |
| KDM7A-DT | 2.65 | 3.43 | 3.03 | 3.02 | 3.13 | 2.66 | 3.37 | 3.20 |
| KDM8 | 0.58 | 0.74 | 0.71 | 0.50 | 0.59 | 0.66 | 0.62 | 0.51 |
| KDR | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| KDSR | 5.09 | 5.44 | 5.97 | 5.28 | 5.47 | 5.21 | 6.27 | 5.03 |
| KEAP1 | 5.94 | 6.37 | 6.00 | 6.27 | 6.02 | 5.96 | 5.92 | 6.38 |
| KEL | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| KF456478.1 | 0.93 | 0.95 | 1.14 | 0.98 | 0.86 | 0.97 | 1.03 | 0.89 |
| KF459542.1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| KHDC1 | 3.23 | 2.69 | 2.45 | 2.92 | 2.72 | 3.00 | 2.16 | 2.46 |
| KHDC1L | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| KHDC4 | 4.93 | 4.70 | 4.85 | 4.87 | 4.90 | 4.98 | 4.79 | 5.15 |
| KHDRBS1 | 7.33 | 7.57 | 7.56 | 7.33 | 7.75 | 7.96 | 7.62 | 7.40 |
| KHDRBS2 | -1.50 | -1.49 | -1.48 | -1.50 | -1.49 | -1.51 | -1.38 | -1.52 |
| KHDRBS3 | 4.69 | 4.95 | 5.63 | 4.24 | 4.36 | 3.46 | 4.02 | 3.75 |
| KHK | 5.32 | 5.18 | 4.23 | 5.44 | 3.94 | 3.99 | 4.56 | 3.47 |
| KHNYN | 4.86 | 5.55 | 5.78 | 5.39 | 5.53 | 5.36 | 5.94 | 5.38 |
| KHSRP | 5.44 | 7.11 | 6.96 | 6.21 | 5.82 | 6.48 | 6.78 | 5.49 |
| KHSRPP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| KIAA0040 | 5.37 | 5.57 | 5.03 | 5.32 | 6.09 | 5.71 | 5.58 | 5.69 |
| KIAA0087 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 |
| KIAA0100 | 6.54 | 6.61 | 7.12 | 6.87 | 6.45 | 6.78 | 6.93 | 6.84 |
| KIAA0232 | 5.31 | 5.14 | 5.72 | 5.09 | 5.11 | 6.04 | 6.78 | 6.08 |
| KIAA0319 | -1.16 | -1.15 | -1.07 | -1.24 | -1.23 | -1.15 | -1.24 | -1.25 |
| KIAA0319L | 4.65 | 5.02 | 5.76 | 4.99 | 5.12 | 5.41 | 5.93 | 5.09 |
| KIAA0355 | 3.82 | 3.52 | 3.86 | 3.39 | 3.62 | 3.42 | 3.96 | 3.72 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| KIAA0391 | 0.72 | 1.18 | 1.17 | 0.80 | 0.82 | 1.00 | 1.21 | 0.80 |
| KIAA0513 | 3.12 | 3.98 | 3.77 | 3.98 | 3.52 | 3.42 | 3.53 | 4.02 |
| KIAA0556 | 2.85 | 3.03 | 3.45 | 3.23 | 3.22 | 3.20 | 3.47 | 3.55 |
| KIAA0586 | 3.44 | 4.30 | 3.66 | 4.14 | 3.88 | 4.36 | 4.37 | 3.88 |
| KIAA0753 | 2.62 | 2.58 | 3.18 | 2.75 | 2.40 | 2.88 | 3.02 | 2.60 |
| KIAA0825 | 0.96 | 1.19 | 0.99 | 0.81 | 0.93 | 1.09 | 1.28 | 0.74 |
| KIAA0895 | 2.87 | 2.64 | 2.21 | 2.50 | 2.88 | 2.35 | 3.09 | 2.61 |
| KIAA0895L | 4.11 | 3.41 | 3.58 | 3.76 | 3.58 | 3.63 | 4.07 | 3.21 |
| KIAA0895LP1 | -0.39 | -0.15 | -0.25 | 0.22 | -0.27 | -0.56 | -0.48 | -0.50 |
| KIAA0930 | 6.01 | 5.73 | 6.20 | 5.48 | 5.12 | 5.46 | 5.71 | 4.99 |
| KIAA1109 | 4.54 | 5.65 | 5.52 | 5.61 | 4.74 | 5.68 | 6.30 | 5.48 |
| KIAA1143 | 5.26 | 5.10 | 4.89 | 4.85 | 4.88 | 4.96 | 4.67 | 5.02 |
| KIAA1147 | 3.44 | 3.79 | 4.39 | 4.22 | 3.90 | 3.61 | 4.09 | 4.16 |
| KIAA1191 | 5.49 | 6.12 | 6.19 | 6.05 | 6.31 | 5.94 | 6.44 | 5.69 |
| KIAA1211 | 2.32 | 3.65 | 2.65 | 4.40 | 3.11 | 3.19 | 4.02 | 2.40 |
| KIAA1211L | 2.50 | 3.12 | 2.17 | 2.90 | 2.45 | 2.34 | 2.26 | 2.17 |
| KIAA1217 | 4.88 | 6.23 | 5.54 | 6.14 | 5.81 | 5.42 | 5.55 | 5.03 |
| KIAA1257 | 1.13 | 1.58 | 1.21 | 2.24 | 1.09 | 1.09 | 1.12 | 1.64 |
| KIAA1324 | 1.70 | 1.87 | 2.40 | 1.85 | 2.85 | 1.59 | 2.80 | 1.41 |
| KIAA1324L | 0.47 | 0.33 | 0.54 | 0.32 | 1.02 | 0.42 | 0.47 | 1.33 |
| KIAA1328 | 2.73 | 2.49 | 2.83 | 2.24 | 2.60 | 2.95 | 2.58 | 2.23 |
| KIAA1522 | 7.58 | 6.87 | 7.46 | 6.72 | 6.98 | 7.17 | 7.74 | 7.58 |
| KIAA1549 | 2.52 | 3.18 | 3.20 | 3.44 | 3.37 | 2.96 | 3.65 | 4.14 |
| KIAA1549L | 1.19 | 1.30 | 2.05 | 1.18 | 1.61 | 0.97 | 1.76 | 1.25 |
| KIAA1586 | 4.47 | 4.36 | 3.73 | 4.62 | 4.44 | 4.24 | 4.03 | 4.38 |
| KIAA1614 | -1.89 | -1.89 | -1.88 | -1.90 | -1.89 | -1.90 | -1.85 | -1.91 |
| KIAA1614-AS1 | -0.83 | -0.82 | -0.89 | -0.84 | -0.82 | -0.75 | -0.77 | -0.92 |
| KIAA1671 | 4.61 | 4.92 | 4.69 | 5.19 | 4.33 | 4.43 | 5.23 | 4.93 |
| KIAA1755 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| KIAA1841 | 3.56 | 3.46 | 3.83 | 3.90 | 3.69 | 3.78 | 4.21 | 3.43 |
| KIAA1958 | 3.76 | 3.64 | 3.20 | 3.01 | 3.04 | 3.67 | 4.02 | 2.40 |
| KIAA2012 | -0.51 | -0.34 | -0.42 | -0.52 | -0.54 | -0.56 | -0.59 | -0.48 |
| KIAA2012-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KIAA2013 | 6.75 | 6.73 | 6.52 | 6.55 | 6.09 | 6.30 | 6.36 | 5.70 |
| KIAA2026 | 4.19 | 5.26 | 5.19 | 5.35 | 4.57 | 5.16 | 5.71 | 4.84 |
| KIDINS220 | 4.81 | 5.38 | 5.13 | 5.43 | 4.40 | 5.21 | 5.56 | 4.55 |
| KIF11 | 5.44 | 5.48 | 5.86 | 5.29 | 5.22 | 5.58 | 5.55 | 4.75 |
| KIF12 | 3.30 | 2.85 | 2.91 | 3.41 | 2.97 | 2.77 | 4.06 | 2.34 |
| KIF13A | 3.70 | 4.15 | 4.28 | 4.00 | 3.99 | 4.23 | 4.65 | 4.32 |
| KIF13B | 6.44 | 7.02 | 7.28 | 7.01 | 5.92 | 6.47 | 6.46 | 7.10 |
| KIF14 | 5.11 | 4.58 | 4.88 | 4.38 | 4.31 | 5.61 | 4.75 | 5.02 |
| KIF15 | 4.23 | 4.27 | 4.77 | 4.50 | 3.94 | 4.50 | 4.70 | 3.50 |
| KIF16B | 3.92 | 5.12 | 4.74 | 4.55 | 4.61 | 4.77 | 5.25 | 4.85 |
| KIF17 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| KIF18A | 4.17 | 4.02 | 4.53 | 3.90 | 4.13 | 4.58 | 4.02 | 4.59 |
| KIF18B | 2.84 | 2.98 | 3.96 | 3.26 | 2.98 | 3.54 | 3.14 | 3.08 |
| KIF19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.21 | -2.20 | -2.21 |
| KIF1A | 1.68 | 0.67 | 0.90 | 0.73 | 0.85 | 0.63 | 0.64 | 0.66 |
| KIF1B | 5.22 | 5.19 | 5.27 | 5.47 | 4.91 | 5.12 | 6.03 | 4.54 |
| KIF1BP | 5.62 | 5.52 | 5.22 | 5.45 | 5.38 | 5.54 | 5.27 | 4.82 |
| KIF1C | 5.71 | 6.26 | 6.55 | 6.26 | 5.46 | 5.77 | 7.33 | 6.16 |
| KIF20A | 3.82 | 4.17 | 4.36 | 3.56 | 3.50 | 4.44 | 3.78 | 4.05 |
| KIF20B | 6.67 | 6.72 | 7.16 | 6.48 | 6.48 | 7.30 | 6.72 | 5.72 |
| KIF21A | 5.84 | 6.42 | 6.38 | 6.34 | 6.38 | 6.59 | 6.24 | 5.77 |
| KIF21B | 2.53 | 1.90 | 2.14 | 1.88 | 2.28 | 2.07 | 2.51 | 1.96 |
| KIF22 | 6.40 | 5.99 | 6.61 | 5.91 | 6.09 | 6.60 | 5.67 | 6.02 |
| KIF24 | 1.99 | 2.10 | 2.39 | 2.02 | 1.73 | 1.92 | 2.28 | 1.83 |
| KIF25 | -1.75 | -1.79 | -1.78 | -1.75 | -1.79 | -1.78 | -1.80 | -1.81 |
| KIF25-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| KIF26A | -0.09 | -0.38 | -0.37 | -0.39 | -0.26 | -0.33 | -0.24 | -0.35 |
| KIF26B | 0.29 | 0.72 | 0.32 | 0.29 | 0.55 | 0.95 | 0.91 | 0.25 |
| KIF27 | 3.03 | 3.18 | 2.97 | 3.05 | 2.77 | 3.36 | 3.08 | 2.46 |
| KIF2A | 5.36 | 5.29 | 5.76 | 5.38 | 5.78 | 5.87 | 5.71 | 6.08 |
| KIF2C | 4.54 | 4.06 | 5.38 | 4.01 | 4.44 | 5.33 | 4.63 | 4.91 |
| KIF3A | 4.73 | 5.45 | 5.57 | 5.38 | 5.72 | 5.91 | 5.24 | 3.67 |
| KIF3B | 5.15 | 6.14 | 6.31 | 5.55 | 5.38 | 5.82 | 6.29 | 5.87 |
| KIF3C | 2.59 | 2.43 | 2.46 | 2.16 | 2.70 | 2.74 | 2.56 | 2.79 |
| KIF4A | 4.89 | 4.59 | 5.59 | 4.84 | 4.58 | 5.35 | 4.67 | 4.60 |
| KIF4B | -1.91 | -1.94 | -1.90 | -1.94 | -1.92 | -1.93 | -1.95 | -1.92 |
| KIF5A | -1.94 | -1.94 | -1.89 | -1.95 | -1.92 | -1.95 | -1.95 | -1.92 |
| KIF5B | 8.14 | 8.92 | 8.44 | 8.72 | 8.82 | 8.97 | 9.09 | 8.67 |
| KIF5C | 0.23 | -0.02 | 0.00 | -0.03 | 0.27 | 0.00 | 0.12 | -0.07 |
| KIF6 | -1.60 | -1.59 | -1.58 | -1.60 | -1.54 | -1.56 | -1.60 | -1.53 |
| KIF7 | 2.04 | 1.45 | 1.99 | 1.49 | 1.90 | 2.00 | 1.78 | 1.85 |
| KIF9 | 5.72 | 5.66 | 5.10 | 5.73 | 5.70 | 5.74 | 5.15 | 5.15 |
| KIF9-AS1 | 1.16 | 1.21 | 1.53 | 1.03 | 1.16 | 1.15 | 1.45 | 1.04 |
| KIFAP3 | 3.00 | 3.13 | 3.98 | 3.12 | 3.95 | 4.61 | 4.29 | 4.17 |
| KIFC1 | 5.13 | 4.35 | 4.90 | 5.00 | 3.95 | 5.42 | 4.86 | 4.85 |
| KIFC2 | 4.07 | 3.27 | 4.07 | 4.13 | 3.85 | 3.60 | 4.14 | 4.01 |
| KIFC3 | 4.15 | 4.42 | 4.72 | 4.26 | 4.14 | 4.42 | 3.82 | 4.20 |
| KIN | 5.24 | 5.87 | 5.27 | 5.69 | 5.78 | 5.41 | 5.56 | 5.27 |
| KIRREL1 | 0.00 | 0.09 | 0.02 | 0.07 | 0.09 | 0.28 | 0.45 | 0.57 |
| KIRREL2 | 0.97 | 0.73 | 1.01 | 0.79 | 2.11 | 0.72 | 0.78 | 0.71 |
| KIRREL3 | -1.50 | -1.50 | -1.49 | -1.51 | -1.28 | -1.39 | -1.51 | -1.53 |
| KISS1 | -0.28 | -0.34 | -0.33 | -0.11 | -0.23 | -0.27 | -0.36 | -0.07 |
| KISS1R | -0.07 | -0.28 | -0.27 | -0.29 | -0.07 | -0.37 | -0.16 | -0.26 |
| KIT | -1.54 | -1.41 | -1.58 | -1.42 | -1.56 | -1.61 | -1.60 | -1.62 |
| KITLG | 4.65 | 6.51 | 5.87 | 6.31 | 4.73 | 5.02 | 5.72 | 5.39 |
| KIZ | 2.99 | 2.66 | 2.83 | 2.76 | 2.65 | 2.71 | 2.66 | 3.88 |
| KIZ-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| KL | -1.63 | -1.62 | -1.61 | -1.63 | -1.62 | -1.64 | -1.63 | -1.60 |
| KLB | -1.45 | -1.45 | -1.44 | -1.46 | -1.42 | -1.43 | -1.46 | -1.42 |
| KLC1 | 4.82 | 4.60 | 6.01 | 4.99 | 5.68 | 5.81 | 5.69 | 5.43 |
| KLC2 | 5.95 | 5.62 | 5.58 | 5.82 | 5.65 | 5.79 | 5.14 | 5.39 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| KLC3 | 3.18 | 2.27 | 2.47 | 2.07 | 2.34 | 3.07 | 1.98 | 1.96 |
| KLC4 | 3.89 | 4.97 | 4.43 | 5.41 | 4.47 | 4.68 | 4.72 | 4.73 |
| KLF1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| KLF10 | 5.42 | 6.03 | 6.44 | 5.55 | 5.85 | 5.76 | 5.80 | 5.74 |
| KLF11 | 2.90 | 3.29 | 2.93 | 3.08 | 2.29 | 2.75 | 2.48 | 2.32 |
| KLF12 | 1.05 | 0.72 | 1.31 | 0.55 | 0.48 | 0.93 | 0.54 | 0.92 |
| KLF13 | 7.08 | 6.90 | 6.13 | 7.01 | 6.83 | 6.29 | 6.93 | 7.76 |
| KLF14 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.10 | -2.11 |
| KLF15 | -0.97 | -1.04 | -1.02 | -1.05 | -0.85 | -1.05 | -1.05 | -0.85 |
| KLF16 | 4.25 | 4.61 | 5.22 | 4.48 | 4.81 | 4.90 | 5.12 | 4.47 |
| KLF2 | 3.27 | 4.46 | 3.34 | 4.31 | 4.55 | 3.68 | 3.79 | 4.24 |
| KLF3 | 5.98 | 6.64 | 6.25 | 6.49 | 6.35 | 6.08 | 6.95 | 6.89 |
| KLF3-AS1 | -0.09 | 0.07 | -0.15 | 0.02 | 0.12 | -0.11 | -0.10 | 0.23 |
| KLF3P1 | -1.69 | -1.63 | -1.62 | -1.59 | -1.69 | -1.62 | -1.64 | -1.71 |
| KLF4 | 4.60 | 4.96 | 5.33 | 5.22 | 4.93 | 5.37 | 5.55 | 5.83 |
| KLF5 | 8.31 | 8.97 | 8.33 | 8.98 | 8.20 | 8.17 | 9.51 | 9.12 |
| KLF6 | 6.12 | 7.40 | 8.48 | 6.87 | 8.17 | 7.16 | 7.34 | 6.75 |
| KLF7 | 3.19 | 3.72 | 4.27 | 3.72 | 2.80 | 3.75 | 3.70 | 3.66 |
| KLF7-IT1 | -1.91 | -1.90 | -1.90 | -1.94 | -1.94 | -1.91 | -1.91 | -1.96 |
| KLF8 | -1.65 | -1.73 | -1.73 | -1.74 | -1.71 | -1.72 | -1.70 | -1.76 |
| KLF9 | 5.50 | 5.51 | 6.03 | 4.96 | 5.20 | 4.53 | 6.52 | 5.63 |
| KLHDC1 | 0.52 | 0.67 | 0.64 | 0.93 | 0.68 | 0.75 | 0.64 | 0.64 |
| KLHDC10 | 4.08 | 4.94 | 4.99 | 4.84 | 4.54 | 4.73 | 5.25 | 4.66 |
| KLHDC2 | 5.07 | 5.02 | 4.53 | 5.23 | 5.66 | 5.42 | 5.10 | 5.82 |
| KLHDC3 | 6.58 | 5.88 | 5.97 | 6.18 | 6.16 | 6.61 | 6.07 | 6.91 |
| KLHDC4 | 4.68 | 4.63 | 4.88 | 4.61 | 4.53 | 4.48 | 4.73 | 4.54 |
| KLHDC7A | 3.15 | 3.37 | 3.58 | 3.29 | 3.52 | 3.53 | 3.34 | 3.22 |
| KLHDC7B | -1.22 | -1.29 | -1.28 | -1.30 | -1.18 | -1.31 | -1.30 | -1.20 |
| KLHDC8A | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.19 |
| KLHDC8B | 2.46 | 2.24 | 1.71 | 1.98 | 2.32 | 1.87 | 2.02 | 2.12 |
| KLHDC9 | 4.20 | 3.06 | 3.63 | 3.04 | 3.76 | 3.75 | 3.41 | 3.41 |
| KLHL11 | 1.61 | 1.24 | 1.22 | 1.24 | 1.19 | 1.24 | 1.30 | 1.15 |
| KLHL12 | 4.52 | 4.64 | 4.52 | 4.35 | 4.72 | 4.54 | 4.56 | 4.59 |
| KLHL13 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| KLHL15 | 1.67 | 1.49 | 1.66 | 1.42 | 1.94 | 1.63 | 1.88 | 1.39 |
| KLHL17 | 3.24 | 2.68 | 2.92 | 2.49 | 2.71 | 3.03 | 2.94 | 2.79 |
| KLHL18 | 4.81 | 4.71 | 4.44 | 4.74 | 4.63 | 4.35 | 4.32 | 4.39 |
| KLHL2 | 3.46 | 4.16 | 4.06 | 4.12 | 3.65 | 5.05 | 4.53 | 5.07 |
| KLHL20 | 4.34 | 4.42 | 4.39 | 4.61 | 3.89 | 4.36 | 4.48 | 4.28 |
| KLHL21 | 4.08 | 4.68 | 4.74 | 4.71 | 3.99 | 4.08 | 3.63 | 4.20 |
| KLHL22 | 3.03 | 3.22 | 3.04 | 3.17 | 2.54 | 2.73 | 3.06 | 2.95 |
| KLHL23 | 4.73 | 5.45 | 4.91 | 5.22 | 4.46 | 5.21 | 3.99 | 3.64 |
| KLHL24 | 4.44 | 4.32 | 5.05 | 4.28 | 4.85 | 4.53 | 5.03 | 5.74 |
| KLHL25 | 3.20 | 3.54 | 3.78 | 3.54 | 3.37 | 3.03 | 3.25 | 3.02 |
| KLHL26 | 2.08 | 2.40 | 2.20 | 1.87 | 2.40 | 2.40 | 2.38 | 2.44 |
| KLHL28 | 4.34 | 4.49 | 4.94 | 4.07 | 4.88 | 4.67 | 4.65 | 4.28 |
| KLHL29 | 2.74 | 2.89 | 3.10 | 3.10 | 2.50 | 2.60 | 3.38 | 2.61 |
| KLHL3 | 1.62 | 2.29 | 2.80 | 2.55 | 1.72 | 2.32 | 1.65 | 1.64 |
| KLHL30 | -1.91 | -1.94 | -1.93 | -1.91 | -1.92 | -1.95 | -1.94 | -1.86 |
| KLHL31 | -0.30 | -0.21 | -0.26 | -0.31 | -0.11 | -0.15 | -0.31 | -0.19 |
| KLHL32 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| KLHL34 | -0.88 | -0.96 | -0.94 | -0.96 | -0.92 | -0.97 | -0.96 | -0.98 |
| KLHL35 | 1.30 | 1.54 | 1.80 | 1.36 | 1.91 | 1.51 | 1.35 | 2.40 |
| KLHL36 | 5.60 | 5.57 | 5.99 | 5.57 | 5.52 | 5.76 | 5.84 | 6.26 |
| KLHL4 | 0.41 | 0.43 | 0.45 | 0.33 | 0.43 | 0.77 | 0.80 | 0.36 |
| KLHL41 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KLHL42 | 4.96 | 5.00 | 5.24 | 4.87 | 5.22 | 4.26 | 4.89 | 5.01 |
| KLHL5 | 4.55 | 3.61 | 4.64 | 3.55 | 3.57 | 4.99 | 4.60 | 4.83 |
| KLHL6 | -0.12 | -0.19 | -0.04 | -0.20 | -0.23 | -0.13 | -0.07 | -0.30 |
| KLHL7 | 5.14 | 4.58 | 3.94 | 4.43 | 4.68 | 4.76 | 4.58 | 4.82 |
| KLHL7-DT | -0.54 | -0.87 | -0.85 | -0.87 | -0.79 | -0.71 | -0.87 | -0.77 |
| KLHL8 | 3.44 | 4.32 | 3.94 | 3.66 | 3.39 | 4.04 | 3.73 | 3.40 |
| KLHL9 | 4.77 | 5.43 | 5.01 | 5.21 | 4.38 | 4.91 | 5.45 | 4.83 |
| KLK1 | 3.88 | 4.20 | 3.81 | 4.60 | 4.83 | 4.46 | 4.79 | 2.61 |
| KLK10 | 9.17 | 9.12 | 9.42 | 9.03 | 10.00 | 9.04 | 10.39 | 8.59 |
| KLK11 | 7.31 | 6.03 | 7.21 | 6.28 | 7.09 | 6.60 | 8.20 | 6.41 |
| KLK12 | 0.97 | 0.91 | 1.02 | 1.04 | 1.16 | 1.10 | 0.95 | 0.93 |
| KLK13 | 3.50 | 3.51 | 4.47 | 3.67 | 4.45 | 3.17 | 4.07 | 3.25 |
| KLK14 | -1.25 | -1.38 | -1.37 | -1.39 | -1.38 | -1.36 | -1.32 | -1.00 |
| KLK15 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KLK2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| KLK3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| KLK4 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.76 | -1.86 |
| KLK5 | 1.04 | 1.08 | 1.10 | 0.86 | 1.10 | 0.96 | 1.11 | 2.60 |
| KLK6 | 7.16 | 6.44 | 9.07 | 6.23 | 7.70 | 9.18 | 6.03 | 6.09 |
| KLK7 | 7.85 | 7.98 | 8.80 | 7.12 | 7.89 | 8.15 | 7.77 | 5.52 |
| KLK8 | 1.93 | 1.65 | 1.69 | 1.65 | 1.60 | 2.01 | 2.47 | 1.32 |
| KLKB1 | -1.94 | -1.94 | -1.89 | -1.95 | -1.94 | -1.95 | -1.95 | -1.92 |
| KLKP1 | 1.52 | 1.32 | 2.67 | 1.51 | 1.72 | 2.14 | 2.08 | 1.69 |
| KLLN | 1.00 | 1.31 | 1.48 | 1.32 | 1.25 | 1.14 | 1.15 | 1.13 |
| KLRA1P | -0.55 | -0.19 | -0.44 | -0.48 | -0.59 | -0.61 | -0.42 | -0.47 |
| KLRC2 | -0.83 | -0.74 | -0.80 | -0.62 | -0.90 | -0.88 | -0.83 | -0.80 |
| KLRD1 | -2.18 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| KLRF1 | -1.04 | -1.03 | -1.02 | -1.04 | -1.03 | -0.87 | -0.97 | -0.93 |
| KLRG1 | 0.10 | -0.07 | -0.15 | -0.24 | -0.15 | -0.33 | -0.11 | -0.28 |
| KLRG2 | -1.29 | -1.36 | -1.34 | -1.37 | -1.32 | -1.34 | -1.22 | -1.39 |
| KMO | -0.97 | -0.96 | -0.95 | -1.05 | -0.85 | -0.96 | -0.98 | -0.75 |
| KMT2A | 5.25 | 5.77 | 6.62 | 5.52 | 5.59 | 5.56 | 6.25 | 4.98 |
| KMT2B | 7.11 | 6.54 | 6.43 | 7.14 | 7.62 | 7.05 | 6.79 | 6.55 |
| KMT2C | 5.21 | 6.42 | 6.55 | 6.15 | 6.10 | 5.92 | 7.04 | 5.74 |
| KMT2D | 3.86 | 4.37 | 4.33 | 4.26 | 3.89 | 4.35 | 4.51 | 3.87 |
| KMT2E | 6.24 | 7.15 | 6.90 | 7.24 | 7.42 | 6.89 | 7.58 | 7.45 |
| KMT2E-AS1 | 3.49 | 3.36 | 3.18 | 3.75 | 3.59 | 3.21 | 2.91 | 2.98 |
| KMT5A | 4.39 | 4.24 | 4.84 | 4.43 | 4.52 | 4.96 | 4.96 | 5.14 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| KMT5AP1 | -1.22 | -1.13 | -1.12 | -1.23 | -1.18 | -1.24 | -1.08 | -1.24 |
| KMT5B | 5.48 | 5.43 | 5.75 | 5.17 | 5.44 | 5.34 | 5.78 | 6.46 |
| KMT5C | 3.37 | 3.10 | 3.40 | 3.06 | 3.57 | 3.25 | 3.43 | 3.23 |
| KNDC1 | -1.04 | -1.02 | -1.16 | -1.11 | -1.13 | -0.97 | -1.18 | -1.13 |
| KNG1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| KNL1 | 5.41 | 5.58 | 5.95 | 5.60 | 5.15 | 5.88 | 5.87 | 5.42 |
| KNOP1 | 7.11 | 7.08 | 7.02 | 7.16 | 6.98 | 7.27 | 6.51 | 6.83 |
| KNOP1P4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| KNOP1P5 | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| KNSTRN | 6.59 | 5.57 | 5.12 | 5.34 | 5.58 | 5.83 | 5.22 | 6.73 |
| KNTC1 | 3.66 | 3.85 | 4.56 | 3.98 | 3.76 | 4.19 | 4.89 | 4.21 |
| KPNA1 | 5.74 | 5.16 | 6.22 | 5.12 | 5.69 | 5.62 | 6.00 | 6.44 |
| KPNA2 | 7.90 | 7.24 | 7.12 | 7.14 | 7.29 | 7.97 | 6.49 | 7.43 |
| KPNA2P1 | -1.12 | -1.31 | -1.23 | -1.32 | -1.31 | -1.33 | -1.33 | -1.34 |
| KPNA3 | 5.20 | 5.53 | 5.06 | 5.30 | 5.32 | 5.11 | 5.72 | 5.54 |
| KPNA4 | 5.94 | 5.66 | 6.09 | 5.26 | 5.90 | 6.22 | 6.55 | 6.47 |
| KPNA5 | 3.08 | 2.65 | 2.92 | 2.90 | 2.83 | 3.15 | 2.98 | 2.43 |
| KPNA6 | 5.19 | 5.38 | 6.07 | 5.11 | 5.31 | 5.80 | 6.16 | 5.54 |
| KPNA7 | -0.39 | -0.39 | -0.28 | -0.33 | -0.06 | -0.32 | -0.41 | -0.13 |
| KPNB1 | 7.49 | 7.73 | 8.83 | 7.43 | 7.28 | 8.19 | 8.22 | 7.45 |
| KPRP | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| KPTN | 4.65 | 3.38 | 3.76 | 3.58 | 4.38 | 3.73 | 3.63 | 3.87 |
| KRAS | 7.05 | 7.21 | 6.86 | 7.01 | 7.42 | 7.57 | 7.27 | 7.50 |
| KRBA1 | 1.28 | 1.12 | 1.38 | 0.93 | 1.27 | 0.91 | 1.60 | 1.15 |
| KRBA2 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| KRBOX1 | 7.21 | 3.78 | 3.64 | 3.52 | 5.34 | 5.54 | 4.43 | 3.12 |
| KRBOX1-AS1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| KRBOX4 | 2.95 | 2.71 | 3.08 | 2.99 | 2.81 | 2.93 | 2.81 | 2.67 |
| KRCC1 | 5.72 | 6.35 | 5.65 | 6.21 | 5.40 | 6.27 | 6.13 | 6.57 |
| KREMEN1 | 5.02 | 5.01 | 4.58 | 4.64 | 5.06 | 5.20 | 4.76 | 4.60 |
| KREMEN2 | 2.91 | 2.58 | 2.21 | 2.94 | 2.33 | 2.79 | 2.51 | 2.39 |
| KRI1 | 4.46 | 4.88 | 5.00 | 5.01 | 4.78 | 4.69 | 4.66 | 4.08 |
| KRIT1 | 2.56 | 3.27 | 3.17 | 3.31 | 2.89 | 2.88 | 3.23 | 2.99 |
| KRR1 | 6.09 | 6.87 | 6.97 | 6.80 | 6.52 | 6.78 | 6.62 | 6.81 |
| KRT10 | 8.86 | 8.41 | 8.14 | 8.60 | 9.03 | 8.82 | 7.95 | 8.11 |
| KRT12 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| KRT13 | 5.61 | 5.28 | 8.15 | 5.85 | 6.70 | 5.29 | 6.08 | 5.17 |
| KRT14 | 1.43 | 1.12 | 1.78 | 1.43 | 2.41 | 1.95 | 1.21 | 1.49 |
| KRT15 | 5.12 | 5.39 | 5.87 | 5.81 | 5.99 | 5.71 | 5.97 | 5.85 |
| KRT16 | 3.51 | 4.65 | 5.71 | 4.79 | 4.55 | 4.40 | 3.60 | 6.48 |
| KRT16P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.21 |
| KRT16P2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.13 | -2.13 |
| KRT16P6 | -1.29 | -1.28 | -1.27 | -1.22 | -0.89 | -1.30 | -1.22 | -1.19 |
| KRT17 | 3.58 | 4.08 | 5.83 | 3.47 | 4.04 | 4.51 | 4.11 | 6.98 |
| KRT17P5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KRT17P8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| KRT18 | 12.21 | 11.65 | 11.63 | 11.39 | 11.18 | 12.20 | 11.69 | 11.68 |
| KRT18P1 | -0.99 | -0.98 | -1.04 | -0.92 | -0.98 | -0.94 | -1.00 | -1.02 |
| KRT18P10 | 3.42 | 3.24 | 3.36 | 3.04 | 2.68 | 3.66 | 3.44 | 3.25 |
| KRT18P11 | 3.76 | 3.37 | 3.40 | 3.22 | 3.14 | 3.88 | 3.64 | 3.29 |
| KRT18P12 | -1.69 | -1.68 | -1.68 | -1.64 | -1.66 | -1.67 | -1.69 | -1.71 |
| KRT18P13 | 1.59 | 1.63 | 1.51 | 1.70 | 1.60 | 1.71 | 1.78 | 1.79 |
| KRT18P14 | -1.48 | -1.53 | -1.52 | -1.54 | -1.53 | -1.44 | -1.54 | -1.56 |
| KRT18P15 | 0.15 | 0.16 | 0.43 | 0.22 | 0.08 | 0.28 | 0.52 | 0.10 |
| KRT18P16 | -0.54 | -0.47 | -0.60 | -0.70 | -0.61 | -0.58 | -0.56 | -0.65 |
| KRT18P17 | 1.85 | 1.99 | 1.62 | 2.04 | 1.70 | 2.18 | 1.79 | 1.94 |
| KRT18P18 | 0.29 | 0.17 | 0.43 | 0.09 | 0.17 | 0.26 | 0.22 | 0.10 |
| KRT18P19 | 0.02 | -0.20 | -0.11 | -0.06 | -0.05 | 0.05 | -0.14 | 0.19 |
| KRT18P2 | -1.64 | -1.63 | -1.63 | -1.64 | -1.64 | -1.65 | -1.65 | -1.66 |
| KRT18P20 | 0.84 | 0.63 | 0.96 | 0.83 | 0.78 | 1.23 | 1.00 | 1.06 |
| KRT18P21 | -1.13 | -1.20 | -1.12 | -1.28 | -1.23 | -1.15 | -1.28 | -1.23 |
| KRT18P22 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| KRT18P23 | -0.94 | -0.93 | -0.92 | -0.94 | -0.89 | -0.81 | -0.87 | -0.75 |
| KRT18P24 | -1.64 | -1.63 | -1.63 | -1.59 | -1.64 | -1.62 | -1.59 | -1.61 |
| KRT18P25 | 1.79 | 2.02 | 2.03 | 1.70 | 1.85 | 2.04 | 1.95 | 1.86 |
| KRT18P26 | 1.25 | 0.89 | 0.85 | 0.78 | 0.96 | 1.08 | 0.70 | 1.07 |
| KRT18P27 | -1.74 | -1.79 | -1.78 | -1.80 | -1.76 | -1.78 | -1.80 | -1.76 |
| KRT18P28 | -0.99 | -0.98 | -1.05 | -1.07 | -1.02 | -0.98 | -1.00 | -1.02 |
| KRT18P29 | -1.49 | -1.54 | -1.53 | -1.55 | -1.54 | -1.50 | -1.55 | -1.51 |
| KRT18P3 | 0.50 | 0.50 | 0.29 | 0.41 | 0.39 | 0.71 | 0.26 | 0.29 |
| KRT18P31 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -1.97 | -1.99 | -1.97 |
| KRT18P32 | -1.79 | -1.78 | -1.78 | -1.75 | -1.78 | -1.75 | -1.79 | -1.80 |
| KRT18P33 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| KRT18P34 | -0.72 | -0.79 | -0.70 | -0.73 | -0.71 | -0.55 | -0.72 | -0.75 |
| KRT18P35 | -1.33 | -1.26 | -1.32 | -1.34 | -1.33 | -1.28 | -1.27 | -1.24 |
| KRT18P36 | -1.70 | -1.65 | -1.68 | -1.70 | -1.69 | -1.68 | -1.70 | -1.58 |
| KRT18P37 | -1.09 | -1.15 | -1.07 | -1.16 | -1.15 | -0.98 | -1.16 | -1.07 |
| KRT18P38 | 0.18 | 0.19 | 0.36 | 0.47 | 0.31 | 0.46 | 0.31 | 0.39 |
| KRT18P39 | -0.60 | -0.67 | -0.56 | -0.67 | -0.63 | -0.55 | -0.60 | -0.52 |
| KRT18P4 | -1.59 | -1.58 | -1.57 | -1.59 | -1.56 | -1.54 | -1.54 | -1.61 |
| KRT18P40 | -0.09 | -0.29 | -0.28 | -0.31 | -0.29 | -0.14 | -0.39 | -0.28 |
| KRT18P41 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| KRT18P42 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| KRT18P43 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -2.01 |
| KRT18P44 | -2.05 | -1.98 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| KRT18P45 | -2.24 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| KRT18P46 | -2.15 | -2.15 | -2.11 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| KRT18P47 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.93 | -1.95 | -1.96 |
| KRT18P49 | -2.25 | -2.25 | -2.23 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| KRT18P5 | -0.30 | -0.22 | -0.11 | -0.12 | -0.34 | -0.33 | -0.11 | -0.29 |
| KRT18P50 | -2.36 | -2.36 | -2.33 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KRT18P51 | -1.75 | -1.79 | -1.78 | -1.79 | -1.74 | -1.80 | -1.79 | -1.81 |
| KRT18P52 | 1.23 | 1.15 | 0.94 | 1.21 | 1.03 | 0.96 | 1.20 | 1.16 |
| KRT18P54 | -0.88 | -0.93 | -0.84 | -0.81 | -0.89 | -1.02 | -0.94 | -0.91 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| KRT18P55 | -0.20 | -0.48 | -0.33 | -0.42 | -0.44 | -0.37 | -0.49 | -0.29 |
| KRT18P57 | -1.54 | -1.59 | -1.58 | -1.60 | -1.56 | -1.51 | -1.60 | -1.56 |
| KRT18P58 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.08 |
| KRT18P59 | -1.69 | -1.73 | -1.73 | -1.74 | -1.71 | -1.70 | -1.74 | -1.71 |
| KRT18P6 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.02 | -2.06 |
| KRT18P60 | -1.94 | -1.90 | -1.89 | -1.95 | -1.92 | -1.93 | -1.91 | -1.96 |
| KRT18P61 | -1.29 | -1.28 | -1.27 | -1.29 | -1.41 | -1.33 | -1.42 | -1.32 |
| KRT18P62 | -1.89 | -1.89 | -1.88 | -1.85 | -1.89 | -1.86 | -1.90 | -1.87 |
| KRT18P63 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| KRT18P64 | -1.85 | -1.89 | -1.88 | -1.85 | -1.89 | -1.84 | -1.90 | -1.91 |
| KRT18P65 | -1.45 | -1.26 | -1.43 | -1.33 | -1.44 | -1.46 | -1.46 | -1.47 |
| KRT18P66 | -1.89 | -1.89 | -1.88 | -1.86 | -1.89 | -1.84 | -1.89 | -1.87 |
| KRT18P67 | -1.49 | -1.49 | -1.42 | -1.38 | -1.46 | -1.48 | -1.50 | -1.46 |
| KRT18P7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KRT18P8 | 3.95 | 3.23 | 3.29 | 3.10 | 3.06 | 3.90 | 3.29 | 3.29 |
| KRT18P9 | -1.89 | -1.85 | -1.88 | -1.89 | -1.87 | -1.86 | -1.90 | -1.87 |
| KRT19 | 12.00 | 12.70 | 12.39 | 12.54 | 12.30 | 12.71 | 12.64 | 12.87 |
| KRT19P1 | 1.27 | 1.35 | 1.10 | 1.05 | 1.45 | 1.48 | 1.41 | 1.49 |
| KRT19P2 | -1.84 | -1.79 | -1.83 | -1.84 | -1.84 | -1.78 | -1.85 | -1.86 |
| KRT19P3 | -1.40 | -1.33 | -1.44 | -1.46 | -1.42 | -1.41 | -1.40 | -1.37 |
| KRT20 | 3.00 | 3.36 | 3.34 | 3.57 | 4.53 | 3.19 | 3.72 | 3.23 |
| KRT222 | -1.24 | -1.09 | -1.22 | -1.24 | -1.23 | -1.22 | -1.11 | -1.20 |
| KRT23 | 4.96 | 4.22 | 5.64 | 4.33 | 4.87 | 5.85 | 5.56 | 4.26 |
| KRT3 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| KRT32 | -1.99 | -1.95 | -1.98 | -1.92 | -1.90 | -2.00 | -2.00 | -2.01 |
| KRT34 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| KRT36 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| KRT39 | -1.38 | -1.38 | -1.37 | -1.39 | -1.38 | -1.33 | -1.39 | -1.40 |
| KRT4 | 1.69 | 1.49 | 1.80 | 1.52 | 1.52 | 1.64 | 1.86 | 1.53 |
| KRT40 | -1.26 | -1.54 | -1.53 | -1.54 | -1.54 | -1.55 | -1.55 | -1.56 |
| KRT42P | -1.32 | -1.31 | -1.30 | -1.26 | -1.28 | -1.27 | -1.33 | -1.34 |
| KRT5 | -0.86 | -0.34 | -0.75 | -0.87 | -0.57 | -0.87 | -0.79 | 0.04 |
| KRT6A | 5.21 | 7.75 | 5.47 | 7.74 | 5.30 | 7.70 | 6.88 | 6.92 |
| KRT6B | 5.83 | 4.47 | 5.25 | 5.15 | 7.55 | 5.93 | 4.11 | 3.56 |
| KRT6C | -0.74 | -0.58 | -0.73 | -0.22 | -0.74 | -0.28 | -0.75 | -0.70 |
| KRT7 | 10.19 | 10.39 | 11.73 | 9.74 | 10.04 | 11.09 | 10.42 | 11.75 |
| KRT7-AS | 1.76 | 1.76 | 2.06 | 1.70 | 1.55 | 2.13 | 2.02 | 2.17 |
| KRT78 | -0.96 | -1.24 | -1.23 | -1.25 | -1.20 | -1.08 | -1.25 | -1.20 |
| KRT79 | -2.30 | -2.30 | -2.27 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| KRT8 | 11.40 | 11.43 | 11.36 | 11.38 | 10.87 | 11.69 | 11.72 | 11.47 |
| KRT80 | 4.20 | 4.08 | 4.66 | 4.00 | 4.20 | 4.90 | 4.67 | 4.03 |
| KRT81 | 1.79 | 1.52 | 1.77 | 1.72 | 1.86 | 3.37 | 1.99 | 3.49 |
| KRT83 | -0.11 | -0.74 | -0.64 | -0.75 | -0.75 | -0.72 | -0.75 | -0.35 |
| KRT86 | 1.40 | 0.83 | 1.03 | 1.02 | 0.82 | 1.07 | 0.87 | 2.40 |
| KRT87P | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| KRT8P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| KRT8P10 | -1.79 | -1.78 | -1.78 | -1.75 | -1.79 | -1.71 | -1.79 | -1.81 |
| KRT8P11 | -1.27 | -1.39 | -1.26 | -1.40 | -1.36 | -1.38 | -1.28 | -1.36 |
| KRT8P12 | 0.52 | 0.41 | 0.76 | 0.59 | 0.40 | 0.43 | 0.38 | 0.80 |
| KRT8P13 | -2.04 | -2.01 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| KRT8P14 | -1.74 | -1.73 | -1.73 | -1.74 | -1.69 | -1.70 | -1.74 | -1.71 |
| KRT8P15 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| KRT8P17 | -2.05 | -2.04 | -2.00 | -2.05 | -2.04 | -2.02 | -2.02 | -2.06 |
| KRT8P18 | -2.05 | -2.00 | -2.04 | -2.05 | -2.05 | -2.06 | -2.05 | -1.98 |
| KRT8P19 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| KRT8P2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.13 |
| KRT8P20 | -1.43 | -1.48 | -1.53 | -1.49 | -1.51 | -1.44 | -1.49 | -1.56 |
| KRT8P21 | -2.04 | -2.01 | -2.04 | -2.02 | -2.04 | -2.04 | -2.02 | -2.06 |
| KRT8P22 | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -1.98 | -1.96 | -2.01 |
| KRT8P23 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| KRT8P24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| KRT8P29 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| KRT8P3 | 1.18 | 1.08 | 0.98 | 1.11 | 0.86 | 0.95 | 1.03 | 1.32 |
| KRT8P30 | -1.93 | -1.99 | -1.98 | -1.99 | -1.97 | -2.00 | -2.00 | -2.01 |
| KRT8P31 | -1.29 | -1.28 | -1.27 | -1.23 | -1.28 | -1.21 | -1.29 | -1.20 |
| KRT8P32 | -1.81 | -1.89 | -1.88 | -1.90 | -1.89 | -1.90 | -1.81 | -1.91 |
| KRT8P33 | 0.82 | 0.91 | 0.95 | 1.08 | 1.02 | 1.10 | 0.94 | 1.12 |
| KRT8P35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KRT8P36 | 0.75 | 0.62 | 0.87 | 0.66 | 0.65 | 0.71 | 0.66 | 1.04 |
| KRT8P37 | -1.79 | -1.79 | -1.73 | -1.79 | -1.76 | -1.73 | -1.75 | -1.81 |
| KRT8P39 | -1.74 | -1.69 | -1.73 | -1.74 | -1.74 | -1.72 | -1.70 | -1.67 |
| KRT8P40 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.75 | -1.79 | -1.76 |
| KRT8P41 | -2.18 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| KRT8P42 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| KRT8P43 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KRT8P44 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| KRT8P45 | -0.02 | -0.01 | 0.02 | -0.02 | 0.07 | 0.23 | 0.18 | -0.13 |
| KRT8P46 | -1.75 | -1.79 | -1.78 | -1.79 | -1.79 | -1.73 | -1.79 | -1.81 |
| KRT8P47 | -1.74 | -1.79 | -1.78 | -1.79 | -1.76 | -1.75 | -1.80 | -1.81 |
| KRT8P48 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.81 | -1.84 | -1.82 |
| KRT8P49 | -1.45 | -1.38 | -1.43 | -1.45 | -1.44 | -1.40 | -1.45 | -1.41 |
| KRT8P5 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.08 |
| KRT8P51 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KRT8P7 | -1.65 | -1.65 | -1.59 | -1.61 | -1.62 | -1.66 | -1.66 | -1.54 |
| KRT8P8 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.95 | -1.96 |
| KRT8P9 | -1.15 | -1.14 | -1.20 | -1.15 | -1.18 | -1.16 | -1.15 | -1.18 |
| KRT9 | -1.80 | -1.84 | -1.83 | -1.80 | -1.77 | -1.81 | -1.84 | -1.86 |
| KRTAP2-3 | -0.68 | -0.75 | -0.67 | -0.77 | -0.83 | -0.71 | -0.76 | -0.68 |
| KRTAP3-1 | -1.05 | -1.19 | -1.17 | -1.20 | -1.15 | -0.98 | -1.13 | -1.21 |
| KRTAP3-2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| KRTAP4-1 | -0.55 | -0.85 | -0.83 | -0.85 | -0.85 | -0.19 | -0.86 | -0.87 |
| KRTAP4-12 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| KRTAP5-1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| KRTAP5-10 | -2.15 | -2.15 | -2.14 | -2.13 | -2.12 | -2.14 | -2.15 | -2.13 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| KRTAP5-9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| KRTAP5-AS1 | -1.55 | -1.55 | -1.54 | -1.56 | -1.43 | -1.54 | -1.50 | -1.52 |
| KRTCAP2 | 1.81 | 1.52 | 1.63 | 1.67 | 2.01 | 1.94 | 1.94 | 2.22 |
| KRTCAP3 | 8.32 | 8.11 | 6.90 | 8.40 | 7.63 | 7.01 | 7.55 | 7.55 |
| KRTDAP | -1.19 | -1.25 | -1.23 | -1.19 | -1.21 | -1.21 | -1.32 | -1.08 |
| KSR1 | 1.94 | 1.98 | 2.08 | 2.16 | 2.01 | 2.06 | 1.99 | 1.57 |
| KSR2 | 0.89 | 1.19 | 1.39 | 0.85 | 1.26 | 1.13 | 0.99 | 0.61 |
| KT112 | 3.88 | 4.34 | 3.87 | 4.31 | 4.15 | 3.99 | 3.60 | 4.14 |
| KTN1 | 9.14 | 9.70 | 9.62 | 9.65 | 9.82 | 9.80 | 9.33 | 9.16 |
| KTN1-AS1 | 1.20 | 1.01 | 0.97 | 0.85 | 1.50 | 1.31 | 0.91 | 1.20 |
| KXD1 | 6.72 | 6.87 | 6.50 | 7.15 | 6.98 | 6.96 | 6.46 | 7.03 |
| KY | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| KYAT1 | 2.50 | 1.89 | 2.61 | 2.10 | 2.78 | 2.73 | 2.68 | 2.58 |
| KYAT3 | 5.14 | 4.39 | 4.49 | 4.51 | 5.48 | 5.39 | 5.04 | 5.32 |
| KYNU | 5.74 | 4.83 | 4.36 | 4.65 | 3.22 | 5.04 | 3.23 | 5.77 |
| L1CAM | -0.03 | -0.26 | 0.37 | -0.19 | 0.30 | 0.07 | -0.13 | -0.23 |
| L29074.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.30 |
| L2HGDH | 4.14 | 3.98 | 4.70 | 4.23 | 4.43 | 4.48 | 4.11 | 3.54 |
| L3HYPDH | 2.39 | 1.89 | 2.48 | 2.15 | 2.46 | 2.37 | 2.55 | 2.37 |
| L3MBTL1 | 1.79 | 1.54 | 1.86 | 1.74 | 1.71 | 1.66 | 1.71 | 1.43 |
| L3MBTL2 | 4.95 | 4.76 | 4.58 | 4.65 | 3.94 | 4.13 | 4.48 | 4.04 |
| L3MBTL3 | 3.36 | 2.79 | 3.18 | 2.75 | 2.75 | 3.08 | 2.85 | 3.44 |
| L3MBTL4 | -0.58 | -0.48 | -0.33 | -0.43 | -0.65 | -0.66 | -0.58 | -0.25 |
| LACC1 | 2.61 | 3.58 | 3.05 | 3.69 | 3.05 | 3.04 | 3.56 | 3.71 |
| LACTB | 6.46 | 6.74 | 5.92 | 6.55 | 6.51 | 6.06 | 5.97 | 6.38 |
| LACTB2 | 6.75 | 6.80 | 6.73 | 6.88 | 6.92 | 6.92 | 6.78 | 7.27 |
| LACTB2-AS1 | -1.49 | -1.42 | -1.41 | -1.43 | -1.39 | -1.51 | -1.44 | -1.52 |
| LAD1 | 8.04 | 8.07 | 7.84 | 8.34 | 8.49 | 8.70 | 8.05 | 8.27 |
| LAG3 | -1.96 | -1.99 | -1.98 | -1.96 | -1.99 | -1.95 | -2.00 | -2.01 |
| LAGE3 | 8.62 | 6.78 | 7.01 | 6.73 | 7.31 | 7.89 | 6.42 | 7.48 |
| LAGE3P1 | -0.33 | -0.25 | -0.12 | -0.33 | -0.40 | -0.23 | -0.14 | -0.36 |
| LAIR1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| LAIR2 | 0.61 | 0.54 | 0.75 | 0.67 | 1.13 | 1.14 | 0.51 | 0.47 |
| LAMA1 | -2.07 | -2.09 | -2.09 | -2.02 | -2.09 | -2.09 | -2.10 | -2.11 |
| LAMA2 | -0.51 | -0.34 | -0.26 | -0.52 | -0.59 | -0.36 | -0.52 | -0.33 |
| LAMA3 | 6.64 | 7.00 | 7.51 | 7.72 | 7.25 | 7.69 | 7.06 | 7.73 |
| LAMA4 | 1.61 | 1.72 | 3.00 | 1.73 | 1.87 | 2.93 | 1.41 | 4.04 |
| LAMA5 | 6.96 | 6.93 | 7.53 | 6.63 | 7.11 | 7.04 | 7.30 | 7.04 |
| LAMA5-AS1 | -1.74 | -1.74 | -1.73 | -1.70 | -1.69 | -1.73 | -1.75 | -1.67 |
| LAMB1 | 4.97 | 5.78 | 5.23 | 5.80 | 6.36 | 5.32 | 5.80 | 4.92 |
| LAMB2 | 5.90 | 6.19 | 6.22 | 6.61 | 5.78 | 5.49 | 6.36 | 4.62 |
| LAMB3 | 7.80 | 7.93 | 9.31 | 7.32 | 7.81 | 8.31 | 7.84 | 9.44 |
| LAMB4 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.19 | -2.20 | -2.21 |
| LAMC1 | 6.47 | 6.55 | 6.45 | 6.29 | 6.34 | 6.80 | 6.13 | 6.23 |
| LAMC1-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| LAMC2 | 6.73 | 6.56 | 8.18 | 6.40 | 6.50 | 7.80 | 6.86 | 8.19 |
| LAMC3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| LAMP1 | 6.84 | 8.08 | 7.90 | 7.94 | 7.83 | 7.00 | 7.68 | 8.14 |
| LAMP2 | 7.77 | 7.22 | 7.63 | 7.09 | 7.64 | 7.06 | 7.31 | 7.91 |
| LAMP3 | 2.70 | 2.16 | 2.57 | 2.61 | 2.29 | 2.31 | 2.32 | 1.85 |
| LAMP5 | 1.74 | 4.79 | 1.87 | 5.62 | 1.68 | 1.71 | 2.07 | 1.81 |
| LAMTOR1 | 8.09 | 7.76 | 7.03 | 7.72 | 7.83 | 7.46 | 7.20 | 8.02 |
| LAMTOR2 | 7.84 | 7.95 | 7.18 | 8.05 | 8.47 | 8.01 | 7.42 | 7.90 |
| LAMTOR3 | 5.52 | 6.27 | 5.86 | 6.22 | 5.73 | 5.99 | 6.09 | 6.90 |
| LAMTOR4 | 8.73 | 7.87 | 7.48 | 8.08 | 8.27 | 7.84 | 7.42 | 7.89 |
| LAMTOR5 | 9.27 | 8.80 | 8.41 | 8.83 | 9.07 | 9.02 | 8.44 | 9.04 |
| LAMTOR5-AS1 | 2.36 | 1.54 | 1.60 | 1.96 | 1.96 | 1.56 | 1.68 | 1.83 |
| LAMTOR5P1 | -2.10 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| LANCL1 | 4.58 | 4.14 | 4.76 | 4.25 | 4.07 | 4.59 | 4.56 | 4.20 |
| LANCL2 | 3.02 | 3.62 | 3.27 | 3.53 | 3.39 | 3.52 | 3.38 | 3.21 |
| LANCL3 | 0.96 | 1.41 | 1.24 | 0.87 | 1.31 | 1.33 | 0.94 | 1.01 |
| LAP3 | 6.81 | 6.94 | 6.64 | 7.03 | 6.28 | 6.76 | 6.03 | 6.58 |
| LAP3P2 | -1.75 | -1.74 | -1.73 | -1.79 | -1.79 | -1.80 | -1.79 | -1.81 |
| LAPTM4A | 8.87 | 8.64 | 8.14 | 8.87 | 8.36 | 8.45 | 8.46 | 9.16 |
| LAPTM4B | 7.93 | 7.29 | 8.29 | 7.53 | 7.86 | 7.90 | 7.57 | 7.70 |
| LAPTM5 | -1.19 | -1.19 | -1.24 | -1.26 | -1.19 | -1.15 | -1.27 | -0.89 |
| LARGE-AS1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| LARGE1 | 2.97 | 3.19 | 3.29 | 3.24 | 3.04 | 3.11 | 3.15 | 2.62 |
| LARGE2 | 3.89 | 3.53 | 3.29 | 3.86 | 4.48 | 3.39 | 2.95 | 3.43 |
| LARP1 | 6.46 | 7.82 | 8.30 | 7.44 | 7.52 | 7.31 | 7.56 | 7.00 |
| LARP1B | 5.12 | 6.47 | 5.87 | 6.32 | 5.80 | 5.69 | 6.52 | 6.59 |
| LARP1BP1 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.11 |
| LARP4 | 5.84 | 5.93 | 5.84 | 5.59 | 5.41 | 6.12 | 5.95 | 6.06 |
| LARP4B | 5.72 | 6.69 | 6.56 | 6.44 | 6.15 | 6.14 | 6.75 | 6.31 |
| LARP4P | -1.01 | -0.92 | -0.83 | -1.01 | -0.81 | -0.82 | -1.01 | -0.96 |
| LARP6 | 6.74 | 4.65 | 4.67 | 4.53 | 5.64 | 5.49 | 4.33 | 4.28 |
| LARP7 | 6.25 | 6.90 | 7.00 | 6.88 | 6.49 | 6.74 | 6.97 | 6.99 |
| LARS | 6.19 | 6.61 | 7.04 | 6.29 | 7.35 | 6.81 | 6.79 | 7.01 |
| LARS2 | 3.48 | 3.91 | 3.94 | 3.99 | 3.37 | 3.62 | 3.58 | 3.41 |
| LAS1L | 5.84 | 5.25 | 6.00 | 5.34 | 5.75 | 5.61 | 5.31 | 4.95 |
| LASP1 | 6.72 | 7.17 | 7.46 | 6.86 | 6.73 | 7.39 | 7.00 | 7.04 |
| LAT | -1.74 | -1.73 | -1.73 | -1.60 | -1.74 | -1.70 | -1.70 | -1.76 |
| LAT2 | 0.81 | 0.33 | 0.34 | 0.60 | 0.59 | 1.25 | 0.79 | 0.52 |
| LATS1 | 4.38 | 4.24 | 4.19 | 3.67 | 3.82 | 4.20 | 4.70 | 4.49 |
| LATS2 | 3.71 | 4.99 | 3.98 | 4.21 | 4.11 | 3.65 | 3.92 | 4.36 |
| LATS2-AS1 | -2.18 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| LAX1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| LAYN | -1.27 | -1.27 | -1.26 | -1.28 | -1.20 | -1.29 | -1.28 | -1.24 |
| LBH | 2.31 | 2.76 | 2.49 | 2.41 | 4.61 | 2.56 | 2.11 | 3.51 |
| LBHD1 | 0.74 | 0.71 | 0.75 | 0.86 | 0.77 | 0.76 | 0.53 | 0.65 |
| LBHD2 | 0.45 | -0.20 | -0.19 | -0.13 | -0.16 | -0.11 | -0.21 | -0.04 |
| LBP | -2.07 | -2.06 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| LBR | 7.18 | 6.01 | 6.87 | 6.06 | 6.99 | 7.47 | 7.25 | 7.24 |
| LBX1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| LBX1-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LBX2 | 0.57 | 0.66 | 0.60 | 0.81 | 1.05 | 0.87 | 0.69 | 0.97 |
| LBX2-AS1 | 3.96 | 3.03 | 2.85 | 3.55 | 3.35 | 2.88 | 2.96 | 2.98 |
| LCA5 | 3.62 | 3.65 | 3.56 | 3.56 | 2.96 | 3.76 | 2.61 | 2.90 |
| LCA5L | 2.06 | 2.15 | 1.92 | 2.18 | 1.94 | 2.07 | 2.21 | 1.97 |
| LCAL1 | -1.74 | -1.79 | -1.78 | -1.80 | -1.76 | -1.78 | -1.75 | -1.81 |
| LCAT | 1.68 | 1.65 | 1.90 | 1.97 | 1.69 | 1.61 | 1.81 | 1.67 |
| LCE1C | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| LCE1E | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| LCE3D | -1.59 | -1.58 | -1.52 | -1.54 | -1.59 | -1.34 | -1.59 | -1.61 |
| LCE3E | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.10 | -2.15 | -2.16 |
| LCE5A | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LCK | 1.85 | 1.44 | 2.38 | 2.16 | 5.25 | 3.85 | 1.95 | 1.56 |
| LCLAT1 | 4.45 | 4.43 | 4.66 | 4.11 | 4.18 | 4.15 | 4.15 | 4.25 |
| LCMT1 | 6.07 | 5.70 | 5.72 | 5.81 | 6.03 | 5.41 | 5.25 | 5.86 |
| LCMT1-AS1 | -1.05 | -0.97 | -1.03 | -0.98 | -0.97 | -1.03 | -0.99 | -0.75 |
| LCMT1-AS2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| LCMT2 | 3.02 | 3.51 | 2.94 | 3.22 | 3.34 | 3.09 | 3.54 | 2.66 |
| LCN12 | -0.89 | -0.96 | -0.87 | -0.97 | -0.85 | -0.98 | -0.97 | -0.82 |
| LCN15 | -1.54 | -1.68 | -1.68 | -1.64 | -1.63 | -1.70 | -1.69 | -1.71 |
| LCN2 | 10.05 | 9.41 | 9.38 | 8.37 | 10.80 | 9.59 | 8.41 | 8.04 |
| LCNL1 | -1.75 | -1.79 | -1.78 | -1.79 | -1.79 | -1.76 | -1.75 | -1.64 |
| LCOR | 6.33 | 6.37 | 6.49 | 6.20 | 6.65 | 6.66 | 6.92 | 5.51 |
| LCORL | 4.05 | 4.89 | 4.41 | 4.75 | 4.70 | 5.30 | 5.25 | 5.11 |
| LCP1 | -0.61 | -0.51 | -0.66 | -0.70 | -0.77 | -0.78 | -0.78 | 0.02 |
| LCTL | -1.32 | -1.31 | -1.42 | -1.38 | -1.40 | -1.36 | -1.32 | -1.40 |
| LDAH | 4.33 | 4.22 | 3.90 | 4.09 | 3.65 | 4.27 | 4.02 | 3.61 |
| LDB1 | 3.76 | 3.86 | 2.96 | 3.70 | 3.88 | 3.61 | 3.59 | 3.41 |
| LDB2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LDB3 | -1.60 | -1.60 | -1.59 | -1.55 | -1.57 | -1.59 | -1.56 | -1.43 |
| LDHA | 10.12 | 10.06 | 10.50 | 9.95 | 10.41 | 9.99 | 10.10 | 10.02 |
| LDHAL6A | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LDHAL6FP | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| LDHAP1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| LDHAP2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LDHAP3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LDHAP5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 |
| LDHAP7 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LDHB | 9.42 | 5.91 | 8.63 | 6.39 | 6.01 | 5.92 | 8.65 | 8.44 |
| LDHBP2 | -0.90 | -1.28 | -1.20 | -1.29 | -1.28 | -1.29 | -1.22 | -1.25 |
| LDHC | 0.09 | 0.38 | 0.04 | 0.50 | 0.22 | 0.14 | 0.00 | 0.23 |
| LDHD | 2.70 | 2.69 | 2.28 | 2.81 | 2.90 | 1.85 | 1.87 | 1.90 |
| LDLR | 6.87 | 7.57 | 8.08 | 7.57 | 7.61 | 7.27 | 8.44 | 7.10 |
| LDLRAD1 | 3.21 | 4.29 | 3.27 | 4.28 | 4.94 | 3.85 | 4.24 | 4.93 |
| LDLRAD2 | 1.42 | 1.66 | 1.66 | 1.46 | 1.61 | 1.53 | 1.78 | 1.42 |
| LDLRAD3 | 2.35 | 2.46 | 2.25 | 2.28 | 2.20 | 1.94 | 1.74 | 2.66 |
| LDLRAD4 | 0.20 | -0.07 | 0.02 | -0.09 | 0.35 | 0.14 | -0.09 | -0.05 |
| LDLRAP1 | 5.04 | 4.27 | 4.89 | 4.45 | 4.55 | 4.76 | 5.01 | 4.60 |
| LDOC1 | 4.98 | 2.79 | 2.91 | 2.92 | 2.96 | 2.67 | 3.33 | 5.29 |
| LEAP2 | 1.51 | 1.54 | 1.46 | 1.66 | 1.66 | 1.71 | 1.63 | 1.32 |
| LEF1 | 0.14 | 0.92 | 0.19 | 0.93 | 0.38 | 0.08 | -0.03 | 0.20 |
| LEFTY1 | 0.99 | 0.30 | 0.42 | 0.44 | 0.46 | 1.06 | 0.28 | 1.30 |
| LEFTY2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| LEKR1 | 0.09 | -0.17 | -0.16 | 0.08 | -0.09 | -0.20 | -0.12 | -0.01 |
| LEMD1 | 5.24 | 4.78 | 4.84 | 4.26 | 7.52 | 6.00 | 4.53 | 6.03 |
| LEMD2 | 5.92 | 5.46 | 5.63 | 5.59 | 5.16 | 5.70 | 5.54 | 6.21 |
| LEMD3 | 4.03 | 4.60 | 4.86 | 4.21 | 4.15 | 4.84 | 4.78 | 4.52 |
| LENEP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LENG1 | 6.09 | 5.67 | 4.95 | 5.73 | 6.16 | 5.80 | 5.52 | 5.85 |
| LENG8 | 4.36 | 4.17 | 4.91 | 4.49 | 4.57 | 4.50 | 5.18 | 4.22 |
| LENG8-AS1 | 1.69 | 1.17 | 1.38 | 1.34 | 1.45 | 1.41 | 1.40 | 1.32 |
| LENG9 | 3.28 | 3.83 | 3.30 | 3.91 | 3.85 | 2.98 | 3.13 | 2.90 |
| LEO1 | 6.54 | 6.99 | 5.95 | 6.96 | 6.60 | 6.37 | 6.88 | 6.74 |
| LEPR | 2.12 | 2.33 | 3.01 | 2.51 | 2.89 | 3.71 | 2.89 | 2.95 |
| LEPROT | 6.25 | 7.10 | 6.43 | 6.78 | 6.64 | 6.50 | 6.36 | 6.61 |
| LEPROTL1 | 6.75 | 5.83 | 6.09 | 6.03 | 6.08 | 6.32 | 6.12 | 5.95 |
| LETM1 | 6.05 | 5.98 | 6.32 | 6.01 | 5.35 | 5.70 | 6.15 | 6.01 |
| LETM1P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LETM2 | 3.96 | 5.25 | 4.15 | 5.32 | 3.30 | 3.84 | 3.10 | 3.77 |
| LETMD1 | 5.95 | 5.50 | 5.30 | 5.99 | 6.51 | 5.93 | 5.59 | 5.85 |
| LEXM | -1.64 | -1.63 | -1.63 | -1.64 | -1.56 | -1.60 | -1.54 | -1.66 |
| LFNG | 6.17 | 6.39 | 5.67 | 6.21 | 5.11 | 5.54 | 6.02 | 7.02 |
| LGALS1 | 10.43 | 9.03 | 7.84 | 8.74 | 8.46 | 10.42 | 6.88 | 7.18 |
| LGALS2 | 2.93 | 2.42 | 2.68 | 2.66 | 2.61 | 2.66 | 2.68 | 2.02 |
| LGALS3 | 9.93 | 9.70 | 9.29 | 9.60 | 10.11 | 10.30 | 9.79 | 9.64 |
| LGALS3BP | 9.64 | 9.51 | 9.62 | 9.47 | 10.40 | 9.80 | 8.68 | 7.98 |
| LGALS4 | 9.53 | 9.34 | 8.49 | 9.72 | 10.53 | 8.36 | 10.45 | 9.87 |
| LGALS7B | -1.79 | -1.74 | -1.78 | -1.79 | -1.74 | -1.80 | -1.79 | -1.81 |
| LGALS8 | 5.72 | 6.00 | 5.38 | 5.60 | 5.72 | 6.33 | 5.85 | 6.03 |
| LGALS8-AS1 | -0.73 | -0.80 | -0.79 | -0.82 | -0.73 | -0.86 | -0.89 | -0.84 |
| LGALS9 | 6.12 | 5.92 | 6.49 | 5.59 | 5.53 | 5.39 | 5.87 | 4.89 |
| LGALS9B | -1.19 | -1.18 | -1.17 | -1.12 | -0.99 | -1.14 | -1.19 | -1.15 |
| LGALS9C | -0.47 | -0.47 | -0.59 | -0.63 | -0.65 | -0.57 | -0.49 | -0.72 |
| LGALSL | 4.04 | 4.17 | 3.85 | 3.81 | 4.95 | 3.41 | 4.23 | 3.61 |
| LGALSL-DT | -1.80 | -1.79 | -1.79 | -1.84 | -1.79 | -1.85 | -1.85 | -1.82 |
| LGI2 | -1.24 | -1.36 | -1.35 | -1.37 | -1.27 | -1.23 | -1.37 | -1.39 |
| LGI3 | -2.05 | -2.04 | -2.00 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| LGI4 | -1.15 | -1.00 | -1.06 | -0.95 | -0.97 | -0.98 | -1.02 | -1.17 |
| LGMN | 7.03 | 7.50 | 7.82 | 7.47 | 8.42 | 7.61 | 7.49 | 8.02 |
| LGMNP1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| LGR4 | 6.00 | 6.41 | 6.20 | 6.30 | 5.77 | 5.22 | 6.55 | 6.55 |
| LGR5 | 0.62 | 0.93 | 1.32 | 1.01 | 0.86 | 0.48 | 0.46 | 0.42 |
| LGR6 | 1.76 | 2.43 | 1.72 | 2.11 | 1.33 | 1.21 | 1.39 | 3.13 |
| LHB | -0.12 | 0.04 | -0.33 | 0.23 | -0.14 | -0.08 | -0.20 | -0.30 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| LHFPL2 | 4.30 | 4.50 | 5.39 | 4.24 | 4.56 | 4.42 | 5.37 | 4.63 |
| LHFPL3 | -1.38 | -1.37 | -1.36 | -1.38 | -1.38 | -1.39 | -1.39 | -1.40 |
| LHFPL3-AS2 | -0.24 | -0.23 | -0.11 | -0.24 | 1.05 | -0.21 | -0.16 | -0.06 |
| LHFPL4 | -1.64 | -1.64 | -1.63 | -1.59 | -1.64 | -1.60 | -1.65 | -1.56 |
| LHFPL5 | 1.58 | 1.38 | 1.96 | 1.19 | 1.65 | 1.53 | 1.72 | 1.67 |
| LHFPL6 | -1.58 | -1.57 | -1.56 | -1.58 | -1.57 | -1.53 | -1.58 | -1.46 |
| LHPP | 5.36 | 4.90 | 4.61 | 4.72 | 5.76 | 5.36 | 5.26 | 4.84 |
| LHX1 | 0.97 | 1.31 | 1.06 | 1.24 | 4.83 | 1.45 | 0.94 | 0.84 |
| LHX1-DT | 0.08 | 0.28 | 0.22 | 0.33 | 1.83 | 0.47 | 0.16 | 0.03 |
| LHX2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| LHX4 | 0.14 | -0.05 | -0.04 | 0.09 | 0.18 | 0.07 | 0.15 | 0.25 |
| LHX5 | -0.77 | -0.68 | -0.75 | -0.62 | -0.61 | -0.77 | -0.70 | -0.72 |
| LHX5-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LHX6 | -1.41 | -1.46 | -1.45 | -1.47 | -1.43 | -1.39 | -1.41 | -1.49 |
| LHX9 | -1.96 | -1.96 | -1.98 | -1.99 | -1.99 | -1.95 | -2.00 | -2.00 |
| LIAS | 3.65 | 4.33 | 4.03 | 4.31 | 4.14 | 4.27 | 4.43 | 4.51 |
| LIF | 4.80 | 5.47 | 4.61 | 5.38 | 5.89 | 5.40 | 4.88 | 5.28 |
| LIF-AS1 | -0.44 | -0.44 | -0.33 | -0.31 | -0.01 | -0.31 | -0.45 | -0.35 |
| LIFR | 3.77 | 3.49 | 4.26 | 3.17 | 4.69 | 3.80 | 4.26 | 2.89 |
| LIFR-AS1 | 1.71 | 1.29 | 1.32 | 1.18 | 1.52 | 1.20 | 1.24 | 1.03 |
| LIG1 | 4.83 | 4.62 | 4.98 | 4.59 | 4.28 | 4.28 | 4.79 | 4.33 |
| LIG3 | 3.98 | 3.57 | 4.19 | 4.04 | 4.37 | 4.32 | 4.27 | 4.60 |
| LIG4 | 2.93 | 3.59 | 3.42 | 3.13 | 3.72 | 3.19 | 3.58 | 3.56 |
| LILRB2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LILRB3 | -1.64 | -1.63 | -1.63 | -1.69 | -1.69 | -1.70 | -1.69 | -1.71 |
| LIMA1 | 8.10 | 8.58 | 8.42 | 8.47 | 7.70 | 8.19 | 8.10 | 8.11 |
| LIMCH1 | 5.01 | 5.35 | 5.54 | 5.30 | 4.60 | 4.24 | 7.19 | 4.95 |
| LIMD1 | 4.23 | 3.96 | 4.67 | 4.03 | 4.04 | 3.82 | 4.45 | 3.55 |
| LIMD1-AS1 | -1.35 | -1.41 | -1.40 | -1.24 | -1.38 | -1.40 | -1.24 | -1.28 |
| LIMD2 | 3.28 | 1.88 | 2.32 | 1.96 | 2.49 | 2.88 | 2.08 | 3.12 |
| LIME1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LIMK1 | 4.62 | 4.58 | 4.59 | 4.39 | 3.97 | 4.24 | 4.54 | 4.07 |
| LIMK2 | 4.51 | 4.69 | 3.92 | 5.12 | 4.26 | 4.01 | 4.48 | 3.95 |
| LIMS1 | 5.57 | 5.90 | 6.09 | 5.58 | 5.53 | 6.03 | 5.95 | 6.24 |
| LIMS2 | -1.59 | -1.59 | -1.58 | -1.60 | -1.59 | -1.53 | -1.60 | -1.61 |
| LIN28A | -1.59 | -1.58 | -1.57 | -1.59 | -1.64 | -1.65 | -1.59 | -1.61 |
| LIN28B | -1.96 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -1.95 |
| LIN37 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| LIN52 | 2.59 | 2.73 | 2.96 | 3.14 | 2.75 | 3.77 | 3.04 | 2.82 |
| LIN54 | 3.42 | 3.95 | 3.74 | 3.89 | 3.07 | 3.47 | 3.98 | 3.83 |
| LIN7A | 0.30 | 1.15 | 0.91 | 0.83 | 0.31 | 0.28 | 0.97 | 0.38 |
| LIN7B | 3.97 | 3.25 | 3.16 | 3.50 | 3.89 | 3.77 | 3.27 | 3.92 |
| LIN7C | 6.27 | 6.48 | 6.28 | 6.32 | 6.14 | 5.92 | 6.33 | 6.55 |
| LIN9 | 3.91 | 3.52 | 3.70 | 3.58 | 3.33 | 3.67 | 3.46 | 3.88 |
| LINC-PINT | 2.65 | 2.78 | 2.83 | 2.81 | 3.36 | 2.71 | 2.83 | 2.99 |
| LINC-ROR | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| LINC00028 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| LINC00032 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC00052 | -2.29 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| LINC00092 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00113 | 0.25 | 0.35 | 0.20 | 0.32 | 0.18 | 0.23 | 0.40 | 0.27 |
| LINC00114 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00115 | 0.42 | 0.37 | 0.23 | 0.05 | 0.33 | 0.24 | 0.12 | 0.31 |
| LINC00160 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| LINC00165 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.74 | -1.89 | -1.90 |
| LINC00167 | -1.32 | -1.18 | -1.23 | -1.32 | -1.24 | -1.23 | -1.32 | -1.28 |
| LINC00173 | 0.72 | 0.35 | 0.37 | 0.33 | 0.43 | 0.35 | 0.63 | 0.43 |
| LINC00174 | 1.36 | 1.01 | 1.59 | 1.57 | 1.25 | 1.31 | 1.33 | 1.24 |
| LINC00189 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00205 | 3.74 | 2.72 | 2.66 | 2.89 | 3.14 | 3.82 | 2.66 | 2.82 |
| LINC00222 | -2.12 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| LINC00235 | -1.38 | -1.59 | -1.58 | -1.59 | -1.59 | -1.57 | -1.60 | -1.56 |
| LINC00237 | -1.94 | -1.91 | -1.93 | -1.91 | -1.94 | -1.95 | -1.94 | -1.92 |
| LINC00239 | 2.07 | 1.84 | 1.63 | 1.95 | 2.77 | 1.84 | 1.73 | 1.79 |
| LINC00240 | 0.01 | -0.24 | 0.02 | -0.10 | -0.05 | -0.06 | 0.02 | 0.11 |
| LINC00242 | -1.74 | -1.73 | -1.73 | -1.70 | -1.74 | -1.70 | -1.70 | -1.76 |
| LINC00243 | -1.51 | -1.34 | -1.50 | -1.46 | -1.48 | -1.47 | -1.52 | -1.44 |
| LINC002481 | 0.34 | 0.20 | 0.55 | 0.03 | 0.19 | 0.23 | 0.18 | 0.01 |
| LINC00261 | 2.03 | 2.19 | 1.76 | 2.39 | 3.36 | 2.51 | 2.45 | 2.23 |
| LINC00265 | -0.23 | -0.20 | -0.01 | -0.30 | -0.44 | -0.39 | -0.32 | -0.35 |
| LINC00271 | 0.06 | 0.15 | 0.23 | 0.19 | 0.19 | 0.36 | 0.33 | 0.03 |
| LINC00278 | -1.07 | -1.07 | -1.05 | -1.08 | -0.99 | -1.08 | -1.08 | -1.09 |
| LINC00294 | 1.94 | 2.78 | 2.77 | 2.41 | 2.31 | 2.49 | 3.09 | 2.34 |
| LINC00299 | -1.45 | -1.38 | -1.43 | -1.20 | -1.38 | -1.43 | -1.39 | -1.41 |
| LINC00309 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00310 | -2.10 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| LINC00311 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| LINC00316 | -2.28 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC00323 | -1.69 | -1.74 | -1.68 | -1.74 | -1.61 | -1.75 | -1.75 | -1.76 |
| LINC00324 | 2.30 | 2.00 | 1.91 | 2.53 | 2.04 | 2.38 | 1.97 | 2.24 |
| LINC00326 | 5.41 | 5.53 | 4.13 | 4.86 | 5.53 | 3.78 | 3.13 | 2.95 |
| LINC00327 | -1.85 | -1.89 | -1.88 | -1.86 | -1.87 | -1.90 | -1.89 | -1.91 |
| LINC00330 | -0.83 | -0.33 | -0.81 | -0.21 | -0.71 | -0.73 | -0.76 | -0.78 |
| LINC00334 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 |
| LINC00336 | -0.33 | -0.38 | -0.45 | -0.40 | -0.10 | -0.52 | -0.55 | -0.24 |
| LINC00337 | 0.32 | 0.07 | -0.07 | 0.05 | 0.00 | 0.14 | -0.10 | -0.06 |
| LINC00339 | 4.06 | 3.09 | 3.11 | 3.67 | 4.11 | 3.54 | 3.41 | 3.58 |
| LINC00342 | 3.09 | 3.29 | 3.62 | 3.40 | 3.67 | 3.99 | 4.74 | 2.76 |
| LINC00343 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00345 | -1.99 | -1.96 | -1.98 | -1.86 | -1.99 | -2.00 | -2.00 | -1.97 |
| LINC00346 | 0.02 | -0.05 | 0.35 | -0.15 | 0.42 | 0.24 | -0.15 | 0.34 |
| LINC00352 | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC00365 | 0.06 | 0.07 | 0.19 | 0.22 | 0.15 | 0.12 | 0.13 | 1.25 |
| LINC00370 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| LINC00390 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.03 |
| LINC00392 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| LINC00393 | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.81 |
| LINC00397 | -2.20 | -2.20 | -2.17 | -2.16 | -2.20 | -2.18 | -2.20 | -2.21 |
| LINC00398 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC00412 | -1.55 | -1.55 | -1.54 | -1.50 | -1.38 | -1.54 | -1.56 | -1.48 |
| LINC00426 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC00431 | -0.12 | 0.06 | -0.18 | -0.12 | 0.28 | 0.62 | -0.20 | -0.09 |
| LINC00443 | -1.74 | -1.73 | -1.73 | -1.74 | -1.69 | -1.72 | -1.74 | -1.76 |
| LINC00449 | -0.85 | -0.98 | -1.04 | -0.86 | -0.91 | -1.00 | -1.07 | -0.96 |
| LINC00452 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| LINC00458 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LINC00460 | 0.71 | 1.85 | 0.82 | 2.85 | 0.59 | 0.99 | 0.60 | 2.03 |
| LINC00461 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| LINC00462 | -1.23 | -1.15 | -0.99 | -0.92 | -1.19 | -1.24 | -1.24 | -1.13 |
| LINC00463 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00466 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| LINC00467 | 6.08 | 5.72 | 5.46 | 5.70 | 6.43 | 6.30 | 5.44 | 6.38 |
| LINC00470 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LINC00471 | 0.00 | -0.22 | 0.04 | -0.23 | 0.36 | 0.03 | -0.09 | -0.08 |
| LINC00472 | 3.35 | 2.68 | 3.87 | 3.19 | 3.01 | 3.53 | 3.87 | 2.93 |
| LINC00475 | 0.88 | 1.96 | 1.11 | 1.82 | 1.02 | 1.19 | 1.26 | 1.07 |
| LINC00476 | 4.28 | 3.52 | 3.12 | 3.30 | 2.75 | 3.11 | 3.18 | 2.51 |
| LINC00479 | -1.54 | -1.54 | -1.47 | -1.55 | -1.48 | -1.49 | -1.55 | -1.51 |
| LINC00482 | 0.98 | 0.57 | 0.62 | 0.48 | 0.81 | 0.49 | 0.69 | 0.43 |
| LINC00484 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00494 | -2.07 | -2.09 | -2.06 | -2.10 | -2.08 | -2.07 | -2.10 | -2.11 |
| LINC00501 | -1.66 | -1.60 | -1.59 | -1.66 | -1.60 | -1.67 | -1.66 | -1.63 |
| LINC00507 | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00511 | 6.72 | 7.23 | 6.88 | 7.48 | 6.82 | 6.78 | 7.11 | 6.52 |
| LINC00513 | 2.24 | 2.41 | 2.68 | 2.58 | 3.44 | 2.53 | 2.50 | 2.80 |
| LINC00514 | 1.10 | 0.88 | 0.99 | 0.76 | 1.10 | 0.93 | 1.68 | 0.89 |
| LINC00518 | -2.20 | -2.18 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 |
| LINC00519 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC00520 | 2.37 | 3.63 | 2.61 | 3.39 | 2.74 | 2.51 | 3.04 | 3.39 |
| LINC00524 | -0.07 | -0.07 | -0.04 | -0.16 | 0.16 | 0.71 | -0.17 | 0.26 |
| LINC00525 | -0.56 | -0.47 | -0.44 | -0.57 | -0.63 | -0.64 | -0.51 | -0.48 |
| LINC00526 | 2.63 | 2.61 | 2.68 | 2.96 | 2.72 | 2.40 | 2.66 | 3.02 |
| LINC00528 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| LINC00534 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| LINC00536 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00538 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| LINC00539 | -1.09 | -1.15 | -1.07 | -1.10 | -0.94 | -1.07 | -1.16 | -1.06 |
| LINC00543 | 1.80 | 1.87 | 1.46 | 2.12 | 2.00 | 1.59 | 2.05 | 1.77 |
| LINC00545 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC00551 | 0.24 | 0.08 | 0.60 | 0.15 | 0.16 | 0.92 | 0.06 | 0.48 |
| LINC00562 | -0.42 | -0.41 | -0.40 | -0.36 | -0.30 | -0.47 | -0.22 | -0.39 |
| LINC00570 | -1.59 | -1.74 | -1.73 | -1.74 | -1.71 | -1.75 | -1.75 | -1.76 |
| LINC00571 | -0.57 | -0.40 | -0.63 | -0.50 | -0.52 | -0.62 | -0.32 | -0.66 |
| LINC00574 | -1.48 | -1.63 | -1.63 | -1.59 | -1.61 | -1.65 | -1.59 | -1.66 |
| LINC00589 | 1.71 | 1.52 | 1.90 | 1.71 | 1.75 | 1.42 | 1.31 | 1.41 |
| LINC00592 | -0.67 | -0.75 | -0.52 | -0.76 | -0.58 | -0.76 | -0.62 | -0.49 |
| LINC00595 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| LINC00598 | -1.24 | -1.24 | -1.02 | -1.18 | -1.10 | -1.25 | -1.11 | -1.26 |
| LINC00605 | -1.11 | -1.10 | -1.01 | -1.11 | -1.03 | -0.87 | -1.04 | -1.00 |
| LINC00606 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LINC00607 | -1.85 | -1.89 | -1.88 | -1.89 | -1.79 | -1.90 | -1.82 | -1.91 |
| LINC00612 | -1.89 | -1.89 | -1.88 | -1.89 | -1.85 | -1.88 | -1.86 | -1.91 |
| LINC00616 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC00618 | -0.54 | -0.54 | -0.12 | -0.49 | -0.50 | -0.30 | -0.48 | -0.64 |
| LINC00620 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00621 | -1.94 | -1.90 | -1.89 | -1.95 | -1.94 | -1.93 | -1.95 | -1.96 |
| LINC00623 | 1.74 | 2.40 | 2.08 | 2.35 | 2.14 | 2.55 | 2.11 | 2.26 |
| LINC00624 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.18 | -2.21 |
| LINC00626 | -2.12 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| LINC00628 | -1.62 | -1.61 | -1.55 | -1.56 | -1.58 | -1.57 | -1.62 | -1.64 |
| LINC00629 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| LINC00630 | 2.06 | 1.52 | 1.90 | 1.71 | 1.45 | 1.45 | 1.79 | 1.47 |
| LINC00632 | -1.54 | -1.48 | -1.53 | -1.54 | -1.54 | -1.55 | -1.55 | -1.41 |
| LINC00634 | -1.29 | -1.34 | -1.27 | -1.35 | -1.25 | -1.33 | -1.36 | -1.37 |
| LINC00635 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00636 | -2.04 | -2.01 | -2.04 | -2.05 | -2.04 | -2.00 | -2.05 | -2.06 |
| LINC00637 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| LINC00638 | -0.74 | -0.66 | -0.64 | -0.60 | -0.54 | -0.56 | -0.75 | -0.70 |
| LINC00639 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| LINC00640 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LINC00641 | 0.70 | 0.80 | 1.08 | 0.96 | 0.75 | 1.03 | 1.37 | 0.64 |
| LINC00643 | -2.30 | -2.30 | -2.27 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC00649 | 3.62 | 3.00 | 3.11 | 2.72 | 2.15 | 2.19 | 3.38 | 1.99 |
| LINC00652 | -2.23 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| LINC00653 | 0.39 | 0.23 | 0.18 | 0.14 | 0.37 | 0.36 | 0.06 | 0.27 |
| LINC00654 | 0.42 | 0.05 | -0.01 | -0.12 | -0.02 | 0.01 | -0.04 | -0.14 |
| LINC00659 | 1.86 | 2.02 | 1.84 | 2.19 | 2.98 | 2.04 | 1.63 | 1.72 |
| LINC00662 | 4.44 | 3.12 | 4.16 | 2.90 | 3.88 | 4.73 | 4.51 | 4.13 |
| LINC00663 | -0.08 | -0.15 | -0.12 | -0.09 | -0.08 | -0.11 | 0.17 | -0.08 |
| LINC00664 | -1.48 | -1.47 | -1.21 | -1.42 | -1.47 | -1.49 | -1.42 | -1.50 |
| LINC00665 | 4.10 | 2.35 | 4.85 | 2.74 | 2.78 | 2.65 | 3.08 | 2.36 |
| LINC00667 | 5.63 | 5.71 | 5.30 | 5.93 | 6.10 | 5.22 | 5.64 | 6.06 |
| LINC00668 | 1.41 | 1.75 | 0.47 | 1.80 | 0.50 | 0.53 | 0.51 | 0.70 |
| LINC00672 | 0.63 | 0.75 | 0.90 | 0.62 | 0.63 | 0.87 | 0.85 | 0.71 |
| LINC00674 | 2.36 | 2.04 | 2.38 | 2.33 | 2.58 | 2.52 | 2.42 | 2.54 |
| LINC00677 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00680 | 0.98 | 0.88 | 0.66 | 0.63 | 0.90 | 0.92 | 0.82 | 0.99 |
| LINC00683 | -1.12 | -0.85 | -1.10 | -0.86 | -1.15 | -1.07 | -0.99 | -1.21 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| LINC00691 | -2.23 | -2.23 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC00702 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC00705 | 1.41 | 3.03 | 2.39 | 3.51 | 2.62 | 2.96 | 1.54 | 1.93 |
| LINC00706 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC00707 | -0.43 | 0.01 | -0.42 | -0.36 | -0.39 | -0.37 | -0.23 | 0.13 |
| LINC00708 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00710 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| LINC00824 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| LINC00837 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LINC00839 | 2.56 | 0.84 | 0.77 | 0.71 | 0.83 | 0.77 | 0.96 | 0.87 |
| LINC00840 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.03 |
| LINC00842 | 0.10 | 0.63 | 0.31 | 0.26 | 0.11 | 0.23 | 0.25 | 0.19 |
| LINC00843 | -1.61 | -1.60 | -1.59 | -1.55 | -1.60 | -1.56 | -1.55 | -1.63 |
| LINC00844 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| LINC00845 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00846 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| LINC00847 | 3.06 | 3.24 | 2.98 | 3.12 | 3.68 | 2.84 | 3.06 | 2.87 |
| LINC00852 | -1.15 | -1.15 | -1.00 | -1.02 | -1.11 | -1.13 | -1.09 | -1.17 |
| LINC00853 | 2.19 | 2.10 | 2.03 | 1.91 | 2.61 | 2.06 | 1.78 | 1.96 |
| LINC00857 | 1.62 | 1.32 | 1.77 | 1.22 | 1.95 | 1.55 | 1.47 | 1.61 |
| LINC00858 | -0.69 | -1.07 | -0.97 | -1.00 | -1.07 | -1.01 | -1.08 | -1.09 |
| LINC00861 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC00862 | -0.48 | -0.40 | -0.29 | -0.41 | -0.36 | -0.21 | -0.17 | -0.23 |
| LINC00863 | 1.33 | 1.40 | 0.99 | 1.21 | 1.32 | 1.01 | 1.32 | 1.14 |
| LINC00865 | 0.22 | 0.85 | 0.52 | 0.74 | 0.39 | 0.31 | 0.35 | 0.31 |
| LINC00866 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| LINC00867 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| LINC00868 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00869 | 1.37 | 1.66 | 1.37 | 1.42 | 1.62 | 1.92 | 1.48 | 1.77 |
| LINC00870 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| LINC00871 | -2.36 | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00880 | -0.45 | -0.29 | -0.17 | -0.24 | -0.12 | -0.26 | -0.39 | -0.19 |
| LINC00881 | -0.66 | -0.99 | -0.90 | -0.93 | -0.92 | -0.90 | -1.00 | -0.84 |
| LINC00882 | -0.56 | -0.55 | -0.29 | -0.64 | -0.55 | -0.52 | -0.57 | -0.24 |
| LINC00884 | 2.02 | 2.48 | 2.65 | 2.44 | 2.63 | 2.26 | 2.32 | 2.37 |
| LINC00885 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.09 |
| LINC00886 | 1.44 | 1.88 | 1.75 | 1.86 | 2.35 | 1.84 | 1.49 | 2.28 |
| LINC00887 | 1.31 | 1.34 | 1.68 | 1.48 | 1.51 | 1.77 | 1.62 | 1.36 |
| LINC00888 | 2.65 | 3.48 | 2.64 | 3.54 | 3.21 | 2.92 | 2.63 | 2.41 |
| LINC00893 | -1.84 | -1.84 | -1.79 | -1.80 | -1.84 | -1.81 | -1.84 | -1.86 |
| LINC00894 | 0.47 | 0.49 | 0.80 | 0.93 | 0.61 | 0.41 | 1.15 | 0.48 |
| LINC00895 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 | -2.26 |
| LINC00896 | -0.38 | -0.58 | -0.65 | -0.66 | -0.62 | -0.54 | -0.46 | -0.68 |
| LINC00899 | 0.66 | 0.68 | 0.69 | 1.10 | 0.68 | 1.07 | 1.13 | 1.18 |
| LINC00907 | -2.30 | -2.29 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC00909 | 3.47 | 3.83 | 3.68 | 3.93 | 3.68 | 3.24 | 3.59 | 3.47 |
| LINC00910 | 2.63 | 1.98 | 2.52 | 2.27 | 2.96 | 2.66 | 2.10 | 2.16 |
| LINC00920 | 3.31 | 3.56 | 2.87 | 3.70 | 3.25 | 3.06 | 2.25 | 2.83 |
| LINC00921 | -1.49 | -1.37 | -1.48 | -1.50 | -1.46 | -1.50 | -1.44 | -1.51 |
| LINC00923 | 1.07 | 0.63 | 0.50 | 0.73 | 1.01 | 0.39 | 0.52 | 0.60 |
| LINC00926 | 2.89 | 1.60 | 1.82 | 1.86 | 3.04 | 1.68 | 1.53 | 1.21 |
| LINC00930 | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| LINC00933 | -0.72 | -1.02 | -0.85 | -1.03 | -0.89 | -1.04 | -1.03 | -0.98 |
| LINC00937 | -0.64 | -0.86 | -0.85 | -0.87 | -0.71 | -0.87 | -0.79 | -0.82 |
| LINC00939 | -1.08 | -1.20 | -1.19 | -1.09 | -1.20 | -1.10 | -1.22 | -1.12 |
| LINC00944 | -1.16 | -1.22 | -1.06 | -1.16 | -1.23 | -0.80 | -1.24 | -1.12 |
| LINC00954 | -1.27 | -1.19 | -1.25 | -1.08 | -1.23 | -1.04 | -1.27 | -1.23 |
| LINC00957 | 0.31 | 0.31 | 0.27 | 0.30 | 0.56 | 0.30 | 0.35 | 0.28 |
| LINC00958 | -0.77 | -0.68 | -0.75 | -0.36 | -0.68 | -0.52 | -0.56 | -0.78 |
| LINC00960 | 2.26 | 2.39 | 2.72 | 2.63 | 2.34 | 2.22 | 3.57 | 2.33 |
| LINC00963 | 5.17 | 5.76 | 4.97 | 5.54 | 4.87 | 4.97 | 5.40 | 5.18 |
| LINC00964 | -1.40 | -1.46 | -1.17 | -1.47 | -1.39 | -1.48 | -1.34 | -1.36 |
| LINC00970 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC00973 | 1.50 | 1.54 | 2.07 | 1.49 | 1.84 | 3.46 | 1.71 | 1.58 |
| LINC00974 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.03 |
| LINC00987 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.95 | -1.95 | -1.92 |
| LINC00989 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LINC00992 | 2.72 | 3.63 | 2.29 | 3.66 | 2.09 | 2.04 | 2.58 | 2.46 |
| LINC00997 | 1.15 | 1.10 | 1.94 | 1.06 | 1.49 | 1.35 | 1.68 | 1.63 |
| LINC01002 | -2.29 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC01003 | 4.34 | 3.43 | 3.64 | 4.01 | 4.35 | 3.52 | 3.23 | 3.60 |
| LINC01004 | 1.54 | 1.78 | 1.59 | 1.69 | 1.77 | 1.52 | 1.70 | 1.52 |
| LINC01006 | 3.31 | 4.00 | 3.11 | 3.93 | 3.78 | 3.09 | 3.58 | 3.11 |
| LINC01011 | 1.22 | 0.99 | 1.23 | 1.02 | 1.04 | 0.95 | 1.17 | 1.11 |
| LINC01018 | -0.23 | -0.75 | -0.74 | -0.69 | -0.63 | -0.69 | -0.76 | -0.78 |
| LINC01022 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LINC01023 | 2.58 | 2.34 | 2.18 | 2.03 | 2.51 | 2.32 | 2.02 | 2.05 |
| LINC01030 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| LINC01031 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| LINC01046 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LINC01060 | 1.22 | -0.03 | 0.15 | -0.05 | 0.01 | -0.06 | -0.05 | -0.08 |
| LINC01063 | 1.50 | 1.10 | 0.92 | 0.93 | 1.18 | 0.92 | 0.77 | 0.99 |
| LINC01068 | -1.37 | -1.36 | -1.35 | -1.37 | -1.33 | -1.26 | -1.37 | -1.33 |
| LINC01085 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01088 | 3.64 | 2.62 | 4.55 | 2.70 | 2.81 | 4.62 | 3.52 | 2.62 |
| LINC01089 | 1.96 | 1.77 | 1.99 | 1.78 | 1.80 | 1.75 | 2.02 | 1.91 |
| LINC01090 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.28 |
| LINC01091 | 1.67 | 3.65 | 1.34 | 3.58 | 1.79 | 2.10 | 1.14 | 1.48 |
| LINC01094 | -2.18 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC01106 | 0.09 | 0.19 | 0.49 | 0.47 | 0.32 | 0.13 | 0.29 | 0.10 |
| LINC01108 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01111 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| LINC01115 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01116 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| LINC01117 | -1.99 | -1.99 | -1.95 | -1.99 | -1.96 | -2.00 | -2.00 | -1.97 |
| LINC01118 | -1.84 | -1.80 | -1.83 | -1.84 | -1.82 | -1.79 | -1.84 | -1.86 |
| LINC01119 | -0.46 | -0.36 | -0.24 | -0.37 | 0.38 | -0.43 | -0.46 | -0.36 |
| LINC01121 | -2.20 | -2.20 | -2.19 | -2.17 | -2.18 | -2.19 | -2.21 | -2.22 |
| LINC01122 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| LINC01123 | 0.29 | 0.09 | 0.12 | 0.07 | 0.40 | 0.06 | 0.33 | 0.03 |
| LINC01124 | 1.42 | 0.65 | 0.75 | 0.70 | 0.73 | 0.72 | 0.84 | 0.83 |
| LINC01126 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC01127 | -1.95 | -1.89 | -1.88 | -1.80 | -1.94 | -1.93 | -1.95 | -1.87 |
| LINC01128 | 2.64 | 2.53 | 2.72 | 2.43 | 2.80 | 2.88 | 2.55 | 2.37 |
| LINC01132 | -1.23 | -1.16 | -1.08 | -1.24 | -1.19 | -1.15 | -1.17 | -1.14 |
| LINC01133 | 5.05 | 5.44 | 5.25 | 4.90 | 5.25 | 4.18 | 6.60 | 6.49 |
| LINC01134 | 0.77 | 0.50 | 0.43 | 0.48 | 0.53 | 0.52 | 0.86 | 0.49 |
| LINC01135 | 0.37 | 0.31 | 0.24 | 0.50 | 0.71 | 0.70 | 0.21 | 0.41 |
| LINC01136 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.93 | -1.94 | -1.92 |
| LINC01137 | 3.84 | 2.83 | 3.24 | 3.19 | 2.87 | 3.24 | 3.43 | 3.09 |
| LINC01138 | 1.61 | 1.28 | 1.40 | 1.71 | 1.41 | 1.85 | 1.36 | 1.61 |
| LINC01140 | -1.44 | -1.49 | -1.30 | -1.50 | -1.37 | -1.51 | -1.44 | -1.46 |
| LINC01143 | -1.64 | -1.63 | -1.63 | -1.69 | -1.66 | -1.67 | -1.69 | -1.71 |
| LINC01144 | -1.16 | -1.16 | -1.00 | -1.09 | -1.01 | -1.14 | -1.10 | -1.12 |
| LINC01145 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC01146 | -1.87 | -1.94 | -1.93 | -1.87 | -1.94 | -1.93 | -1.95 | -1.96 |
| LINC01151 | -1.06 | -0.75 | -0.96 | -0.84 | -1.06 | -0.81 | -1.07 | -0.96 |
| LINC01152 | -0.55 | -0.77 | -0.76 | -0.62 | -0.48 | -0.72 | -0.64 | -0.80 |
| LINC01166 | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.91 | -1.91 | -1.96 |
| LINC01167 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LINC01168 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| LINC01169 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| LINC01170 | -0.27 | -0.08 | -0.14 | -0.37 | 0.85 | -0.30 | -0.28 | -0.25 |
| LINC01176 | -1.22 | -1.21 | -1.05 | -1.22 | -1.14 | -1.16 | -1.02 | -1.18 |
| LINC01182 | -1.89 | -1.68 | -1.88 | -1.81 | -1.89 | -1.90 | -1.90 | -1.91 |
| LINC01184 | 5.45 | 6.05 | 5.49 | 6.41 | 6.29 | 5.35 | 5.60 | 5.40 |
| LINC01186 | 3.35 | 3.75 | 3.33 | 3.78 | 3.21 | 3.33 | 3.45 | 3.12 |
| LINC01191 | -1.85 | -1.89 | -1.88 | -1.81 | -1.85 | -1.90 | -1.90 | -1.91 |
| LINC01197 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01203 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.99 | -1.97 |
| LINC01204 | -0.43 | -0.06 | -0.42 | -0.09 | -0.35 | -0.14 | -0.44 | 0.01 |
| LINC01205 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| LINC01208 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.03 |
| LINC01209 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC01213 | -1.61 | -1.60 | -1.54 | -1.61 | -1.60 | -1.54 | -1.61 | -1.53 |
| LINC01214 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 |
| LINC01215 | -1.65 | -1.64 | -1.63 | -1.70 | -1.69 | -1.65 | -1.60 | -1.62 |
| LINC01220 | 1.11 | 0.94 | 0.90 | 0.83 | 0.90 | 1.00 | 0.96 | 1.11 |
| LINC01224 | -0.98 | -0.98 | -0.55 | -0.91 | -0.94 | -0.96 | -0.84 | -0.94 |
| LINC01226 | -1.55 | -1.54 | -1.53 | -1.55 | -1.54 | -1.48 | -1.50 | -1.57 |
| LINC01227 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01228 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC01229 | -1.99 | -1.99 | -1.95 | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 |
| LINC01230 | -1.90 | -1.94 | -1.93 | -1.95 | -1.92 | -1.95 | -1.95 | -1.96 |
| LINC01231 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.03 |
| LINC01232 | 2.39 | 2.10 | 2.14 | 2.21 | 2.97 | 1.99 | 1.89 | 2.28 |
| LINC01234 | 3.18 | 2.00 | 1.19 | 1.65 | 1.31 | 1.20 | 1.28 | 1.24 |
| LINC01235 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC01237 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| LINC01239 | 0.06 | 0.15 | 0.19 | 0.18 | 0.07 | 1.29 | 0.04 | -0.07 |
| LINC01242 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC01251 | -1.70 | -1.64 | -1.68 | -1.70 | -1.69 | -1.70 | -1.70 | -1.62 |
| LINC01252 | 0.47 | 0.65 | 0.52 | 0.54 | 0.88 | 0.75 | 0.53 | 0.85 |
| LINC01257 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01266 | -1.33 | -1.58 | -1.63 | -1.54 | -1.64 | -1.65 | -1.65 | -1.66 |
| LINC01268 | -1.03 | -1.09 | -1.00 | -1.03 | -1.06 | -1.07 | -1.03 | -1.05 |
| LINC01269 | -0.73 | -0.56 | -0.62 | -0.33 | -0.73 | -0.61 | -0.73 | -0.58 |
| LINC01270 | -0.39 | -0.68 | -0.67 | -0.69 | -0.64 | -0.59 | -0.61 | -0.49 |
| LINC01271 | -2.16 | -2.20 | -2.17 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| LINC01273 | 2.68 | 1.69 | 2.17 | 1.67 | 2.34 | 2.07 | 1.54 | 2.02 |
| LINC01275 | -0.95 | -0.93 | -1.00 | -0.95 | -0.97 | -0.93 | -0.95 | -1.03 |
| LINC01277 | -0.23 | -0.14 | -0.13 | -0.23 | -0.10 | 0.16 | -0.02 | 0.44 |
| LINC01278 | 3.24 | 2.26 | 3.32 | 2.39 | 3.43 | 3.32 | 3.58 | 3.17 |
| LINC01285 | 1.48 | 0.69 | 1.64 | 0.59 | 0.69 | 0.89 | 0.64 | 0.87 |
| LINC01289 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01290 | -1.80 | -1.84 | -1.79 | -1.84 | -1.79 | -1.83 | -1.85 | -1.86 |
| LINC01291 | -1.74 | -1.73 | -1.73 | -1.74 | -1.69 | -1.75 | -1.74 | -1.71 |
| LINC01293 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC01299 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| LINC01300 | -1.89 | -1.89 | -1.88 | -1.89 | -1.83 | -1.88 | -1.90 | -1.87 |
| LINC01301 | -0.50 | -0.70 | -0.77 | -0.79 | -0.60 | -0.73 | -0.79 | -0.35 |
| LINC01303 | 1.36 | 1.06 | 1.00 | 1.28 | 1.33 | 1.30 | 0.94 | 1.48 |
| LINC01305 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC01311 | 0.27 | 0.19 | 0.45 | 0.35 | 0.17 | 0.17 | 0.08 | 0.17 |
| LINC01312 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| LINC01315 | 5.70 | 3.98 | 3.08 | 4.15 | 4.14 | 3.56 | 3.62 | 3.29 |
| LINC01320 | -0.27 | -0.34 | 0.08 | -0.35 | -0.26 | -0.33 | 0.05 | -0.38 |
| LINC01322 | 0.03 | -0.31 | 0.12 | -0.32 | -0.31 | -0.33 | -0.10 | 1.40 |
| LINC01331 | -0.02 | 0.08 | 0.12 | 0.54 | -0.19 | -0.19 | -0.17 | -0.28 |
| LINC01332 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC01335 | -1.52 | -1.21 | -1.44 | -1.28 | -1.51 | -1.53 | -1.52 | -1.54 |
| LINC01337 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC01340 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| LINC01341 | -1.02 | -0.86 | -1.07 | -1.02 | -0.94 | -1.00 | -1.10 | -1.05 |
| LINC01342 | -1.65 | -1.79 | -1.69 | -1.79 | -1.74 | -1.80 | -1.75 | -1.76 |
| LINC01344 | -2.15 | -2.11 | -2.14 | -2.15 | -2.15 | -2.14 | -2.12 | -2.13 |
| LINC01346 | -2.29 | -2.30 | -2.28 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| LINC01347 | -2.10 | -2.09 | -2.06 | -2.07 | -2.08 | -2.10 | -2.10 | -2.11 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| LINC01348 | -0.22 | -0.36 | -0.24 | -0.29 | -0.36 | -0.32 | -0.45 | -0.35 |
| LINC01353 | -1.84 | -1.84 | -1.83 | -1.84 | -1.79 | -1.85 | -1.85 | -1.86 |
| LINC01355 | 1.35 | 1.22 | 1.72 | 1.25 | 1.71 | 1.59 | 2.18 | 1.35 |
| LINC01356 | -0.90 | -0.97 | -0.95 | -0.84 | -0.73 | -0.91 | -0.98 | -0.93 |
| LINC01357 | 1.46 | 2.05 | 1.06 | 2.36 | 1.72 | 1.11 | 0.82 | 1.29 |
| LINC01358 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.11 | -2.15 | -2.16 |
| LINC01359 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC01363 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.13 | -2.15 | -2.13 |
| LINC01376 | -1.00 | -1.06 | -1.05 | -1.07 | -1.03 | -0.79 | -0.94 | -0.92 |
| LINC01389 | -1.35 | -1.21 | -1.33 | -1.22 | -1.25 | -1.33 | -1.36 | -1.31 |
| LINC01391 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01393 | -1.64 | -1.64 | -1.63 | -1.65 | -1.61 | -1.63 | -1.65 | -1.56 |
| LINC01399 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| LINC01405 | -2.10 | -2.06 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.11 |
| LINC01410 | -1.64 | -1.63 | -1.57 | -1.54 | -1.61 | -1.57 | -1.64 | -1.66 |
| LINC01411 | -1.84 | -1.79 | -1.79 | -1.84 | -1.82 | -1.85 | -1.80 | -1.86 |
| LINC01419 | 0.08 | -0.49 | -0.48 | -0.34 | -0.44 | -0.36 | -0.50 | -0.45 |
| LINC01422 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LINC01424 | -1.43 | -1.48 | -1.48 | -1.49 | -1.46 | -1.47 | -1.38 | -1.51 |
| LINC01426 | 0.92 | 0.81 | 1.49 | 0.93 | 1.51 | 1.17 | 0.90 | 2.13 |
| LINC01429 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01431 | 0.80 | 0.40 | 0.74 | 0.53 | 0.73 | 0.46 | 0.37 | 0.26 |
| LINC01433 | -1.99 | -1.99 | -1.98 | -2.00 | -1.96 | -1.98 | -1.96 | -2.01 |
| LINC01436 | 0.31 | -0.18 | -0.08 | -0.19 | -0.18 | -0.16 | -0.19 | -0.15 |
| LINC01443 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LINC01446 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC01465 | -0.29 | -0.21 | -0.26 | -0.30 | -0.21 | -0.22 | -0.31 | -0.33 |
| LINC01470 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01471 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| LINC01473 | 1.01 | 1.18 | 1.22 | 1.21 | 1.43 | 1.36 | 1.66 | 1.26 |
| LINC01474 | -1.69 | -1.73 | -1.73 | -1.74 | -1.71 | -1.72 | -1.65 | -1.76 |
| LINC01476 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC01479 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| LINC01480 | -1.64 | -1.64 | -1.57 | -1.65 | -1.38 | -1.65 | -1.65 | -1.67 |
| LINC01481 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.13 |
| LINC01484 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| LINC01485 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC01502 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LINC01503 | 2.89 | 2.24 | 2.41 | 2.47 | 2.61 | 2.60 | 2.29 | 2.85 |
| LINC01504 | 2.80 | 3.02 | 2.76 | 2.99 | 2.30 | 2.18 | 2.45 | 1.82 |
| LINC01508 | -0.01 | 0.00 | 0.18 | 0.18 | -0.04 | 0.02 | 0.18 | 0.00 |
| LINC01510 | -1.25 | -1.24 | -1.23 | -1.25 | -1.14 | -1.26 | -1.25 | -1.16 |
| LINC01511 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.80 | -1.79 | -1.76 |
| LINC01513 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| LINC01515 | 1.72 | 1.62 | 2.25 | 1.75 | 1.65 | 2.04 | 2.24 | 1.91 |
| LINC01517 | -1.32 | -1.31 | -1.36 | -1.38 | -1.38 | -1.13 | -1.39 | -1.40 |
| LINC01521 | -0.55 | -0.46 | -0.53 | -0.48 | -0.58 | -0.50 | -0.55 | -0.58 |
| LINC01523 | -2.20 | -2.20 | -2.15 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| LINC01524 | -1.39 | -1.45 | -1.31 | -1.46 | -1.42 | -1.43 | -1.33 | -1.47 |
| LINC01526 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01533 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| LINC01534 | 1.57 | 0.81 | 1.01 | 0.78 | 1.03 | 1.01 | 0.77 | 0.85 |
| LINC01535 | -0.38 | -0.55 | -0.53 | -0.56 | -0.51 | -0.57 | -0.41 | -0.51 |
| LINC01541 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC01545 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| LINC01546 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LINC01547 | 1.28 | 1.06 | 1.16 | 1.21 | 1.18 | 1.12 | 1.14 | 0.94 |
| LINC01550 | -1.49 | -1.30 | -1.48 | -1.43 | -1.49 | -1.50 | -1.44 | -1.46 |
| LINC01553 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC01554 | -0.23 | -0.56 | -0.61 | -0.73 | -0.72 | -0.66 | -0.73 | -0.68 |
| LINC01556 | 0.84 | 0.34 | 0.59 | 0.33 | 0.53 | 0.59 | 0.38 | 0.82 |
| LINC01558 | -1.14 | -1.39 | -1.38 | -1.40 | -1.36 | -1.25 | -1.40 | -1.41 |
| LINC01559 | 3.55 | 4.67 | 5.73 | 4.57 | 5.40 | 3.53 | 5.49 | 3.76 |
| LINC01560 | 1.20 | 1.27 | 1.57 | 1.31 | 1.39 | 1.17 | 1.30 | 1.20 |
| LINC01564 | 1.76 | 1.93 | 1.85 | 1.98 | 1.99 | 1.98 | 2.25 | 2.41 |
| LINC01565 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01569 | 2.65 | 2.20 | 2.40 | 2.42 | 2.33 | 2.03 | 2.15 | 2.22 |
| LINC01571 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC01572 | 1.07 | 1.03 | 1.43 | 1.03 | 1.08 | 1.09 | 1.36 | 1.00 |
| LINC01574 | -2.10 | -2.07 | -2.09 | -2.04 | -2.09 | -2.10 | -2.07 | -2.11 |
| LINC01578 | 6.51 | 6.33 | 6.90 | 6.40 | 6.79 | 6.23 | 6.41 | 7.36 |
| LINC01587 | -1.55 | -1.54 | -1.53 | -1.55 | -1.54 | -1.56 | -1.55 | -1.57 |
| LINC01588 | 2.48 | 3.22 | 3.12 | 3.43 | 2.79 | 3.15 | 2.75 | 3.04 |
| LINC01589 | 3.12 | 2.77 | 2.70 | 2.41 | 3.43 | 3.23 | 2.50 | 3.52 |
| LINC01594 | -1.96 | -1.89 | -1.98 | -1.93 | -1.99 | -2.00 | -2.00 | -2.01 |
| LINC01597 | -0.05 | -0.12 | -0.11 | 0.08 | -0.20 | -0.18 | -0.06 | 0.31 |
| LINC01600 | -1.99 | -1.99 | -1.88 | -2.00 | -1.97 | -2.00 | -2.00 | -2.01 |
| LINC01602 | 0.04 | -0.43 | -0.40 | -0.52 | -0.52 | -0.50 | -0.45 | -0.54 |
| LINC01605 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LINC01606 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| LINC01607 | 1.00 | 0.39 | 0.59 | 0.45 | 0.62 | 1.25 | 0.57 | 0.67 |
| LINC01608 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC01611 | 0.58 | 0.00 | 0.03 | -0.10 | -0.05 | -0.11 | 0.06 | -0.06 |
| LINC01612 | 2.86 | 3.32 | 3.41 | 3.30 | 1.49 | 1.32 | 1.43 | 1.54 |
| LINC01615 | -1.99 | -1.99 | -1.92 | -1.99 | -1.97 | -1.98 | -2.00 | -1.88 |
| LINC01618 | -1.24 | -0.88 | -1.15 | -0.92 | -1.23 | -1.12 | -1.24 | -1.25 |
| LINC01619 | -1.89 | -1.89 | -1.84 | -1.85 | -1.89 | -1.90 | -1.90 | -1.91 |
| LINC01622 | -2.29 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC01623 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| LINC01624 | -2.25 | -2.25 | -2.25 | -2.25 | -2.21 | -2.26 | -2.25 | -2.26 |
| LINC01625 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC01630 | -1.29 | -1.35 | -1.34 | -1.37 | -1.36 | -1.37 | -1.37 | -1.32 |
| LINC01635 | -1.64 | -1.64 | -1.52 | -1.59 | -1.58 | -1.62 | -1.65 | -1.61 |
| LINC01637 | 2.47 | 2.46 | 2.51 | 2.61 | 1.99 | 2.30 | 1.69 | 2.12 |

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|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| LINC01640 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01641 | -1.91 | -1.94 | -1.93 | -1.91 | -1.94 | -1.90 | -1.91 | -1.96 |
| LINC01644 | -0.81 | -0.81 | -0.79 | -0.82 | -0.81 | -0.82 | -0.82 | -0.83 |
| LINC01655 | -1.74 | -1.69 | -1.68 | -1.75 | -1.74 | -1.63 | -1.75 | -1.67 |
| LINC01659 | -0.82 | -0.82 | -0.88 | -0.83 | -0.78 | -0.91 | -0.69 | -0.92 |
| LINC01671 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC01675 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LINC01684 | -2.30 | -2.30 | -2.26 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC01693 | -1.43 | -1.42 | -1.35 | -1.43 | -1.42 | -1.44 | -1.43 | -1.39 |
| LINC01694 | -1.22 | -1.22 | -1.21 | -1.23 | -1.15 | -0.83 | -1.23 | -1.24 |
| LINC01697 | 0.66 | 0.53 | 0.55 | 0.58 | 0.48 | 0.41 | 0.50 | 0.58 |
| LINC01703 | 2.13 | 1.18 | 1.22 | 1.06 | 1.86 | 1.29 | 1.40 | 1.34 |
| LINC01705 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| LINC01709 | -1.43 | -1.43 | -1.42 | -1.44 | -1.43 | -1.42 | -1.44 | -1.35 |
| LINC01713 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01714 | -2.04 | -2.04 | -2.01 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| LINC01715 | -1.64 | -1.58 | -1.57 | -1.65 | -1.56 | -1.60 | -1.65 | -1.61 |
| LINC01719 | -0.98 | -0.90 | -1.04 | -0.98 | -0.94 | -1.00 | -0.93 | -0.90 |
| LINC01722 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LINC01725 | -1.28 | -1.19 | -1.26 | -1.14 | -1.27 | -1.25 | -1.14 | -1.30 |
| LINC01727 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01730 | -0.38 | -0.85 | -0.84 | -0.64 | -0.74 | -0.83 | -0.86 | -0.87 |
| LINC01731 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01732 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.24 | -2.26 |
| LINC01738 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| LINC01742 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01748 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.86 |
| LINC01750 | -0.67 | -0.58 | -0.65 | -0.60 | -0.58 | -0.64 | -0.52 | -0.56 |
| LINC01752 | -0.54 | -0.61 | -0.59 | -0.46 | -0.61 | -0.56 | -0.70 | -0.65 |
| LINC01754 | -2.20 | -2.20 | -2.17 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| LINC01762 | -1.44 | -1.44 | -1.43 | -1.39 | -1.32 | -1.43 | -1.45 | -1.41 |
| LINC01764 | 2.30 | 2.66 | 2.39 | 2.42 | 2.46 | 3.19 | 2.72 | 2.18 |
| LINC01765 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| LINC01767 | -1.75 | -1.79 | -1.78 | -1.75 | -1.79 | -1.78 | -1.79 | -1.81 |
| LINC01770 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.05 | -2.06 |
| LINC01771 | -1.43 | -1.49 | -1.34 | -1.50 | -1.29 | -1.48 | -1.44 | -1.52 |
| LINC01772 | 0.02 | -0.04 | 0.08 | -0.06 | -0.16 | -0.02 | 0.06 | -0.17 |
| LINC01778 | -1.49 | -1.42 | -1.47 | -1.49 | -1.27 | -1.50 | -1.50 | -1.51 |
| LINC01779 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC01780 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC01781 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| LINC01786 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC01792 | -1.30 | -1.36 | -1.22 | -1.37 | -1.30 | -1.38 | -1.31 | -1.27 |
| LINC01798 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LINC01806 | 1.50 | 1.28 | 1.34 | 1.08 | 1.44 | 1.62 | 1.16 | 1.69 |
| LINC01807 | -0.89 | -1.15 | -1.14 | -1.16 | -1.15 | -1.17 | -1.16 | -1.11 |
| LINC01812 | -1.75 | -1.79 | -1.83 | -1.84 | -1.84 | -1.85 | -1.80 | -1.86 |
| LINC01814 | 2.08 | 3.53 | 2.08 | 4.17 | 1.76 | 2.14 | 2.80 | 2.29 |
| LINC01816 | -0.73 | -0.86 | -0.76 | -0.79 | -0.67 | -0.81 | -0.87 | -0.82 |
| LINC01818 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| LINC01819 | 0.76 | 2.19 | 1.44 | 1.79 | 1.47 | 1.00 | 1.15 | 3.23 |
| LINC01820 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| LINC01825 | -2.23 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC01828 | -1.59 | -1.63 | -1.63 | -1.64 | -1.63 | -1.62 | -1.59 | -1.66 |
| LINC01829 | -1.79 | -1.79 | -1.78 | -1.75 | -1.77 | -1.78 | -1.79 | -1.61 |
| LINC01833 | 1.71 | 0.74 | 1.06 | 0.71 | 1.19 | 1.14 | 0.93 | 3.11 |
| LINC01835 | -1.59 | -1.59 | -1.41 | -1.60 | -1.59 | -1.58 | -1.54 | -1.56 |
| LINC01836 | 0.74 | 0.99 | 0.85 | 1.08 | 0.92 | 0.95 | 1.39 | 0.87 |
| LINC01842 | 1.60 | 1.33 | 1.11 | 1.61 | 1.31 | 1.01 | 0.99 | 0.82 |
| LINC01843 | 3.75 | 3.06 | 2.69 | 2.96 | 3.31 | 2.81 | 3.17 | 2.32 |
| LINC01844 | -1.94 | -1.94 | -1.93 | -1.95 | -1.84 | -1.95 | -1.95 | -1.96 |
| LINC01847 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LINC01849 | -2.12 | -2.15 | -2.14 | -2.15 | -2.11 | -2.15 | -2.15 | -2.13 |
| LINC01852 | -0.10 | -0.15 | -0.23 | 0.01 | -0.24 | -0.11 | -0.18 | -0.22 |
| LINC01865 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01869 | -1.44 | -1.59 | -1.58 | -1.60 | -1.51 | -1.58 | -1.55 | -1.47 |
| LINC01871 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| LINC01873 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.13 |
| LINC01874 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC01876 | 0.56 | 0.86 | 0.45 | 0.82 | 0.70 | 0.72 | 1.01 | 0.90 |
| LINC01881 | 3.55 | 3.17 | 3.33 | 3.19 | 3.48 | 3.09 | 3.11 | 3.94 |
| LINC01889 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC01896 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| LINC01897 | -1.96 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -2.01 |
| LINC01907 | -1.59 | -1.64 | -1.63 | -1.65 | -1.59 | -1.58 | -1.65 | -1.61 |
| LINC01909 | -0.30 | -0.20 | -0.09 | -0.10 | -0.25 | -0.28 | -0.24 | -0.33 |
| LINC01910 | 0.30 | 0.54 | 0.33 | 0.81 | 0.49 | 0.31 | 0.22 | 0.18 |
| LINC01913 | -1.02 | -1.22 | -1.21 | -1.23 | -1.22 | -1.14 | -1.24 | -1.25 |
| LINC01914 | -1.99 | -1.99 | -1.98 | -2.00 | -1.96 | -2.00 | -2.00 | -1.97 |
| LINC01915 | -1.65 | -1.64 | -1.63 | -1.60 | -1.64 | -1.63 | -1.65 | -1.52 |
| LINC01929 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01932 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| LINC01934 | -2.07 | -2.09 | -2.06 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| LINC01940 | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.71 | -1.79 | -1.76 |
| LINC01943 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.93 | -1.91 | -1.96 |
| LINC01948 | 0.47 | 0.56 | 0.76 | 0.68 | 0.64 | 0.75 | 0.66 | 0.48 |
| LINC01949 | -2.10 | -2.09 | -2.06 | -2.10 | -2.06 | -2.09 | -2.10 | -2.11 |
| LINC01952 | -0.81 | -0.95 | -0.94 | -0.81 | -0.84 | -0.90 | -0.96 | -0.91 |
| LINC01954 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LINC01956 | -1.12 | -1.18 | -1.23 | -1.01 | -1.28 | -1.26 | -1.32 | -1.23 |
| LINC01958 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC01962 | -1.28 | -1.14 | -1.26 | -1.22 | -1.18 | -1.29 | -1.29 | -1.31 |
| LINC01963 | 0.52 | 1.02 | 0.88 | 0.66 | 0.73 | 0.57 | 0.76 | 0.59 |
| LINC01967 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |

| | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| LINC01968 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| LINC01970 | 2.67 | 1.43 | 1.69 | 1.31 | 2.25 | 1.48 | 1.57 | 1.77 |
| LINC01971 | -1.55 | -1.73 | -1.73 | -1.74 | -1.71 | -1.70 | -1.70 | -1.76 |
| LINC01977 | -1.90 | -1.90 | -1.89 | -1.95 | -1.90 | -1.91 | -1.91 | -1.96 |
| LINC01978 | 5.73 | 3.19 | 3.17 | 3.32 | 4.84 | 3.15 | 3.55 | 4.07 |
| LINC01979 | -0.31 | -0.22 | -0.34 | -0.30 | -0.37 | -0.32 | -0.31 | -0.29 |
| LINC01980 | 0.95 | 0.14 | 0.06 | 0.03 | 0.04 | 0.02 | 0.11 | 0.07 |
| LINC01983 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| LINC01985 | -1.17 | -1.41 | -1.47 | -1.49 | -1.45 | -1.50 | -1.49 | -1.51 |
| LINC01988 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC01990 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| LINC01992 | -2.23 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| LINC01993 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.24 | -2.26 |
| LINC02000 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC02003 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| LINC02004 | -0.83 | -0.82 | -0.73 | -0.76 | -0.90 | -0.72 | -0.83 | -0.86 |
| LINC02005 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02006 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02008 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| LINC02009 | -1.63 | -1.62 | -1.52 | -1.63 | -1.62 | -1.64 | -1.63 | -1.35 |
| LINC02012 | 0.80 | 0.87 | 0.70 | 1.10 | 0.69 | 0.64 | 0.93 | 0.74 |
| LINC02014 | -1.69 | -1.69 | -1.68 | -1.69 | -1.66 | -1.65 | -1.70 | -1.57 |
| LINC02015 | -0.71 | -0.78 | -0.77 | -0.79 | -0.82 | -0.80 | -0.87 | -0.88 |
| LINC02018 | -0.67 | -0.58 | -0.65 | -0.46 | -0.62 | -0.51 | -0.53 | -0.69 |
| LINC02019 | -0.06 | 0.11 | -0.02 | -0.06 | 0.21 | 0.12 | -0.15 | 0.01 |
| LINC02021 | -0.56 | -0.59 | -0.73 | -0.61 | -0.59 | -0.51 | -0.61 | -0.77 |
| LINC02026 | -1.96 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -2.00 | -2.01 |
| LINC02028 | -2.07 | -2.07 | -2.09 | -2.07 | -2.09 | -2.07 | -2.07 | -2.11 |
| LINC02029 | 0.67 | 0.95 | 1.03 | 0.85 | 0.90 | 1.04 | 0.80 | 1.00 |
| LINC02033 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC02035 | 1.38 | 1.27 | 1.24 | 1.29 | 1.19 | 1.16 | 1.28 | 1.24 |
| LINC02036 | -1.54 | -1.58 | -1.57 | -1.59 | -1.58 | -1.52 | -1.59 | -1.61 |
| LINC02038 | -1.26 | -1.11 | -1.17 | -1.13 | -1.22 | -1.28 | -1.07 | -1.28 |
| LINC02041 | -1.55 | -1.49 | -1.43 | -1.50 | -1.52 | -1.54 | -1.56 | -1.42 |
| LINC02042 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02043 | -1.10 | -1.16 | -1.22 | -1.05 | -1.13 | -1.12 | -1.24 | -1.20 |
| LINC02046 | -2.22 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LINC02050 | -0.90 | -1.11 | -1.10 | -1.13 | -1.12 | -1.06 | -0.98 | -1.14 |
| LINC02055 | -0.29 | -0.03 | -0.18 | -0.22 | -0.24 | -0.30 | -0.15 | -0.25 |
| LINC02057 | -1.21 | -1.06 | -1.12 | -1.14 | -1.20 | -1.09 | -1.21 | -1.22 |
| LINC02058 | -2.30 | -2.29 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC02062 | -0.95 | -1.01 | -1.00 | -0.95 | -0.94 | -0.99 | -1.02 | -1.03 |
| LINC02064 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| LINC02065 | -1.79 | -1.78 | -1.78 | -1.75 | -1.78 | -1.78 | -1.79 | -1.76 |
| LINC02068 | -1.30 | -1.16 | -1.22 | -1.12 | -1.30 | -1.25 | -1.31 | -1.32 |
| LINC02084 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC02086 | 0.24 | 0.60 | 0.50 | 0.31 | 0.34 | 0.67 | 0.09 | 0.13 |
| LINC02092 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC02094 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LINC02096 | -2.30 | -2.27 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| LINC02099 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC02104 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02109 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC02115 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02119 | -0.56 | -0.86 | -0.76 | -0.86 | -0.30 | -0.78 | -0.86 | -0.88 |
| LINC02122 | 0.78 | 0.19 | 0.15 | 0.46 | 0.03 | 0.31 | 0.09 | -0.01 |
| LINC02128 | -1.70 | -1.70 | -1.59 | -1.71 | -1.70 | -1.69 | -1.66 | -1.73 |
| LINC02139 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02154 | -1.85 | -1.89 | -1.84 | -1.89 | -1.85 | -1.88 | -1.89 | -1.91 |
| LINC02156 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC02158 | -1.07 | -1.06 | -1.19 | -1.14 | -1.21 | -1.22 | -1.15 | -1.23 |
| LINC02159 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02163 | -1.14 | -1.14 | -1.12 | -1.15 | -1.10 | -0.68 | -1.15 | -1.16 |
| LINC02166 | -1.07 | -1.14 | -1.20 | -1.07 | -1.14 | -1.23 | -1.15 | -1.24 |
| LINC02175 | 0.33 | 0.04 | 0.24 | 0.10 | 0.27 | 0.09 | 0.24 | 0.01 |
| LINC02178 | 0.38 | 0.25 | 0.53 | 0.35 | 0.21 | 0.14 | 0.07 | 0.23 |
| LINC02182 | -0.73 | -0.87 | -0.78 | -0.81 | -0.63 | -0.89 | -0.88 | -0.51 |
| LINC02185 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LINC02188 | 0.53 | 0.72 | 2.09 | 0.76 | 0.71 | 1.17 | 0.89 | 0.68 |
| LINC02193 | -1.89 | -1.89 | -1.80 | -1.89 | -1.89 | -1.86 | -1.90 | -1.83 |
| LINC02198 | -1.89 | -1.81 | -1.88 | -1.89 | -1.87 | -1.86 | -1.86 | -1.91 |
| LINC02204 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| LINC02205 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| LINC02206 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -1.99 |
| LINC02208 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| LINC02210 | 4.77 | 4.09 | 4.68 | 4.36 | 4.48 | 4.70 | 4.90 | 4.17 |
| LINC02210-CRHR1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| LINC02211 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02223 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC02224 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| LINC02227 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC02228 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02234 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| LINC02235 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| LINC02236 | -2.20 | -2.18 | -2.17 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| LINC02240 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| LINC02241 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| LINC02243 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.30 | -2.30 |
| LINC02244 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC02245 | 3.26 | 2.11 | 2.17 | 2.15 | 2.90 | 1.97 | 2.13 | 2.22 |
| LINC02246 | -0.06 | 0.08 | -0.13 | -0.15 | -0.03 | 0.01 | -0.02 | -0.11 |
| LINC02247 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02251 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| LINC02253 | 0.31 | 0.33 | 0.78 | 0.31 | 0.28 | 1.41 | 0.21 | 1.72 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| LINC02254 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02256 | 0.88 | 0.90 | 0.89 | 0.98 | 0.83 | 0.73 | 0.85 | 0.78 |
| LINC02257 | -1.53 | -1.47 | -1.46 | -1.53 | -1.52 | -1.40 | -1.53 | -1.36 |
| LINC02263 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.79 | -1.94 | -1.95 |
| LINC02265 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02266 | 0.46 | -0.13 | -0.28 | 0.07 | -0.29 | -0.27 | -0.31 | -0.33 |
| LINC02284 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC02289 | -1.74 | -1.79 | -1.78 | -1.80 | -1.76 | -1.81 | -1.80 | -1.76 |
| LINC02298 | 3.00 | 2.81 | 2.17 | 2.64 | 3.26 | 2.51 | 2.13 | 2.41 |
| LINC02300 | 3.04 | 5.03 | 3.51 | 4.48 | 2.75 | 4.26 | 4.75 | 2.35 |
| LINC02301 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.99 | -2.00 |
| LINC02302 | -0.17 | -0.29 | -0.45 | -0.25 | -0.38 | -0.48 | -0.47 | -0.37 |
| LINC02303 | 0.91 | 4.20 | 1.35 | 6.99 | 1.16 | 1.10 | 1.19 | 0.96 |
| LINC02313 | 2.20 | 2.57 | 1.77 | 2.44 | 2.24 | 2.30 | 1.93 | 1.59 |
| LINC02315 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| LINC02320 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02321 | -0.49 | -0.56 | -0.55 | -0.57 | -0.44 | -0.50 | -0.57 | -0.59 |
| LINC02323 | -0.20 | -0.27 | -0.08 | -0.14 | -0.19 | -0.04 | -0.15 | 0.02 |
| LINC02327 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02328 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.21 | -2.18 |
| LINC02331 | 2.38 | 3.81 | 2.62 | 3.26 | 2.56 | 2.64 | 3.82 | 2.46 |
| LINC02332 | -0.18 | -0.25 | -0.24 | -0.14 | 0.27 | -0.24 | -0.35 | -0.08 |
| LINC02340 | -1.79 | -1.78 | -1.78 | -1.79 | -1.77 | -1.76 | -1.75 | -1.73 |
| LINC02341 | -1.54 | -1.64 | -1.63 | -1.65 | -1.64 | -1.66 | -1.65 | -1.67 |
| LINC02343 | -2.12 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.11 |
| LINC02347 | -1.46 | -1.38 | -1.44 | -1.46 | -1.08 | -1.47 | -1.46 | -1.48 |
| LINC02352 | 1.24 | 0.61 | 0.97 | 0.66 | 1.21 | 0.78 | 0.72 | 0.73 |
| LINC02356 | 0.49 | 0.42 | 0.69 | 0.25 | 0.77 | 1.12 | 0.24 | 0.78 |
| LINC02361 | -0.62 | -0.53 | -0.27 | -0.47 | -0.22 | -0.43 | -0.40 | -0.64 |
| LINC02362 | -1.65 | -1.69 | -1.64 | -1.65 | -1.69 | -1.68 | -1.65 | -1.53 |
| LINC02363 | 1.05 | 1.27 | 0.88 | 1.47 | 1.08 | 0.98 | 0.96 | 0.82 |
| LINC02365 | -2.25 | -2.25 | -2.23 | -2.23 | -2.25 | -2.26 | -2.24 | -2.26 |
| LINC02367 | -2.07 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| LINC02369 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02371 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| LINC02381 | 4.52 | 4.28 | 3.65 | 4.28 | 5.77 | 3.35 | 3.68 | 2.98 |
| LINC02385 | -2.10 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| LINC02387 | 0.72 | 0.21 | 0.48 | 0.19 | 0.73 | 0.18 | 0.19 | 0.35 |
| LINC02389 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| LINC02395 | -1.30 | -1.36 | -1.35 | -1.30 | -1.33 | -1.34 | -1.01 | -1.38 |
| LINC02397 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02404 | 3.16 | 2.92 | 3.22 | 3.08 | 3.08 | 2.88 | 3.73 | 2.77 |
| LINC02405 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC02410 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC02411 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC02412 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02417 | -2.15 | -2.15 | -2.11 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| LINC02421 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02422 | -0.65 | -0.70 | -0.63 | -0.72 | -0.63 | -0.76 | -0.72 | -0.58 |
| LINC02427 | -2.04 | -2.01 | -2.04 | -2.04 | -2.04 | -2.05 | -2.05 | -2.03 |
| LINC02428 | -1.44 | -1.55 | -1.54 | -1.55 | -1.55 | -1.56 | -1.56 | -1.47 |
| LINC02432 | 1.64 | 3.12 | 3.47 | 3.35 | 1.59 | 3.23 | 1.83 | 4.42 |
| LINC02435 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| LINC02441 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02446 | -2.36 | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02447 | 1.40 | 1.12 | 1.03 | 0.87 | 1.14 | 0.89 | 0.95 | 0.75 |
| LINC02448 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC02449 | -1.38 | -1.44 | -1.43 | -1.20 | -1.38 | -1.46 | -1.45 | -1.47 |
| LINC02450 | -1.84 | -1.72 | -1.83 | -1.76 | -1.84 | -1.83 | -1.84 | -1.82 |
| LINC02453 | 1.46 | 2.24 | 1.41 | 2.32 | 1.60 | 1.36 | 1.00 | 1.50 |
| LINC02454 | -1.18 | -1.03 | -1.09 | -1.19 | -1.14 | -0.71 | -1.19 | -1.20 |
| LINC02456 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| LINC02458 | -1.27 | -1.54 | -1.53 | -1.54 | -1.54 | -1.47 | -1.55 | -1.56 |
| LINC02473 | -1.74 | -1.79 | -1.69 | -1.79 | -1.72 | -1.78 | -1.80 | -1.81 |
| LINC02474 | 0.43 | 0.44 | 1.34 | 0.42 | 0.70 | 2.08 | 0.51 | 0.76 |
| LINC02475 | -0.59 | -0.27 | -0.58 | 0.05 | 0.07 | -0.57 | -0.60 | -0.62 |
| LINC02478 | 1.12 | 1.71 | 0.99 | 1.59 | 1.13 | 0.90 | 1.13 | 2.04 |
| LINC02482 | 3.26 | 2.56 | 2.39 | 2.36 | 2.78 | 2.87 | 2.66 | 2.67 |
| LINC02487 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.11 |
| LINC02489 | 2.07 | 2.25 | 1.95 | 1.80 | 2.26 | 1.72 | 2.61 | 3.27 |
| LINC02490 | -2.15 | -2.09 | -2.14 | -2.10 | -2.15 | -2.15 | -2.15 | -2.16 |
| LINC02513 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| LINC02516 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC02518 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| LINC02522 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LINC02523 | -1.17 | -1.41 | -1.34 | -1.42 | -1.38 | -1.43 | -1.42 | -1.43 |
| LINC02525 | 0.30 | -0.50 | -0.39 | -0.51 | -0.42 | -0.52 | -0.51 | -0.47 |
| LINC02532 | 1.72 | 1.75 | 1.82 | 1.84 | 2.44 | 1.67 | 2.59 | 1.93 |
| LINC02533 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02535 | 0.69 | 0.63 | 0.83 | 0.78 | 0.62 | 0.71 | 1.23 | 0.73 |
| LINC02538 | -2.07 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.11 |
| LINC02541 | -1.44 | -1.43 | -1.42 | -1.44 | -1.49 | -1.51 | -1.51 | -1.52 |
| LINC02542 | 1.37 | 1.05 | 1.03 | 0.94 | 0.90 | 0.93 | 1.07 | 0.88 |
| LINC02548 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.94 | -1.94 | -1.70 |
| LINC02550 | -0.74 | -0.29 | -0.69 | -0.66 | -0.89 | -0.87 | -0.90 | -0.85 |
| LINC02551 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.13 | -2.15 | -2.13 |
| LINC02552 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02558 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02560 | 0.17 | 0.27 | 0.28 | 0.17 | 0.18 | 0.76 | 0.39 | 0.32 |
| LINC02562 | 2.49 | 3.32 | 1.90 | 4.05 | 1.74 | 3.05 | 1.68 | 2.95 |
| LINC02565 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| LINC02568 | -0.63 | -0.25 | -0.52 | -0.17 | -0.58 | -0.46 | -0.63 | -0.52 |
| LINC02569 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| LINC02571 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| LINC02572 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LINC02574 | -1.30 | -1.36 | -1.27 | -1.38 | -1.37 | -1.39 | -1.23 | -1.39 |
| LINC02575 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02577 | 1.10 | 1.34 | 1.76 | 1.60 | 1.24 | 1.29 | 0.93 | 1.64 |
| LINC02580 | -0.55 | -0.63 | -0.62 | -0.42 | -0.21 | -0.61 | -0.57 | -0.49 |
| LINC02582 | 0.75 | 0.68 | 0.70 | 0.64 | 0.80 | 2.73 | 0.78 | 0.49 |
| LINC02584 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| LINC02585 | -1.74 | -1.69 | -1.78 | -1.79 | -1.76 | -1.75 | -1.79 | -1.81 |
| LINC02586 | -2.18 | -2.15 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| LINC02588 | -1.59 | -1.64 | -1.63 | -1.65 | -1.64 | -1.65 | -1.65 | -1.67 |
| LINC02590 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LINC02593 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.06 |
| LINC02594 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| LINC02595 | 3.35 | 4.14 | 4.98 | 3.80 | 3.08 | 3.84 | 3.80 | 3.32 |
| LINC02600 | -1.94 | -1.90 | -1.89 | -1.91 | -1.92 | -1.93 | -1.95 | -1.96 |
| LINC02601 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02603 | -2.12 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.12 | -2.16 |
| LINC02604 | -0.32 | -0.39 | -0.22 | -0.24 | -0.43 | -0.33 | -0.40 | -0.27 |
| LINC02605 | -1.54 | -1.48 | -1.47 | -1.44 | -1.54 | -1.47 | -1.55 | -1.51 |
| LINC02606 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -1.99 | -2.06 |
| LINC02608 | -1.15 | -1.34 | -1.33 | -1.35 | -1.15 | -1.30 | -1.22 | -1.37 |
| LINC02609 | 4.75 | 2.65 | 3.18 | 2.55 | 4.02 | 2.97 | 2.33 | 2.41 |
| LINC02610 | 0.35 | -0.12 | -0.11 | -0.13 | 0.66 | -0.14 | 0.02 | -0.16 |
| LINC02611 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| LINC02613 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LINC02614 | 0.22 | -0.04 | -0.03 | -0.05 | -0.04 | -0.01 | -0.06 | 0.07 |
| LINC02615 | 1.10 | 1.57 | 1.54 | 2.27 | 1.43 | 0.94 | 2.21 | 1.29 |
| LINC02618 | -1.34 | -1.45 | -1.44 | -1.46 | -1.39 | -1.44 | -1.46 | -1.42 |
| LINC02625 | -1.89 | -1.89 | -1.88 | -1.85 | -1.89 | -1.90 | -1.90 | -1.91 |
| LINC02631 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| LINC02633 | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -2.00 | -1.96 | -2.01 |
| LINC02635 | -1.99 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| LINC02641 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LINC02649 | -0.89 | -0.89 | -0.70 | -0.82 | -0.81 | -0.83 | -0.48 | -0.85 |
| LINC02656 | -1.74 | -1.63 | -1.73 | -1.69 | -1.71 | -1.75 | -1.64 | -1.76 |
| LINC02657 | -0.62 | -0.61 | -0.39 | -0.55 | -0.57 | -0.37 | -0.55 | -0.31 |
| LINC02660 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| LINC02663 | -1.85 | -1.85 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.91 |
| LINC02664 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LINC02672 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINC02678 | -1.27 | -1.26 | -1.32 | -1.14 | -1.29 | -1.35 | -1.27 | -1.24 |
| LINC02680 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -1.96 | -2.01 |
| LINC02683 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.94 | -1.80 |
| LINC02688 | 1.70 | 1.90 | 1.81 | 2.07 | 1.84 | 1.63 | 3.44 | 2.79 |
| LINGO1 | 2.14 | 1.20 | 1.25 | 1.08 | 1.71 | 1.00 | 1.14 | 0.92 |
| LINGO3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LINP1 | 3.32 | 3.89 | 3.57 | 3.54 | 2.63 | 3.42 | 4.44 | 3.88 |
| LINS1 | 4.20 | 4.06 | 3.86 | 3.94 | 3.70 | 3.46 | 3.60 | 3.77 |
| LIPA | 5.50 | 6.42 | 5.77 | 6.14 | 6.01 | 5.25 | 4.79 | 4.84 |
| LIPC | 0.95 | 0.64 | 0.57 | 0.75 | 1.35 | 0.61 | 0.60 | 0.54 |
| LIPE | 3.00 | 3.00 | 2.42 | 2.71 | 2.69 | 2.92 | 2.95 | 2.91 |
| LIPE-AS1 | 3.27 | 3.13 | 2.82 | 2.70 | 3.16 | 3.31 | 2.78 | 2.62 |
| LIPG | 3.91 | 3.66 | 4.39 | 3.82 | 4.49 | 4.18 | 4.19 | 2.94 |
| LIPH | 6.03 | 4.87 | 6.15 | 5.08 | 6.26 | 5.41 | 6.14 | 6.82 |
| LIPJ | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| LIPK | -1.84 | -1.80 | -1.83 | -1.84 | -1.84 | -1.79 | -1.80 | -1.78 |
| LIPT1 | 3.41 | 3.14 | 2.90 | 2.76 | 3.41 | 3.47 | 2.87 | 3.40 |
| LIPT2 | 3.95 | 2.77 | 3.58 | 3.01 | 3.48 | 2.94 | 2.76 | 2.80 |
| LITAF | 8.42 | 8.19 | 7.96 | 7.89 | 7.53 | 8.33 | 6.76 | 8.06 |
| LIVAR | -2.15 | -2.15 | -2.14 | -2.13 | -2.15 | -2.15 | -2.10 | -2.16 |
| LIX1-AS1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -2.00 | -2.01 |
| LIX1L | 2.87 | 2.54 | 3.10 | 2.38 | 3.54 | 2.75 | 3.33 | 2.92 |
| LIX1L-AS1 | 1.69 | 0.96 | 0.81 | 0.99 | 1.20 | 1.07 | 1.05 | 1.42 |
| LKAAEAR1 | -1.53 | -1.69 | -1.62 | -1.64 | -1.69 | -1.70 | -1.64 | -1.71 |
| LLGL1 | 1.81 | 1.32 | 1.68 | 1.50 | 1.46 | 1.49 | 1.66 | 1.96 |
| LLGL2 | 7.72 | 7.52 | 7.78 | 7.75 | 8.12 | 7.59 | 8.53 | 6.97 |
| LLPH | 6.21 | 6.15 | 5.58 | 6.48 | 6.03 | 7.34 | 5.90 | 6.35 |
| LLPH-DT | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LMAN1 | 7.94 | 8.33 | 8.70 | 8.40 | 9.06 | 8.36 | 8.66 | 8.93 |
| LMAN2 | 8.04 | 8.63 | 8.63 | 8.93 | 9.39 | 8.37 | 7.94 | 8.49 |
| LMAN2L | 5.32 | 4.09 | 4.52 | 4.04 | 4.09 | 4.34 | 3.95 | 4.17 |
| LMBR1 | 4.49 | 5.61 | 5.06 | 5.36 | 4.76 | 4.58 | 5.12 | 4.79 |
| LMBR1L | 3.48 | 3.20 | 3.66 | 3.17 | 3.47 | 4.19 | 3.58 | 3.31 |
| LMBRD1 | 6.63 | 5.12 | 5.95 | 5.83 | 6.14 | 5.74 | 6.46 | 6.31 |
| LMBRD2 | 4.64 | 4.98 | 5.54 | 5.04 | 4.82 | 4.24 | 5.48 | 4.73 |
| LMCD1 | 3.79 | 4.65 | 4.25 | 4.66 | 4.91 | 4.47 | 3.73 | 3.21 |
| LMCD1-AS1 | -1.18 | -1.03 | -1.16 | -1.04 | -0.99 | -1.16 | -1.11 | -1.03 |
| LMF1 | 4.36 | 4.30 | 4.11 | 4.36 | 4.19 | 3.83 | 4.33 | 4.45 |
| LMF2 | 5.94 | 5.69 | 5.23 | 6.01 | 5.18 | 5.10 | 5.51 | 5.33 |
| LMLN | 2.78 | 3.25 | 3.52 | 3.29 | 2.95 | 3.27 | 3.56 | 2.91 |
| LMNA | 10.04 | 9.93 | 9.22 | 9.95 | 9.95 | 10.25 | 9.30 | 9.81 |
| LMNB1 | 4.31 | 5.19 | 5.76 | 4.69 | 4.78 | 5.68 | 5.04 | 4.48 |
| LMNB1-DT | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LMNB2 | 5.67 | 5.47 | 6.75 | 5.44 | 5.79 | 6.26 | 5.94 | 5.78 |
| LMNTD2 | 3.32 | 2.95 | 3.07 | 3.47 | 3.82 | 2.71 | 3.64 | 3.53 |
| LMO1 | -1.87 | -1.94 | -1.93 | -1.87 | -1.94 | -1.95 | -1.91 | -1.96 |
| LMO2 | 2.19 | 2.77 | 2.34 | 2.76 | 2.47 | 2.07 | 2.68 | 2.17 |
| LMO4 | 6.16 | 7.09 | 6.18 | 7.28 | 6.18 | 6.52 | 6.97 | 6.43 |
| LMO7 | 6.78 | 7.42 | 8.34 | 7.21 | 8.34 | 7.42 | 8.57 | 8.81 |
| LMO7-AS1 | -0.62 | -0.83 | -0.74 | -0.83 | -0.79 | -0.62 | -0.77 | -0.53 |
| LMO7DN | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 | -1.83 | -1.80 | -1.82 |
| LMOD1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LMOD3 | -0.68 | -0.60 | -0.52 | -0.68 | -0.68 | -0.53 | -0.69 | -0.58 |
| LMTK2 | 3.36 | 4.29 | 4.29 | 3.92 | 3.78 | 4.23 | 3.90 | 4.55 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| LMTK3 | 4.55 | 5.74 | 4.16 | 5.84 | 4.65 | 5.83 | 4.44 | 4.86 |
| LMX1B | -1.18 | -0.90 | -1.08 | -1.04 | -0.92 | -1.15 | -1.11 | -1.14 |
| LNCAROD | 0.86 | 0.79 | 1.02 | 0.76 | 0.87 | 1.94 | 0.75 | 0.89 |
| LNCOC1 | -0.80 | -0.88 | -0.71 | -0.81 | -0.55 | -0.72 | -0.88 | -0.62 |
| LNCSSLR | -1.99 | -1.99 | -1.91 | -2.00 | -1.97 | -2.00 | -1.96 | -2.01 |
| LNCTAM34A | 1.75 | 2.00 | 1.38 | 1.87 | 1.40 | 1.32 | 1.67 | 1.68 |
| LNP1 | 1.31 | 1.14 | 0.93 | 1.23 | 1.41 | 1.44 | 1.10 | 1.36 |
| LNPEP | 4.73 | 6.02 | 6.34 | 5.93 | 5.43 | 5.63 | 6.07 | 5.07 |
| LNPK | 5.45 | 5.68 | 5.48 | 5.59 | 5.52 | 4.98 | 6.06 | 5.16 |
| LNx1 | 2.90 | 3.12 | 3.21 | 2.94 | 2.59 | 2.72 | 2.90 | 3.20 |
| LNx1-AS2 | -0.82 | -0.82 | -0.80 | -0.75 | -0.77 | -0.76 | -0.75 | -0.61 |
| LNx2 | 3.49 | 4.22 | 4.55 | 3.69 | 4.16 | 3.74 | 4.94 | 4.06 |
| LOH12CR2 | -0.16 | -0.31 | -0.30 | 0.01 | -0.31 | -0.26 | -0.32 | -0.21 |
| LONP1 | 5.18 | 5.60 | 6.40 | 5.50 | 5.52 | 5.26 | 5.98 | 5.36 |
| LONP2 | 6.43 | 6.67 | 6.75 | 6.67 | 6.15 | 6.45 | 6.89 | 6.50 |
| LONRF1 | 2.33 | 2.22 | 3.06 | 2.51 | 2.33 | 2.51 | 2.81 | 2.76 |
| LONRF2 | 2.75 | 2.89 | 3.10 | 2.74 | 3.30 | 2.82 | 3.34 | 2.26 |
| LONRF3 | 3.34 | 3.11 | 2.78 | 3.40 | 3.33 | 3.04 | 2.81 | 2.70 |
| LOX | 0.17 | 0.18 | 0.39 | 0.47 | 0.13 | 0.22 | 0.39 | 2.03 |
| LOXL1 | 4.87 | 4.57 | 3.72 | 4.85 | 4.27 | 4.87 | 3.50 | 3.26 |
| LOXL1-AS1 | 2.84 | 2.61 | 1.98 | 2.61 | 2.84 | 2.77 | 2.10 | 2.20 |
| LOXL2 | 1.50 | 1.60 | 2.95 | 1.32 | 1.59 | 1.64 | 1.71 | 1.68 |
| LOXL3 | 0.01 | 0.14 | 0.05 | 0.24 | -0.06 | 0.05 | 0.06 | 0.05 |
| LOXL4 | 4.48 | 4.90 | 4.85 | 4.74 | 5.54 | 4.00 | 6.59 | 3.68 |
| LPAL2 | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.14 | -2.15 | -2.16 |
| LPAR1 | 2.00 | 1.69 | 1.61 | 1.62 | 1.39 | 2.03 | 1.58 | 2.17 |
| LPAR2 | 4.33 | 4.59 | 4.22 | 5.06 | 4.91 | 4.35 | 4.33 | 4.14 |
| LPAR3 | 1.31 | 0.63 | 0.76 | 0.61 | 0.67 | 0.91 | 0.68 | 0.55 |
| LPAR5 | 3.04 | 3.60 | 3.26 | 3.92 | 3.41 | 3.05 | 3.82 | 3.71 |
| LPAR6 | 3.08 | 3.91 | 4.60 | 4.20 | 4.13 | 3.79 | 4.51 | 4.62 |
| LPCAT1 | 5.48 | 5.62 | 6.49 | 5.64 | 5.53 | 5.56 | 6.36 | 4.87 |
| LPCAT2 | 4.39 | 4.04 | 4.33 | 4.89 | 4.05 | 4.88 | 4.09 | 3.49 |
| LPCAT3 | 6.83 | 6.02 | 6.62 | 6.60 | 8.04 | 5.51 | 6.01 | 6.05 |
| LPCAT4 | 3.81 | 5.05 | 4.83 | 4.86 | 5.36 | 4.47 | 4.81 | 4.29 |
| LPGAT1 | 5.97 | 6.18 | 6.08 | 5.90 | 6.88 | 6.00 | 6.11 | 6.12 |
| LPIN1 | 6.10 | 6.15 | 6.61 | 6.19 | 6.33 | 5.93 | 7.07 | 5.32 |
| LPIN2 | 5.94 | 5.84 | 6.16 | 5.56 | 7.10 | 5.66 | 6.61 | 6.60 |
| LPIN3 | 3.23 | 3.28 | 3.67 | 3.46 | 3.22 | 3.23 | 4.02 | 2.95 |
| LPL | -1.06 | -1.31 | -1.23 | -1.32 | -1.31 | -1.33 | -1.32 | -1.34 |
| LPO | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LPP | 6.01 | 6.85 | 6.85 | 6.17 | 6.65 | 6.30 | 7.66 | 6.81 |
| LPP-AS2 | 1.60 | 1.50 | 1.81 | 1.81 | 2.04 | 1.69 | 1.72 | 1.56 |
| LPxN | 1.88 | 2.01 | 2.46 | 2.25 | 2.34 | 3.67 | 2.05 | 2.22 |
| LRAT | 2.16 | 2.13 | 2.66 | 1.99 | 2.19 | 2.50 | 3.66 | 2.09 |
| LRATD1 | 3.16 | 3.91 | 3.52 | 3.87 | 2.30 | 3.07 | 3.60 | 2.37 |
| LRATD2 | 4.71 | 5.75 | 6.36 | 5.14 | 5.28 | 5.60 | 5.30 | 6.35 |
| LRBA | 4.51 | 6.23 | 6.03 | 6.11 | 5.13 | 5.88 | 6.73 | 5.66 |
| LRCH1 | 3.71 | 5.03 | 5.01 | 4.70 | 4.89 | 3.98 | 5.48 | 4.69 |
| LRCH3 | 4.25 | 4.52 | 4.02 | 4.20 | 3.73 | 4.00 | 4.36 | 3.53 |
| LRCH4 | 0.54 | 0.72 | 0.50 | 0.61 | 0.68 | 0.54 | 0.53 | 0.54 |
| LRCOL1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| LRFN1 | 0.84 | 0.48 | 0.33 | 0.66 | 0.62 | 0.43 | 0.29 | 0.26 |
| LRFN3 | 3.33 | 3.96 | 3.40 | 3.21 | 3.48 | 3.07 | 3.40 | 2.57 |
| LRFN4 | 4.53 | 4.43 | 4.63 | 4.79 | 4.76 | 4.90 | 3.54 | 4.82 |
| LRFN5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| LRG1 | 5.10 | 5.21 | 4.66 | 5.29 | 5.85 | 4.97 | 4.68 | 5.06 |
| LRGUK | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| LRIF1 | 6.10 | 5.79 | 4.28 | 5.82 | 6.22 | 5.97 | 5.13 | 4.78 |
| LRIG1 | 3.99 | 4.53 | 4.85 | 5.02 | 5.24 | 4.04 | 3.69 | 3.29 |
| LRIG2 | 3.46 | 3.46 | 3.57 | 3.96 | 3.92 | 3.69 | 4.16 | 2.97 |
| LRIG3 | 3.40 | 4.27 | 4.23 | 4.67 | 3.61 | 3.62 | 3.94 | 3.58 |
| LRIT3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LRMDA | 2.32 | 1.91 | 1.81 | 2.16 | 2.17 | 1.82 | 2.41 | 2.57 |
| LRMP | -0.09 | 1.45 | 0.03 | 0.64 | -0.04 | -0.11 | -0.10 | 0.08 |
| LRP1 | 4.87 | 6.16 | 6.77 | 6.26 | 5.40 | 5.63 | 7.55 | 5.94 |
| LRP10 | 6.20 | 7.48 | 7.21 | 7.67 | 8.04 | 7.05 | 7.50 | 7.15 |
| LRP11 | 2.12 | 1.54 | 1.73 | 1.49 | 1.74 | 1.89 | 2.06 | 1.50 |
| LRP12 | 2.49 | 1.95 | 4.22 | 2.03 | 2.05 | 3.40 | 2.19 | 2.64 |
| LRP1B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LRP2 | -1.60 | -1.54 | -1.58 | -1.55 | -1.59 | -1.61 | -1.60 | -1.62 |
| LRP2BP | 0.93 | 0.92 | 0.95 | 0.75 | 0.80 | 0.95 | 0.92 | 1.04 |
| LRP3 | 0.96 | 1.21 | 0.82 | 1.22 | 0.95 | 0.85 | 1.04 | 0.71 |
| LRP4 | 1.25 | 0.80 | 1.15 | 0.69 | 0.63 | 0.59 | 0.93 | 0.49 |
| LRP4-AS1 | 1.12 | 0.67 | 0.83 | 0.56 | 0.79 | 0.60 | 0.48 | 0.62 |
| LRP5 | 6.38 | 6.99 | 7.28 | 7.05 | 6.67 | 6.83 | 6.52 | 7.48 |
| LRP5L | 1.84 | 1.82 | 1.82 | 2.45 | 1.90 | 1.97 | 1.83 | 1.80 |
| LRP6 | 5.47 | 4.87 | 5.74 | 4.71 | 4.63 | 4.51 | 5.64 | 5.22 |
| LRP8 | 4.83 | 5.26 | 6.33 | 5.25 | 5.60 | 5.13 | 5.63 | 4.24 |
| LRPAP1 | 7.63 | 8.41 | 7.89 | 9.07 | 7.97 | 7.85 | 7.73 | 8.27 |
| LRPPRC | 6.79 | 6.88 | 7.30 | 7.01 | 7.37 | 6.73 | 7.16 | 6.84 |
| LRR1 | 5.29 | 5.26 | 5.10 | 5.50 | 5.84 | 6.06 | 5.01 | 5.21 |
| LRRC1 | 5.45 | 5.04 | 5.82 | 5.42 | 5.29 | 5.33 | 5.46 | 5.56 |
| LRRC10 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LRRC10B | -0.94 | -1.25 | -1.24 | -1.26 | -1.25 | -1.14 | -1.20 | -1.27 |
| LRRC14 | 4.49 | 4.23 | 4.74 | 4.55 | 4.47 | 4.71 | 4.14 | 4.46 |
| LRRC15 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 |
| LRRC17 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.05 |
| LRRC19 | -0.23 | 0.18 | -0.02 | 0.21 | -0.23 | -0.25 | -0.03 | -0.20 |
| LRRC2 | -0.79 | -0.70 | -0.84 | -0.86 | -0.82 | -0.87 | -0.66 | -0.70 |
| LRRC2-AS1 | -2.20 | -2.20 | -2.19 | -2.14 | -2.20 | -2.20 | -2.20 | -2.21 |
| LRRC20 | 4.22 | 3.42 | 4.20 | 3.55 | 3.74 | 3.69 | 3.80 | 2.75 |
| LRRC23 | 2.83 | 3.06 | 3.52 | 3.25 | 4.17 | 2.97 | 3.01 | 3.91 |
| LRRC24 | 0.94 | 0.80 | 0.92 | 0.85 | 1.19 | 0.98 | 0.97 | 1.39 |
| LRRC25 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| LRRC26 | 2.96 | 2.45 | 2.26 | 2.26 | 2.25 | 2.16 | 2.20 | 2.13 |
| LRRC27 | 2.09 | 1.64 | 2.09 | 1.91 | 2.14 | 2.03 | 2.19 | 1.94 |
| LRRC28 | 4.20 | 3.90 | 3.43 | 3.89 | 4.55 | 3.49 | 3.73 | 3.91 |
| LRRC29 | 1.96 | 1.41 | 1.80 | 1.35 | 1.50 | 1.16 | 1.22 | 1.34 |
| LRRC3 | 1.86 | 2.01 | 1.76 | 1.64 | 1.50 | 3.06 | 1.46 | 1.71 |
| LRRC31 | -0.93 | -1.00 | -0.99 | -0.86 | -0.93 | -0.98 | -1.02 | -0.16 |
| LRRC32 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.15 |
| LRRC34 | 1.47 | 1.10 | 0.77 | 1.18 | 1.05 | 1.01 | 0.78 | 1.25 |
| LRRC36 | -0.22 | 0.02 | -0.26 | -0.15 | -0.35 | -0.20 | -0.28 | -0.20 |
| LRRC37A | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 |
| LRRC37A13P | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.04 | -2.11 |
| LRRC37A14P | -1.64 | -1.69 | -1.63 | -1.64 | -1.69 | -1.70 | -1.70 | -1.71 |
| LRRC37A16P | -1.84 | -1.79 | -1.79 | -1.84 | -1.82 | -1.81 | -1.80 | -1.86 |
| LRRC37A17P | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| LRRC37A2 | -0.47 | -0.34 | -0.61 | -0.34 | -0.62 | -0.50 | -0.41 | -0.64 |
| LRRC37A3 | -0.88 | -0.88 | -0.86 | -0.89 | -0.84 | -0.79 | -0.73 | -0.66 |
| LRRC37A4P | 0.82 | 1.20 | 1.47 | 1.17 | 1.16 | 1.57 | 1.15 | 1.01 |
| LRRC37A5P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| LRRC37A6P | -1.64 | -1.74 | -1.73 | -1.74 | -1.66 | -1.75 | -1.75 | -1.76 |
| LRRC37A9P | -1.99 | -1.96 | -1.98 | -1.99 | -1.97 | -1.98 | -2.00 | -2.01 |
| LRRC37B | 1.43 | 1.14 | 1.26 | 1.23 | 1.35 | 1.12 | 1.25 | 1.30 |
| LRRC37BP1 | 1.61 | 1.64 | 1.50 | 1.59 | 1.52 | 1.71 | 2.14 | 1.69 |
| LRRC38 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| LRRC39 | -1.74 | -1.63 | -1.68 | -1.74 | -1.71 | -1.75 | -1.64 | -1.76 |
| LRRC4 | -0.66 | -0.66 | -0.64 | -0.59 | -0.66 | -0.63 | -0.37 | -0.69 |
| LRRC40 | 2.43 | 3.32 | 3.00 | 2.99 | 3.14 | 3.12 | 3.15 | 3.02 |
| LRRC41 | 4.75 | 4.68 | 5.08 | 4.74 | 4.88 | 5.40 | 5.23 | 5.43 |
| LRRC42 | 5.80 | 6.20 | 5.53 | 6.30 | 6.10 | 6.23 | 5.71 | 6.26 |
| LRRC43 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -1.98 | -1.99 | -1.95 |
| LRRC45 | 4.09 | 4.38 | 4.92 | 4.34 | 3.94 | 3.95 | 4.58 | 3.63 |
| LRRC46 | 0.35 | 0.13 | 0.45 | 0.19 | 0.32 | 0.28 | 0.19 | 0.36 |
| LRRC47 | 5.17 | 4.59 | 5.44 | 4.63 | 5.10 | 5.03 | 5.24 | 5.11 |
| LRRC49 | 1.57 | 1.67 | 1.85 | 1.67 | 1.60 | 1.92 | 1.42 | 1.37 |
| LRRC4B | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| LRRC4C | -1.75 | -1.74 | -1.73 | -1.70 | -1.79 | -1.78 | -1.79 | -1.81 |
| LRRC56 | 1.10 | 1.33 | 1.13 | 1.38 | 1.26 | 1.05 | 1.26 | 1.15 |
| LRRC57 | 4.74 | 4.23 | 4.24 | 4.71 | 4.57 | 4.38 | 4.55 | 4.49 |
| LRRC58 | 5.15 | 5.09 | 6.21 | 4.70 | 4.88 | 5.27 | 5.74 | 5.22 |
| LRRC59 | 7.54 | 7.45 | 7.47 | 7.54 | 7.61 | 7.28 | 7.05 | 7.35 |
| LRRC6 | 1.97 | 2.57 | 2.60 | 2.88 | 1.96 | 2.61 | 2.60 | 2.35 |
| LRRC61 | 3.26 | 4.23 | 2.97 | 4.40 | 3.91 | 3.87 | 3.26 | 4.79 |
| LRRC63 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| LRRC66 | 1.06 | 1.85 | 1.11 | 1.47 | 1.16 | 1.17 | 1.40 | 1.63 |
| LRRC69 | 0.82 | 0.76 | 1.21 | 0.81 | 1.06 | 1.04 | 0.98 | 1.14 |
| LRRC7 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| LRRC71 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| LRRC73 | 2.48 | 2.78 | 2.63 | 2.71 | 2.38 | 2.91 | 2.65 | 2.41 |
| LRRC74B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| LRRC75A | 6.57 | 6.10 | 5.94 | 6.46 | 7.04 | 6.44 | 6.35 | 6.27 |
| LRRC75B | 4.10 | 3.51 | 3.31 | 3.66 | 2.75 | 3.34 | 3.62 | 3.30 |
| LRRC8A | 6.24 | 7.31 | 7.63 | 6.89 | 6.46 | 8.04 | 6.83 | 7.09 |
| LRRC8B | 4.55 | 5.02 | 4.69 | 4.60 | 4.39 | 4.51 | 4.54 | 4.09 |
| LRRC8C | 2.17 | 2.01 | 2.87 | 2.09 | 2.27 | 2.05 | 2.10 | 1.54 |
| LRRC8C-DT | 0.27 | 0.29 | 0.05 | 0.00 | 0.19 | -0.06 | -0.08 | -0.05 |
| LRRC8D | 4.05 | 4.07 | 3.57 | 3.95 | 3.59 | 3.14 | 4.27 | 4.22 |
| LRRC8E | 2.99 | 3.15 | 3.54 | 3.20 | 2.91 | 3.25 | 3.54 | 2.88 |
| LRRCC1 | 4.91 | 5.06 | 5.46 | 4.88 | 4.17 | 5.03 | 4.64 | 4.18 |
| LRRD1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LRRFIP1 | 8.50 | 8.77 | 8.75 | 8.73 | 8.54 | 9.01 | 8.97 | 8.97 |
| LRRFIP1P1 | 1.98 | 1.51 | 1.47 | 1.45 | 1.54 | 1.47 | 1.50 | 1.62 |
| LRRFIP2 | 5.72 | 5.42 | 5.01 | 5.18 | 5.42 | 5.12 | 5.52 | 5.33 |
| LRRIQ1 | 0.70 | 0.94 | 2.18 | 1.18 | 0.63 | 1.61 | 0.60 | 1.23 |
| LRRIQ3 | -0.20 | -0.19 | 0.07 | -0.20 | 0.08 | -0.07 | -0.07 | -0.10 |
| LRRIQ4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| LRRK1 | 3.30 | 3.74 | 3.65 | 3.22 | 3.44 | 3.44 | 3.40 | 3.64 |
| LRRK2 | -0.81 | -0.53 | -0.79 | -0.75 | -0.90 | -0.92 | -0.53 | -0.71 |
| LRRN1 | 1.32 | 1.82 | 1.13 | 1.72 | 1.17 | 0.96 | 1.35 | 1.41 |
| LRRN2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| LRRN4 | -1.89 | -1.89 | -1.88 | -1.89 | -1.79 | -1.88 | -1.90 | -1.91 |
| LRRN4CL | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LRRTM1 | 2.43 | 2.56 | 1.23 | 2.53 | 1.29 | 1.11 | 1.13 | 1.19 |
| LRRTM2 | -1.60 | -1.60 | -1.59 | -1.61 | -1.60 | -1.61 | -1.46 | -1.48 |
| LRSAM1 | 5.02 | 3.95 | 4.77 | 5.20 | 4.66 | 4.94 | 4.92 | 4.63 |
| LRTM1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.29 | -2.31 |
| LRTM2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LRTOMT | 3.10 | 2.56 | 2.90 | 2.67 | 2.82 | 2.85 | 2.73 | 3.42 |
| LRWD1 | 3.78 | 3.62 | 3.24 | 3.78 | 3.87 | 3.60 | 3.80 | 3.16 |
| LSAMP | -0.93 | -0.92 | -0.83 | -0.93 | -0.40 | -0.86 | -0.93 | -0.94 |
| LSAMP-AS1 | -0.47 | -0.38 | -0.46 | -0.47 | -0.27 | -0.31 | -0.26 | -0.43 |
| LSG1 | 5.34 | 5.37 | 5.71 | 5.54 | 5.21 | 5.27 | 5.38 | 5.67 |
| LSM1 | 6.64 | 6.30 | 6.03 | 6.55 | 5.93 | 6.63 | 5.70 | 6.43 |
| LSM10 | 6.05 | 5.24 | 5.09 | 5.43 | 6.14 | 5.67 | 5.33 | 5.68 |
| LSM11 | 1.89 | 2.24 | 2.22 | 2.12 | 2.05 | 2.24 | 2.33 | 1.85 |
| LSM12 | 1.71 | 2.23 | 1.88 | 2.27 | 2.16 | 2.24 | 2.03 | 2.17 |
| LSM12P1 | -0.41 | -0.52 | -0.67 | -0.50 | -0.64 | -0.63 | -0.69 | -0.59 |
| LSM14A | 6.65 | 6.30 | 6.17 | 6.28 | 6.73 | 6.50 | 6.65 | 6.30 |
| LSM14B | 4.84 | 4.90 | 5.01 | 4.48 | 4.67 | 4.83 | 4.73 | 5.01 |
| LSM2 | 7.67 | 6.56 | 6.24 | 6.76 | 6.69 | 7.36 | 6.42 | 7.32 |
| LSM3 | 9.13 | 8.22 | 7.81 | 8.36 | 8.58 | 8.53 | 7.74 | 8.33 |
| LSM3P2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| LSM3P3 | -1.21 | -1.27 | -1.32 | -1.34 | -1.33 | -1.26 | -1.35 | -1.19 |
| LSM3P5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LSM4 | 8.96 | 8.86 | 8.54 | 9.01 | 9.28 | 8.96 | 8.50 | 8.86 |
| LSM5 | 9.13 | 8.15 | 7.70 | 8.17 | 8.47 | 8.35 | 7.55 | 8.35 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| LSM6 | 6.94 | 6.90 | 6.40 | 6.81 | 6.69 | 7.13 | 5.96 | 7.26 |
| LSM7 | 8.09 | 7.61 | 8.13 | 7.95 | 8.71 | 8.54 | 7.64 | 8.24 |
| LSM8 | 6.51 | 7.00 | 6.31 | 6.92 | 7.19 | 7.01 | 6.89 | 7.29 |
| LSMEM1 | -0.21 | -0.28 | 0.06 | -0.08 | -0.14 | -0.34 | -0.22 | -0.33 |
| LSMEM2 | 0.06 | 0.22 | 0.07 | 0.11 | 0.18 | 0.09 | -0.03 | 0.23 |
| LSP1 | 0.52 | 0.71 | 0.75 | 0.59 | 0.88 | 0.84 | 0.67 | 1.06 |
| LSP1P4 | 0.26 | 0.23 | 0.10 | 0.13 | 0.35 | 0.25 | 0.13 | 0.07 |
| LSR | 9.16 | 9.20 | 9.32 | 9.29 | 10.41 | 9.22 | 8.60 | 8.74 |
| LSS | 6.12 | 5.22 | 5.87 | 5.61 | 5.68 | 5.61 | 6.84 | 5.72 |
| LST1 | -1.60 | -1.59 | -1.53 | -1.55 | -1.57 | -1.58 | -1.55 | -1.62 |
| LTA | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| LTA4H | 6.67 | 7.15 | 7.27 | 7.36 | 7.80 | 7.35 | 6.84 | 6.49 |
| LTB | 4.65 | 2.52 | 2.82 | 2.55 | 3.22 | 2.43 | 2.59 | 4.79 |
| LTB4R | 1.53 | 2.20 | 1.93 | 2.49 | 2.08 | 2.18 | 1.90 | 1.80 |
| LTB4R2 | -1.64 | -1.58 | -1.57 | -1.64 | -1.63 | -1.60 | -1.54 | -1.61 |
| LTBP1 | 2.80 | 3.07 | 4.10 | 3.10 | 3.05 | 3.04 | 4.14 | 3.20 |
| LTBP2 | -1.11 | -0.96 | -1.09 | -1.11 | -1.07 | -0.77 | -1.04 | -1.07 |
| LTBP3 | 5.59 | 5.33 | 6.25 | 5.46 | 6.17 | 6.32 | 4.92 | 6.46 |
| LTBP4 | 3.83 | 4.07 | 3.89 | 4.34 | 4.50 | 4.48 | 5.63 | 3.21 |
| LTC4S | 1.54 | 1.22 | 1.34 | 1.03 | 1.61 | 1.41 | 1.09 | 0.89 |
| LTF | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| LTK | 0.50 | 0.40 | 0.10 | 0.36 | 0.13 | 0.20 | 0.14 | 0.17 |
| LTN1 | 5.31 | 5.70 | 5.35 | 5.43 | 5.04 | 4.66 | 6.06 | 4.83 |
| LTO1 | 4.09 | 4.19 | 4.34 | 4.51 | 4.21 | 4.23 | 4.47 | 4.38 |
| LTV1 | 6.52 | 6.21 | 5.59 | 6.49 | 5.87 | 6.31 | 5.51 | 6.00 |
| LUC7L | 5.94 | 5.41 | 5.48 | 5.46 | 4.82 | 5.23 | 5.69 | 4.79 |
| LUC7L2 | 5.37 | 5.54 | 5.86 | 5.53 | 5.48 | 5.71 | 5.91 | 5.96 |
| LUC7L3 | 7.78 | 7.87 | 9.07 | 7.97 | 8.33 | 8.09 | 8.30 | 7.65 |
| LUCAT1 | 2.71 | 4.17 | 4.91 | 3.72 | 3.11 | 2.87 | 3.66 | 2.93 |
| LUM | 1.42 | 1.27 | 1.68 | 1.48 | 1.40 | 1.35 | 1.37 | 3.62 |
| LUNAR1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LURAP1 | -0.03 | -0.65 | -0.64 | -0.65 | -0.49 | -0.59 | -0.59 | -0.39 |
| LURAP1L | 5.39 | 5.04 | 5.14 | 4.93 | 4.88 | 5.40 | 4.65 | 5.84 |
| LURAP1L-AS1 | -0.72 | -0.64 | -0.38 | -0.65 | -0.68 | -0.54 | -0.65 | -0.51 |
| LUZP1 | 5.52 | 5.68 | 5.53 | 5.48 | 5.76 | 5.88 | 6.18 | 5.79 |
| LUZP2 | -0.93 | -0.69 | -0.91 | -0.80 | -0.92 | -0.81 | -0.93 | -0.88 |
| LUZP4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LVRN | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.07 | -2.11 |
| LXN | 4.76 | 4.58 | 4.91 | 4.75 | 4.43 | 5.96 | 4.25 | 5.52 |
| LY6D | 4.71 | 5.73 | 7.05 | 5.84 | 5.02 | 5.70 | 5.21 | 4.81 |
| LY6E | 10.68 | 9.57 | 9.66 | 9.90 | 9.88 | 10.42 | 9.72 | 9.87 |
| LY6E-DT | 3.42 | 1.49 | 1.53 | 1.74 | 2.10 | 1.72 | 1.93 | 1.95 |
| LY6G5B | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.13 | -2.16 |
| LY6G5C | 1.36 | 1.28 | 1.07 | 1.29 | 0.94 | 1.15 | 0.83 | 0.89 |
| LY6G6C | 3.56 | 2.08 | 2.16 | 2.09 | 2.10 | 2.25 | 2.68 | 1.91 |
| LY6H | -1.29 | -1.35 | -1.27 | -1.16 | -1.32 | -0.97 | -1.36 | -1.38 |
| LY6K | 3.17 | 1.28 | 1.42 | 1.33 | 1.59 | 1.40 | 1.31 | 1.36 |
| LY6L | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LY75 | 4.54 | 5.04 | 4.65 | 5.06 | 3.56 | 4.46 | 3.61 | 3.80 |
| LY86-AS1 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 | -2.31 | -2.31 |
| LY9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| LY96 | 0.37 | 0.25 | 0.18 | 0.15 | 0.21 | 0.63 | 0.15 | 0.48 |
| LYAR | 6.39 | 6.31 | 6.07 | 6.35 | 5.65 | 6.31 | 5.43 | 6.38 |
| LYG1 | 0.04 | 0.05 | -0.02 | 0.18 | 0.38 | 0.24 | 0.24 | 0.16 |
| LYG2 | -2.04 | -2.01 | -2.04 | -1.99 | -2.03 | -2.04 | -2.05 | -2.06 |
| LYL1 | 1.13 | 0.76 | 0.77 | 0.80 | 1.07 | 1.10 | 0.72 | 0.65 |
| LYN | 5.88 | 6.02 | 6.02 | 6.07 | 6.15 | 5.56 | 5.99 | 5.59 |
| LYNX1 | 3.52 | 3.43 | 3.06 | 3.15 | 3.06 | 2.87 | 3.31 | 2.49 |
| LYNX1-SLURP2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| LYPD1 | 0.62 | 0.72 | 0.77 | 0.85 | 0.59 | 1.78 | 1.03 | 0.68 |
| LYPD2 | 2.74 | 3.04 | 3.00 | 2.99 | 2.73 | 2.80 | 4.32 | 2.64 |
| LYPD3 | 6.29 | 5.02 | 4.03 | 4.72 | 3.62 | 4.63 | 3.59 | 6.58 |
| LYPD4 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -1.94 |
| LYPD5 | 1.28 | 1.13 | 1.49 | 1.04 | 1.30 | 1.33 | 1.03 | 1.23 |
| LYPD6 | 2.78 | 2.36 | 1.98 | 2.00 | 2.19 | 1.93 | 2.73 | 1.93 |
| LYPD6B | 4.83 | 3.90 | 3.52 | 3.91 | 3.74 | 3.92 | 5.21 | 3.55 |
| LYPD8 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| LYPLA1 | 6.72 | 6.96 | 6.88 | 6.75 | 6.48 | 7.15 | 6.66 | 7.70 |
| LYPLA2 | 5.69 | 5.51 | 5.88 | 5.71 | 6.13 | 6.15 | 6.08 | 6.29 |
| LYPLA2P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| LYPLAL1 | 6.10 | 5.49 | 5.44 | 5.36 | 6.13 | 6.26 | 5.67 | 6.08 |
| LYPLAL1-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| LYPLAL1-DT | -1.25 | -1.31 | -1.23 | -1.32 | -1.24 | -1.33 | -1.32 | -1.28 |
| LYRM1 | 6.19 | 5.68 | 5.08 | 5.75 | 5.90 | 5.81 | 5.37 | 5.66 |
| LYRM2 | 7.01 | 5.62 | 6.02 | 5.66 | 5.75 | 6.53 | 6.03 | 5.80 |
| LYRM4 | 6.42 | 5.55 | 4.42 | 5.50 | 5.91 | 5.10 | 5.46 | 6.02 |
| LYRM7 | 4.82 | 5.64 | 5.68 | 5.33 | 5.49 | 5.15 | 5.39 | 4.47 |
| LYRM9 | 3.50 | 3.16 | 3.25 | 3.16 | 3.41 | 2.93 | 2.80 | 3.07 |
| LYSMD1 | 2.84 | 2.09 | 2.01 | 2.30 | 2.29 | 2.51 | 2.17 | 2.05 |
| LYSMD2 | 5.02 | 4.52 | 4.11 | 4.71 | 5.51 | 4.65 | 3.99 | 4.45 |
| LYSMD3 | 3.71 | 4.57 | 4.48 | 4.60 | 4.53 | 4.15 | 4.77 | 4.21 |
| LYSMD4 | 3.08 | 2.95 | 3.11 | 2.51 | 2.57 | 2.76 | 2.65 | 2.73 |
| LYST | 4.82 | 4.85 | 5.09 | 4.74 | 5.32 | 4.92 | 4.86 | 6.33 |
| LYZ | 12.49 | 12.31 | 11.92 | 12.79 | 13.11 | 11.74 | 13.00 | 10.09 |
| LYZL4 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.01 | -2.06 |
| LZIC | 6.22 | 6.12 | 5.48 | 6.21 | 5.93 | 6.08 | 6.19 | 5.77 |
| LZTFL1 | 3.99 | 4.21 | 3.63 | 4.43 | 4.45 | 4.12 | 4.35 | 3.84 |
| LZTR1 | 3.40 | 3.59 | 3.98 | 3.70 | 3.49 | 3.63 | 3.96 | 3.61 |
| LZTS1 | -2.20 | -2.20 | -2.19 | -2.15 | -2.20 | -2.19 | -2.20 | -2.21 |
| LZTS2 | 4.79 | 4.60 | 4.90 | 4.53 | 5.13 | 5.32 | 5.52 | 5.02 |
| LZTS3 | 3.97 | 3.98 | 3.64 | 3.22 | 3.10 | 3.20 | 4.21 | 3.33 |
| M1AP | 0.46 | -0.23 | -0.14 | -0.24 | -0.23 | 0.00 | -0.16 | -0.20 |
| M6PR | 5.28 | 4.29 | 4.79 | 4.64 | 4.21 | 4.09 | 4.75 | 4.85 |
| MAATS1 | 0.10 | -0.06 | 0.74 | 0.09 | 0.22 | 0.20 | -0.07 | -0.10 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MAB21L1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| MAB21L2 | -1.74 | -1.73 | -1.72 | -1.69 | -1.73 | -1.75 | -1.75 | -1.76 |
| MAB21L3 | -1.50 | -1.49 | -1.43 | -1.39 | -1.38 | -1.51 | -1.50 | -1.52 |
| MAB21L4 | 3.78 | 2.79 | 3.85 | 2.39 | 3.47 | 2.94 | 2.90 | 3.68 |
| MACC1 | 5.71 | 6.40 | 6.43 | 5.94 | 6.38 | 7.02 | 6.34 | 6.64 |
| MACF1 | 5.78 | 7.10 | 7.17 | 6.97 | 7.39 | 7.26 | 7.70 | 6.76 |
| MACO1 | 4.31 | 4.67 | 4.99 | 4.95 | 5.36 | 4.88 | 5.78 | 5.25 |
| MACROD1 | 5.64 | 3.95 | 5.26 | 4.10 | 5.63 | 5.08 | 4.70 | 5.94 |
| MACROD2 | 2.27 | 2.34 | 2.59 | 2.25 | 4.35 | 2.11 | 2.29 | 2.38 |
| MAD1L1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.06 | -2.10 | -2.11 |
| MAD2L1 | 7.09 | 6.58 | 6.73 | 6.80 | 6.33 | 7.34 | 5.99 | 7.39 |
| MAD2L1BP | 6.10 | 5.15 | 5.07 | 5.65 | 5.74 | 5.95 | 5.03 | 5.99 |
| MAD2L2 | 7.19 | 5.81 | 5.53 | 5.78 | 6.37 | 6.40 | 5.43 | 5.66 |
| MADCAM1 | -0.43 | -0.64 | -0.48 | -0.65 | -0.49 | -0.58 | -0.44 | -0.60 |
| MADD | 4.59 | 4.73 | 5.08 | 4.51 | 4.57 | 4.26 | 4.55 | 4.24 |
| MAEA | 7.50 | 8.06 | 6.90 | 8.49 | 7.59 | 8.18 | 7.68 | 8.36 |
| MAEL | 1.35 | 0.20 | 0.22 | 0.18 | 0.28 | 0.25 | 0.26 | 0.15 |
| MAF | 0.11 | 0.29 | 0.05 | 0.31 | 0.08 | 0.39 | 0.02 | 0.13 |
| MAF1 | 7.57 | 7.00 | 7.37 | 7.11 | 7.49 | 7.76 | 6.56 | 7.90 |
| MAFA | -0.04 | -0.18 | -0.09 | 0.03 | -0.02 | 0.06 | -0.19 | -0.15 |
| MAFB | 3.02 | 4.08 | 2.97 | 4.16 | 2.23 | 2.29 | 3.30 | 3.75 |
| MAFF | 5.42 | 4.00 | 4.62 | 3.54 | 4.89 | 4.75 | 4.95 | 5.17 |
| MAFG | 6.74 | 6.15 | 7.20 | 6.03 | 6.33 | 6.31 | 5.81 | 6.80 |
| MAFG-DT | 3.12 | 3.05 | 2.82 | 2.98 | 2.91 | 3.25 | 2.74 | 2.97 |
| MAFK | 4.29 | 4.55 | 5.03 | 4.06 | 4.98 | 4.27 | 4.73 | 5.00 |
| MAFTRR | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.93 | -1.94 | -1.96 |
| MAGEA11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MAGEA4-AS1 | -1.89 | -1.89 | -1.72 | -1.89 | -1.89 | -1.86 | -1.90 | -1.87 |
| MAGEB18 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MAGEB2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MAGED1 | 5.86 | 6.78 | 6.52 | 6.98 | 6.91 | 6.62 | 6.45 | 7.28 |
| MAGED2 | 5.62 | 6.20 | 5.91 | 6.43 | 6.04 | 6.15 | 5.34 | 6.12 |
| MAGEE1 | -0.17 | -0.42 | -0.26 | -0.16 | -0.19 | -0.44 | -0.28 | -0.45 |
| MAGEF1 | 6.80 | 6.18 | 6.08 | 6.42 | 6.60 | 6.01 | 5.61 | 6.35 |
| MAGEH1 | 2.38 | 1.67 | 2.87 | 1.77 | 1.85 | 1.82 | 2.45 | 1.51 |
| MAG1 | 5.40 | 6.66 | 6.27 | 6.97 | 7.01 | 6.42 | 6.83 | 6.15 |
| MAGI1-IT1 | -1.79 | -1.79 | -1.73 | -1.70 | -1.79 | -1.80 | -1.80 | -1.81 |
| MAGI2 | 1.32 | 1.51 | 1.75 | 1.24 | 1.55 | 1.84 | 1.56 | 1.53 |
| MAGI2-AS3 | 0.55 | 0.48 | 0.69 | 0.46 | 0.52 | 0.88 | 0.75 | 0.84 |
| MAGI3 | 5.27 | 5.71 | 4.80 | 5.79 | 5.09 | 5.60 | 6.09 | 5.22 |
| MAGIX | 3.44 | 2.82 | 2.96 | 2.91 | 3.27 | 3.08 | 3.24 | 3.26 |
| MAGOH | 6.60 | 7.27 | 6.63 | 7.20 | 7.27 | 7.10 | 6.21 | 6.93 |
| MAGOH2P | -0.54 | -0.54 | -0.42 | -0.63 | -0.50 | -0.63 | -0.63 | -0.65 |
| MAGOH3P | 0.72 | 0.69 | 0.52 | 0.46 | 0.46 | 0.47 | 0.45 | 0.65 |
| MAGOHb | 6.80 | 6.00 | 5.64 | 5.73 | 5.68 | 5.39 | 5.36 | 6.65 |
| MAGT1 | 6.59 | 6.70 | 7.60 | 6.50 | 6.84 | 6.27 | 6.94 | 6.64 |
| MAIP1 | 6.18 | 4.81 | 4.91 | 5.25 | 5.81 | 5.23 | 5.09 | 6.05 |
| MAJIN | -0.88 | -0.95 | -0.94 | -0.96 | -0.80 | -0.93 | -0.82 | -0.85 |
| MAK | -0.16 | -0.30 | -0.06 | -0.18 | -0.30 | -0.33 | -0.32 | -0.30 |
| MAK16 | 4.59 | 4.80 | 4.49 | 4.71 | 4.29 | 4.98 | 4.45 | 4.27 |
| MAL | -1.25 | -1.24 | -1.23 | -1.25 | -1.16 | -1.26 | -1.25 | -0.68 |
| MAL2 | 9.14 | 8.48 | 8.99 | 8.49 | 8.94 | 9.60 | 8.62 | 8.87 |
| MAL2-AS1 | -1.07 | -1.14 | -0.98 | -1.08 | -1.03 | -0.99 | -1.08 | -1.10 |
| MALAT1 | 13.89 | 12.50 | 14.56 | 12.90 | 14.28 | 13.76 | 14.05 | 13.88 |
| MALINC1 | 1.18 | 1.41 | 1.18 | 1.40 | 1.49 | 1.15 | 1.28 | 1.35 |
| MALL | 1.34 | 1.85 | 1.43 | 1.54 | 1.48 | 1.49 | 1.72 | 1.36 |
| MALSU1 | 7.20 | 6.25 | 5.93 | 6.26 | 7.00 | 6.19 | 6.25 | 6.78 |
| MALT1 | 4.29 | 4.62 | 5.21 | 4.44 | 3.89 | 4.34 | 5.62 | 3.68 |
| MAMDC2 | -1.59 | -1.47 | -1.58 | -1.60 | -1.59 | -1.60 | -1.48 | -1.62 |
| MAMDC2-AS1 | -1.50 | -1.55 | -1.54 | -1.56 | -1.55 | -1.49 | -1.56 | -1.48 |
| MAMDC4 | 1.32 | 1.10 | 1.22 | 1.21 | 1.01 | 1.19 | 1.83 | 1.09 |
| MAML1 | 3.71 | 4.42 | 4.77 | 4.29 | 3.86 | 3.89 | 4.09 | 4.04 |
| MAML2 | 3.92 | 4.27 | 4.54 | 4.30 | 4.08 | 4.63 | 3.97 | 4.22 |
| MAML3 | 2.74 | 3.18 | 3.07 | 3.23 | 2.85 | 3.08 | 3.55 | 3.12 |
| MAMLD1 | 0.33 | 0.88 | 0.75 | 0.67 | 0.42 | 0.61 | 0.76 | 0.36 |
| MAMSTR | 1.37 | 1.26 | 1.02 | 1.14 | 1.07 | 1.00 | 0.86 | 0.98 |
| MAN1A1 | 3.47 | 3.52 | 4.70 | 3.71 | 4.07 | 3.84 | 5.13 | 3.39 |
| MAN1A2 | 6.52 | 6.99 | 5.83 | 6.65 | 6.25 | 6.53 | 6.66 | 6.17 |
| MAN1B1 | 5.59 | 5.60 | 5.99 | 5.85 | 5.34 | 5.54 | 5.35 | 5.70 |
| MAN1B1-DT | 2.06 | 1.51 | 1.59 | 1.65 | 1.41 | 1.39 | 1.28 | 1.31 |
| MAN1C1 | -0.36 | -0.20 | -0.21 | -0.29 | -0.28 | -0.41 | -0.30 | -0.46 |
| MAN2A1 | 5.29 | 7.30 | 6.95 | 6.92 | 6.19 | 6.15 | 7.03 | 5.74 |
| MAN2A2 | 5.38 | 4.86 | 4.77 | 5.23 | 5.10 | 4.43 | 5.11 | 4.46 |
| MAN2B1 | 1.51 | 1.53 | 1.19 | 1.48 | 1.55 | 1.54 | 1.47 | 1.37 |
| MAN2B2 | 4.21 | 4.35 | 4.92 | 4.31 | 4.26 | 4.42 | 4.52 | 4.55 |
| MAN2C1 | 4.09 | 3.74 | 5.17 | 4.18 | 4.79 | 4.25 | 5.06 | 4.27 |
| MANBA | 4.61 | 5.37 | 5.47 | 5.43 | 5.01 | 5.19 | 5.20 | 5.59 |
| MANBAL | 6.64 | 6.47 | 6.25 | 6.70 | 7.18 | 6.70 | 6.31 | 6.97 |
| MANCR | 1.17 | 1.57 | 2.13 | 1.51 | 1.45 | 2.71 | 1.07 | 1.26 |
| MANEA | 4.28 | 4.09 | 4.51 | 4.22 | 3.75 | 3.85 | 4.57 | 3.68 |
| MANEA-DT | -0.09 | -0.08 | 0.33 | 0.23 | -0.08 | 0.00 | -0.10 | -0.02 |
| MANEAL | 2.40 | 3.42 | 3.46 | 3.46 | 3.00 | 3.49 | 2.59 | 3.12 |
| MANF | 7.75 | 8.18 | 7.47 | 8.42 | 8.60 | 7.93 | 7.50 | 7.81 |
| MANSC1 | 6.37 | 5.71 | 5.94 | 6.04 | 5.53 | 5.37 | 6.67 | 6.96 |
| MANSC4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| MAOA | 4.57 | 5.87 | 5.48 | 5.44 | 5.18 | 4.81 | 5.54 | 5.17 |
| MAOB | 3.94 | 6.01 | 5.90 | 6.07 | 5.13 | 4.52 | 6.07 | 4.81 |
| MAP10 | 1.97 | 2.02 | 1.51 | 2.22 | 2.26 | 2.10 | 1.43 | 1.82 |
| MAP11 | 2.96 | 2.74 | 3.09 | 2.84 | 2.87 | 2.72 | 2.75 | 2.76 |
| MAP1A | 1.25 | 1.13 | 1.86 | 0.86 | 1.29 | 1.27 | 0.94 | 1.59 |
| MAP1B | 2.81 | 3.35 | 4.59 | 3.35 | 2.81 | 3.39 | 3.48 | 2.67 |
| MAP1LC3A | 6.11 | 3.97 | 5.04 | 3.76 | 5.48 | 4.62 | 5.02 | 5.73 |
| MAP1LC3B | 6.83 | 6.18 | 6.59 | 6.11 | 6.64 | 6.28 | 6.21 | 6.91 |
| MAP1LC3B2 | 0.36 | 0.52 | 0.38 | 0.34 | 0.46 | 0.45 | 0.27 | 0.42 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MAP1S | 4.36 | 5.03 | 4.96 | 4.95 | 5.07 | 4.79 | 4.95 | 4.37 |
| MAP2 | 3.03 | 2.78 | 3.28 | 2.96 | 2.57 | 3.73 | 2.95 | 2.83 |
| MAP2K1 | 6.00 | 6.47 | 6.82 | 6.21 | 6.30 | 6.12 | 6.39 | 6.16 |
| MAP2K2 | 7.62 | 7.76 | 7.38 | 7.74 | 8.09 | 7.84 | 7.77 | 7.53 |
| MAP2K3 | 6.83 | 5.95 | 6.07 | 5.69 | 6.04 | 5.43 | 5.99 | 6.92 |
| MAP2K4 | 4.07 | 4.13 | 4.33 | 3.84 | 3.96 | 4.08 | 4.87 | 4.65 |
| MAP2K4P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| MAP2K5 | 3.43 | 2.97 | 3.20 | 3.33 | 3.87 | 3.45 | 3.62 | 3.46 |
| MAP2K6 | 3.17 | 3.25 | 3.67 | 3.23 | 4.81 | 3.68 | 3.71 | 3.20 |
| MAP2K7 | 4.85 | 5.66 | 6.11 | 5.54 | 5.09 | 5.38 | 5.90 | 4.91 |
| MAP3K1 | 4.13 | 4.68 | 4.78 | 4.51 | 4.35 | 4.81 | 4.96 | 3.94 |
| MAP3K10 | 2.55 | 2.50 | 2.76 | 2.52 | 2.83 | 2.55 | 2.34 | 2.52 |
| MAP3K11 | 6.22 | 5.56 | 6.11 | 5.32 | 5.58 | 5.50 | 5.97 | 6.24 |
| MAP3K12 | 5.74 | 5.23 | 5.54 | 5.41 | 5.61 | 5.82 | 5.22 | 5.36 |
| MAP3K13 | 8.12 | 6.71 | 7.47 | 6.51 | 7.46 | 7.13 | 7.25 | 7.44 |
| MAP3K14 | 2.94 | 2.69 | 2.56 | 2.15 | 2.53 | 2.56 | 2.63 | 2.07 |
| MAP3K14-AS1 | 2.50 | 2.30 | 2.31 | 1.97 | 2.31 | 2.67 | 2.15 | 2.88 |
| MAP3K15 | -1.94 | -1.90 | -1.89 | -1.83 | -1.92 | -1.95 | -1.95 | -1.96 |
| MAP3K19 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -1.99 | -1.97 |
| MAP3K2 | 6.07 | 6.49 | 6.66 | 6.03 | 5.78 | 6.12 | 6.64 | 6.42 |
| MAP3K2-DT | 3.23 | 2.58 | 2.61 | 2.67 | 3.12 | 2.68 | 2.24 | 3.31 |
| MAP3K20 | 6.44 | 6.10 | 6.45 | 6.08 | 5.42 | 5.80 | 5.96 | 6.01 |
| MAP3K20-AS1 | -1.48 | -1.42 | -1.47 | -0.80 | -1.48 | -1.47 | -1.37 | -1.45 |
| MAP3K21 | 4.31 | 4.55 | 4.30 | 4.37 | 4.23 | 4.13 | 4.67 | 4.13 |
| MAP3K3 | 3.09 | 3.59 | 3.99 | 3.25 | 3.23 | 3.84 | 3.82 | 2.93 |
| MAP3K4 | 3.56 | 3.75 | 4.00 | 3.67 | 3.35 | 4.21 | 4.12 | 3.33 |
| MAP3K5 | 4.78 | 4.50 | 4.54 | 4.67 | 3.83 | 4.65 | 5.64 | 5.20 |
| MAP3K6 | 3.63 | 3.39 | 4.12 | 3.54 | 3.22 | 3.62 | 4.47 | 3.52 |
| MAP3K7 | 4.88 | 4.47 | 4.96 | 4.56 | 4.27 | 4.97 | 5.30 | 5.30 |
| MAP3K7CL | 1.86 | 2.21 | 1.99 | 2.08 | 1.80 | 5.60 | 1.69 | 1.57 |
| MAP3K8 | 2.26 | 2.52 | 3.15 | 2.50 | 2.80 | 2.51 | 2.60 | 2.50 |
| MAP3K9 | 3.04 | 3.96 | 3.65 | 3.78 | 3.68 | 3.97 | 4.05 | 3.29 |
| MAP4 | 6.53 | 6.60 | 6.48 | 6.65 | 6.26 | 6.17 | 7.00 | 6.27 |
| MAP4K1 | 1.01 | 0.26 | 0.21 | 0.55 | 0.14 | 0.18 | 0.16 | 0.12 |
| MAP4K2 | 3.66 | 2.58 | 3.19 | 2.62 | 3.27 | 3.41 | 3.05 | 3.77 |
| MAP4K3 | 5.23 | 5.26 | 5.20 | 5.38 | 5.91 | 5.88 | 5.82 | 6.94 |
| MAP4K3-DT | 5.53 | 5.60 | 4.61 | 5.49 | 5.98 | 5.56 | 5.56 | 6.39 |
| MAP4K4 | 6.00 | 7.43 | 7.65 | 7.06 | 6.03 | 7.24 | 6.76 | 7.54 |
| MAP4K5 | 4.86 | 5.20 | 5.60 | 5.34 | 5.08 | 5.56 | 5.79 | 5.22 |
| MAP6 | 0.04 | -0.17 | -0.16 | 0.02 | -0.13 | -0.17 | -0.26 | -0.22 |
| MAP6D1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| MAP7 | 6.27 | 5.89 | 5.52 | 5.63 | 5.37 | 5.81 | 6.36 | 5.97 |
| MAP7D1 | 5.23 | 4.91 | 5.92 | 5.11 | 5.03 | 5.67 | 5.57 | 5.75 |
| MAP7D2 | 3.99 | 2.34 | 2.81 | 2.33 | 4.35 | 2.34 | 3.20 | 1.80 |
| MAP7D3 | 3.28 | 2.57 | 4.58 | 2.74 | 4.30 | 4.91 | 3.60 | 2.20 |
| MAP9 | 4.84 | 5.64 | 5.40 | 4.79 | 4.69 | 5.98 | 3.78 | 4.60 |
| MAPK1 | 6.39 | 6.68 | 6.58 | 6.48 | 5.70 | 6.20 | 6.67 | 6.68 |
| MAPK10 | 0.55 | 0.64 | 0.76 | 0.84 | 0.60 | 0.80 | 1.53 | 0.69 |
| MAPK11 | 3.17 | 1.76 | 1.80 | 2.05 | 1.92 | 1.76 | 1.84 | 1.87 |
| MAPK12 | 5.72 | 3.48 | 3.20 | 3.71 | 4.17 | 3.23 | 2.88 | 2.92 |
| MAPK13 | 5.74 | 5.80 | 5.36 | 5.83 | 5.73 | 6.03 | 6.13 | 6.81 |
| MAPK14 | 5.84 | 5.30 | 5.62 | 4.90 | 5.22 | 5.71 | 5.76 | 5.62 |
| MAPK15 | 0.08 | -0.26 | -0.04 | -0.08 | -0.22 | -0.06 | -0.07 | 0.12 |
| MAPK11P1L | 6.47 | 6.97 | 6.58 | 6.78 | 6.49 | 6.85 | 6.79 | 6.35 |
| MAPK3 | 6.27 | 6.25 | 6.57 | 6.29 | 6.17 | 5.95 | 6.45 | 5.80 |
| MAPK4 | -1.64 | -1.63 | -1.63 | -1.64 | -1.64 | -1.65 | -1.59 | -1.66 |
| MAPK6 | 6.13 | 6.99 | 6.19 | 6.74 | 6.32 | 6.31 | 7.16 | 7.15 |
| MAPK6-DT | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MAPK7 | 2.68 | 2.11 | 2.72 | 2.30 | 2.40 | 2.39 | 2.54 | 2.59 |
| MAPK8 | 4.35 | 4.57 | 4.61 | 4.30 | 4.24 | 4.57 | 5.01 | 4.10 |
| MAPK8IP1 | 2.86 | 2.55 | 2.45 | 2.12 | 2.41 | 2.10 | 2.09 | 2.10 |
| MAPK8IP1P2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| MAPK8IP2 | 2.87 | 1.35 | 1.40 | 1.58 | 1.98 | 1.39 | 1.64 | 1.29 |
| MAPK8IP3 | 3.12 | 3.06 | 3.45 | 3.25 | 3.04 | 3.40 | 3.42 | 3.44 |
| MAPK9 | 4.66 | 5.02 | 5.48 | 5.20 | 4.90 | 4.85 | 5.31 | 5.03 |
| MAPKAP1 | 7.19 | 6.77 | 6.40 | 6.72 | 6.15 | 6.68 | 6.65 | 6.36 |
| MAPKAPK2 | 5.39 | 5.69 | 5.22 | 5.55 | 5.22 | 5.85 | 5.67 | 5.19 |
| MAPKAPK3 | 5.14 | 5.39 | 5.22 | 5.15 | 5.05 | 5.32 | 4.85 | 4.23 |
| MAPKAPK5 | 4.67 | 5.37 | 5.37 | 5.17 | 5.06 | 5.16 | 5.15 | 5.69 |
| MAPKAPK5-AS1 | 5.43 | 5.13 | 5.32 | 5.12 | 5.73 | 5.54 | 4.85 | 5.95 |
| MAPKBP1 | 2.01 | 2.20 | 2.48 | 2.54 | 2.67 | 2.58 | 2.95 | 2.92 |
| MAPRE1 | 6.44 | 5.81 | 6.28 | 5.95 | 6.00 | 6.18 | 5.81 | 6.24 |
| MAPRE2 | 4.35 | 4.48 | 4.82 | 4.61 | 4.99 | 5.02 | 4.96 | 3.66 |
| MAPRE3 | 4.68 | 3.79 | 4.26 | 4.12 | 3.74 | 5.20 | 3.76 | 3.99 |
| MAPT | 1.15 | 1.48 | 1.33 | 1.86 | 3.85 | 2.19 | 1.21 | 1.18 |
| MARC1 | 4.12 | 3.69 | 3.43 | 3.56 | 3.75 | 3.03 | 3.49 | 3.54 |
| MARC2 | 4.29 | 3.82 | 4.15 | 4.06 | 4.76 | 3.89 | 4.38 | 3.64 |
| MARCH1 | -1.89 | -1.85 | -1.88 | -1.86 | -1.89 | -1.90 | -1.86 | -1.83 |
| MARCH10 | -1.70 | -1.73 | -1.73 | -1.74 | -1.73 | -1.62 | -1.70 | -1.71 |
| MARCH2 | 4.95 | 4.93 | 4.20 | 4.96 | 5.02 | 3.70 | 4.66 | 4.47 |
| MARCH3 | 2.62 | 3.07 | 2.64 | 3.41 | 4.34 | 2.66 | 2.98 | 2.63 |
| MARCH5 | 6.00 | 5.30 | 5.16 | 5.17 | 5.68 | 5.88 | 5.57 | 5.28 |
| MARCH6 | 5.96 | 6.20 | 7.00 | 6.28 | 6.51 | 6.02 | 6.66 | 6.30 |
| MARCH7 | 6.18 | 6.03 | 5.99 | 6.12 | 5.61 | 6.15 | 6.23 | 6.65 |
| MARCH8 | 3.16 | 2.19 | 2.94 | 2.57 | 2.55 | 2.67 | 2.99 | 2.86 |
| MARCH9 | 4.19 | 3.83 | 4.92 | 4.20 | 4.03 | 4.68 | 4.38 | 3.71 |
| MARCKS | 6.47 | 7.09 | 7.34 | 6.81 | 6.35 | 7.71 | 7.81 | 5.84 |
| MARCKSL1 | 8.53 | 8.39 | 8.51 | 8.82 | 9.53 | 9.21 | 8.47 | 8.99 |
| MARCKSL1P2 | -1.70 | -1.69 | -1.73 | -1.74 | -1.74 | -1.75 | -1.75 | -1.63 |
| MARCO | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| MARF1 | 4.37 | 4.84 | 4.84 | 4.91 | 3.94 | 4.72 | 4.89 | 4.78 |
| MARK1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| MARK2 | 6.50 | 6.16 | 7.17 | 5.85 | 5.95 | 6.28 | 6.54 | 6.42 |
| MARK3 | 5.86 | 6.08 | 6.15 | 6.10 | 6.17 | 6.13 | 6.60 | 6.14 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MARK4 | 3.34 | 3.72 | 3.93 | 3.53 | 3.83 | 3.63 | 3.43 | 3.42 |
| MARS | 6.16 | 6.31 | 6.36 | 6.18 | 6.25 | 6.85 | 6.65 | 7.19 |
| MARS2 | 3.04 | 3.58 | 3.05 | 2.91 | 2.88 | 2.86 | 2.97 | 3.14 |
| MARVELD1 | 3.96 | 4.93 | 4.35 | 4.17 | 3.38 | 3.66 | 2.84 | 3.28 |
| MARVELD2 | 5.02 | 6.11 | 5.50 | 6.09 | 5.96 | 5.60 | 6.19 | 5.56 |
| MARVELD3 | 6.19 | 5.62 | 5.73 | 5.70 | 5.34 | 5.43 | 5.53 | 5.12 |
| MAS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| MASP1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.83 |
| MASP2 | -2.05 | -2.04 | -1.97 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| MAST1 | 0.98 | 0.80 | 0.66 | 0.89 | 1.27 | 1.16 | 0.69 | 1.00 |
| MAST2 | 3.95 | 4.13 | 4.51 | 3.74 | 3.93 | 4.34 | 4.76 | 3.77 |
| MAST3 | 2.80 | 3.55 | 3.06 | 3.57 | 2.78 | 3.01 | 3.94 | 2.80 |
| MAST4 | 3.54 | 4.49 | 5.26 | 3.96 | 3.81 | 4.53 | 4.42 | 3.90 |
| MAST4-AS1 | 1.23 | 1.35 | 1.74 | 1.60 | 1.64 | 1.45 | 1.15 | 1.31 |
| MASTL | 4.31 | 4.15 | 4.55 | 4.36 | 4.37 | 4.59 | 4.90 | 4.17 |
| MAT1A | -0.79 | -0.92 | -0.83 | -0.93 | -0.85 | -1.02 | -1.01 | -1.02 |
| MAT2A | 4.24 | 5.25 | 5.18 | 5.20 | 4.94 | 4.75 | 5.03 | 5.59 |
| MAT2B | 6.13 | 6.18 | 6.86 | 6.58 | 6.90 | 6.59 | 6.06 | 6.70 |
| MATK | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| MATN1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MATN1-AS1 | 0.09 | -0.04 | 0.44 | 0.02 | 0.33 | 0.06 | 0.14 | 0.14 |
| MATN2 | 4.08 | 5.10 | 4.98 | 5.25 | 4.19 | 3.28 | 6.03 | 4.00 |
| MATN3 | -0.65 | -0.64 | -0.36 | -0.58 | -0.56 | -0.59 | -0.65 | -0.44 |
| MATN4 | 1.16 | 0.33 | 0.36 | 0.22 | 0.29 | 0.28 | 0.30 | 0.12 |
| MAU2 | 3.56 | 3.94 | 4.24 | 3.64 | 3.97 | 3.51 | 3.91 | 4.13 |
| MAVS | 5.85 | 6.24 | 6.47 | 6.07 | 5.58 | 5.89 | 6.34 | 5.90 |
| MAX | 6.00 | 6.36 | 5.65 | 6.51 | 6.29 | 6.48 | 5.88 | 5.52 |
| MAZ | 6.16 | 6.80 | 6.60 | 6.70 | 5.90 | 6.39 | 6.64 | 6.42 |
| MB | 1.75 | 1.72 | 1.53 | 1.41 | 1.70 | 2.24 | 1.70 | 3.33 |
| MB21D2 | 1.68 | 2.09 | 1.54 | 1.79 | 1.64 | 1.87 | 2.04 | 1.74 |
| MBD1 | 4.39 | 4.42 | 4.84 | 4.42 | 4.37 | 4.31 | 4.76 | 4.24 |
| MBD2 | 6.43 | 6.43 | 6.64 | 6.46 | 6.37 | 6.37 | 6.93 | 6.02 |
| MBD3 | 5.43 | 5.50 | 6.17 | 5.48 | 5.71 | 5.91 | 5.95 | 5.16 |
| MBD4 | 5.93 | 5.03 | 5.69 | 5.15 | 5.75 | 5.55 | 5.85 | 6.29 |
| MBD5 | 4.81 | 4.50 | 4.28 | 4.34 | 4.35 | 4.19 | 4.84 | 4.22 |
| MBD6 | 3.85 | 4.40 | 4.61 | 4.05 | 4.11 | 4.38 | 4.56 | 4.91 |
| MBIP | 5.58 | 4.70 | 5.24 | 5.00 | 5.37 | 5.62 | 6.26 | 5.60 |
| MBLAC1 | 1.09 | 0.93 | 0.72 | 1.12 | 1.06 | 0.87 | 1.33 | 0.93 |
| MBLAC2 | 1.69 | 2.16 | 2.44 | 2.47 | 2.01 | 1.93 | 2.13 | 1.87 |
| MBNL1 | 6.11 | 5.98 | 6.60 | 6.08 | 6.55 | 6.57 | 7.23 | 6.75 |
| MBNL1-AS1 | 0.62 | 0.40 | 0.60 | 0.61 | 0.69 | 0.84 | 0.66 | 1.08 |
| MBNL2 | 4.77 | 5.73 | 5.63 | 5.75 | 6.23 | 5.48 | 5.78 | 6.16 |
| MBNL3 | 3.45 | 4.80 | 3.93 | 4.60 | 3.77 | 3.30 | 4.22 | 4.94 |
| MBOAT1 | 0.81 | 0.94 | 0.93 | 0.93 | 0.78 | 0.83 | 0.92 | 1.19 |
| MBOAT2 | 5.76 | 6.25 | 6.64 | 5.44 | 5.09 | 6.00 | 5.64 | 6.84 |
| MBOAT4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| MBOAT7 | 6.73 | 7.23 | 7.52 | 7.34 | 6.96 | 7.33 | 7.42 | 6.67 |
| MBP | 5.67 | 6.77 | 6.35 | 6.47 | 5.87 | 5.63 | 6.49 | 5.23 |
| MBTD1 | 3.12 | 3.14 | 3.67 | 3.21 | 3.47 | 3.69 | 3.85 | 3.93 |
| MBTPS1 | 5.89 | 6.12 | 6.47 | 6.07 | 5.77 | 5.69 | 6.09 | 6.27 |
| MBTPS2 | 4.72 | 4.56 | 4.90 | 4.34 | 4.08 | 4.01 | 4.25 | 3.79 |
| MC1R | 1.64 | 1.67 | 1.33 | 1.43 | 1.40 | 1.48 | 1.44 | 1.28 |
| MCAT | 5.45 | 5.28 | 4.92 | 5.42 | 4.92 | 5.35 | 5.22 | 5.08 |
| MCC | 1.80 | 2.85 | 1.82 | 2.94 | 1.94 | 1.89 | 2.03 | 1.96 |
| MCCC1 | 4.09 | 4.26 | 4.07 | 4.34 | 3.92 | 4.17 | 4.21 | 4.58 |
| MCCC1-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MCCC2 | 5.38 | 6.22 | 6.06 | 6.33 | 5.80 | 5.43 | 6.60 | 6.17 |
| MCEE | 4.85 | 4.47 | 3.99 | 4.84 | 5.34 | 4.39 | 4.35 | 4.91 |
| MCF2L | 2.32 | 2.09 | 2.53 | 2.09 | 3.36 | 3.06 | 2.23 | 3.40 |
| MCF2L-AS1 | 2.62 | 2.03 | 2.03 | 2.21 | 4.88 | 2.32 | 1.70 | 1.99 |
| MCF2L2 | -0.28 | -0.20 | -0.09 | -0.21 | -0.24 | -0.13 | -0.22 | -0.03 |
| MCFD2 | 7.16 | 6.89 | 6.63 | 6.87 | 7.40 | 7.08 | 7.10 | 7.33 |
| MCFD2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| MCHR1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MCIDAS | -1.05 | -0.97 | -1.11 | -1.06 | -1.12 | -1.04 | -1.06 | -1.14 |
| MCL1 | 6.44 | 7.07 | 6.96 | 6.58 | 6.40 | 7.18 | 7.51 | 7.19 |
| MCM10 | 4.85 | 4.80 | 4.97 | 4.44 | 4.30 | 4.83 | 4.89 | 3.98 |
| MCM2 | 5.72 | 4.59 | 6.35 | 4.45 | 4.33 | 5.01 | 5.09 | 5.08 |
| MCM3 | 6.64 | 6.52 | 7.02 | 6.48 | 5.93 | 6.84 | 6.66 | 5.97 |
| MCM3AP | 4.72 | 4.68 | 4.63 | 4.73 | 4.54 | 5.14 | 5.29 | 4.81 |
| MCM3AP-AS1 | 2.93 | 2.16 | 2.84 | 2.52 | 2.25 | 2.52 | 2.75 | 2.78 |
| MCM4 | 6.86 | 6.55 | 7.62 | 6.51 | 5.74 | 6.56 | 6.88 | 6.24 |
| MCM5 | 6.13 | 5.74 | 5.54 | 5.66 | 4.58 | 5.34 | 5.65 | 5.49 |
| MCM6 | 6.07 | 5.70 | 6.26 | 5.85 | 4.98 | 5.55 | 6.23 | 5.15 |
| MCM7 | 7.20 | 6.37 | 7.11 | 6.82 | 6.58 | 6.68 | 6.69 | 6.21 |
| MCM8 | 3.85 | 3.37 | 4.49 | 3.74 | 3.40 | 3.89 | 4.30 | 3.51 |
| MCM8-AS1 | -1.90 | -1.94 | -1.89 | -1.95 | -1.90 | -1.95 | -1.95 | -1.96 |
| MCM9 | 2.74 | 2.57 | 2.83 | 2.57 | 2.58 | 2.66 | 2.93 | 3.24 |
| MCMBP | 5.94 | 5.71 | 5.98 | 5.64 | 5.84 | 5.74 | 5.69 | 5.24 |
| MCMD2 | 1.36 | 1.23 | 1.06 | 0.97 | 1.34 | 1.22 | 1.04 | 1.22 |
| MCOLN1 | 3.19 | 2.86 | 3.40 | 3.33 | 3.09 | 2.94 | 3.30 | 3.03 |
| MCOLN2 | 1.18 | 0.41 | 0.63 | 0.39 | 0.50 | 0.42 | 0.47 | 0.42 |
| MCOLN3 | -1.09 | -1.08 | -1.07 | -1.16 | -1.15 | -1.17 | -1.17 | -1.12 |
| MCPH1 | 4.25 | 5.05 | 5.08 | 4.94 | 4.24 | 4.99 | 5.16 | 4.69 |
| MCPH1-AS1 | -0.07 | -0.07 | -0.06 | -0.16 | -0.07 | 0.36 | 0.16 | 0.04 |
| MCRIP1 | 4.34 | 4.77 | 4.66 | 4.54 | 5.16 | 5.19 | 4.36 | 4.82 |
| MCRIP2 | 8.03 | 7.46 | 7.24 | 7.82 | 6.97 | 6.72 | 6.89 | 6.82 |
| MCRS1 | 6.03 | 5.87 | 6.11 | 5.86 | 5.84 | 6.58 | 5.68 | 6.26 |
| MCTP1 | 2.72 | 2.49 | 2.88 | 2.19 | 2.42 | 2.96 | 1.75 | 3.79 |
| MCTP2 | 2.99 | 3.22 | 3.73 | 3.77 | 3.44 | 3.55 | 4.38 | 3.63 |
| MCTS1 | 7.16 | 7.04 | 7.22 | 6.99 | 7.51 | 6.97 | 6.70 | 7.86 |
| MCU | 5.32 | 6.11 | 6.08 | 5.84 | 5.72 | 5.60 | 6.23 | 5.44 |
| MCUB | 4.40 | 4.72 | 5.14 | 4.35 | 5.20 | 5.22 | 4.80 | 4.20 |
| MCUR1 | 6.67 | 5.48 | 5.61 | 5.25 | 5.84 | 5.37 | 5.29 | 4.90 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| MCUR1P1 | -1.12 | -1.12 | -1.18 | -1.06 | -1.05 | -1.21 | -1.06 | -1.21 |
| MDC1 | 4.12 | 3.92 | 3.71 | 3.63 | 3.23 | 4.09 | 3.77 | 4.00 |
| MDF1 | 4.40 | 4.73 | 4.36 | 4.67 | 4.41 | 4.45 | 4.87 | 4.67 |
| MDFIC | 4.39 | 4.36 | 4.03 | 4.22 | 4.16 | 3.83 | 4.42 | 5.64 |
| MDGA1 | 0.52 | 0.67 | 0.48 | 0.71 | 0.28 | 0.35 | 0.37 | 0.31 |
| MDGA2 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| MDH1 | 8.88 | 8.56 | 8.10 | 8.62 | 9.23 | 8.66 | 8.27 | 8.49 |
| MDH1B | -1.39 | -1.38 | -1.31 | -1.33 | -1.22 | -1.31 | -1.26 | -1.41 |
| MDH2 | 8.60 | 8.55 | 8.11 | 8.77 | 9.47 | 8.81 | 8.32 | 9.26 |
| MDK | 9.13 | 8.22 | 8.16 | 7.78 | 7.95 | 8.83 | 6.68 | 8.61 |
| MDM1 | 2.55 | 2.94 | 3.43 | 3.05 | 2.83 | 3.47 | 3.12 | 2.59 |
| MDM2 | 5.85 | 7.57 | 6.65 | 7.56 | 5.91 | 6.36 | 7.15 | 6.61 |
| MDM4 | 4.76 | 5.07 | 5.42 | 5.11 | 5.55 | 5.49 | 5.68 | 5.82 |
| MDN1 | 4.59 | 4.39 | 4.93 | 4.38 | 4.20 | 4.67 | 5.10 | 4.01 |
| MDS2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ME1 | 7.59 | 5.37 | 5.15 | 5.29 | 6.42 | 6.31 | 5.73 | 6.51 |
| ME2 | 4.94 | 4.76 | 3.79 | 4.99 | 4.66 | 3.14 | 5.88 | 3.91 |
| ME2P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| ME3 | 2.99 | 3.25 | 3.53 | 2.99 | 3.17 | 3.04 | 2.80 | 3.11 |
| MEA1 | 8.31 | 7.34 | 6.86 | 7.35 | 7.41 | 8.04 | 6.97 | 7.83 |
| MEAF6 | 5.83 | 6.14 | 6.11 | 6.41 | 6.37 | 6.37 | 5.79 | 6.14 |
| MEAK7 | 4.52 | 4.60 | 4.56 | 4.56 | 4.26 | 4.47 | 4.49 | 4.64 |
| MECOM | 6.13 | 6.21 | 6.47 | 6.12 | 5.16 | 4.71 | 4.18 | 5.30 |
| MECP2 | 5.98 | 5.96 | 6.56 | 5.93 | 5.95 | 6.51 | 5.92 | 6.19 |
| MECR | 4.26 | 4.42 | 4.55 | 4.15 | 5.31 | 5.23 | 4.54 | 4.55 |
| MED1 | 5.40 | 6.10 | 6.45 | 5.42 | 5.52 | 6.13 | 5.88 | 5.63 |
| MED10 | 7.17 | 7.18 | 6.99 | 6.97 | 7.33 | 6.94 | 6.28 | 7.03 |
| MED11 | 5.18 | 4.84 | 4.59 | 4.82 | 4.95 | 4.82 | 5.14 | 4.36 |
| MED12 | 2.98 | 2.70 | 3.23 | 3.19 | 2.98 | 3.15 | 3.07 | 3.27 |
| MED12L | 0.04 | 0.05 | 0.74 | -0.04 | 0.16 | -0.05 | 0.09 | 0.31 |
| MED13 | 6.06 | 6.31 | 6.21 | 6.02 | 6.28 | 6.33 | 6.82 | 6.17 |
| MED13L | 4.34 | 5.39 | 6.00 | 5.12 | 4.80 | 4.66 | 6.02 | 5.03 |
| MED14 | 5.16 | 4.86 | 5.62 | 4.48 | 4.55 | 4.72 | 4.97 | 4.66 |
| MED14OS | -0.82 | -0.82 | -0.73 | -0.90 | -0.86 | -0.84 | -0.83 | -0.80 |
| MED15 | 5.74 | 5.78 | 6.17 | 5.32 | 5.16 | 5.57 | 6.07 | 5.96 |
| MED16 | 4.16 | 4.39 | 5.15 | 4.33 | 4.49 | 4.46 | 4.76 | 4.20 |
| MED17 | 2.46 | 2.98 | 3.08 | 3.02 | 2.74 | 2.74 | 3.08 | 2.94 |
| MED18 | 4.23 | 4.27 | 4.19 | 4.07 | 5.08 | 4.56 | 4.50 | 4.12 |
| MED19 | 7.31 | 6.06 | 6.37 | 6.42 | 7.03 | 6.22 | 5.86 | 6.60 |
| MED20 | 4.00 | 4.01 | 3.75 | 3.59 | 3.52 | 4.38 | 3.45 | 4.22 |
| MED21 | 7.02 | 6.20 | 5.53 | 6.39 | 7.06 | 5.40 | 5.75 | 6.10 |
| MED22 | 3.43 | 3.93 | 4.14 | 3.64 | 3.22 | 3.52 | 3.80 | 3.50 |
| MED23 | 3.52 | 3.57 | 4.18 | 3.95 | 3.40 | 3.83 | 4.16 | 3.71 |
| MED24 | 3.83 | 3.69 | 4.28 | 3.68 | 3.79 | 3.97 | 3.91 | 3.63 |
| MED25 | 5.37 | 4.90 | 4.86 | 5.21 | 5.14 | 4.94 | 5.25 | 5.06 |
| MED26 | 2.76 | 3.32 | 3.10 | 3.24 | 2.85 | 3.02 | 3.25 | 3.22 |
| MED27 | 5.62 | 5.17 | 4.87 | 5.18 | 4.95 | 5.55 | 4.89 | 5.30 |
| MED28 | 6.01 | 6.00 | 5.97 | 6.35 | 6.14 | 6.49 | 5.92 | 6.54 |
| MED29 | 6.01 | 5.49 | 5.63 | 5.41 | 5.49 | 5.58 | 5.34 | 5.09 |
| MED30 | 6.11 | 4.76 | 6.17 | 5.09 | 6.07 | 6.17 | 4.57 | 6.18 |
| MED31 | 5.44 | 5.08 | 5.16 | 5.36 | 5.36 | 5.42 | 5.87 | 5.39 |
| MED4 | 6.82 | 7.14 | 6.57 | 7.33 | 7.55 | 6.63 | 6.99 | 7.69 |
| MED4-AS1 | -1.38 | -1.44 | -1.43 | -1.38 | -1.44 | -1.39 | -1.45 | -1.41 |
| MED6 | 5.05 | 5.06 | 4.80 | 5.36 | 5.81 | 5.51 | 4.92 | 5.18 |
| MED7 | 4.68 | 5.06 | 4.76 | 4.94 | 5.16 | 5.15 | 4.68 | 4.99 |
| MED8 | 5.82 | 5.92 | 5.48 | 6.00 | 6.74 | 6.00 | 5.72 | 6.40 |
| MED9 | 3.94 | 3.04 | 3.03 | 2.92 | 3.39 | 3.18 | 3.68 | 3.40 |
| MEDAG | -1.12 | -1.03 | -1.10 | -1.13 | -1.03 | -1.13 | -1.13 | -1.14 |
| MEF2A | 4.94 | 5.22 | 5.64 | 5.68 | 5.88 | 5.68 | 5.35 | 5.85 |
| MEF2C | 1.39 | 1.42 | 1.82 | 1.30 | 1.37 | 2.18 | 2.19 | 1.84 |
| MEF2C-AS1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| MEF2C-AS2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MEF2D | 4.20 | 4.13 | 4.61 | 3.72 | 4.30 | 4.46 | 4.53 | 5.22 |
| MEFV | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| MEG3 | 3.08 | 2.67 | 3.14 | 2.85 | 2.76 | 2.77 | 5.70 | 2.65 |
| MEG8 | 0.65 | 0.66 | 0.86 | 0.64 | 0.71 | 0.82 | 1.02 | 0.58 |
| MEG9 | -1.89 | -1.89 | -1.88 | -1.81 | -1.89 | -1.88 | -1.85 | -1.91 |
| MEGF10 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| MEGF11 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| MEGF6 | 3.56 | 4.13 | 4.20 | 4.15 | 3.59 | 3.95 | 3.62 | 3.93 |
| MEGF8 | 3.36 | 3.72 | 3.39 | 3.87 | 3.72 | 3.67 | 3.66 | 3.15 |
| MEGF9 | 4.71 | 4.05 | 4.13 | 4.21 | 3.85 | 4.28 | 4.25 | 3.95 |
| MEI1 | -1.08 | -1.28 | -1.27 | -1.29 | -1.28 | -1.30 | -1.23 | -1.31 |
| MEIG1 | 1.11 | 0.71 | 0.88 | 0.91 | 1.11 | 1.14 | 1.02 | 0.83 |
| MEIOC | 0.28 | 0.01 | 0.02 | 0.28 | 0.17 | 0.22 | 0.21 | 0.09 |
| MEIS1 | 2.47 | 2.16 | 3.14 | 2.44 | 2.66 | 2.92 | 2.35 | 2.73 |
| MEIS1-AS2 | -1.55 | -1.55 | -1.54 | -1.56 | -1.49 | -1.48 | -1.56 | -1.58 |
| MEIS2 | 4.44 | 4.99 | 4.88 | 5.23 | 5.69 | 3.96 | 6.23 | 4.52 |
| MEIS3 | 0.30 | 0.08 | 0.09 | -0.01 | 0.31 | 0.18 | 0.14 | 0.02 |
| MEIS3P1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MELK | 5.11 | 5.07 | 5.61 | 5.26 | 5.02 | 5.33 | 5.29 | 4.80 |
| MELTF | 5.00 | 6.12 | 5.55 | 5.62 | 5.82 | 5.63 | 4.71 | 4.50 |
| MELTF-AS1 | 2.22 | 2.01 | 1.63 | 2.22 | 1.69 | 1.72 | 1.76 | 1.53 |
| MEMO1 | 2.92 | 2.50 | 3.25 | 2.70 | 2.34 | 2.72 | 3.50 | 2.32 |
| MEMO1P1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.08 |
| MEN1 | 5.17 | 4.31 | 5.20 | 4.01 | 4.98 | 4.60 | 4.60 | 4.81 |
| MEOX2 | -2.25 | -2.23 | -2.21 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| MEPIA | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| MEP1B | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| MEPCE | 4.15 | 4.82 | 4.31 | 4.23 | 4.61 | 4.55 | 4.10 | 4.67 |
| MERTK | 1.99 | 1.67 | 1.64 | 1.69 | 1.83 | 2.35 | 1.77 | 1.44 |
| MESD | 7.22 | 7.56 | 7.85 | 7.70 | 8.12 | 7.62 | 7.33 | 8.06 |
| MESP1 | 4.59 | 2.70 | 3.01 | 2.42 | 3.62 | 2.39 | 3.59 | 3.09 |
| MESP2 | 0.99 | 0.62 | 0.74 | 0.52 | 0.80 | 0.77 | 1.26 | 0.66 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MEST | 5.41 | 5.88 | 3.98 | 5.70 | 5.77 | 4.64 | 3.47 | 4.85 |
| MESTIT1 | -1.22 | -1.40 | -1.39 | -1.28 | -1.24 | -1.41 | -1.41 | -1.42 |
| MET | 5.98 | 6.19 | 7.10 | 6.04 | 6.99 | 6.69 | 6.94 | 7.16 |
| METAP1 | 4.80 | 5.50 | 5.57 | 5.43 | 4.73 | 5.50 | 5.61 | 5.51 |
| METAP1D | 2.42 | 2.10 | 1.83 | 2.21 | 1.84 | 1.92 | 1.69 | 1.89 |
| METAP2 | 7.23 | 7.90 | 7.84 | 7.71 | 7.89 | 7.95 | 7.58 | 7.96 |
| METRNL | 9.46 | 7.91 | 8.04 | 7.74 | 7.11 | 7.50 | 7.31 | 8.19 |
| METRNL | 6.25 | 5.35 | 6.43 | 5.22 | 6.40 | 6.30 | 5.62 | 6.07 |
| METTL1 | 5.28 | 5.13 | 4.75 | 5.27 | 4.83 | 5.35 | 3.99 | 4.86 |
| METTL14 | 4.91 | 5.62 | 4.85 | 5.25 | 4.63 | 5.25 | 5.33 | 4.97 |
| METTL14-DT | -1.69 | -1.69 | -1.58 | -1.64 | -1.64 | -1.68 | -1.60 | -1.71 |
| METTL15 | 3.67 | 3.97 | 4.70 | 3.67 | 3.76 | 3.94 | 4.63 | 4.15 |
| METTL15P1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.86 | -1.89 | -1.79 |
| METTL16 | 4.38 | 4.16 | 4.64 | 4.15 | 3.93 | 4.42 | 4.81 | 4.32 |
| METTL17 | 5.97 | 5.21 | 5.72 | 5.77 | 6.14 | 6.04 | 5.48 | 5.16 |
| METTL18 | 4.57 | 4.11 | 3.58 | 4.35 | 4.20 | 4.46 | 3.67 | 4.21 |
| METTL21A | 5.76 | 4.62 | 4.84 | 4.69 | 5.37 | 5.14 | 4.68 | 5.17 |
| METTL21AP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| METTL21EP | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| METTL22 | 3.80 | 3.41 | 3.15 | 2.99 | 3.32 | 3.62 | 3.58 | 3.32 |
| METTL23 | 6.61 | 5.84 | 5.88 | 5.84 | 6.49 | 6.18 | 5.56 | 6.01 |
| METTL24 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| METTL25 | 2.54 | 3.40 | 2.56 | 3.57 | 2.52 | 2.86 | 3.30 | 2.64 |
| METTL26 | 8.51 | 7.28 | 7.74 | 7.37 | 7.10 | 7.47 | 7.04 | 7.65 |
| METTL27 | 5.14 | 3.17 | 3.10 | 3.12 | 3.76 | 4.09 | 3.00 | 3.46 |
| METTL2A | 6.16 | 5.51 | 5.53 | 5.68 | 5.82 | 5.85 | 5.11 | 5.70 |
| METTL2B | 4.96 | 5.00 | 4.50 | 4.87 | 5.22 | 4.83 | 4.79 | 5.27 |
| METTL3 | 5.29 | 4.73 | 4.97 | 5.05 | 5.27 | 4.97 | 4.52 | 4.42 |
| METTL4 | 3.44 | 3.36 | 3.40 | 3.35 | 3.24 | 3.29 | 3.64 | 3.95 |
| METTL5 | 8.32 | 7.27 | 7.37 | 7.54 | 8.23 | 7.55 | 7.21 | 8.14 |
| METTL6 | 4.03 | 3.55 | 3.51 | 3.72 | 4.01 | 4.00 | 3.39 | 3.77 |
| METTL7A | 5.62 | 6.32 | 5.29 | 6.60 | 5.00 | 4.65 | 6.43 | 5.67 |
| METTL7B | 4.88 | 5.38 | 5.06 | 6.17 | 4.79 | 5.41 | 5.61 | 4.31 |
| METTL8 | 4.07 | 4.70 | 4.05 | 4.70 | 4.45 | 4.04 | 4.00 | 3.95 |
| METTL9 | 7.21 | 7.18 | 6.79 | 6.89 | 7.11 | 7.58 | 6.19 | 7.19 |
| MEX3A | 2.54 | 2.15 | 2.56 | 2.33 | 3.11 | 3.37 | 2.40 | 2.58 |
| MEX3B | -0.91 | -0.98 | -1.04 | -1.06 | -1.02 | -0.91 | -1.07 | -1.07 |
| MEX3C | 3.57 | 3.00 | 3.04 | 2.85 | 3.77 | 2.57 | 4.25 | 2.59 |
| MEX3D | 3.69 | 3.87 | 4.33 | 3.95 | 3.55 | 4.36 | 4.26 | 3.43 |
| MFAP1 | 6.37 | 5.87 | 5.68 | 5.91 | 6.30 | 5.80 | 5.60 | 6.27 |
| MFAP2 | -1.99 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.06 |
| MFAP3 | 1.36 | 1.40 | 1.58 | 1.56 | 1.73 | 1.61 | 1.67 | 1.49 |
| MFAP3L | 0.62 | 0.53 | 0.55 | 0.41 | 0.44 | 0.30 | 0.35 | 0.36 |
| MFAP4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MFAP5 | 1.87 | 1.83 | 1.91 | 2.01 | 1.87 | 1.85 | 2.32 | 1.73 |
| MFF | 7.25 | 6.43 | 6.04 | 6.56 | 7.02 | 7.00 | 6.71 | 7.05 |
| MFGE8 | 3.83 | 4.55 | 5.98 | 4.80 | 4.61 | 6.01 | 3.94 | 4.05 |
| MFHAS1 | 4.65 | 6.30 | 6.07 | 6.58 | 5.41 | 6.19 | 5.87 | 5.25 |
| MFN1 | 4.47 | 4.80 | 5.06 | 4.74 | 4.81 | 4.76 | 4.91 | 5.46 |
| MFN2 | 5.39 | 5.45 | 5.82 | 5.00 | 4.97 | 5.35 | 5.57 | 5.17 |
| MFNG | 1.04 | 0.91 | 0.86 | 0.66 | 0.81 | 0.63 | 0.85 | 0.54 |
| MFSD1 | 4.97 | 4.99 | 5.58 | 4.99 | 4.62 | 4.99 | 5.33 | 6.00 |
| MFSD10 | 6.48 | 6.93 | 7.59 | 6.97 | 7.18 | 7.21 | 6.26 | 7.12 |
| MFSD11 | 3.75 | 4.18 | 4.53 | 4.39 | 4.46 | 4.21 | 4.50 | 4.45 |
| MFSD12 | 5.54 | 6.03 | 6.59 | 6.04 | 5.93 | 6.30 | 5.73 | 5.70 |
| MFSD13A | 3.94 | 4.13 | 3.95 | 4.26 | 5.44 | 4.02 | 3.99 | 3.37 |
| MFSD13B | -1.96 | -1.96 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -1.97 |
| MFSD14A | 0.99 | 0.87 | 1.26 | 1.11 | 1.02 | 0.97 | 1.39 | 0.89 |
| MFSD14B | 5.35 | 5.91 | 5.69 | 5.50 | 5.04 | 5.46 | 5.67 | 5.07 |
| MFSD14C | 4.58 | 4.84 | 5.09 | 4.93 | 4.39 | 5.10 | 5.27 | 5.05 |
| MFSD1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MFSD2A | 3.82 | 4.72 | 3.49 | 5.12 | 3.67 | 3.45 | 4.27 | 3.21 |
| MFSD2B | 3.26 | 2.98 | 3.43 | 2.98 | 3.22 | 4.18 | 3.16 | 3.95 |
| MFSD3 | 6.34 | 5.37 | 5.56 | 5.81 | 6.10 | 5.76 | 5.64 | 6.22 |
| MFSD4A | 4.06 | 2.22 | 2.26 | 2.29 | 2.63 | 2.24 | 2.38 | 2.28 |
| MFSD4B | 3.08 | 3.28 | 3.02 | 3.07 | 2.47 | 2.87 | 3.25 | 2.78 |
| MFSD5 | 5.63 | 5.41 | 5.30 | 5.43 | 5.25 | 5.53 | 4.54 | 5.32 |
| MFSD6 | 5.42 | 6.17 | 5.52 | 5.86 | 5.62 | 5.40 | 5.79 | 5.58 |
| MFSD6L | 0.55 | 0.57 | 0.23 | 0.69 | 0.17 | 0.21 | 0.33 | 0.09 |
| MFSD8 | 3.07 | 3.42 | 3.28 | 3.74 | 3.51 | 3.48 | 3.55 | 3.73 |
| MFSD9 | 4.75 | 4.22 | 4.80 | 4.53 | 4.88 | 4.49 | 4.84 | 5.19 |
| MGA | 4.42 | 5.19 | 4.64 | 4.83 | 4.73 | 4.81 | 4.74 | 4.74 |
| MGAM | -1.54 | -1.35 | -1.47 | -1.55 | -1.54 | -1.49 | -1.55 | -1.56 |
| MGAM2 | 2.16 | 2.47 | 1.82 | 3.11 | 2.39 | 2.14 | 1.70 | 1.33 |
| MGARP | -1.37 | -1.42 | -1.42 | -1.38 | -1.43 | -1.41 | -1.44 | -1.40 |
| MGAT1 | 6.03 | 6.46 | 6.44 | 6.41 | 6.39 | 5.79 | 5.92 | 6.23 |
| MGAT2 | 4.30 | 5.20 | 5.10 | 5.04 | 5.17 | 4.95 | 4.93 | 4.53 |
| MGAT3 | 5.19 | 4.87 | 5.29 | 4.73 | 4.24 | 4.53 | 4.86 | 4.36 |
| MGAT4A | 4.61 | 3.74 | 4.39 | 3.92 | 4.27 | 4.15 | 4.78 | 3.88 |
| MGAT4B | 8.22 | 8.54 | 8.36 | 8.82 | 8.42 | 8.06 | 8.35 | 8.73 |
| MGAT4EP | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| MGAT5 | 5.70 | 5.58 | 5.77 | 5.61 | 5.90 | 5.73 | 5.97 | 5.86 |
| MGAT5B | -1.37 | -1.36 | -1.35 | -1.37 | -1.36 | -1.04 | -1.37 | -1.33 |
| MGLL | 7.98 | 7.10 | 8.58 | 7.18 | 8.04 | 7.44 | 8.63 | 8.63 |
| MGME1 | 5.18 | 4.83 | 5.15 | 5.26 | 5.10 | 5.52 | 4.95 | 4.96 |
| MGMT | 6.34 | 6.80 | 6.22 | 6.77 | 6.33 | 5.74 | 5.34 | 6.83 |
| MGP | 1.55 | 1.51 | 2.49 | 1.45 | 3.73 | 1.61 | 1.41 | 1.74 |
| MGRN1 | 4.35 | 4.37 | 4.86 | 4.39 | 4.10 | 4.17 | 4.57 | 4.39 |
| MGST1 | 10.22 | 9.16 | 9.18 | 9.17 | 10.19 | 9.15 | 9.26 | 11.08 |
| MGST2 | 7.04 | 8.32 | 7.21 | 8.70 | 8.51 | 7.29 | 7.74 | 8.12 |
| MGST3 | 9.83 | 9.06 | 8.39 | 9.08 | 9.78 | 9.17 | 9.08 | 9.71 |
| MHENCNCR | 5.36 | 3.39 | 4.17 | 3.85 | 4.40 | 3.98 | 3.98 | 3.29 |
| MIA | 6.42 | 6.77 | 5.60 | 6.99 | 6.49 | 6.99 | 3.85 | 5.96 |
| MIA2 | 5.18 | 6.30 | 6.01 | 6.21 | 6.22 | 5.92 | 6.79 | 6.47 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MIA3 | 6.25 | 6.19 | 6.04 | 6.25 | 7.23 | 6.20 | 6.72 | 7.03 |
| MIAT | -1.80 | -1.84 | -1.78 | -1.80 | -1.84 | -1.85 | -1.85 | -1.86 |
| MIATNB | 2.27 | 2.16 | 2.07 | 2.34 | 2.18 | 1.94 | 2.57 | 2.34 |
| MIB1 | 5.10 | 5.58 | 5.80 | 5.09 | 5.42 | 5.86 | 5.87 | 6.39 |
| MIB2 | 5.40 | 5.00 | 4.96 | 5.35 | 4.82 | 4.52 | 4.30 | 4.03 |
| MICA | 6.56 | 5.88 | 5.75 | 6.21 | 6.12 | 6.65 | 5.92 | 6.39 |
| MICAL1 | 3.02 | 3.30 | 3.69 | 2.96 | 3.54 | 3.34 | 3.96 | 3.05 |
| MICAL2 | 6.05 | 5.39 | 6.17 | 5.62 | 5.63 | 5.51 | 6.46 | 6.18 |
| MICAL3 | 2.36 | 2.72 | 2.20 | 2.70 | 2.02 | 2.53 | 2.85 | 1.86 |
| MICALL1 | 4.27 | 4.43 | 3.79 | 4.22 | 3.65 | 3.83 | 4.31 | 3.87 |
| MICALL2 | 5.00 | 5.30 | 5.22 | 5.61 | 4.94 | 5.42 | 6.37 | 5.46 |
| MICB | 3.39 | 2.05 | 3.17 | 2.06 | 2.55 | 3.20 | 3.16 | 2.92 |
| MICE | -0.67 | -0.74 | -0.64 | -0.75 | -0.66 | -0.62 | -0.54 | -0.64 |
| MICOS10 | 8.20 | 7.82 | 7.72 | 8.05 | 8.64 | 8.50 | 8.03 | 7.37 |
| MICOS10P2 | 1.18 | 1.32 | 1.14 | 1.25 | 1.49 | 1.51 | 1.06 | 0.99 |
| MICOS10P3 | 1.37 | 2.02 | 1.35 | 2.22 | 2.43 | 2.08 | 1.56 | 1.39 |
| MICOS13 | 7.57 | 8.12 | 7.64 | 8.22 | 8.27 | 7.94 | 7.73 | 7.64 |
| MICU1 | 5.96 | 5.86 | 6.35 | 5.80 | 6.21 | 6.02 | 5.82 | 5.30 |
| MICU2 | 5.19 | 5.66 | 5.92 | 5.93 | 6.05 | 5.41 | 5.74 | 5.66 |
| MICU3 | 0.70 | 1.21 | 0.41 | 0.75 | 0.33 | 0.53 | 0.35 | 0.49 |
| MID1 | 3.61 | 4.27 | 4.40 | 3.80 | 3.69 | 4.28 | 4.20 | 3.43 |
| MID1IP1 | 6.28 | 6.30 | 6.66 | 6.66 | 6.61 | 5.95 | 6.62 | 6.52 |
| MID1IP1-AS1 | -1.90 | -1.90 | -1.86 | -1.91 | -1.94 | -1.95 | -1.95 | -1.96 |
| MID2 | 1.82 | 1.59 | 1.92 | 1.39 | 1.85 | 1.85 | 1.81 | 1.62 |
| MIDN | 6.91 | 6.01 | 7.01 | 5.48 | 6.41 | 6.84 | 7.64 | 6.48 |
| MIEF1 | 5.15 | 5.27 | 5.14 | 4.98 | 4.58 | 4.93 | 5.20 | 5.43 |
| MIEF2 | 3.59 | 2.64 | 3.39 | 3.10 | 2.92 | 2.92 | 3.63 | 3.01 |
| MIEN1 | 8.57 | 7.76 | 7.58 | 7.97 | 8.38 | 8.01 | 7.63 | 7.85 |
| MIER1 | 5.03 | 6.38 | 5.78 | 6.25 | 5.99 | 6.14 | 6.04 | 5.72 |
| MIER2 | 3.80 | 3.42 | 3.99 | 3.53 | 4.14 | 4.17 | 3.96 | 3.49 |
| MIER3 | 3.40 | 3.65 | 3.89 | 3.90 | 3.92 | 3.78 | 4.14 | 3.87 |
| MIF | 7.81 | 8.17 | 7.28 | 8.23 | 7.43 | 7.73 | 7.21 | 7.36 |
| MIF-AS1 | 5.84 | 6.02 | 5.49 | 5.88 | 5.37 | 5.55 | 5.59 | 5.22 |
| MIF4GD | 6.56 | 5.86 | 5.89 | 5.94 | 6.85 | 6.25 | 5.58 | 5.83 |
| MIGA1 | 4.76 | 5.37 | 5.35 | 5.39 | 5.42 | 5.22 | 5.75 | 4.95 |
| MIGA2 | 5.63 | 4.85 | 5.02 | 5.62 | 5.13 | 5.31 | 4.99 | 5.03 |
| MIIP | 5.60 | 4.80 | 4.97 | 5.15 | 5.49 | 5.20 | 4.64 | 5.08 |
| MLR1 | 0.49 | 0.67 | 1.35 | 0.48 | 0.50 | 0.76 | 0.40 | 0.55 |
| MINAR1 | -1.31 | -1.23 | -1.29 | -1.31 | -1.30 | -1.19 | -1.07 | -1.20 |
| MINCR | 4.94 | 3.72 | 4.55 | 3.91 | 4.81 | 4.59 | 4.14 | 4.06 |
| MINDY1 | 4.31 | 4.98 | 4.22 | 4.86 | 4.67 | 4.93 | 4.98 | 4.68 |
| MINDY2 | 6.72 | 6.59 | 6.56 | 5.77 | 6.23 | 6.27 | 5.97 | 6.25 |
| MINDY3 | 3.10 | 3.96 | 3.56 | 3.60 | 3.97 | 3.63 | 3.71 | 3.47 |
| MINDY4 | 2.15 | 1.82 | 2.23 | 2.01 | 1.49 | 2.07 | 2.00 | 1.80 |
| MINK1 | 4.31 | 4.58 | 5.00 | 4.24 | 4.22 | 4.16 | 5.10 | 4.73 |
| MINPP1 | 5.23 | 4.88 | 5.18 | 4.71 | 5.10 | 5.17 | 4.96 | 4.13 |
| MIOS | 4.38 | 4.05 | 4.23 | 4.29 | 4.21 | 3.97 | 4.01 | 4.22 |
| MIOX | -0.82 | -0.82 | -0.80 | -0.67 | -0.63 | -0.79 | -0.83 | 0.17 |
| MIP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MIPEP | 3.82 | 4.43 | 4.77 | 4.26 | 4.08 | 3.91 | 4.41 | 4.45 |
| MIPEPP3 | -1.26 | -1.25 | -1.24 | -1.20 | -1.22 | -1.15 | -1.13 | -1.12 |
| MPOL1 | 3.60 | 4.13 | 4.12 | 4.35 | 4.22 | 4.88 | 5.20 | 3.58 |
| MIR100HG | -1.99 | -1.99 | -1.95 | -1.99 | -1.97 | -1.91 | -2.00 | -1.97 |
| MIR103A2 | -1.84 | -1.84 | -1.83 | -1.76 | -1.82 | -1.79 | -1.84 | -1.82 |
| MIR1205 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MIR122HG | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| MIR1244-2 | 1.00 | 0.66 | 0.70 | 0.63 | 0.71 | 0.82 | 0.60 | 0.43 |
| MIR1244-3 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MIR1260B | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| MIR1281 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| MIR1282 | 0.49 | 0.59 | 0.54 | 0.48 | 0.61 | 0.58 | 0.68 | 0.34 |
| MIR1293 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| MIR1305 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR133A1HG | -1.65 | -1.65 | -1.59 | -1.65 | -1.65 | -1.59 | -1.65 | -1.58 |
| MIR141 | -2.01 | -2.04 | -2.04 | -2.05 | -1.99 | -2.05 | -2.05 | -2.06 |
| MIR1538 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR155HG | -1.94 | -1.87 | -1.93 | -1.94 | -1.94 | -1.91 | -1.95 | -1.96 |
| MIR16-2 | -1.30 | -1.36 | -1.16 | -1.31 | -1.33 | -1.35 | -1.14 | -1.38 |
| MIR17HG | 0.50 | 0.60 | 0.75 | 0.50 | 0.88 | 0.48 | 0.80 | 0.55 |
| MIR181A1HG | 2.22 | 3.03 | 2.48 | 3.14 | 1.85 | 2.96 | 2.53 | 2.62 |
| MIR181A2HG | -0.44 | -0.44 | -0.51 | -0.21 | -0.41 | -0.16 | -0.38 | -0.42 |
| MIR181B1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| MIR186 | -0.34 | -0.26 | -0.33 | -0.35 | -0.34 | -0.34 | -0.19 | -0.38 |
| MIR191 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| MIR1915HG | -0.74 | -0.65 | -0.71 | -0.81 | -0.81 | -0.46 | -0.75 | -0.83 |
| MIR193BHG | 0.28 | 0.43 | 0.75 | 0.34 | 0.41 | 0.35 | 0.20 | 0.59 |
| MIR194-2HG | 3.03 | 2.52 | 3.08 | 2.70 | 3.10 | 2.55 | 2.96 | 2.20 |
| MIR200C | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.93 | -1.95 | -1.92 |
| MIR200CHG | 4.77 | 4.31 | 5.25 | 4.86 | 5.77 | 4.54 | 5.10 | 4.40 |
| MIR202HG | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR2052HG | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR205HG | 1.22 | 1.78 | 1.56 | 1.20 | 1.48 | 3.22 | 1.33 | 3.50 |
| MIR210 | -1.79 | -1.79 | -1.68 | -1.80 | -1.76 | -1.80 | -1.75 | -1.81 |
| MIR210HG | 5.85 | 6.07 | 7.02 | 5.98 | 6.20 | 5.44 | 7.02 | 5.19 |
| MIR222HG | 2.42 | 2.54 | 3.18 | 2.56 | 2.23 | 3.04 | 2.67 | 2.68 |
| MIR22HG | 3.36 | 3.56 | 3.99 | 3.60 | 3.60 | 3.59 | 4.34 | 5.04 |
| MIR26B | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| MIR27B | -1.75 | -1.79 | -1.79 | -1.80 | -1.84 | -1.81 | -1.85 | -1.86 |
| MIR29B2CHG | 2.79 | 2.35 | 2.62 | 2.56 | 3.18 | 2.79 | 3.31 | 2.53 |
| MIR301A | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| MIR302CHG | -1.07 | -0.98 | -1.05 | -0.93 | -0.95 | -1.05 | -1.00 | -1.09 |
| MIR30B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MIR3128 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.92 |
| MIR3133 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MIR3137 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| MIR3142HG | -0.31 | -0.38 | -0.04 | -0.47 | -0.38 | -0.25 | -0.48 | -0.37 |
| MIR3143 | -1.84 | -1.83 | -1.83 | -1.80 | -1.84 | -1.79 | -1.84 | -1.82 |
| MIR3149 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| MIR3150BHG | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| MIR3173 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |
| MIR3190 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MIR31HG | 2.58 | 2.94 | 3.48 | 2.92 | 3.49 | 4.46 | 2.89 | 2.85 |
| MIR320B2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| MIR320D1 | -1.84 | -1.84 | -1.74 | -1.84 | -1.82 | -1.85 | -1.80 | -1.86 |
| MIR320E | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| MIR326 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.05 | -2.02 | -2.06 |
| MIR34AHG | 2.02 | 2.24 | 2.15 | 2.26 | 1.98 | 1.80 | 2.73 | 1.78 |
| MIR3609 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| MIR3661 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| MIR3671 | -2.10 | -2.06 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| MIR3680-1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| MIR3681HG | -2.04 | -2.01 | -2.01 | -2.02 | -2.04 | -2.05 | -2.05 | -2.06 |
| MIR3682 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| MIR378D2HG | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| MIR3926-1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| MIR3929 | -0.02 | -0.01 | 0.01 | -0.02 | 0.03 | 1.01 | 0.12 | -0.05 |
| MIR3934 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MIR3936HG | 2.19 | 2.66 | 2.22 | 2.35 | 2.43 | 2.06 | 2.72 | 1.84 |
| MIR3941 | -2.20 | -2.20 | -2.19 | -2.21 | -2.18 | -2.21 | -2.21 | -2.22 |
| MIR3942 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| MIR3945HG | -2.20 | -2.20 | -2.19 | -2.20 | -2.15 | -2.20 | -2.20 | -2.21 |
| MIR3975 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| MIR3976HG | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| MIR4258 | -1.36 | -1.41 | -1.40 | -1.31 | -1.39 | -1.29 | -1.31 | -1.44 |
| MIR4284 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| MIR4292 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.93 | -1.91 | -1.89 |
| MIR4312 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.27 | -2.31 |
| MIR4422HG | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| MIR4424 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR4435-2HG | 3.64 | 3.11 | 2.73 | 3.02 | 2.93 | 3.45 | 2.76 | 3.29 |
| MIR4449 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| MIR4453HG | 0.33 | 0.48 | 0.53 | 0.39 | 0.41 | 0.43 | 0.51 | 0.50 |
| MIR4458HG | 7.12 | 6.36 | 5.36 | 6.43 | 5.75 | 6.48 | 5.27 | 5.46 |
| MIR4469 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| MIR4482 | -1.94 | -2.04 | -2.04 | -2.01 | -2.01 | -2.05 | -2.05 | -2.06 |
| MIR4500HG | -1.34 | -1.13 | -1.18 | -0.96 | -1.30 | -1.00 | -1.34 | -1.36 |
| MIR4505 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR4512 | -2.01 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.11 |
| MIR4521 | -1.94 | -1.94 | -1.85 | -1.95 | -1.92 | -1.95 | -1.95 | -1.96 |
| MIR4522 | -2.15 | -2.14 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.13 |
| MIR454 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MIR4637 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR4644 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| MIR4645 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.17 |
| MIR4653 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| MIR4666A | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR4677 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| MIR4697HG | 1.09 | 1.52 | 1.75 | 1.73 | 2.07 | 0.93 | 1.48 | 1.11 |
| MIR4713HG | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| MIR4720 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR4725 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR4729 | -2.15 | -2.12 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| MIR4761 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| MIR4767 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| MIR4774 | -2.20 | -2.18 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| MIR4782 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| MIR491 | -2.04 | -2.01 | -2.04 | -2.02 | -2.03 | -2.04 | -2.02 | -2.06 |
| MIR497HG | -0.85 | -0.92 | -0.91 | -0.94 | -0.96 | -0.91 | -0.94 | -0.96 |
| MIR503HG | -1.55 | -1.59 | -1.53 | -1.45 | -1.59 | -1.48 | -1.60 | -1.52 |
| MIR505 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.24 |
| MIR5094 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.17 |
| MIR5188 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| MIR548A1HG | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| MIR548AC | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| MIR548AH | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| MIR548AL | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR548C | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 |
| MIR548D1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR548K | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| MIR548O2 | -2.20 | -2.20 | -2.17 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| MIR548U | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MIR559 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| MIR561 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| MIR567 | -1.15 | -1.07 | -0.98 | -1.16 | -1.07 | -1.13 | -1.08 | -1.17 |
| MIR5689HG | -2.25 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.25 | -2.26 |
| MIR5690 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| MIR5697 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| MIR570 | -1.64 | -1.58 | -1.57 | -1.59 | -1.64 | -1.65 | -1.64 | -1.61 |
| MIR581 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| MIR583HG | -2.30 | -2.30 | -2.30 | -2.30 | -2.28 | -2.31 | -2.31 | -2.31 |
| MIR600HG | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.18 | -2.21 |
| MIR601 | -1.69 | -1.69 | -1.63 | -1.54 | -1.69 | -1.67 | -1.59 | -1.71 |
| MIR6081 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| MIR616 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR624 | -1.84 | -1.84 | -1.83 | -1.80 | -1.84 | -1.79 | -1.84 | -1.82 |
| MIR631 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR635 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| MIR644A | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MIR646HG | -0.50 | -0.49 | 0.00 | -0.50 | -0.15 | -0.51 | -0.36 | -0.52 |
| MIR651 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MIR659 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| MIR6720 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| MIR6790 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR6797 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| MIR6844 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| MIR6858 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| MIR7-3HG | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -1.99 | -2.06 |
| MIR7111 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.21 |
| MIR744 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| MIR762 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -1.99 | -2.06 |
| MIR762HG | 3.71 | 3.14 | 3.02 | 3.12 | 3.12 | 2.83 | 2.78 | 3.04 |
| MIR7845 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MIR7851 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| MIR7856 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.21 |
| MIR8063 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.81 | -1.91 |
| MIR9-3HG | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.16 |
| MIR924HG | 2.96 | 2.04 | 4.00 | 1.98 | 2.83 | 3.90 | 3.66 | 2.51 |
| MIR938 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| MIR99AHG | -0.99 | -1.12 | -0.97 | -1.06 | -1.09 | -1.04 | -1.14 | -1.09 |
| MIRLET7BHG | 3.09 | 3.64 | 3.78 | 3.49 | 2.93 | 3.29 | 3.30 | 3.14 |
| MIS12 | 4.34 | 3.95 | 4.21 | 3.77 | 3.90 | 4.10 | 3.80 | 4.42 |
| MIS18A | 6.40 | 5.96 | 6.35 | 5.68 | 5.63 | 6.17 | 5.73 | 6.13 |
| MIS18A-AS1 | -1.60 | -1.64 | -1.63 | -1.65 | -1.59 | -1.63 | -1.60 | -1.52 |
| MIS18BP1 | 5.26 | 5.82 | 6.11 | 5.68 | 5.66 | 6.15 | 6.09 | 5.20 |
| MISP | 6.53 | 6.39 | 6.44 | 6.24 | 6.18 | 6.55 | 6.98 | 6.72 |
| MISP3 | 3.39 | 3.04 | 3.34 | 3.89 | 3.72 | 3.49 | 3.73 | 2.80 |
| MITD1 | 6.07 | 5.65 | 5.40 | 5.87 | 6.25 | 5.67 | 5.66 | 6.32 |
| MITF | 4.24 | 5.42 | 4.87 | 5.49 | 4.31 | 5.12 | 5.57 | 4.49 |
| MIXL1 | -1.99 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| MKI67 | 7.96 | 7.83 | 8.35 | 7.70 | 7.35 | 8.03 | 8.04 | 7.49 |
| MKI67P1 | -2.18 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.17 |
| MKKS | 4.87 | 4.78 | 4.97 | 4.98 | 4.59 | 4.45 | 4.67 | 4.36 |
| MKLN1 | 4.88 | 5.52 | 6.10 | 5.05 | 5.34 | 5.57 | 6.32 | 5.52 |
| MKLN1-AS | 1.62 | 1.53 | 1.72 | 1.41 | 1.49 | 1.40 | 1.47 | 1.90 |
| MKNK1 | 4.26 | 4.39 | 4.55 | 4.03 | 4.43 | 4.60 | 4.65 | 4.05 |
| MKNK2 | 6.57 | 6.72 | 7.60 | 6.43 | 6.94 | 7.47 | 8.12 | 7.21 |
| MKRN1 | 5.13 | 5.61 | 5.76 | 5.84 | 6.03 | 5.75 | 5.73 | 6.20 |
| MKRN2 | 4.05 | 4.23 | 3.49 | 4.23 | 4.18 | 3.83 | 3.87 | 3.72 |
| MKRN2OS | 2.05 | 2.42 | 2.09 | 2.86 | 2.42 | 2.20 | 2.05 | 2.61 |
| MKRN3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| MKRN5P | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -1.95 | -2.06 |
| MKRN7P | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| MKRN9P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MKS1 | 3.27 | 2.62 | 3.31 | 2.97 | 3.34 | 3.43 | 2.72 | 3.19 |
| MX | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 |
| MLC1 | -1.84 | -1.83 | -1.83 | -1.84 | -1.84 | -1.66 | -1.84 | -1.82 |
| MLEC | 7.36 | 8.74 | 8.32 | 8.82 | 8.39 | 8.09 | 8.09 | 8.54 |
| MLF1 | 4.87 | 3.57 | 5.12 | 3.24 | 4.00 | 4.28 | 4.00 | 5.39 |
| MLF2 | 9.24 | 8.24 | 8.23 | 8.58 | 7.72 | 7.89 | 8.31 | 9.03 |
| MLH1 | 4.38 | 4.54 | 4.29 | 4.49 | 4.11 | 4.27 | 4.45 | 4.02 |
| MLH3 | 5.36 | 5.05 | 4.71 | 5.29 | 5.22 | 5.11 | 5.24 | 4.45 |
| MLIP | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| MLKL | 3.32 | 3.88 | 3.49 | 3.99 | 3.30 | 3.27 | 2.96 | 3.53 |
| MLLT1 | 4.91 | 5.51 | 5.67 | 5.41 | 5.43 | 5.23 | 5.09 | 5.20 |
| MLLT10 | 3.96 | 4.35 | 4.44 | 4.19 | 4.71 | 4.53 | 4.60 | 4.45 |
| MLLT11 | 4.28 | 1.93 | 2.54 | 2.33 | 2.27 | 3.54 | 2.00 | 2.71 |
| MLLT3 | 5.92 | 5.70 | 5.21 | 5.64 | 4.29 | 5.22 | 5.84 | 5.06 |
| MLLT6 | 5.20 | 5.65 | 6.03 | 5.57 | 5.78 | 5.87 | 5.59 | 5.93 |
| MLPH | 6.22 | 7.70 | 6.66 | 8.19 | 8.65 | 8.67 | 8.03 | 7.82 |
| MLST8 | 6.38 | 6.21 | 5.69 | 6.47 | 5.53 | 6.10 | 5.68 | 6.36 |
| MLX | 5.54 | 5.58 | 5.24 | 5.80 | 5.72 | 5.86 | 5.86 | 6.21 |
| MLXIP | 5.25 | 6.86 | 7.07 | 6.56 | 5.75 | 6.07 | 6.43 | 6.06 |
| MLXIPL | 4.57 | 3.45 | 3.76 | 4.22 | 5.14 | 3.73 | 4.69 | 2.69 |
| MLYCD | 4.36 | 4.43 | 4.45 | 4.73 | 4.24 | 4.10 | 4.23 | 3.94 |
| MMAA | 3.52 | 4.05 | 3.78 | 4.02 | 3.99 | 3.81 | 4.55 | 3.98 |
| MMAB | 6.31 | 7.03 | 6.77 | 7.08 | 6.87 | 6.58 | 6.93 | 7.21 |
| MMACHC | 3.85 | 3.75 | 3.93 | 4.00 | 3.76 | 3.76 | 3.75 | 3.95 |
| MMADHC | 7.82 | 7.12 | 6.70 | 7.32 | 7.82 | 7.52 | 7.06 | 8.36 |
| MMD | 4.79 | 4.37 | 4.43 | 4.08 | 3.60 | 5.60 | 4.43 | 4.24 |
| MME | 1.92 | 1.66 | 3.19 | 1.59 | 1.70 | 2.69 | 2.24 | 2.48 |
| MMEL1 | 2.49 | 2.73 | 2.66 | 2.30 | 2.30 | 2.91 | 2.27 | 2.30 |
| MMGT1 | 4.54 | 4.46 | 4.89 | 4.23 | 4.60 | 4.82 | 4.72 | 4.84 |
| MMP1 | 6.72 | 6.18 | 7.58 | 6.81 | 7.98 | 6.56 | 10.20 | 6.28 |
| MMP10 | 1.69 | 1.54 | 1.99 | 1.56 | 1.69 | 1.40 | 2.08 | 1.20 |
| MMP11 | 1.81 | 1.40 | 1.31 | 1.52 | 1.29 | 1.26 | 1.06 | 1.18 |
| MMP12 | 0.62 | 0.86 | 0.87 | 0.90 | 1.08 | 0.94 | 0.69 | 0.52 |
| MMP13 | -1.13 | -1.32 | -1.18 | -1.33 | -1.32 | -1.34 | -1.33 | -1.34 |
| MMP14 | 4.01 | 4.68 | 4.12 | 4.74 | 4.90 | 4.63 | 4.97 | 5.09 |
| MMP15 | 6.90 | 6.84 | 6.59 | 6.66 | 5.83 | 5.69 | 6.90 | 5.74 |
| MMP16 | -2.20 | -2.20 | -2.14 | -2.20 | -2.20 | -2.21 | -2.20 | -2.21 |
| MMP17 | 1.60 | 1.92 | 1.29 | 1.89 | 1.15 | 1.57 | 1.11 | 1.13 |
| MMP19 | -1.51 | -1.61 | -1.50 | -1.62 | -1.61 | -1.60 | -1.62 | -1.41 |
| MMP2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| MMP20 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MMP21 | -1.94 | -1.94 | -1.93 | -1.91 | -1.92 | -1.93 | -1.95 | -1.92 |
| MMP23B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MMP24 | 1.05 | 0.98 | 1.10 | 1.12 | 1.19 | 1.10 | 1.85 | 1.22 |
| MMP24OS | 7.00 | 6.50 | 7.05 | 6.53 | 6.65 | 6.95 | 7.31 | 6.97 |
| MMP25 | -0.38 | -0.44 | -0.51 | -0.53 | -0.41 | -0.50 | -0.20 | -0.49 |
| MMP25-AS1 | 0.64 | 0.59 | 0.52 | 0.60 | 0.54 | 0.70 | 0.74 | 0.55 |
| MMP27 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MMP28 | 6.82 | 8.00 | 7.64 | 7.83 | 7.78 | 6.55 | 7.55 | 8.70 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MMP3 | 0.20 | 0.45 | 1.35 | 0.43 | 0.80 | 0.33 | 0.42 | 0.15 |
| MMP7 | 6.69 | 7.88 | 9.77 | 7.59 | 8.36 | 8.71 | 7.89 | 6.89 |
| MMP9 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -2.01 |
| MMRN1 | -1.10 | -0.45 | -0.99 | 0.08 | -0.96 | -1.07 | -1.10 | -1.12 |
| MMRN2 | -0.42 | -0.71 | -0.69 | -0.71 | -0.56 | -0.55 | -0.72 | -0.01 |
| MMS19 | 3.93 | 4.21 | 4.24 | 4.37 | 4.34 | 4.03 | 4.34 | 3.87 |
| MMS22L | 4.17 | 3.36 | 4.22 | 3.59 | 3.09 | 3.88 | 4.36 | 3.09 |
| MMUT | 5.28 | 4.60 | 4.94 | 4.52 | 4.49 | 4.99 | 5.36 | 5.30 |
| MN1 | 0.37 | 0.12 | 0.05 | 0.10 | 0.12 | 0.15 | 0.09 | 0.56 |
| MNAT1 | 5.74 | 6.48 | 6.11 | 5.94 | 6.53 | 6.83 | 5.96 | 6.08 |
| MND1 | 4.80 | 4.84 | 5.28 | 4.85 | 4.91 | 5.40 | 4.78 | 4.44 |
| MNS1 | 5.09 | 3.79 | 5.40 | 4.11 | 4.24 | 4.29 | 4.74 | 3.44 |
| MNT | 3.51 | 3.39 | 4.26 | 3.26 | 3.51 | 3.65 | 4.43 | 3.85 |
| MX1 | 3.37 | 3.82 | 3.98 | 3.83 | 4.27 | 3.90 | 3.98 | 3.65 |
| MX1-AS1 | 2.98 | 3.00 | 2.55 | 3.16 | 2.97 | 2.85 | 2.37 | 2.82 |
| MX1-AS2 | -1.32 | -1.38 | -1.37 | -1.32 | -1.38 | -1.36 | -1.39 | -1.20 |
| MOAP1 | 3.85 | 3.81 | 3.58 | 4.16 | 4.04 | 4.03 | 3.86 | 4.03 |
| MOB1A | 7.78 | 7.47 | 7.09 | 7.38 | 7.55 | 7.35 | 7.40 | 7.68 |
| MOB1B | 3.18 | 4.12 | 3.96 | 3.87 | 3.50 | 4.14 | 4.36 | 4.08 |
| MOB2 | 5.67 | 5.26 | 5.54 | 5.31 | 5.91 | 5.11 | 5.20 | 6.01 |
| MOB3A | 3.39 | 3.56 | 3.95 | 3.28 | 3.39 | 3.97 | 3.99 | 3.56 |
| MOB3B | 2.61 | 4.27 | 3.36 | 4.23 | 2.84 | 2.94 | 4.44 | 2.61 |
| MOB3C | 2.39 | 2.73 | 2.74 | 2.69 | 2.42 | 2.61 | 2.28 | 2.65 |
| MOB4 | 5.64 | 5.67 | 5.38 | 5.59 | 5.86 | 5.73 | 5.47 | 6.04 |
| MOBP | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| MOCOS | 3.23 | 3.41 | 3.25 | 3.14 | 2.93 | 3.63 | 3.76 | 3.20 |
| MOCS1 | 0.53 | 0.23 | 0.52 | 0.22 | 0.51 | 0.24 | 0.50 | 0.18 |
| MOCS2 | 6.00 | 6.27 | 6.34 | 6.35 | 6.58 | 6.50 | 6.33 | 6.16 |
| MOCS3 | 3.66 | 3.33 | 3.48 | 3.30 | 3.39 | 3.26 | 3.16 | 3.19 |
| MOGAT1 | 1.51 | 1.36 | 1.60 | 1.49 | 1.40 | 1.43 | 2.79 | 1.29 |
| MOGAT2 | -1.26 | -1.04 | -1.24 | -1.13 | -1.12 | -1.20 | -1.20 | -1.22 |
| MOGAT3 | 0.84 | 0.71 | 0.65 | 0.75 | 0.67 | 0.72 | 1.35 | 0.54 |
| MOGS | 5.94 | 5.95 | 6.25 | 6.34 | 5.98 | 5.98 | 5.66 | 6.48 |
| MOK | 4.23 | 5.58 | 4.01 | 5.78 | 5.54 | 5.26 | 3.96 | 4.63 |
| MON1A | 3.67 | 3.64 | 3.32 | 4.12 | 3.54 | 3.36 | 3.18 | 3.33 |
| MON1B | 5.01 | 5.51 | 5.85 | 5.34 | 5.03 | 5.07 | 5.68 | 5.52 |
| MON2 | 3.98 | 4.48 | 4.49 | 4.30 | 4.38 | 4.76 | 4.96 | 4.39 |
| MORC2 | 4.88 | 4.37 | 4.14 | 4.52 | 4.20 | 4.68 | 3.78 | 4.53 |
| MORC2-AS1 | 0.80 | 0.38 | 0.24 | 0.29 | 0.38 | 0.37 | 0.54 | 0.47 |
| MORC3 | 4.43 | 4.58 | 4.57 | 4.60 | 4.27 | 3.77 | 4.72 | 4.85 |
| MORC4 | 5.75 | 4.03 | 6.61 | 3.78 | 6.40 | 5.47 | 5.83 | 5.42 |
| MORF4 | -1.50 | -1.49 | -1.48 | -1.50 | -1.43 | -1.48 | -1.44 | -1.41 |
| MORF4L1 | 8.69 | 7.83 | 8.03 | 7.92 | 8.18 | 8.00 | 7.66 | 8.82 |
| MORF4L1P1 | 3.38 | 2.95 | 2.96 | 3.10 | 2.87 | 2.94 | 2.66 | 3.21 |
| MORF4L1P3 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| MORF4L2 | 8.25 | 8.08 | 8.25 | 8.00 | 8.31 | 8.25 | 7.85 | 7.99 |
| MORF4L2-AS1 | -1.34 | -1.34 | -1.26 | -1.28 | -1.24 | -1.32 | -1.22 | -1.36 |
| MORN1 | 2.26 | 1.83 | 1.95 | 1.95 | 1.85 | 2.00 | 2.03 | 1.68 |
| MORN2 | 5.15 | 5.72 | 4.88 | 5.56 | 5.54 | 5.51 | 5.11 | 5.56 |
| MORN3 | 0.91 | 1.02 | 0.87 | 1.03 | 1.18 | 1.22 | 0.55 | 0.86 |
| MORN4 | 2.82 | 3.12 | 2.87 | 2.89 | 3.55 | 3.28 | 2.54 | 3.26 |
| MORN5 | -1.60 | -1.65 | -1.64 | -1.66 | -1.60 | -1.41 | -1.67 | -1.63 |
| MOSMO | 4.87 | 4.60 | 5.17 | 4.44 | 4.69 | 5.00 | 4.62 | 5.20 |
| MOSPD1 | 4.07 | 4.02 | 4.02 | 3.78 | 3.54 | 4.89 | 3.79 | 4.28 |
| MOSPD2 | 4.22 | 4.48 | 4.80 | 4.18 | 4.26 | 4.75 | 4.50 | 4.12 |
| MOSPD3 | 4.83 | 4.97 | 4.51 | 4.71 | 4.95 | 4.27 | 3.93 | 5.21 |
| MOV10 | 4.05 | 4.18 | 4.26 | 3.70 | 3.90 | 4.18 | 4.28 | 4.06 |
| MOV10L1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| MOXD1 | 0.17 | 0.33 | 0.38 | 0.17 | 0.22 | 0.71 | 0.30 | 0.42 |
| MPC1 | 7.88 | 7.20 | 6.46 | 7.04 | 7.19 | 7.40 | 7.20 | 7.71 |
| MPC2 | 8.04 | 7.40 | 6.71 | 8.02 | 7.87 | 8.02 | 7.77 | 8.07 |
| MPDU1 | 6.49 | 6.54 | 6.19 | 6.70 | 6.26 | 5.94 | 6.67 | 6.56 |
| MPDZ | -0.83 | -0.82 | -0.81 | -0.68 | -0.74 | -0.80 | -0.75 | -0.22 |
| MPG | 7.50 | 7.18 | 6.83 | 7.38 | 7.03 | 6.79 | 6.88 | 7.18 |
| MPHOSPH10 | 6.36 | 6.23 | 5.94 | 6.38 | 6.91 | 6.29 | 6.19 | 6.56 |
| MPHOSPH6 | 7.75 | 6.54 | 6.70 | 6.73 | 6.21 | 6.60 | 6.29 | 5.98 |
| MPHOSPH8 | 6.19 | 6.67 | 7.10 | 6.52 | 7.06 | 6.29 | 6.82 | 7.23 |
| MPHOSPH9 | 3.49 | 4.41 | 4.62 | 4.00 | 3.83 | 3.96 | 4.87 | 3.78 |
| MPI | 5.42 | 4.51 | 5.02 | 4.77 | 5.52 | 4.65 | 4.89 | 4.57 |
| MPIG6B | -1.64 | -1.64 | -1.63 | -1.64 | -1.64 | -1.65 | -1.59 | -1.61 |
| MPLKIP | 8.16 | 6.44 | 6.53 | 6.58 | 7.00 | 7.06 | 6.60 | 7.09 |
| MPND | 3.70 | 4.25 | 4.12 | 4.27 | 4.25 | 4.03 | 4.11 | 3.62 |
| MPO | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| MPP1 | 2.34 | 1.60 | 1.57 | 1.41 | 1.69 | 2.17 | 1.60 | 1.38 |
| MPP2 | -0.26 | -0.40 | -0.06 | -0.49 | -0.41 | -0.43 | -0.35 | -0.51 |
| MPP3 | 1.54 | 1.65 | 1.83 | 2.13 | 1.74 | 1.66 | 2.37 | 1.86 |
| MPP4 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| MPP5 | 4.88 | 5.84 | 5.86 | 5.84 | 5.81 | 5.65 | 5.89 | 5.67 |
| MPP6 | 4.91 | 3.39 | 4.09 | 3.16 | 4.06 | 3.39 | 4.46 | 3.84 |
| MPP7 | 2.59 | 3.75 | 3.43 | 3.39 | 2.56 | 3.37 | 3.78 | 3.30 |
| MPP7-DT | -2.30 | -2.29 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MPPE1 | 4.42 | 4.22 | 4.56 | 4.31 | 4.93 | 4.13 | 4.82 | 5.85 |
| MPPED2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MPRIP | 6.54 | 6.47 | 7.24 | 6.14 | 6.28 | 6.57 | 7.07 | 7.21 |
| MPRIP-AS1 | -0.35 | -0.54 | -0.45 | -0.48 | -0.36 | -0.49 | -0.41 | -0.29 |
| MPRIIP1 | -1.94 | -1.94 | -1.90 | -1.94 | -1.92 | -1.95 | -1.95 | -1.96 |
| MPST | 7.82 | 7.58 | 6.82 | 7.89 | 7.44 | 7.61 | 7.35 | 7.05 |
| MPV17 | 6.97 | 6.40 | 6.26 | 6.46 | 6.41 | 6.64 | 6.52 | 7.15 |
| MPV17L | 3.43 | 2.69 | 2.31 | 2.83 | 2.22 | 2.00 | 1.88 | 2.95 |
| MPV17L2 | 5.60 | 5.57 | 4.91 | 6.01 | 5.77 | 5.65 | 5.20 | 5.85 |
| MPZ | 0.46 | 0.07 | 0.15 | 0.22 | 0.14 | 0.00 | -0.03 | 0.19 |
| MPZL1 | 7.29 | 7.33 | 6.93 | 7.35 | 7.10 | 6.93 | 7.36 | 6.95 |
| MPZL2 | 6.43 | 6.34 | 6.61 | 6.28 | 6.93 | 5.72 | 7.12 | 6.70 |
| MPZL3 | 4.02 | 4.23 | 3.97 | 4.19 | 3.91 | 4.27 | 4.79 | 4.43 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MR1 | 4.10 | 4.45 | 4.04 | 4.57 | 4.41 | 4.44 | 3.72 | 4.73 |
| MRAP | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| MRAP2 | 0.76 | 1.49 | 1.01 | 1.77 | 0.67 | 0.66 | 0.83 | 0.69 |
| MRAS | 0.08 | 0.18 | 0.02 | 0.00 | 0.12 | 0.02 | 0.07 | 0.21 |
| MRE11 | 4.97 | 4.79 | 5.51 | 4.89 | 5.10 | 5.09 | 5.04 | 4.92 |
| MRE11P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MREG | 4.34 | 4.11 | 3.89 | 4.09 | 4.08 | 4.15 | 4.04 | 4.67 |
| MRFAP1 | 7.80 | 7.80 | 7.99 | 7.79 | 7.78 | 8.40 | 8.23 | 8.53 |
| MRFAP1L1 | 5.80 | 5.75 | 5.90 | 5.63 | 5.92 | 6.55 | 6.16 | 6.38 |
| MRGBP | 7.24 | 6.03 | 6.15 | 6.19 | 6.31 | 6.46 | 5.71 | 6.63 |
| MRGPRE | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| MRGPRF | -2.15 | -2.15 | -2.14 | -2.12 | -2.13 | -2.15 | -2.13 | -2.16 |
| MRGPRG-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MRH1 | 3.78 | 3.79 | 3.79 | 3.99 | 4.42 | 3.97 | 4.10 | 3.93 |
| MRLN | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| MRM1 | 4.41 | 3.77 | 3.77 | 3.94 | 4.28 | 3.83 | 3.33 | 3.72 |
| MRM2 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.87 | -1.96 |
| MRM3 | 3.87 | 3.90 | 4.37 | 4.04 | 3.99 | 4.17 | 4.03 | 4.34 |
| MRNIP | 4.34 | 4.22 | 4.70 | 4.02 | 4.80 | 4.18 | 4.30 | 4.16 |
| MRO | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| MROH1 | 4.51 | 4.83 | 5.48 | 4.55 | 4.82 | 4.83 | 5.13 | 4.89 |
| MROH2A | -2.04 | -2.04 | -2.04 | -2.05 | -1.96 | -2.00 | -2.05 | -2.06 |
| MROH3P | -0.74 | -0.73 | -0.80 | -0.61 | -0.73 | -0.79 | -0.63 | -0.71 |
| MROH6 | 3.63 | 4.58 | 4.36 | 4.72 | 3.47 | 4.32 | 4.04 | 4.03 |
| MROH7 | -1.69 | -1.69 | -1.62 | -1.70 | -1.66 | -1.68 | -1.58 | -1.72 |
| MROH8 | 2.31 | 1.88 | 2.30 | 1.82 | 2.30 | 2.01 | 1.54 | 1.82 |
| MRPL1 | 6.04 | 6.38 | 6.22 | 6.37 | 5.63 | 5.86 | 5.78 | 6.46 |
| MRPL10 | 6.26 | 6.01 | 6.11 | 6.25 | 6.59 | 6.56 | 5.33 | 6.31 |
| MRPL11 | 7.73 | 7.32 | 7.13 | 7.42 | 7.63 | 7.10 | 6.55 | 7.33 |
| MRPL12 | 8.48 | 8.00 | 7.57 | 8.01 | 8.02 | 7.85 | 7.47 | 7.78 |
| MRPL13 | 8.45 | 7.66 | 8.05 | 7.66 | 8.05 | 8.42 | 7.30 | 8.50 |
| MRPL14 | 8.88 | 8.08 | 7.76 | 8.33 | 8.45 | 8.65 | 8.11 | 8.66 |
| MRPL15 | 7.03 | 6.63 | 6.47 | 6.73 | 6.72 | 6.87 | 5.90 | 7.10 |
| MRPL15P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MRPL16 | 7.53 | 7.03 | 7.14 | 7.39 | 7.26 | 7.25 | 6.91 | 7.28 |
| MRPL17 | 7.89 | 7.67 | 7.57 | 7.67 | 7.87 | 7.58 | 7.13 | 7.66 |
| MRPL18 | 8.09 | 7.14 | 6.90 | 7.24 | 7.05 | 7.46 | 6.68 | 7.19 |
| MRPL19 | 7.25 | 6.57 | 6.10 | 6.53 | 6.71 | 6.72 | 6.61 | 6.83 |
| MRPL2 | 5.48 | 5.08 | 4.74 | 5.02 | 5.65 | 5.70 | 4.70 | 5.86 |
| MRPL20 | 8.19 | 8.14 | 7.14 | 8.22 | 7.82 | 7.84 | 7.26 | 7.40 |
| MRPL20-AS1 | 4.85 | 4.16 | 4.11 | 4.47 | 4.14 | 4.14 | 3.87 | 4.32 |
| MRPL20P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| MRPL21 | 7.48 | 7.27 | 7.11 | 7.27 | 7.18 | 7.04 | 6.92 | 7.09 |
| MRPL22 | 7.59 | 7.59 | 7.77 | 7.74 | 8.17 | 7.81 | 7.32 | 7.46 |
| MRPL23 | 6.74 | 6.75 | 6.35 | 6.62 | 6.58 | 6.03 | 6.19 | 6.94 |
| MRPL24 | 7.93 | 7.34 | 7.35 | 7.36 | 7.94 | 7.73 | 7.17 | 7.82 |
| MRPL27 | 7.58 | 7.07 | 6.82 | 7.20 | 7.15 | 7.41 | 6.90 | 7.15 |
| MRPL28 | 7.80 | 6.69 | 7.33 | 6.72 | 6.49 | 7.08 | 6.70 | 7.39 |
| MRPL2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| MRPL3 | 7.70 | 6.65 | 7.02 | 6.69 | 7.53 | 7.35 | 6.89 | 7.92 |
| MRPL30 | 5.40 | 5.25 | 4.96 | 5.27 | 5.54 | 5.08 | 5.32 | 5.35 |
| MRPL30P1 | -1.49 | -1.48 | -1.53 | -1.49 | -1.48 | -1.52 | -1.55 | -1.51 |
| MRPL32 | 7.37 | 7.11 | 6.38 | 7.34 | 7.23 | 6.58 | 6.62 | 6.82 |
| MRPL33 | 9.23 | 8.41 | 7.63 | 8.51 | 8.20 | 8.64 | 7.89 | 8.49 |
| MRPL34 | 7.22 | 8.00 | 6.75 | 8.35 | 7.95 | 7.32 | 7.57 | 6.97 |
| MRPL35 | 6.25 | 6.32 | 5.68 | 6.18 | 6.32 | 5.91 | 5.96 | 6.12 |
| MRPL35P2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| MRPL35P3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| MRPL35P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MRPL36 | 7.79 | 6.99 | 6.46 | 7.07 | 7.30 | 7.12 | 6.27 | 7.19 |
| MRPL37 | 7.07 | 7.29 | 7.05 | 7.57 | 7.39 | 7.23 | 6.78 | 6.72 |
| MRPL37P1 | -1.79 | -1.79 | -1.68 | -1.75 | -1.76 | -1.80 | -1.70 | -1.81 |
| MRPL38 | 1.22 | 0.70 | 0.79 | 0.97 | 0.80 | 0.80 | 0.93 | 0.72 |
| MRPL39 | 6.80 | 6.01 | 5.82 | 6.13 | 5.80 | 6.72 | 5.51 | 4.84 |
| MRPL3P1 | -1.79 | -1.78 | -1.78 | -1.75 | -1.76 | -1.78 | -1.79 | -1.76 |
| MRPL4 | 7.52 | 7.30 | 7.29 | 7.55 | 7.69 | 7.43 | 7.07 | 7.14 |
| MRPL40 | 7.79 | 6.64 | 6.50 | 6.71 | 6.53 | 7.02 | 6.24 | 6.91 |
| MRPL40P1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.90 | -1.94 | -1.95 |
| MRPL41 | 9.38 | 8.66 | 8.01 | 8.62 | 8.39 | 8.52 | 7.97 | 7.93 |
| MRPL42 | 7.24 | 7.17 | 7.48 | 7.21 | 7.22 | 7.38 | 7.04 | 7.62 |
| MRPL43 | 6.60 | 6.42 | 5.91 | 6.72 | 6.61 | 6.80 | 6.10 | 6.26 |
| MRPL44 | 5.97 | 5.80 | 5.59 | 5.79 | 5.99 | 6.23 | 5.53 | 6.05 |
| MRPL45 | 6.90 | 6.35 | 6.13 | 6.36 | 6.60 | 6.72 | 5.69 | 6.57 |
| MRPL45P2 | 2.05 | 1.57 | 1.82 | 1.88 | 1.92 | 1.57 | 1.75 | 1.96 |
| MRPL46 | 2.74 | 2.53 | 2.45 | 2.44 | 2.34 | 2.43 | 2.29 | 2.33 |
| MRPL47 | 7.77 | 7.15 | 6.74 | 7.14 | 7.20 | 7.12 | 6.65 | 7.51 |
| MRPL48 | 7.39 | 6.09 | 6.40 | 6.55 | 6.60 | 6.60 | 6.34 | 7.10 |
| MRPL48P1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.05 |
| MRPL49 | 7.15 | 5.63 | 6.55 | 5.92 | 6.50 | 6.49 | 5.82 | 7.16 |
| MRPL50 | 7.75 | 6.94 | 6.17 | 7.23 | 6.60 | 6.92 | 6.41 | 6.23 |
| MRPL51 | 8.80 | 8.48 | 7.87 | 8.57 | 7.92 | 7.93 | 7.62 | 8.52 |
| MRPL52 | 7.63 | 8.36 | 7.30 | 8.33 | 8.67 | 8.35 | 7.92 | 7.76 |
| MRPL53 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 |
| MRPL54 | 5.84 | 6.18 | 6.27 | 6.31 | 6.34 | 6.78 | 6.42 | 6.06 |
| MRPL55 | 7.36 | 6.37 | 6.30 | 6.55 | 7.10 | 7.12 | 6.22 | 7.11 |
| MRPL57 | 9.43 | 9.58 | 8.79 | 9.79 | 10.12 | 9.34 | 9.02 | 9.87 |
| MRPL58 | 6.43 | 5.92 | 5.65 | 5.78 | 6.33 | 6.40 | 5.44 | 6.21 |
| MRPL9 | 6.91 | 6.15 | 5.78 | 6.37 | 6.67 | 7.08 | 5.53 | 6.85 |
| MRPS10 | 7.33 | 6.62 | 6.32 | 6.47 | 6.93 | 7.34 | 6.57 | 8.12 |
| MRPS10P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MRPS11 | 7.11 | 6.49 | 6.49 | 6.81 | 6.66 | 6.43 | 6.20 | 6.74 |
| MRPS12 | 8.10 | 7.40 | 6.67 | 7.45 | 8.02 | 7.10 | 6.63 | 7.07 |
| MRPS14 | 7.90 | 7.13 | 6.50 | 7.12 | 7.76 | 7.54 | 6.59 | 7.36 |
| MRPS15 | 7.14 | 7.41 | 6.66 | 7.32 | 7.27 | 7.22 | 6.83 | 7.13 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| MRPS16 | 8.32 | 7.29 | 7.27 | 7.51 | 8.15 | 7.93 | 7.29 | 7.43 |
| MRPS16P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| MRPS16P2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| MRPS17 | 4.99 | 4.64 | 4.23 | 4.96 | 5.21 | 4.74 | 4.51 | 4.63 |
| MRPS18A | 7.51 | 6.70 | 6.70 | 6.63 | 6.99 | 7.13 | 6.51 | 7.65 |
| MRPS18B | 7.63 | 6.14 | 7.28 | 6.32 | 6.62 | 7.73 | 6.75 | 7.91 |
| MRPS18C | 7.40 | 7.39 | 7.00 | 7.46 | 7.24 | 7.80 | 6.95 | 7.99 |
| MRPS18CP4 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| MRPS18CP6 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| MRPS2 | 6.90 | 6.64 | 6.07 | 6.78 | 6.34 | 6.88 | 6.04 | 6.14 |
| MRPS21 | 8.87 | 8.42 | 7.91 | 8.56 | 8.66 | 8.79 | 8.37 | 8.45 |
| MRPS21P1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| MRPS21P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MRPS21P3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| MRPS22 | 6.98 | 5.61 | 6.18 | 5.62 | 6.82 | 6.49 | 6.24 | 7.18 |
| MRPS23 | 7.48 | 6.66 | 6.35 | 6.91 | 7.25 | 7.30 | 6.27 | 7.18 |
| MRPS24 | -0.69 | -0.76 | -0.67 | -0.69 | -0.58 | -0.68 | -0.69 | -0.66 |
| MRPS25 | 7.39 | 7.01 | 6.67 | 7.30 | 6.96 | 6.38 | 6.62 | 6.20 |
| MRPS26 | 8.38 | 7.42 | 7.40 | 7.75 | 7.33 | 7.53 | 7.02 | 7.15 |
| MRPS27 | 4.82 | 5.69 | 5.48 | 5.64 | 5.58 | 5.00 | 5.34 | 4.93 |
| MRPS28 | 4.51 | 4.61 | 4.36 | 4.71 | 4.66 | 4.87 | 4.39 | 4.51 |
| MRPS30 | 6.23 | 6.10 | 6.21 | 6.04 | 6.32 | 6.27 | 5.41 | 6.06 |
| MRPS30-DT | 1.13 | 1.07 | 1.63 | 1.18 | 1.95 | 3.23 | 1.11 | 1.64 |
| MRPS31 | 5.23 | 5.36 | 5.30 | 5.52 | 6.34 | 5.33 | 5.48 | 6.01 |
| MRPS31P4 | 0.08 | 0.32 | 0.11 | 0.23 | 0.41 | 0.22 | 0.15 | 0.27 |
| MRPS31P5 | 0.40 | 0.65 | 0.51 | 0.68 | 0.84 | 0.67 | 0.66 | 0.59 |
| MRPS33 | 7.60 | 7.81 | 7.26 | 7.75 | 8.07 | 7.51 | 7.34 | 7.63 |
| MRPS34 | 8.70 | 8.32 | 7.68 | 8.46 | 7.77 | 8.32 | 7.92 | 8.58 |
| MRPS35 | 8.00 | 7.55 | 7.30 | 7.74 | 8.37 | 6.63 | 6.93 | 7.88 |
| MRPS36 | 7.22 | 7.48 | 7.02 | 7.56 | 8.03 | 7.47 | 7.31 | 7.08 |
| MRPS36P1 | -0.54 | -0.37 | -0.60 | -0.54 | -0.38 | -0.58 | -0.40 | -0.51 |
| MRPS36P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MRPS5 | 7.64 | 6.69 | 7.21 | 6.44 | 7.99 | 7.31 | 7.37 | 7.25 |
| MRPS6 | 7.10 | 5.97 | 6.42 | 6.41 | 6.69 | 7.14 | 6.37 | 7.20 |
| MRPS7 | 7.81 | 7.48 | 7.09 | 7.84 | 7.60 | 7.68 | 6.74 | 7.35 |
| MRPS9 | 6.68 | 6.10 | 5.84 | 6.62 | 6.57 | 6.37 | 5.97 | 5.96 |
| MRRF | 5.42 | 5.40 | 4.81 | 5.38 | 4.75 | 4.94 | 5.13 | 4.81 |
| MRRFP1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| MRS2 | 5.12 | 4.75 | 5.28 | 4.97 | 4.64 | 5.39 | 5.50 | 5.38 |
| MRTFA | 3.60 | 3.78 | 3.86 | 3.75 | 3.63 | 3.74 | 3.56 | 3.80 |
| MRTFA-AS1 | -2.04 | -2.01 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.00 |
| MRTFB | 4.33 | 4.99 | 4.79 | 4.81 | 4.01 | 4.68 | 4.68 | 4.83 |
| MRT04 | 6.11 | 5.52 | 5.67 | 5.68 | 5.90 | 6.41 | 5.86 | 5.99 |
| MRV1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| MRV11-AS1 | -1.03 | -1.22 | -1.21 | -1.23 | -1.15 | -1.12 | -1.23 | -1.25 |
| MS4A12 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| MS4A2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MS4A7 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MS4A8 | 1.49 | 2.19 | 1.46 | 2.13 | 1.57 | 1.26 | 1.89 | 1.27 |
| MSANTD1 | -1.84 | -1.84 | -1.79 | -1.84 | -1.84 | -1.81 | -1.84 | -1.78 |
| MSANTD2 | 1.76 | 2.01 | 1.87 | 2.06 | 1.86 | 1.91 | 1.88 | 1.81 |
| MSANTD3 | 6.17 | 4.70 | 4.95 | 4.88 | 4.65 | 4.95 | 5.07 | 5.10 |
| MSANTD4 | 4.40 | 4.16 | 4.25 | 4.33 | 4.91 | 4.12 | 4.14 | 4.32 |
| MSC | -1.50 | -1.50 | -1.48 | -1.51 | -1.50 | -1.51 | -1.51 | -0.48 |
| MSC-AS1 | -1.60 | -1.59 | -1.58 | -1.60 | -1.59 | -1.57 | -1.60 | -0.71 |
| MSH2 | 5.50 | 5.04 | 5.71 | 5.20 | 5.61 | 5.49 | 5.55 | 5.11 |
| MSH3 | 4.06 | 5.13 | 5.17 | 4.88 | 5.27 | 4.90 | 5.59 | 4.65 |
| MSH4 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| MSH5 | 0.02 | 0.03 | 0.14 | 0.09 | 0.07 | 0.18 | 0.37 | 0.20 |
| MSH6 | 6.26 | 5.79 | 5.76 | 5.90 | 6.03 | 5.57 | 6.02 | 5.62 |
| MSI1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.86 |
| MSI2 | 7.14 | 7.16 | 6.36 | 7.14 | 6.98 | 7.14 | 6.84 | 6.01 |
| MSL1 | 5.11 | 5.66 | 6.29 | 5.69 | 5.71 | 5.89 | 6.06 | 5.69 |
| MSL2 | 4.28 | 4.26 | 5.02 | 3.93 | 4.38 | 4.20 | 4.67 | 4.87 |
| MSL3 | 5.20 | 5.34 | 5.07 | 5.07 | 4.61 | 4.67 | 4.98 | 4.27 |
| MSL3P1 | 2.08 | 2.08 | 1.98 | 1.88 | 2.21 | 2.24 | 1.72 | 2.45 |
| MSLN | 6.85 | 8.10 | 6.79 | 7.77 | 6.51 | 6.62 | 6.89 | 8.87 |
| MSMB | 4.27 | 4.49 | 4.63 | 6.51 | 6.96 | 3.81 | 4.34 | 6.26 |
| MSMO1 | 8.04 | 8.54 | 7.94 | 8.42 | 8.37 | 8.52 | 9.25 | 9.12 |
| MSMP | -0.28 | -0.43 | -0.42 | -0.44 | 0.77 | -0.41 | -0.45 | -0.33 |
| MSN | 3.97 | 5.08 | 6.18 | 4.15 | 4.42 | 4.74 | 5.92 | 5.21 |
| MSNP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| MSR1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| MSRA | 3.46 | 4.48 | 3.86 | 4.33 | 3.55 | 4.37 | 3.88 | 3.95 |
| MSRB1 | 6.24 | 5.14 | 5.07 | 5.73 | 5.14 | 5.90 | 4.69 | 5.51 |
| MSRB2 | 6.02 | 6.62 | 6.07 | 6.71 | 7.26 | 6.73 | 6.14 | 6.44 |
| MSRB3 | 1.54 | 1.08 | 1.21 | 0.97 | 1.02 | 2.02 | 0.88 | 0.88 |
| MSS51 | -1.35 | -1.28 | -1.27 | -1.29 | -1.32 | -1.30 | -1.11 | -1.32 |
| MST1 | 1.49 | 1.33 | 1.67 | 1.36 | 1.38 | 1.52 | 2.01 | 1.35 |
| MST1L | 0.12 | 0.06 | 0.41 | 0.12 | 0.43 | 0.23 | 0.18 | 0.12 |
| MST1P2 | 0.65 | 0.66 | 0.73 | 0.62 | 1.01 | 0.76 | 0.76 | 0.44 |
| MST1R | 5.21 | 5.70 | 5.69 | 6.03 | 5.29 | 5.11 | 6.10 | 5.04 |
| MSTN | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| MSTO1 | 2.64 | 2.66 | 2.73 | 2.96 | 2.84 | 2.64 | 2.79 | 3.18 |
| MSTO2P | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| MSX1 | 2.22 | 2.29 | 2.87 | 1.94 | 2.22 | 2.26 | 1.54 | 1.88 |
| MSX2 | 4.76 | 5.12 | 4.40 | 5.23 | 3.73 | 3.90 | 4.09 | 2.94 |
| MT-ATP6 | 11.72 | 12.36 | 12.50 | 12.42 | 11.94 | 12.62 | 13.29 | 12.26 |
| MT-ATP8 | 6.90 | 7.42 | 7.48 | 7.62 | 7.49 | 8.13 | 8.39 | 7.90 |
| MT-CO1 | 12.67 | 13.63 | 13.96 | 14.00 | 13.76 | 13.66 | 14.03 | 13.48 |
| MT-CO2 | 14.28 | 14.52 | 15.05 | 14.56 | 14.69 | 14.49 | 14.92 | 14.17 |
| MT-CO3 | 13.42 | 13.95 | 14.38 | 14.08 | 14.16 | 13.96 | 14.49 | 13.57 |
| MT-CYB | 13.06 | 13.76 | 14.26 | 13.97 | 13.56 | 13.72 | 14.30 | 13.62 |
| MT-ND1 | 10.51 | 10.94 | 11.37 | 11.19 | 11.99 | 11.53 | 11.55 | 11.41 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| MT-ND2 | 11.12 | 12.10 | 12.32 | 12.23 | 12.48 | 12.29 | 12.61 | 12.36 |
| MT-ND3 | 10.20 | 11.26 | 10.93 | 11.52 | 12.23 | 11.21 | 12.16 | 11.66 |
| MT-ND4 | 12.78 | 13.33 | 13.78 | 13.35 | 13.57 | 13.46 | 13.76 | 13.05 |
| MT-ND4L | 9.28 | 9.82 | 9.90 | 9.84 | 9.78 | 10.07 | 10.21 | 9.77 |
| MT-ND5 | 10.15 | 10.88 | 11.29 | 10.78 | 10.77 | 11.01 | 11.31 | 10.89 |
| MT-ND6 | 5.50 | 5.50 | 6.31 | 5.81 | 6.23 | 6.11 | 6.35 | 5.42 |
| MT-RNR1 | 12.22 | 12.68 | 12.56 | 12.98 | 12.86 | 12.57 | 13.05 | 12.85 |
| MT-RNR2 | 14.72 | 15.01 | 15.21 | 15.07 | 15.26 | 14.83 | 15.25 | 14.61 |
| MT-TA | -1.14 | -1.13 | -1.12 | -1.14 | -1.17 | -1.09 | -1.21 | -1.01 |
| MT-TC | 0.47 | 0.85 | 0.75 | 0.69 | 0.79 | 0.61 | 0.54 | 0.71 |
| MT-TD | 3.86 | 4.37 | 4.73 | 4.53 | 4.67 | 4.72 | 4.51 | 4.10 |
| MT-TE | 0.67 | 0.62 | 0.83 | 0.46 | 0.66 | 0.75 | 0.89 | 0.40 |
| MT-TF | 2.22 | 2.27 | 2.27 | 2.36 | 3.00 | 2.12 | 2.48 | 2.78 |
| MT-TG | 0.72 | 1.18 | 1.08 | 1.07 | 1.29 | 1.00 | 1.23 | 0.86 |
| MT-TH | 2.33 | 2.74 | 2.53 | 2.42 | 2.96 | 2.48 | 2.79 | 2.99 |
| MT-TI | 3.78 | 4.27 | 4.04 | 5.12 | 6.49 | 4.63 | 4.28 | 4.35 |
| MT-TK | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MT-TL1 | 5.16 | 5.80 | 5.34 | 5.93 | 7.43 | 5.88 | 6.12 | 5.94 |
| MT-TL2 | 0.30 | 0.39 | 0.57 | 0.64 | 0.58 | 0.51 | 0.42 | 0.44 |
| MT-TM | 2.38 | 2.70 | 2.83 | 2.74 | 2.83 | 2.76 | 2.58 | 2.48 |
| MT-TP | 3.68 | 4.48 | 5.12 | 4.94 | 4.71 | 4.40 | 4.78 | 4.20 |
| MT-TQ | -0.08 | 0.00 | 0.12 | 0.18 | 0.14 | 0.27 | 0.17 | 0.12 |
| MT-TR | 0.63 | 0.72 | 0.86 | 0.84 | 1.39 | 0.67 | 0.83 | 0.75 |
| MT-TS1 | 0.57 | 0.35 | 0.37 | 0.75 | 0.93 | 0.56 | 0.61 | 0.49 |
| MT-TS2 | 3.53 | 4.24 | 3.84 | 4.13 | 5.95 | 3.92 | 4.47 | 4.88 |
| MT-TT | 4.52 | 6.14 | 6.62 | 6.59 | 7.79 | 5.27 | 6.99 | 5.89 |
| MT-TV | 6.04 | 7.12 | 5.95 | 7.26 | 9.71 | 6.91 | 7.20 | 7.12 |
| MT-TW | 1.17 | 1.71 | 1.40 | 2.17 | 1.63 | 1.60 | 1.43 | 1.55 |
| MT-TY | 2.85 | 2.95 | 3.18 | 3.18 | 3.30 | 3.05 | 3.66 | 3.55 |
| MT1A | 4.31 | 3.47 | 3.15 | 3.13 | 2.68 | 3.96 | 2.61 | 5.45 |
| MT1B | -2.10 | -2.04 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| MT1DP | -1.45 | -1.12 | -1.44 | -1.46 | -1.16 | -1.47 | -1.39 | -1.48 |
| MT1E | 6.09 | 9.06 | 5.75 | 8.58 | 8.04 | 6.57 | 7.23 | 7.29 |
| MT1F | 3.45 | 4.85 | 4.25 | 4.70 | 4.86 | 3.71 | 4.22 | 4.15 |
| MT1G | 4.32 | 7.02 | 4.48 | 6.41 | 6.13 | 3.98 | 5.32 | 4.91 |
| MT1H | 0.52 | 0.71 | 0.66 | 0.59 | 0.53 | 0.65 | 0.59 | 0.66 |
| MT1JP | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.86 |
| MT1L | 3.87 | 3.35 | 3.11 | 3.36 | 4.34 | 4.34 | 3.51 | 5.64 |
| MT1M | 2.14 | 2.86 | 1.88 | 2.03 | 1.73 | 1.72 | 1.91 | 3.01 |
| MT1P1 | -0.70 | -0.46 | -0.44 | -0.62 | -0.65 | -0.67 | -0.63 | -0.60 |
| MT1P3 | -0.95 | -0.65 | -0.93 | -0.81 | -0.83 | -0.92 | -0.96 | -0.91 |
| MT1X | 7.89 | 10.47 | 9.63 | 9.45 | 8.81 | 7.74 | 9.48 | 9.10 |
| MT1XP1 | 1.46 | 1.92 | 1.54 | 1.69 | 1.56 | 1.44 | 1.68 | 1.79 |
| MT2A | 7.27 | 9.12 | 7.82 | 7.98 | 8.02 | 9.61 | 7.81 | 9.96 |
| MT2P1 | 0.02 | 0.26 | 0.14 | 0.15 | 0.25 | 0.17 | 0.16 | 0.53 |
| MT3 | 0.04 | 0.14 | 0.17 | 0.11 | 0.05 | 0.06 | 0.19 | 0.01 |
| MTA1 | 4.59 | 4.96 | 5.32 | 4.84 | 4.85 | 4.99 | 4.94 | 4.58 |
| MTA2 | 5.25 | 5.32 | 5.57 | 5.60 | 4.91 | 5.04 | 5.39 | 5.35 |
| MTA3 | 5.73 | 5.19 | 5.40 | 5.11 | 5.83 | 5.29 | 5.36 | 6.23 |
| MTAP | 6.50 | 5.07 | 6.24 | 5.07 | 5.47 | 5.59 | 5.76 | 3.31 |
| MTAPP2 | -2.10 | -2.07 | -2.06 | -2.07 | -2.09 | -2.10 | -2.07 | -2.11 |
| MTATP6P1 | 7.08 | 7.54 | 7.90 | 7.69 | 7.36 | 8.09 | 8.63 | 7.75 |
| MTATP6P2 | -0.87 | -0.87 | -0.68 | -0.80 | -0.87 | -0.65 | -0.80 | -0.77 |
| MTATP6P21 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| MTATP6P9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| MTATP8P1 | -1.75 | -1.79 | -1.78 | -1.79 | -1.76 | -1.73 | -1.79 | -1.72 |
| MTATP8P2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| MTBP | 2.72 | 2.60 | 3.34 | 2.72 | 2.83 | 3.07 | 2.68 | 2.88 |
| MTCH1 | 8.09 | 7.29 | 7.86 | 7.26 | 8.09 | 8.23 | 7.59 | 8.49 |
| MTCH2 | 8.12 | 7.66 | 7.51 | 7.87 | 7.79 | 7.61 | 7.61 | 7.84 |
| MTCL1 | 3.31 | 4.03 | 4.11 | 4.18 | 4.57 | 4.00 | 4.41 | 3.44 |
| MTCO1P11 | -1.08 | -1.07 | -0.98 | -1.01 | -1.04 | -0.99 | -0.94 | -1.09 |
| MTCO1P12 | 3.81 | 4.87 | 4.92 | 5.17 | 4.72 | 4.90 | 5.23 | 4.46 |
| MTCO1P17 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| MTCO1P18 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.24 | -2.26 |
| MTCO1P19 | -1.96 | -1.95 | -1.98 | -2.00 | -1.99 | -2.00 | -1.92 | -2.01 |
| MTCO1P2 | -1.39 | -1.38 | -1.37 | -1.39 | -1.32 | -1.37 | -1.21 | -1.41 |
| MTCO1P20 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| MTCO1P22 | 0.75 | 0.68 | 0.97 | 0.96 | 1.70 | 0.84 | 0.86 | 0.92 |
| MTCO1P24 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTCO1P25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.24 |
| MTCO1P29 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| MTCO1P31 | -2.20 | -2.15 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| MTCO1P40 | 8.00 | 9.37 | 9.84 | 9.92 | 9.29 | 9.31 | 9.74 | 8.97 |
| MTCO1P42 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| MTCO1P46 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTCO1P47 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTCO1P53 | 0.43 | 0.53 | 0.41 | 0.55 | 0.40 | 0.48 | 0.48 | 0.23 |
| MTCO2P11 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| MTCO2P12 | 2.14 | 2.55 | 2.57 | 2.85 | 2.62 | 2.55 | 2.89 | 2.35 |
| MTCO2P19 | -1.80 | -1.79 | -1.74 | -1.84 | -1.84 | -1.83 | -1.72 | -1.86 |
| MTCO2P2 | -1.64 | -1.64 | -1.46 | -1.59 | -1.61 | -1.60 | -1.53 | -1.67 |
| MTCO2P22 | 3.13 | 2.94 | 3.54 | 2.92 | 2.96 | 2.96 | 3.72 | 2.85 |
| MTCO3P11 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 |
| MTCO3P12 | 0.64 | 0.96 | 1.19 | 0.93 | 0.82 | 0.82 | 1.02 | 0.89 |
| MTCO3P13 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| MTCO3P17 | 3.06 | 2.86 | 3.44 | 3.15 | 2.94 | 2.87 | 3.43 | 3.06 |
| MTCO3P22 | -1.07 | -0.99 | -1.05 | -1.01 | -0.92 | -1.08 | -0.94 | -0.98 |
| MTCO3P23 | -2.15 | -2.15 | -2.12 | -2.13 | -2.12 | -2.14 | -2.15 | -2.16 |
| MTCO3P24 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 | -2.26 | -2.27 |
| MTCO3P31 | -1.50 | -1.38 | -1.48 | -1.44 | -1.46 | -1.48 | -1.39 | -1.52 |
| MTCO3P8 | -1.89 | -1.89 | -1.88 | -1.85 | -1.89 | -1.90 | -1.86 | -1.91 |
| MTCP1 | -0.87 | -0.87 | -1.01 | -0.88 | -0.91 | -1.00 | -1.03 | -0.92 |
| MTCYBP13 | -0.90 | -0.89 | -0.67 | -0.91 | -0.97 | -0.95 | -0.98 | -0.88 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| MTCYBP18 | -1.20 | -1.19 | -1.18 | -1.20 | -1.08 | -1.17 | -1.20 | -1.16 |
| MTCYBP19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| MTCYBP23 | -1.84 | -1.79 | -1.83 | -1.84 | -1.84 | -1.85 | -1.80 | -1.86 |
| MTCYBP3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| MTCYBP32 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MTCYBP35 | -1.94 | -1.94 | -1.89 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| MTCYBP4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MTCYBP7 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTDH | 8.57 | 8.95 | 9.89 | 8.65 | 8.86 | 9.13 | 8.83 | 9.31 |
| MTDHP1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| MTERF1 | 3.00 | 3.43 | 3.26 | 3.38 | 3.45 | 3.37 | 3.25 | 3.38 |
| MTERF2 | 3.16 | 3.04 | 2.56 | 3.20 | 2.81 | 3.10 | 3.30 | 2.99 |
| MTERF3 | 5.54 | 4.72 | 5.54 | 4.77 | 5.45 | 5.66 | 4.57 | 5.41 |
| MTERF4 | 4.93 | 4.92 | 4.14 | 5.14 | 4.81 | 5.32 | 4.33 | 4.72 |
| MTF1 | 4.07 | 4.74 | 4.68 | 4.69 | 4.31 | 4.45 | 4.71 | 3.84 |
| MTF2 | 5.84 | 5.82 | 5.73 | 5.44 | 5.27 | 5.97 | 5.99 | 4.94 |
| MTFMT | 5.79 | 5.14 | 5.02 | 5.56 | 5.41 | 4.97 | 4.53 | 4.61 |
| MTFP1 | 3.68 | 3.58 | 3.72 | 3.77 | 3.25 | 3.30 | 3.65 | 3.21 |
| MTFR1 | 5.18 | 4.73 | 5.36 | 5.22 | 5.07 | 5.50 | 5.05 | 5.61 |
| MTFR1L | 4.85 | 3.86 | 4.43 | 4.25 | 5.07 | 4.74 | 4.72 | 4.37 |
| MTFR2 | 4.91 | 3.68 | 4.21 | 3.99 | 3.58 | 4.00 | 3.55 | 4.11 |
| MTG1 | 5.93 | 4.76 | 4.79 | 4.93 | 4.95 | 5.02 | 5.33 | 4.52 |
| MTG2 | 5.17 | 4.41 | 5.14 | 4.34 | 4.96 | 4.88 | 4.22 | 5.35 |
| MTHFD1 | 7.09 | 8.08 | 7.14 | 8.34 | 7.85 | 7.92 | 7.85 | 6.82 |
| MTHFD1L | 4.62 | 4.13 | 4.96 | 3.69 | 4.55 | 4.80 | 4.91 | 4.84 |
| MTHFD1P1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.06 | -2.10 | -2.11 |
| MTHFD2 | 7.77 | 7.61 | 7.21 | 7.74 | 8.20 | 7.83 | 7.76 | 8.42 |
| MTHFD2L | 5.68 | 5.57 | 4.84 | 5.80 | 5.14 | 5.33 | 4.85 | 5.21 |
| MTHFD2P7 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| MTHFR | 4.61 | 4.67 | 4.23 | 4.43 | 4.94 | 4.44 | 5.48 | 4.61 |
| MTHFS | 5.89 | 5.67 | 5.71 | 6.07 | 6.09 | 5.60 | 5.15 | 6.16 |
| MTHFSD | 3.95 | 4.01 | 4.29 | 3.68 | 4.14 | 3.94 | 4.14 | 4.14 |
| MTIF2 | 5.90 | 5.83 | 5.81 | 5.57 | 6.54 | 5.61 | 5.91 | 5.93 |
| MTIF2P1 | -1.85 | -1.89 | -1.88 | -1.85 | -1.87 | -1.84 | -1.90 | -1.91 |
| MTIF3 | 5.92 | 6.91 | 6.10 | 6.88 | 7.27 | 6.38 | 6.91 | 7.27 |
| MTLN | 8.17 | 8.18 | 7.57 | 8.19 | 7.55 | 7.75 | 7.34 | 7.62 |
| MTM1 | 3.13 | 3.50 | 4.07 | 3.25 | 3.18 | 3.93 | 3.78 | 3.75 |
| MTMR1 | 3.98 | 4.23 | 4.88 | 4.23 | 4.07 | 4.46 | 4.35 | 4.38 |
| MTMR10 | 3.87 | 4.36 | 4.23 | 4.53 | 3.85 | 3.71 | 4.82 | 4.84 |
| MTMR11 | 3.17 | 3.44 | 3.78 | 3.58 | 3.54 | 3.59 | 4.24 | 3.48 |
| MTMR12 | 4.12 | 4.21 | 3.92 | 4.13 | 4.55 | 3.94 | 4.15 | 4.00 |
| MTMR14 | 5.18 | 4.79 | 5.30 | 5.26 | 5.06 | 5.11 | 4.84 | 5.20 |
| MTMR2 | 4.73 | 5.00 | 4.54 | 4.75 | 4.08 | 4.39 | 4.51 | 5.62 |
| MTMR3 | 4.24 | 4.40 | 3.92 | 4.50 | 4.05 | 4.16 | 4.74 | 4.90 |
| MTMR4 | 3.93 | 3.40 | 3.95 | 3.56 | 4.14 | 3.73 | 4.34 | 3.74 |
| MTMR6 | 4.08 | 5.25 | 4.74 | 5.00 | 4.95 | 4.70 | 5.25 | 5.06 |
| MTMR7 | -1.68 | -1.79 | -1.78 | -1.80 | -1.79 | -1.81 | -1.80 | -1.71 |
| MTMR8 | -0.20 | -0.35 | -0.09 | -0.36 | -0.12 | -0.16 | -0.15 | -0.38 |
| MTMR9 | 2.90 | 3.67 | 4.37 | 3.63 | 3.41 | 4.08 | 4.01 | 3.18 |
| MTMR9LP | 0.80 | 0.26 | 0.19 | 0.58 | 0.44 | 0.36 | 0.44 | 0.25 |
| MTND1P11 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| MTND1P14 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| MTND1P2 | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 | -2.15 | -2.15 | -2.13 |
| MTND1P23 | 1.65 | 2.16 | 2.03 | 1.76 | 2.02 | 1.87 | 2.10 | 1.82 |
| MTND1P27 | -0.16 | -0.08 | -0.29 | -0.31 | -0.04 | -0.24 | -0.03 | -0.15 |
| MTND1P32 | -2.01 | -2.04 | -1.98 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| MTND1P4 | -1.99 | -1.99 | -1.95 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| MTND1P8 | -2.20 | -2.20 | -2.19 | -2.20 | -2.17 | -2.19 | -2.20 | -2.19 |
| MTND1P9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTND2P13 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| MTND2P2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| MTND2P28 | 3.67 | 4.24 | 4.76 | 4.25 | 4.46 | 4.88 | 4.26 | 4.68 |
| MTND2P32 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 |
| MTND3P12 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| MTND3P19 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| MTND4LP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MTND4LP30 | -1.49 | -1.54 | -1.47 | -1.55 | -1.51 | -1.55 | -1.49 | -1.51 |
| MTND4LP5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTND4P12 | 3.84 | 3.65 | 4.25 | 4.13 | 4.14 | 4.06 | 4.20 | 5.88 |
| MTND4P14 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.16 | -2.19 |
| MTND4P24 | -1.49 | -1.48 | -1.36 | -1.49 | -1.48 | -1.50 | -1.38 | -1.51 |
| MTND4P32 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTND4P35 | 0.78 | 0.80 | 0.80 | 0.83 | 0.76 | 0.76 | 0.76 | 0.73 |
| MTND5P10 | -1.64 | -1.63 | -1.63 | -1.59 | -1.64 | -1.62 | -1.54 | -1.66 |
| MTND5P11 | -1.07 | -0.98 | -0.97 | -1.07 | -1.02 | -0.94 | -0.93 | -1.02 |
| MTND5P12 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| MTND5P14 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| MTND5P15 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| MTND5P17 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| MTND5P19 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTND5P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| MTND5P26 | -1.74 | -1.74 | -1.57 | -1.69 | -1.71 | -1.75 | -1.70 | -1.76 |
| MTND5P28 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| MTND5P33 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTND5P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MTND6P4 | -2.04 | -1.98 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.06 |
| MTNR1A | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTO1 | 3.81 | 3.31 | 3.38 | 3.36 | 3.44 | 3.86 | 3.81 | 3.82 |
| MTOR | 5.18 | 5.43 | 5.39 | 5.07 | 5.00 | 4.89 | 5.21 | 4.72 |
| MTOR-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTPAP | 3.91 | 4.48 | 4.07 | 4.69 | 4.59 | 4.13 | 4.21 | 4.05 |
| MTPN | 6.25 | 7.11 | 6.85 | 7.10 | 7.18 | 7.04 | 7.19 | 7.76 |
| MTR | 4.11 | 4.88 | 4.56 | 4.36 | 4.45 | 4.75 | 4.91 | 4.33 |
| MTREX | 4.97 | 6.20 | 6.05 | 5.91 | 5.99 | 5.70 | 6.00 | 5.85 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MTRF1 | 2.99 | 3.70 | 3.32 | 3.44 | 3.85 | 3.36 | 3.82 | 4.08 |
| MTRF1L | 3.49 | 3.50 | 3.39 | 3.74 | 2.91 | 3.21 | 3.24 | 3.14 |
| MTRF1LP2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| MTRNR2L1 | 4.07 | 8.12 | 4.48 | 8.16 | 4.88 | 8.13 | 4.76 | 4.13 |
| MTRNR2L10 | 0.36 | 0.29 | 0.56 | 0.42 | 0.57 | 0.52 | 0.48 | 0.47 |
| MTRNR2L11 | 1.18 | 1.29 | 1.69 | 1.36 | 1.54 | 1.38 | 1.37 | 1.42 |
| MTRNR2L12 | 3.77 | 3.95 | 4.06 | 4.21 | 4.29 | 4.02 | 4.20 | 4.10 |
| MTRNR2L13 | -1.74 | -1.74 | -1.68 | -1.74 | -1.71 | -1.75 | -1.70 | -1.76 |
| MTRNR2L2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MTRNR2L3 | 2.73 | 3.25 | 3.28 | 3.05 | 3.35 | 2.89 | 3.26 | 2.78 |
| MTRNR2L4 | -0.12 | -0.03 | 0.15 | 0.03 | 0.31 | -0.06 | 0.32 | 0.14 |
| MTRNR2L5 | -1.79 | -1.74 | -1.73 | -1.79 | -1.76 | -1.78 | -1.79 | -1.81 |
| MTRNR2L6 | 0.40 | 0.50 | 0.77 | 0.55 | 0.75 | 0.65 | 0.85 | 0.69 |
| MTRNR2L7 | -0.73 | -0.65 | -0.54 | -0.42 | -0.59 | -0.67 | -0.59 | -0.64 |
| MTRNR2L8 | 2.01 | 1.86 | 1.94 | 2.33 | 2.05 | 2.08 | 2.27 | 2.27 |
| MTRNR2L9 | -2.05 | -2.01 | -2.00 | -2.01 | -2.04 | -2.05 | -2.05 | -2.06 |
| MTRR | 3.99 | 3.90 | 4.14 | 4.01 | 3.93 | 3.73 | 3.88 | 3.70 |
| MTSS1 | 2.99 | 3.97 | 4.95 | 3.79 | 4.41 | 3.91 | 5.45 | 3.32 |
| MTSS2 | 2.56 | 3.00 | 3.01 | 3.16 | 2.91 | 2.93 | 2.89 | 2.67 |
| MTTP | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| MTURN | 4.09 | 3.81 | 3.33 | 3.77 | 4.32 | 3.78 | 3.12 | 3.76 |
| MTUS1 | 6.43 | 7.85 | 8.19 | 7.91 | 6.54 | 6.66 | 7.25 | 6.23 |
| MTUS2 | 2.25 | 3.79 | 2.06 | 4.09 | 2.26 | 1.92 | 4.04 | 1.83 |
| MTX1 | 0.39 | 0.55 | 0.26 | 0.23 | 0.44 | 0.53 | 0.51 | 0.38 |
| MTX2 | 6.83 | 6.15 | 5.90 | 6.25 | 6.56 | 6.08 | 6.07 | 6.58 |
| MTX3 | 3.72 | 4.68 | 4.60 | 4.27 | 3.98 | 4.08 | 4.54 | 3.13 |
| MUC1 | 9.58 | 10.43 | 10.70 | 10.40 | 9.62 | 9.90 | 10.28 | 9.44 |
| MUC12 | 0.71 | 0.44 | 0.55 | 0.75 | 0.44 | 0.77 | 0.41 | 0.37 |
| MUC13 | 6.98 | 5.95 | 5.65 | 6.02 | 5.37 | 5.77 | 6.44 | 5.03 |
| MUC15 | -1.46 | -1.46 | -1.44 | -1.47 | -1.46 | -1.47 | -1.47 | -1.27 |
| MUC16 | 2.30 | 4.10 | 3.93 | 4.34 | 2.71 | 4.60 | 2.37 | 4.55 |
| MUC17 | 2.52 | 2.75 | 2.87 | 2.75 | 3.20 | 2.37 | 3.77 | 2.32 |
| MUC19 | -2.15 | -2.15 | -2.11 | -2.15 | -2.13 | -2.15 | -2.15 | -2.13 |
| MUC2 | -0.89 | -1.22 | -1.21 | -1.23 | -1.22 | -1.18 | -1.24 | -0.89 |
| MUC20 | 2.91 | 2.76 | 3.36 | 2.56 | 2.62 | 2.72 | 2.29 | 2.93 |
| MUC20-OT1 | 4.14 | 4.08 | 4.52 | 4.65 | 3.93 | 4.18 | 4.60 | 4.98 |
| MUC20P1 | -1.36 | -1.35 | -1.34 | -1.37 | -1.32 | -1.38 | -1.37 | -1.38 |
| MUC21 | 3.14 | 3.10 | 4.02 | 3.39 | 3.15 | 2.93 | 5.88 | 4.11 |
| MUC22 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MUC3A | 4.58 | 4.73 | 4.62 | 4.78 | 5.50 | 4.32 | 5.37 | 4.35 |
| MUC4 | 2.72 | 2.22 | 4.89 | 2.21 | 2.83 | 3.26 | 2.38 | 1.79 |
| MUC5AC | 6.24 | 5.51 | 5.24 | 6.36 | 6.91 | 5.45 | 5.17 | 8.90 |
| MUC5B | 8.43 | 8.67 | 7.87 | 8.71 | 9.63 | 7.50 | 10.63 | 7.22 |
| MUC5B-AS1 | -0.91 | -0.68 | -0.72 | -0.92 | -0.83 | -0.89 | -0.92 | -0.87 |
| MUC6 | 4.59 | 4.38 | 5.60 | 5.34 | 8.20 | 4.20 | 7.80 | 7.33 |
| MUC7 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.91 |
| MUCL1 | -2.09 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -1.99 |
| MUCL3 | 6.52 | 10.01 | 7.61 | 9.51 | 7.35 | 6.51 | 8.97 | 12.14 |
| MUL1 | 4.72 | 4.82 | 5.14 | 4.81 | 5.10 | 5.08 | 4.86 | 5.25 |
| MUS81 | 5.00 | 3.99 | 4.61 | 4.42 | 4.91 | 5.27 | 4.96 | 5.23 |
| MUTYH | 3.97 | 3.82 | 3.86 | 3.59 | 4.39 | 4.42 | 3.82 | 4.08 |
| MVB12A | 5.88 | 6.22 | 5.82 | 6.40 | 7.05 | 6.64 | 6.43 | 6.57 |
| MVB12B | 1.78 | 1.47 | 1.74 | 1.71 | 1.60 | 1.50 | 1.39 | 1.24 |
| MVD | 7.67 | 7.28 | 7.21 | 7.44 | 7.93 | 7.22 | 8.20 | 8.37 |
| MVK | 5.19 | 5.26 | 5.58 | 5.62 | 5.52 | 5.30 | 5.77 | 5.68 |
| MVP | 7.82 | 7.60 | 8.13 | 7.60 | 7.69 | 7.17 | 7.97 | 7.29 |
| MX1 | 7.93 | 5.08 | 5.54 | 5.24 | 5.82 | 5.56 | 5.13 | 5.12 |
| MX2 | 6.08 | 3.84 | 4.56 | 3.55 | 4.77 | 3.93 | 3.67 | 5.03 |
| MXD1 | 5.46 | 4.95 | 5.46 | 5.01 | 5.58 | 4.80 | 5.34 | 5.65 |
| MXD3 | 3.99 | 4.19 | 4.89 | 4.24 | 4.17 | 4.26 | 4.68 | 4.17 |
| MXD4 | 5.52 | 6.47 | 5.46 | 6.63 | 6.15 | 5.77 | 5.94 | 5.99 |
| MXI1 | 4.97 | 4.75 | 5.27 | 4.56 | 5.03 | 4.47 | 5.55 | 4.13 |
| MXRA5 | 3.62 | 5.52 | 5.31 | 4.36 | 4.01 | 3.59 | 2.86 | 3.76 |
| MXRA7 | 5.23 | 2.62 | 3.18 | 2.90 | 3.38 | 3.27 | 3.23 | 2.83 |
| MXRA8 | 0.13 | -0.07 | -0.06 | 0.03 | -0.15 | 0.21 | 0.03 | 0.61 |
| MYADM | 5.17 | 5.68 | 4.76 | 5.15 | 5.83 | 5.07 | 3.54 | 4.37 |
| MYADML | -1.94 | -1.90 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.96 |
| MYADML2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| MYB | 2.81 | 2.65 | 2.11 | 2.67 | 2.29 | 2.45 | 2.43 | 2.08 |
| MYBBP1A | 4.49 | 4.36 | 4.56 | 4.32 | 4.18 | 4.08 | 4.51 | 4.40 |
| MYBL1 | 2.46 | 2.20 | 3.04 | 2.58 | 2.89 | 3.48 | 2.76 | 2.23 |
| MYBL2 | 6.79 | 5.88 | 6.61 | 5.89 | 5.00 | 5.56 | 6.08 | 5.88 |
| MYBPC1 | 4.70 | 1.38 | 1.70 | 1.41 | 1.37 | 1.27 | 1.31 | 2.68 |
| MYBPC2 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| MYBPC3 | -1.40 | -1.26 | -1.25 | -1.28 | -1.33 | -1.38 | -1.40 | -1.36 |
| MYBPH | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| MYBPHL | -1.43 | -1.48 | -1.47 | -1.55 | -1.54 | -1.56 | -1.55 | -1.57 |
| MYC | 7.03 | 6.44 | 6.90 | 6.61 | 7.40 | 6.82 | 6.09 | 6.60 |
| MYCBP | 4.77 | 5.72 | 5.08 | 5.76 | 5.33 | 5.29 | 5.39 | 5.32 |
| MYCBP2 | 5.32 | 6.37 | 6.31 | 6.35 | 6.35 | 5.59 | 6.65 | 6.49 |
| MYCBP2-AS1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -1.99 | -2.03 |
| MYCBP2-AS2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| MYCBPAP | -0.73 | -0.72 | -0.55 | -0.81 | -0.44 | -0.62 | -0.74 | -0.76 |
| MYCL | 0.71 | 1.08 | 0.84 | 0.82 | 0.97 | 0.81 | 1.11 | 1.06 |
| MYCN | -0.16 | 0.74 | -0.14 | 1.77 | -0.11 | -0.14 | -0.08 | -0.13 |
| MYCNOS | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MYD88 | 5.26 | 5.64 | 5.02 | 5.18 | 5.00 | 4.89 | 5.12 | 5.18 |
| MYDGF | 8.67 | 9.21 | 8.52 | 9.77 | 9.65 | 8.71 | 8.72 | 9.28 |
| MYEF2 | 4.18 | 4.44 | 4.47 | 4.36 | 5.06 | 3.55 | 5.36 | 4.04 |
| MYEOV | 5.61 | 6.42 | 6.79 | 6.25 | 6.32 | 6.06 | 5.23 | 7.18 |
| MYH10 | 3.77 | 3.90 | 5.01 | 3.80 | 3.88 | 3.93 | 5.31 | 3.11 |
| MYH11 | -0.16 | -0.14 | 0.05 | -0.24 | -0.19 | 0.13 | -0.24 | 0.50 |
| MYH14 | 7.27 | 7.18 | 7.01 | 7.23 | 7.31 | 6.70 | 7.19 | 6.84 |
| MYH15 | 0.27 | 0.36 | 0.56 | 0.49 | 0.39 | 1.15 | 0.49 | 0.36 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MYH16 | -1.16 | -1.15 | -1.27 | -1.29 | -1.18 | -1.30 | -1.23 | -1.09 |
| MYH3 | -0.91 | -0.82 | -0.89 | -0.83 | -0.87 | -0.81 | -0.69 | -0.87 |
| MYH4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MYH7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| MYH7B | -1.69 | -1.74 | -1.68 | -1.69 | -1.71 | -1.75 | -1.75 | -1.76 |
| MYH9 | 7.95 | 8.09 | 8.48 | 7.86 | 7.10 | 8.45 | 8.15 | 7.95 |
| MYL12A | 10.41 | 9.93 | 9.68 | 10.06 | 10.76 | 10.16 | 9.65 | 11.36 |
| MYL12AP1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| MYL12B | 10.54 | 10.67 | 10.05 | 10.73 | 10.83 | 10.21 | 10.23 | 11.43 |
| MYL12BP1 | -2.02 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -2.00 |
| MYL12BP2 | -2.07 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| MYL2 | -1.69 | -1.73 | -1.73 | -1.74 | -1.69 | -1.75 | -1.74 | -1.71 |
| MYL3 | -1.41 | -1.40 | -1.39 | -1.41 | -1.31 | -1.39 | -1.29 | -1.43 |
| MYL4 | -1.45 | -1.44 | -1.43 | -1.45 | -1.45 | -1.46 | -1.46 | -1.47 |
| MYL5 | 2.68 | 2.58 | 2.43 | 2.94 | 2.77 | 2.72 | 3.24 | 2.60 |
| MYL6 | 10.66 | 10.96 | 10.07 | 10.87 | 10.22 | 11.00 | 10.22 | 10.46 |
| MYL6B | 5.53 | 4.74 | 4.60 | 5.37 | 5.25 | 6.06 | 4.42 | 5.82 |
| MYL6P1 | -1.89 | -1.85 | -1.88 | -1.89 | -1.87 | -1.84 | -1.89 | -1.91 |
| MYL6P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| MYL6P3 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| MYL6P4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| MYL6P5 | -1.53 | -1.63 | -1.63 | -1.59 | -1.61 | -1.60 | -1.65 | -1.61 |
| MYL8P | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| MYL9 | 4.42 | 3.53 | 2.77 | 3.58 | 3.69 | 3.80 | 3.29 | 3.51 |
| MYLIP | 5.57 | 4.52 | 4.70 | 3.90 | 4.17 | 4.70 | 4.02 | 4.92 |
| MYLK | 2.79 | 2.49 | 2.62 | 2.50 | 2.39 | 3.49 | 2.75 | 3.07 |
| MYLK-AS1 | 2.62 | 2.11 | 2.07 | 2.26 | 1.97 | 2.11 | 2.24 | 1.98 |
| MYLK2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| MYLK3 | -2.10 | -2.07 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.11 |
| MYLK4 | -1.25 | -1.31 | -1.30 | -1.32 | -1.28 | -1.20 | -1.32 | -1.13 |
| MYLPF | 1.93 | 1.30 | 1.19 | 1.10 | 1.21 | 1.23 | 1.17 | 1.20 |
| MYMX | -1.69 | -1.69 | -1.68 | -1.69 | -1.66 | -1.70 | -1.70 | -1.62 |
| MYNN | 4.64 | 4.31 | 4.51 | 4.34 | 4.36 | 4.30 | 4.38 | 4.96 |
| MYO10 | 6.23 | 7.47 | 7.01 | 7.45 | 6.72 | 6.95 | 6.30 | 6.12 |
| MYO15A | -0.48 | -0.74 | -0.54 | -0.84 | -0.71 | -0.81 | -0.84 | -0.66 |
| MYO15B | 4.41 | 3.84 | 4.04 | 3.79 | 4.77 | 3.70 | 4.78 | 3.00 |
| MYO16 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 | -2.26 | -2.27 |
| MYO16-AS1 | -1.79 | -1.79 | -1.73 | -1.80 | -1.74 | -1.80 | -1.75 | -1.81 |
| MYO18A | 4.50 | 4.36 | 4.61 | 4.33 | 4.71 | 4.60 | 5.39 | 4.55 |
| MYO18B | -1.77 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.90 | -1.91 |
| MYO19 | 5.07 | 5.14 | 5.61 | 4.96 | 4.97 | 5.25 | 5.37 | 4.99 |
| MYO1A | 3.13 | 4.56 | 2.82 | 5.03 | 3.09 | 2.70 | 4.43 | 2.25 |
| MYO1B | 5.78 | 5.59 | 5.43 | 5.39 | 6.41 | 4.98 | 5.52 | 3.92 |
| MYO1C | 6.15 | 5.84 | 6.54 | 5.65 | 5.81 | 6.13 | 6.60 | 6.30 |
| MYO1D | 5.00 | 5.73 | 5.83 | 5.75 | 5.67 | 5.68 | 6.36 | 5.91 |
| MYO1E | 6.06 | 6.12 | 6.28 | 5.94 | 6.00 | 6.06 | 6.36 | 6.17 |
| MYO1F | 0.80 | 0.86 | 0.75 | 1.19 | 1.42 | 0.84 | 0.76 | 0.70 |
| MYO1G | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 |
| MYO1H | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| MYO3A | -1.02 | -1.02 | -0.73 | -1.03 | -1.02 | -1.03 | -1.03 | -1.04 |
| MYO3B | -1.84 | -1.84 | -1.79 | -1.84 | -1.84 | -1.83 | -1.72 | -1.82 |
| MYO5A | 2.72 | 2.07 | 2.75 | 2.01 | 2.09 | 3.16 | 2.05 | 2.10 |
| MYO5B | 5.07 | 4.81 | 5.90 | 4.87 | 4.71 | 4.71 | 6.03 | 4.13 |
| MYO5C | 5.16 | 5.99 | 5.49 | 6.15 | 5.34 | 5.41 | 6.58 | 5.88 |
| MYO6 | 6.70 | 6.28 | 7.74 | 6.33 | 6.55 | 6.90 | 7.48 | 6.59 |
| MYO7A | 1.01 | 1.07 | 1.05 | 0.77 | 1.39 | 0.96 | 0.82 | 0.90 |
| MYO7B | 1.92 | 2.65 | 2.22 | 2.85 | 1.94 | 1.95 | 2.57 | 2.00 |
| MYO9A | 4.52 | 4.99 | 5.75 | 5.03 | 4.75 | 5.08 | 5.56 | 4.46 |
| MYO9B | 4.28 | 4.77 | 5.02 | 4.80 | 4.70 | 4.82 | 4.89 | 4.76 |
| MYOD1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| MYOF | 6.43 | 7.49 | 6.80 | 7.27 | 6.93 | 7.46 | 6.95 | 7.19 |
| MYOM1 | 2.63 | 2.41 | 2.69 | 2.25 | 2.65 | 2.31 | 3.77 | 2.32 |
| MYOM2 | 0.99 | 1.24 | 2.15 | 1.16 | 1.39 | 1.01 | 1.19 | 1.24 |
| MYOM3 | -0.73 | -0.72 | -0.71 | -0.45 | -0.72 | -0.44 | -0.59 | -0.63 |
| MYORG | 4.13 | 5.03 | 4.51 | 4.89 | 4.50 | 3.87 | 5.01 | 3.12 |
| MYOT | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| MYOZ1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.87 | -1.93 | -1.95 | -1.96 |
| MYOZ2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| MYOZ3 | -1.74 | -1.74 | -1.68 | -1.74 | -1.71 | -1.75 | -1.75 | -1.76 |
| MYPN | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.95 | -1.95 | -1.96 |
| MYPPOP | 4.44 | 3.78 | 3.53 | 4.44 | 4.88 | 4.43 | 4.10 | 5.14 |
| MYRF | 5.64 | 6.07 | 6.39 | 6.03 | 5.83 | 5.80 | 6.89 | 5.13 |
| MYRFL | 0.20 | 0.29 | 0.22 | 0.19 | 0.21 | 0.52 | 0.71 | 0.16 |
| MYSM1 | 4.15 | 4.72 | 4.60 | 4.97 | 5.00 | 4.88 | 5.60 | 4.69 |
| MYT1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| MYZAP | 3.83 | 3.58 | 3.64 | 3.52 | 4.24 | 3.43 | 3.75 | 3.39 |
| MZB1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.08 | -2.07 | -2.11 |
| MZF1 | 3.52 | 4.11 | 3.53 | 4.16 | 4.05 | 3.35 | 4.01 | 3.70 |
| MZF1-AS1 | 1.75 | 1.39 | 1.45 | 1.50 | 1.34 | 1.55 | 1.39 | 1.68 |
| MZT1 | 5.48 | 5.78 | 5.36 | 5.62 | 6.33 | 5.78 | 5.34 | 6.88 |
| MZT2A | 8.11 | 8.13 | 7.78 | 8.20 | 8.46 | 7.78 | 7.27 | 8.38 |
| MZT2B | 9.03 | 9.23 | 8.57 | 9.22 | 9.67 | 8.97 | 8.44 | 9.07 |
| N4BP2 | 2.46 | 3.67 | 2.91 | 3.44 | 2.81 | 3.36 | 3.10 | 3.86 |
| N4BP2L1 | 2.13 | 1.69 | 1.82 | 1.66 | 2.26 | 1.53 | 1.52 | 1.95 |
| N4BP2L2 | 5.70 | 6.66 | 6.69 | 6.61 | 6.93 | 6.17 | 7.23 | 7.37 |
| N4BP2L2-IT2 | -0.54 | -0.45 | -0.52 | -0.47 | -0.45 | -0.48 | -0.15 | -0.56 |
| N4BP3 | 2.61 | 2.64 | 2.30 | 2.72 | 2.41 | 1.94 | 2.35 | 2.22 |
| N6AMT1 | 3.74 | 4.28 | 3.40 | 4.30 | 3.62 | 3.14 | 3.60 | 2.90 |
| NAA10 | 8.00 | 7.02 | 7.53 | 7.37 | 7.00 | 7.73 | 6.85 | 7.40 |
| NAA15 | 6.11 | 6.94 | 6.55 | 6.61 | 6.02 | 6.75 | 6.62 | 6.73 |
| NAA16 | 4.51 | 5.00 | 4.90 | 4.87 | 5.08 | 4.56 | 5.16 | 4.67 |
| NAA20 | 8.21 | 7.63 | 7.78 | 7.60 | 8.09 | 7.82 | 7.23 | 8.08 |
| NAA25 | 4.77 | 5.37 | 6.07 | 5.36 | 5.06 | 5.33 | 5.45 | 5.52 |
| NAA30 | 4.14 | 4.47 | 4.42 | 4.75 | 4.31 | 4.55 | 4.76 | 4.20 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| NAA35 | 5.75 | 6.33 | 5.55 | 6.09 | 5.91 | 6.42 | 6.06 | 6.50 |
| NAA38 | 7.57 | 7.24 | 7.69 | 7.38 | 7.70 | 7.74 | 7.58 | 7.69 |
| NAA40 | 3.41 | 3.39 | 3.41 | 3.19 | 3.08 | 3.11 | 3.91 | 3.15 |
| NAA50 | 6.80 | 5.98 | 7.21 | 5.84 | 6.31 | 6.67 | 6.82 | 7.58 |
| NAA60 | 5.77 | 5.44 | 5.23 | 5.48 | 4.69 | 5.19 | 5.46 | 5.83 |
| NAA80 | 4.98 | 3.48 | 3.42 | 3.64 | 3.80 | 3.65 | 3.77 | 4.08 |
| NAAA | 4.49 | 5.28 | 4.35 | 5.66 | 4.05 | 4.58 | 4.28 | 4.41 |
| NAALADL1 | -0.64 | -0.71 | -0.78 | -0.80 | -0.63 | -0.81 | -0.65 | -0.82 |
| NAALADL2 | 2.24 | 2.88 | 3.18 | 2.75 | 2.39 | 3.06 | 3.60 | 3.63 |
| NAB1 | 5.16 | 5.27 | 5.31 | 5.46 | 5.07 | 5.04 | 5.63 | 6.40 |
| NAB2 | 4.29 | 4.04 | 4.68 | 3.90 | 3.94 | 4.91 | 4.31 | 3.96 |
| NABP1 | 3.41 | 4.16 | 3.74 | 4.19 | 3.68 | 4.32 | 4.37 | 4.13 |
| NABP2 | 5.43 | 5.14 | 5.55 | 5.10 | 4.91 | 5.31 | 5.18 | 5.12 |
| NACA | 10.26 | 10.09 | 9.33 | 10.28 | 10.23 | 10.51 | 9.52 | 10.40 |
| NACA2 | 3.37 | 3.00 | 2.85 | 3.17 | 3.06 | 3.26 | 2.74 | 3.26 |
| NACA3P | 2.13 | 2.29 | 2.23 | 2.29 | 2.45 | 2.58 | 2.42 | 2.52 |
| NACA4P | 2.85 | 2.66 | 2.15 | 2.78 | 2.69 | 2.67 | 2.86 | 2.52 |
| NACAD | -1.52 | -1.51 | -1.44 | -1.52 | -1.31 | -1.50 | -1.53 | -1.54 |
| NACAP2 | -1.54 | -1.53 | -1.52 | -1.54 | -1.48 | -1.41 | -1.54 | -1.56 |
| NACAP5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NACAP8 | -1.80 | -1.79 | -1.83 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 |
| NACC1 | 3.98 | 4.98 | 5.11 | 4.62 | 3.95 | 4.53 | 4.61 | 4.05 |
| NACC2 | 3.92 | 4.76 | 4.78 | 4.79 | 4.14 | 4.48 | 5.07 | 3.78 |
| NADK | 4.97 | 4.21 | 3.85 | 4.29 | 4.43 | 4.04 | 4.08 | 3.95 |
| NADK2 | 4.75 | 4.20 | 4.50 | 4.62 | 3.93 | 3.87 | 4.33 | 3.87 |
| NADSYN1 | 5.71 | 5.99 | 5.92 | 6.08 | 5.72 | 5.39 | 5.82 | 5.87 |
| NAE1 | 7.49 | 6.30 | 6.74 | 6.54 | 6.90 | 6.78 | 6.58 | 6.72 |
| NAF1 | 2.60 | 2.97 | 3.01 | 3.03 | 3.10 | 3.08 | 3.11 | 3.36 |
| NAGA | 5.25 | 5.51 | 5.23 | 4.98 | 4.68 | 4.63 | 4.97 | 4.86 |
| NAGK | 5.50 | 5.69 | 5.17 | 5.83 | 6.35 | 5.85 | 5.49 | 6.08 |
| NAGLU | 4.88 | 5.52 | 5.02 | 6.20 | 5.52 | 5.27 | 5.45 | 6.04 |
| NAGPA | 3.79 | 3.73 | 3.88 | 4.22 | 3.34 | 3.24 | 3.53 | 4.04 |
| NAGPA-AS1 | -1.94 | -1.94 | -1.86 | -1.95 | -1.94 | -1.95 | -1.91 | -1.92 |
| NAGS | 2.63 | 3.42 | 2.67 | 3.30 | 2.90 | 3.10 | 2.73 | 2.35 |
| NAIF1 | 3.18 | 3.52 | 2.94 | 3.25 | 3.13 | 3.16 | 2.90 | 3.14 |
| NAIP | -2.20 | -2.17 | -2.19 | -2.20 | -2.19 | -2.21 | -2.20 | -2.21 |
| NALCN | -1.28 | -1.45 | -1.32 | -1.46 | -1.42 | -1.47 | -1.40 | -1.48 |
| NALT1 | -0.67 | -0.83 | -0.81 | -0.68 | -0.60 | -0.80 | -0.50 | -0.85 |
| NAMPT | 4.90 | 5.46 | 5.66 | 5.06 | 5.23 | 5.08 | 5.79 | 6.62 |
| NAMPTP1 | -0.72 | -0.63 | -0.61 | -0.71 | -0.79 | -0.80 | -0.72 | -0.53 |
| NANOG | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 | -2.25 | -2.26 |
| NANOGNBP3 | -1.79 | -1.79 | -1.68 | -1.75 | -1.79 | -1.73 | -1.75 | -1.81 |
| NANOGP11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| NANOGP5 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| NANOS1 | 3.20 | 2.04 | 1.96 | 1.95 | 2.14 | 2.34 | 2.04 | 1.75 |
| NANOS3 | -0.81 | -1.14 | -1.13 | -1.15 | -1.14 | -1.09 | -1.08 | -1.05 |
| NANP | 3.56 | 3.85 | 3.63 | 3.36 | 3.59 | 3.39 | 3.30 | 3.42 |
| NANS | 8.08 | 8.40 | 7.55 | 8.32 | 7.73 | 8.24 | 7.66 | 7.60 |
| NAP1L1 | 7.83 | 8.83 | 9.18 | 8.70 | 9.34 | 8.89 | 8.99 | 8.26 |
| NAP1L1P1 | -0.29 | -0.20 | -0.17 | -0.15 | -0.22 | -0.31 | -0.37 | -0.16 |
| NAP1L1P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| NAP1L1P3 | -0.79 | -0.84 | -0.90 | -0.85 | -0.92 | -0.86 | -0.78 | -0.94 |
| NAP1L2 | -1.79 | -1.79 | -1.73 | -1.79 | -1.76 | -1.80 | -1.79 | -1.76 |
| NAP1L4 | 7.10 | 7.38 | 7.63 | 7.16 | 7.26 | 7.33 | 7.23 | 7.12 |
| NAP1L4P1 | 0.40 | 0.41 | 0.60 | 0.71 | 0.60 | 0.47 | 0.59 | 0.41 |
| NAP1L4P3 | -1.10 | -1.02 | -0.93 | -0.97 | -1.10 | -1.05 | -0.90 | -1.00 |
| NAP1L5 | 1.37 | 1.84 | 1.76 | 1.55 | 1.20 | 1.99 | 1.75 | 1.32 |
| NAPA | 2.64 | 2.21 | 2.21 | 2.25 | 2.24 | 1.93 | 2.32 | 2.80 |
| NAPA-AS1 | 2.68 | 2.66 | 2.11 | 2.87 | 3.46 | 2.42 | 2.33 | 2.40 |
| NAPB | 1.82 | 1.98 | 2.53 | 2.03 | 2.28 | 2.22 | 2.62 | 2.04 |
| NAPEPLD | 4.12 | 4.47 | 4.82 | 4.11 | 4.11 | 3.90 | 5.29 | 4.18 |
| NAPG | 6.36 | 6.70 | 6.04 | 6.63 | 6.89 | 5.92 | 6.19 | 6.74 |
| NAPRT | 7.80 | 7.11 | 7.61 | 7.39 | 7.16 | 6.56 | 7.11 | 7.72 |
| NAPSA | -0.59 | -0.73 | -0.22 | -0.58 | -0.57 | -0.67 | -0.60 | -0.69 |
| NAPSB | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.14 | -2.15 | -2.16 |
| NARF | 7.01 | 5.43 | 6.16 | 5.73 | 6.67 | 6.53 | 6.20 | 6.14 |
| NARS | 7.28 | 7.41 | 7.90 | 7.28 | 7.61 | 7.05 | 8.41 | 7.55 |
| NARS2 | 5.13 | 4.16 | 4.69 | 3.98 | 4.88 | 4.46 | 4.16 | 4.30 |
| NASP | 6.27 | 6.36 | 7.03 | 6.53 | 6.60 | 7.11 | 7.02 | 6.10 |
| NAT1 | 3.30 | 3.68 | 2.80 | 3.84 | 3.10 | 3.50 | 3.11 | 3.41 |
| NAT10 | 5.07 | 5.56 | 6.01 | 5.20 | 5.34 | 5.31 | 4.77 | 5.59 |
| NAT14 | 4.31 | 3.71 | 3.75 | 3.68 | 4.21 | 3.91 | 3.44 | 4.11 |
| NAT16 | -1.50 | -1.66 | -1.65 | -1.66 | -1.66 | -1.67 | -1.67 | -1.68 |
| NAT2 | 0.10 | 0.11 | 0.04 | 0.10 | 0.03 | 0.08 | 0.08 | -0.01 |
| NAT8 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| NAT8B | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| NAT8L | 1.66 | 0.80 | 0.74 | 0.78 | 0.84 | 0.79 | 0.68 | 0.97 |
| NAT9 | 5.33 | 4.97 | 5.12 | 5.29 | 6.07 | 5.54 | 4.66 | 5.83 |
| NATD1 | 1.44 | 1.61 | 1.81 | 1.42 | 1.46 | 1.51 | 1.68 | 1.75 |
| NAV1 | 3.71 | 4.34 | 3.99 | 4.16 | 4.10 | 4.89 | 3.61 | 3.74 |
| NAV2 | 3.38 | 2.90 | 3.66 | 3.30 | 4.15 | 4.20 | 2.83 | 3.28 |
| NAV2-AS1 | -1.96 | -2.04 | -2.04 | -2.01 | -2.02 | -2.06 | -2.05 | -2.07 |
| NAV2-AS3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NAV3 | 0.49 | 0.89 | 0.44 | 0.48 | 0.42 | 0.49 | 0.54 | 0.71 |
| NAXD | 4.09 | 4.80 | 5.06 | 4.80 | 5.56 | 4.67 | 5.13 | 4.58 |
| NAXE | 8.52 | 7.62 | 7.07 | 7.82 | 7.93 | 7.78 | 7.15 | 7.41 |
| NBAS | 4.41 | 4.59 | 5.07 | 5.09 | 4.62 | 4.68 | 5.19 | 4.80 |
| NBDY | 7.24 | 6.93 | 7.04 | 6.90 | 7.48 | 7.60 | 6.35 | 7.16 |
| NBEA | 3.29 | 2.61 | 2.56 | 2.89 | 2.57 | 3.23 | 3.45 | 3.38 |
| NBEAL1 | 5.54 | 6.28 | 5.79 | 6.38 | 5.55 | 6.26 | 7.02 | 6.31 |
| NBEAL2 | 6.14 | 7.09 | 6.91 | 7.10 | 6.11 | 6.31 | 7.05 | 6.25 |
| NBEAP1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NBL1 | 7.79 | 7.66 | 8.81 | 7.83 | 8.43 | 7.98 | 8.70 | 7.39 |
| NBN | 5.34 | 5.66 | 6.18 | 5.72 | 5.67 | 6.28 | 5.59 | 6.13 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| NBPF1 | 2.74 | 2.39 | 2.91 | 2.97 | 2.68 | 2.83 | 2.82 | 2.60 |
| NBPF10 | 0.43 | 0.53 | 0.69 | 0.43 | 0.63 | 1.44 | 0.71 | 0.51 |
| NBPF11 | 1.73 | 1.65 | 2.32 | 1.95 | 1.71 | 2.00 | 2.04 | 2.10 |
| NBPF12 | 0.61 | 0.71 | 0.82 | 0.76 | 0.60 | 1.08 | 0.80 | 0.67 |
| NBPF14 | 2.02 | 2.05 | 2.40 | 2.07 | 2.15 | 2.37 | 2.19 | 2.13 |
| NBPF15 | 1.07 | 1.01 | 1.06 | 1.22 | 0.90 | 1.27 | 1.26 | 1.05 |
| NBPF17P | 0.71 | 0.89 | 1.22 | 0.86 | 0.88 | 1.11 | 0.92 | 0.85 |
| NBPF20 | 0.73 | 0.82 | 0.71 | 0.96 | 0.71 | 0.86 | 0.83 | 0.53 |
| NBPF25P | -1.69 | -1.64 | -1.68 | -1.69 | -1.69 | -1.58 | -1.70 | -1.71 |
| NBPF26 | -0.49 | -0.25 | -0.40 | -0.36 | -0.45 | -0.38 | -0.35 | -0.45 |
| NBPF2P | -0.79 | -0.87 | -0.77 | -0.80 | -0.83 | -0.81 | -0.80 | -0.71 |
| NBPF3 | 0.41 | 0.51 | 0.37 | 0.49 | 0.69 | 0.49 | 0.79 | 0.64 |
| NBPF8 | 1.76 | 1.86 | 2.29 | 2.03 | 1.79 | 2.12 | 2.34 | 1.76 |
| NBPF9 | 0.87 | 1.27 | 1.00 | 1.17 | 0.88 | 1.01 | 1.31 | 1.06 |
| NBR1 | 5.29 | 6.09 | 6.53 | 5.87 | 6.24 | 6.39 | 6.38 | 6.62 |
| NBR2 | 3.70 | 3.41 | 3.93 | 3.79 | 3.77 | 3.66 | 3.74 | 3.49 |
| NCALD | 2.14 | 1.20 | 1.63 | 1.38 | 1.16 | 1.51 | 1.08 | 1.14 |
| NCAM1 | -1.79 | -1.74 | -1.78 | -1.70 | -1.79 | -1.80 | -1.75 | -1.81 |
| NCAPD2 | 6.11 | 5.71 | 6.52 | 5.58 | 5.22 | 5.58 | 6.00 | 5.95 |
| NCAPD3 | 5.83 | 5.43 | 6.68 | 5.74 | 5.96 | 5.73 | 6.04 | 6.39 |
| NCAPG | 4.60 | 4.63 | 5.21 | 4.31 | 4.11 | 4.77 | 4.92 | 4.36 |
| NCAPG2 | 4.55 | 4.86 | 5.21 | 4.88 | 4.55 | 4.73 | 5.34 | 4.90 |
| NCAPGP1 | -1.60 | -1.59 | -1.38 | -1.60 | -1.57 | -1.56 | -1.60 | -1.62 |
| NCAPH | 5.40 | 4.54 | 5.26 | 4.60 | 4.63 | 4.76 | 4.65 | 4.61 |
| NCAPH2 | 5.39 | 5.02 | 4.94 | 5.18 | 4.79 | 4.95 | 4.94 | 4.88 |
| NCBP1 | 5.13 | 5.62 | 5.55 | 5.30 | 4.40 | 5.23 | 5.39 | 4.72 |
| NCBP2 | 7.31 | 6.71 | 6.77 | 6.75 | 6.99 | 6.98 | 6.64 | 7.34 |
| NCBP2-AS1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| NCBP2AS2 | 7.03 | 6.56 | 6.30 | 6.69 | 6.31 | 6.53 | 5.66 | 6.70 |
| NCBP3 | 5.02 | 5.02 | 4.98 | 4.94 | 4.76 | 5.00 | 5.43 | 4.76 |
| NCCRP1 | 2.37 | 1.56 | 1.61 | 1.98 | 1.68 | 1.73 | 1.65 | 1.68 |
| NCDN | 1.76 | 2.08 | 2.29 | 2.41 | 2.15 | 2.37 | 2.39 | 2.47 |
| NCEH1 | 5.99 | 6.06 | 6.28 | 5.86 | 5.08 | 5.90 | 6.02 | 6.98 |
| NCF1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| NCF1C | -1.51 | -1.50 | -1.44 | -1.51 | -1.45 | -1.49 | -1.52 | -1.33 |
| NCF2 | 2.23 | 1.95 | 1.86 | 1.68 | 1.66 | 1.99 | 1.73 | 1.94 |
| NCF4 | -0.91 | -0.90 | -0.80 | -0.75 | -0.86 | -0.69 | -0.75 | -0.86 |
| NCF4-AS1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| NCK1 | 5.60 | 4.68 | 5.45 | 4.49 | 5.14 | 5.31 | 4.90 | 6.53 |
| NCK1-DT | 4.77 | 3.15 | 4.26 | 3.09 | 3.88 | 3.60 | 3.58 | 4.50 |
| NCK2 | 6.01 | 5.70 | 5.76 | 6.10 | 5.38 | 5.37 | 5.97 | 5.43 |
| NCKAP1 | 7.06 | 7.27 | 7.26 | 6.84 | 6.66 | 6.79 | 7.49 | 7.69 |
| NCKAP5 | 0.35 | 0.46 | 0.48 | 0.34 | 0.41 | 0.45 | 0.71 | 0.30 |
| NCKAP5L | 2.40 | 2.17 | 2.12 | 2.25 | 1.97 | 1.92 | 2.30 | 2.33 |
| NCKIPSD | 4.74 | 4.89 | 4.72 | 4.71 | 4.53 | 4.50 | 4.83 | 4.22 |
| NCL | 9.54 | 9.75 | 9.12 | 9.75 | 9.57 | 9.90 | 9.06 | 9.30 |
| NCLN | 5.62 | 5.32 | 6.31 | 5.55 | 5.55 | 5.54 | 6.25 | 5.46 |
| NCLP1 | -1.79 | -1.74 | -1.73 | -1.75 | -1.79 | -1.78 | -1.75 | -1.76 |
| NCMAP | 3.22 | 2.95 | 2.91 | 2.80 | 2.65 | 3.14 | 3.37 | 2.49 |
| NCOA1 | 4.41 | 4.24 | 4.46 | 4.08 | 3.90 | 4.07 | 4.49 | 4.20 |
| NCOA2 | 4.15 | 4.68 | 4.83 | 4.45 | 4.15 | 4.45 | 4.92 | 4.94 |
| NCOA3 | 5.15 | 4.85 | 5.65 | 5.03 | 5.01 | 5.19 | 5.25 | 5.78 |
| NCOA4 | 6.62 | 7.09 | 6.31 | 6.83 | 6.72 | 6.26 | 6.72 | 6.49 |
| NCOA4P3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.04 | -2.11 |
| NCOA4P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NCOA5 | 4.36 | 4.45 | 4.54 | 4.25 | 4.09 | 4.06 | 4.16 | 3.74 |
| NCOA6 | 5.16 | 5.00 | 5.56 | 4.65 | 5.04 | 5.11 | 5.67 | 5.35 |
| NCOA7 | 7.76 | 5.16 | 5.75 | 5.03 | 5.74 | 5.99 | 6.00 | 6.20 |
| NCOR1 | 8.32 | 7.15 | 7.93 | 7.21 | 7.42 | 7.31 | 8.14 | 7.65 |
| NCOR2 | 5.87 | 6.87 | 6.87 | 6.65 | 6.18 | 6.54 | 5.95 | 7.22 |
| NCR3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| NCR3LG1 | 2.03 | 3.40 | 2.13 | 3.78 | 2.27 | 2.19 | 3.26 | 2.24 |
| NCS1 | 4.02 | 3.71 | 4.27 | 3.45 | 3.64 | 3.62 | 3.55 | 3.20 |
| NCSTN | 6.05 | 6.61 | 6.26 | 6.66 | 5.95 | 6.22 | 6.57 | 7.02 |
| NDC1 | 4.62 | 5.76 | 5.61 | 5.22 | 5.08 | 5.02 | 5.44 | 4.51 |
| NDC80 | 5.47 | 5.20 | 5.99 | 4.85 | 5.61 | 5.77 | 5.39 | 6.50 |
| NDE1 | 4.70 | 4.95 | 4.42 | 4.75 | 4.31 | 4.52 | 4.57 | 5.09 |
| NDEL1 | 4.43 | 4.84 | 4.77 | 4.73 | 4.94 | 4.75 | 5.06 | 5.65 |
| NDFIP1 | 6.28 | 6.73 | 7.04 | 6.58 | 7.11 | 6.32 | 6.64 | 6.30 |
| NDFIP2 | 5.12 | 5.98 | 5.97 | 5.89 | 5.91 | 5.67 | 6.16 | 6.36 |
| NDN | 0.57 | 0.50 | 0.52 | 0.48 | 0.50 | 0.54 | 1.32 | 0.58 |
| NDNF | 1.98 | 2.82 | 2.55 | 3.15 | 2.17 | 1.86 | 3.68 | 1.93 |
| NDOR1 | 0.90 | 0.90 | 0.90 | 1.01 | 0.80 | 0.93 | 0.93 | 0.68 |
| NDP | 0.63 | 1.21 | 0.93 | 1.56 | 0.79 | 1.36 | 0.75 | 0.75 |
| NDP-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| NDRG1 | 5.58 | 6.41 | 8.56 | 5.99 | 6.40 | 6.04 | 8.17 | 5.99 |
| NDRG2 | 4.91 | 6.60 | 6.42 | 6.37 | 5.83 | 5.35 | 6.86 | 4.59 |
| NDRG3 | 5.41 | 5.18 | 5.41 | 5.17 | 5.34 | 4.81 | 5.49 | 4.82 |
| NDRG4 | 2.35 | 2.28 | 2.65 | 2.26 | 2.15 | 2.24 | 2.03 | 1.94 |
| NDST1 | 2.61 | 2.87 | 3.11 | 2.58 | 2.68 | 2.72 | 3.20 | 2.50 |
| NDST1-AS1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.06 |
| NDST2 | 1.39 | 1.02 | 0.90 | 0.91 | 1.21 | 1.04 | 0.97 | 1.04 |
| NDST4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| NDUFA1 | 9.66 | 9.56 | 9.26 | 9.56 | 10.24 | 8.97 | 9.22 | 9.90 |
| NDUFA10 | 8.01 | 7.63 | 7.41 | 7.53 | 7.78 | 7.93 | 7.48 | 7.74 |
| NDUFA11 | 8.49 | 8.70 | 7.89 | 8.79 | 8.65 | 8.62 | 8.12 | 8.23 |
| NDUFA12 | 8.50 | 9.01 | 8.74 | 8.96 | 8.97 | 8.98 | 8.33 | 8.74 |
| NDUFA13 | 7.55 | 7.78 | 7.29 | 7.82 | 7.94 | 7.80 | 7.57 | 7.55 |
| NDUFA2 | 8.52 | 8.29 | 8.32 | 8.38 | 9.03 | 8.45 | 7.99 | 8.04 |
| NDUFA3 | 9.09 | 8.99 | 7.68 | 9.12 | 9.68 | 8.52 | 8.53 | 8.67 |
| NDUFA3P3 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| NDUFA3P4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.18 | -2.21 |
| NDUFA3P6 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| NDUFA4 | 10.68 | 10.34 | 9.13 | 10.52 | 10.75 | 10.20 | 9.41 | 10.20 |

| | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| NDUFA4L2 | 1.30 | 1.13 | 5.65 | 1.28 | 1.33 | 1.31 | 3.15 | 1.80 |
| NDUFA4P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| NDUFA5 | 6.86 | 7.47 | 6.55 | 7.50 | 7.54 | 7.28 | 6.94 | 7.21 |
| NDUFA5P11 | -1.05 | -1.12 | -1.11 | -1.13 | -1.04 | -1.14 | -1.06 | -1.15 |
| NDUFA6 | 9.89 | 9.41 | 8.83 | 9.41 | 9.47 | 9.09 | 8.98 | 8.98 |
| NDUFA6-DT | -0.27 | -0.62 | -0.61 | -0.49 | -0.55 | -0.57 | -0.48 | -0.64 |
| NDUFA7 | 5.33 | 5.58 | 5.20 | 5.46 | 5.56 | 5.41 | 5.38 | 5.32 |
| NDUFA8 | 8.01 | 7.38 | 6.96 | 7.58 | 7.25 | 7.41 | 6.90 | 6.74 |
| NDUFA9 | 7.82 | 7.39 | 7.23 | 7.39 | 6.84 | 6.62 | 6.84 | 7.09 |
| NDUFA9P1 | 0.11 | 0.39 | 0.37 | 0.36 | 0.03 | 0.29 | 0.35 | 0.12 |
| NDUFAB1 | 9.64 | 8.74 | 8.69 | 8.90 | 9.00 | 8.64 | 8.19 | 9.05 |
| NDUFAB1P1 | -0.83 | -0.96 | -0.78 | -0.97 | -0.92 | -0.74 | -0.47 | -0.98 |
| NDUFAF1 | 5.46 | 5.27 | 4.72 | 5.80 | 5.78 | 4.86 | 4.96 | 5.85 |
| NDUFAF2 | 6.52 | 6.66 | 6.61 | 7.09 | 7.46 | 7.00 | 6.67 | 6.71 |
| NDUFAF3 | 8.45 | 7.38 | 7.32 | 7.47 | 7.64 | 8.03 | 7.58 | 8.15 |
| NDUFAF4 | 6.73 | 5.50 | 5.34 | 5.76 | 6.09 | 6.22 | 5.99 | 5.91 |
| NDUFAF4P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| NDUFAF4P2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NDUFAF4P3 | -1.69 | -1.63 | -1.68 | -1.69 | -1.66 | -1.67 | -1.64 | -1.71 |
| NDUFAF4P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NDUFAF5 | 4.38 | 3.89 | 4.23 | 4.16 | 4.23 | 4.31 | 4.22 | 3.90 |
| NDUFAF6 | 5.19 | 4.68 | 4.78 | 4.69 | 5.26 | 5.16 | 4.50 | 4.99 |
| NDUFAF7 | 3.95 | 3.21 | 3.44 | 3.71 | 3.31 | 3.64 | 3.46 | 3.54 |
| NDUFAF8 | 8.41 | 8.29 | 7.19 | 8.33 | 7.00 | 7.28 | 6.53 | 7.46 |
| NDUFB1 | 9.19 | 9.49 | 8.52 | 9.59 | 9.85 | 9.32 | 9.00 | 8.92 |
| NDUFB10 | 9.03 | 8.31 | 7.75 | 8.49 | 7.72 | 8.30 | 8.16 | 8.73 |
| NDUFB10P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| NDUFB10P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NDUFB11 | 8.70 | 8.39 | 8.32 | 8.65 | 9.03 | 8.15 | 7.74 | 7.90 |
| NDUFB11P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| NDUFB1P1 | 0.50 | 0.78 | 0.38 | 0.61 | 0.41 | 0.60 | 0.34 | 0.53 |
| NDUFB1P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| NDUFB2 | 9.25 | 9.63 | 9.00 | 9.62 | 9.39 | 9.22 | 8.92 | 9.24 |
| NDUFB2-AS1 | 0.84 | 0.75 | 0.79 | 0.86 | 0.79 | 0.83 | 0.86 | 0.76 |
| NDUFB3 | 8.79 | 8.57 | 7.65 | 8.63 | 8.71 | 8.46 | 7.50 | 8.66 |
| NDUFB4 | 9.65 | 8.26 | 8.82 | 8.30 | 9.09 | 9.30 | 8.80 | 9.73 |
| NDUFB4P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| NDUFB4P11 | -1.08 | -1.07 | -1.06 | -1.01 | -1.07 | -0.79 | -1.08 | -0.83 |
| NDUFB4P12 | 3.08 | 2.18 | 2.51 | 2.51 | 2.69 | 2.98 | 2.60 | 3.17 |
| NDUFB4P2 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.83 | -1.84 | -1.77 |
| NDUFB4P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NDUFB5 | 8.39 | 7.91 | 7.05 | 7.90 | 8.37 | 7.79 | 7.52 | 8.52 |
| NDUFB6 | 8.37 | 8.50 | 8.02 | 8.50 | 8.43 | 8.75 | 7.94 | 8.12 |
| NDUFB7 | 8.24 | 8.78 | 8.09 | 8.79 | 8.80 | 8.55 | 8.11 | 8.19 |
| NDUFB8 | 8.86 | 8.21 | 7.69 | 8.33 | 8.69 | 8.32 | 7.98 | 7.93 |
| NDUFB8P2 | 0.05 | -0.16 | -0.08 | 0.02 | -0.05 | -0.19 | -0.25 | -0.15 |
| NDUFB9 | 9.83 | 9.05 | 9.86 | 9.12 | 9.73 | 9.62 | 8.86 | 9.49 |
| NDUFB9P2 | -0.49 | -0.47 | -0.54 | -0.45 | -0.43 | -0.48 | -0.43 | -0.47 |
| NDUFC1 | 9.00 | 9.21 | 8.60 | 9.33 | 8.82 | 9.26 | 8.91 | 9.36 |
| NDUFC2 | 9.49 | 9.02 | 9.05 | 9.09 | 9.43 | 8.80 | 8.59 | 9.16 |
| NDUFC2-KCTD14 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NDUFS1 | 6.63 | 6.68 | 6.41 | 6.63 | 6.65 | 6.42 | 6.96 | 6.88 |
| NDUFS2 | 6.78 | 6.59 | 6.44 | 6.65 | 6.75 | 6.54 | 6.34 | 6.78 |
| NDUFS3 | 7.52 | 7.38 | 7.19 | 7.51 | 7.71 | 7.20 | 7.18 | 7.67 |
| NDUFS4 | 7.05 | 7.61 | 7.77 | 7.74 | 8.38 | 7.99 | 7.65 | 7.63 |
| NDUFS5 | 8.98 | 9.18 | 8.71 | 9.09 | 9.43 | 9.57 | 8.75 | 9.02 |
| NDUFS5P1 | -1.94 | -1.94 | -1.85 | -1.95 | -1.94 | -1.93 | -1.95 | -1.96 |
| NDUFS5P3 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| NDUFS6 | 9.09 | 8.65 | 8.33 | 8.79 | 9.13 | 8.57 | 8.30 | 8.86 |
| NDUFS7 | 8.27 | 7.04 | 7.18 | 7.15 | 8.35 | 7.68 | 7.49 | 7.31 |
| NDUFS8 | 8.84 | 8.29 | 7.97 | 8.53 | 9.03 | 8.16 | 8.19 | 8.39 |
| NDUFV1 | 7.88 | 7.26 | 7.58 | 7.43 | 7.98 | 7.33 | 7.13 | 7.84 |
| NDUFV2 | 5.49 | 4.58 | 4.85 | 4.65 | 5.84 | 4.80 | 5.25 | 5.86 |
| NDUFV2-AS1 | 1.35 | 0.94 | 1.12 | 1.16 | 1.17 | 1.01 | 0.90 | 1.28 |
| NDUFV2P1 | 2.42 | 1.93 | 2.10 | 2.34 | 2.55 | 2.35 | 1.95 | 2.48 |
| NDUFV3 | 8.58 | 7.61 | 6.69 | 7.89 | 7.40 | 6.74 | 7.51 | 7.60 |
| NEAT1 | 9.04 | 8.55 | 11.28 | 9.39 | 10.32 | 9.98 | 12.00 | 9.64 |
| NEB | 2.01 | 1.48 | 1.72 | 1.67 | 1.43 | 1.50 | 4.19 | 1.52 |
| NEBL | 3.47 | 3.81 | 3.78 | 3.54 | 4.14 | 3.92 | 4.80 | 3.28 |
| NEBL-AS1 | -0.25 | -0.47 | -0.14 | -0.40 | -0.17 | -0.17 | -0.40 | -0.49 |
| NECAB1 | -1.84 | -1.84 | -1.79 | -1.84 | -1.82 | -1.83 | -1.85 | -1.63 |
| NECAB2 | -1.96 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -2.00 |
| NECAB3 | 3.89 | 3.71 | 3.64 | 3.64 | 3.99 | 3.50 | 3.80 | 3.94 |
| NECAP1 | 5.09 | 4.78 | 5.03 | 4.83 | 6.15 | 4.14 | 4.85 | 4.78 |
| NECAP2 | 6.79 | 5.96 | 5.73 | 5.83 | 5.69 | 6.04 | 5.35 | 5.66 |
| NECTIN1 | 4.60 | 5.19 | 5.96 | 5.22 | 4.62 | 4.90 | 4.80 | 4.57 |
| NECTIN2 | 7.45 | 6.87 | 7.04 | 6.97 | 7.86 | 7.39 | 7.58 | 7.24 |
| NECTIN3 | 3.29 | 3.69 | 4.74 | 4.06 | 2.79 | 3.98 | 4.52 | 3.44 |
| NECTIN3-AS1 | -1.70 | -1.63 | -1.62 | -1.70 | -1.66 | -1.68 | -1.70 | -1.66 |
| NECTIN4 | 4.38 | 4.08 | 5.14 | 4.24 | 4.47 | 5.21 | 4.30 | 5.05 |
| NEDD1 | 3.67 | 4.26 | 5.30 | 3.89 | 4.16 | 4.62 | 4.51 | 4.31 |
| NEDD4 | 3.76 | 3.30 | 3.59 | 3.31 | 3.62 | 3.63 | 3.90 | 3.50 |
| NEDD4L | 4.93 | 5.24 | 5.96 | 4.94 | 5.40 | 5.26 | 5.61 | 4.46 |
| NEDD8 | 8.41 | 8.57 | 7.98 | 8.71 | 8.84 | 8.87 | 7.97 | 8.49 |
| NEDD9 | 5.08 | 5.42 | 5.01 | 4.90 | 3.79 | 3.85 | 4.69 | 4.42 |
| NEFH | -1.64 | -1.64 | -1.63 | -1.65 | -1.64 | -1.65 | -1.59 | -1.67 |
| NEFL | -1.04 | -1.03 | -1.03 | -0.96 | -1.04 | -1.01 | -1.04 | -1.05 |
| NEFM | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| NEGR1 | -1.36 | -1.42 | -1.41 | -1.43 | -1.42 | -1.02 | -1.37 | -1.44 |
| NEIL1 | 3.53 | 2.84 | 3.25 | 3.85 | 3.14 | 3.09 | 3.50 | 3.45 |
| NEIL2 | 3.06 | 3.92 | 4.69 | 3.73 | 3.47 | 3.71 | 3.41 | 3.40 |
| NEIL3 | 2.69 | 2.59 | 3.01 | 2.87 | 2.58 | 2.92 | 2.76 | 2.58 |
| NEK1 | 3.66 | 3.95 | 3.90 | 3.84 | 3.80 | 3.97 | 4.07 | 3.48 |
| NEK10 | -0.69 | -0.76 | -0.83 | -0.85 | -0.76 | -0.86 | -0.85 | -0.87 |

| | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| NEK11 | 1.48 | 1.94 | 2.14 | 1.62 | 1.94 | 2.29 | 2.16 | 2.56 |
| NEK2 | 5.03 | 4.72 | 4.99 | 4.40 | 4.63 | 5.64 | 4.15 | 5.15 |
| NEK2P4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| NEK3 | 2.79 | 2.29 | 2.17 | 2.40 | 3.08 | 2.55 | 2.43 | 3.38 |
| NEK4 | 4.59 | 4.63 | 4.43 | 4.84 | 4.13 | 4.33 | 4.82 | 3.95 |
| NEK5 | -0.36 | -0.22 | -0.43 | -0.45 | -0.08 | -0.15 | -0.24 | -0.18 |
| NEK6 | 6.17 | 6.19 | 6.34 | 6.56 | 6.51 | 6.57 | 6.78 | 6.51 |
| NEK7 | 5.27 | 5.22 | 5.39 | 5.10 | 5.16 | 5.59 | 5.62 | 6.25 |
| NEK9 | 4.72 | 4.88 | 4.75 | 4.79 | 4.56 | 4.63 | 4.73 | 4.09 |
| NELFA | 5.88 | 5.46 | 5.62 | 5.62 | 5.49 | 5.75 | 5.25 | 5.79 |
| NELFB | 6.41 | 6.29 | 6.58 | 6.07 | 5.48 | 6.29 | 6.24 | 5.91 |
| NELFCD | 7.38 | 6.15 | 6.49 | 6.33 | 6.82 | 6.71 | 6.18 | 6.65 |
| NELFE | 7.07 | 6.40 | 6.25 | 6.17 | 6.37 | 7.42 | 6.57 | 7.69 |
| NELL1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| NELL2 | -1.79 | -1.79 | -1.73 | -1.75 | -1.76 | -1.80 | -1.80 | -1.81 |
| NEMF | 5.64 | 6.94 | 6.83 | 6.60 | 6.45 | 6.86 | 6.92 | 6.09 |
| NEMP1 | 3.90 | 3.64 | 4.64 | 3.67 | 3.32 | 4.21 | 3.78 | 3.62 |
| NEMP2 | 2.24 | 2.34 | 2.50 | 2.33 | 2.07 | 2.19 | 1.97 | 2.85 |
| NENF | 8.24 | 7.83 | 7.24 | 8.03 | 8.59 | 7.85 | 6.91 | 7.49 |
| NEO1 | 3.82 | 4.55 | 3.70 | 4.07 | 3.86 | 3.17 | 4.71 | 4.35 |
| NEPRO | 4.08 | 3.75 | 4.49 | 3.66 | 4.28 | 4.23 | 4.06 | 4.82 |
| NES | 1.62 | 1.59 | 2.10 | 1.52 | 2.26 | 2.81 | 1.67 | 1.55 |
| NET1 | 5.69 | 6.82 | 6.74 | 6.63 | 6.30 | 6.71 | 6.68 | 6.61 |
| NETO2 | 5.05 | 5.58 | 3.82 | 5.69 | 5.05 | 5.39 | 4.89 | 3.76 |
| NEU1 | 6.47 | 6.89 | 6.20 | 6.94 | 6.21 | 4.77 | 6.20 | 7.16 |
| NEU3 | 2.86 | 2.76 | 2.74 | 2.37 | 2.74 | 2.76 | 2.72 | 2.51 |
| NEU4 | -1.13 | -1.12 | -1.18 | -1.07 | -1.16 | -1.10 | -1.07 | -1.00 |
| NEURL1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| NEURL1B | 1.97 | 1.57 | 2.25 | 2.17 | 1.79 | 1.46 | 2.09 | 1.63 |
| NEURL2 | -0.10 | 0.21 | -0.09 | 0.21 | 0.09 | 0.12 | -0.11 | 0.20 |
| NEURL3 | 3.63 | 2.96 | 3.25 | 2.71 | 2.98 | 2.72 | 3.40 | 2.54 |
| NEURL4 | 0.24 | 0.09 | 0.35 | 0.29 | 0.09 | 0.20 | 0.35 | 0.29 |
| NEUROD2 | -0.91 | -0.90 | -0.65 | -0.91 | -0.78 | -0.78 | -0.91 | -0.61 |
| NEXN | 2.01 | 2.92 | 1.81 | 2.39 | 1.74 | 2.16 | 1.73 | 2.17 |
| NEXN-AS1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.95 | -1.96 | -2.01 |
| NF1 | 5.43 | 5.78 | 6.60 | 5.54 | 5.47 | 6.10 | 6.40 | 5.81 |
| NF2 | 5.23 | 5.72 | 4.98 | 5.53 | 4.84 | 5.55 | 5.53 | 5.22 |
| NFAM1 | -0.74 | -1.10 | -1.09 | -1.19 | -1.18 | -1.13 | -1.19 | -1.20 |
| NFASC | -1.39 | -1.26 | -1.38 | -1.33 | -1.32 | -1.34 | -1.28 | -1.41 |
| NFAT5 | 4.90 | 4.43 | 4.86 | 4.53 | 4.46 | 4.82 | 5.03 | 4.88 |
| NFATC1 | 1.47 | 1.14 | 0.84 | 1.14 | 1.51 | 1.02 | 0.95 | 0.81 |
| NFATC2 | 2.93 | 2.58 | 2.83 | 2.28 | 2.42 | 2.38 | 2.90 | 2.05 |
| NFATC2IP | 5.40 | 5.92 | 6.47 | 5.67 | 5.38 | 5.37 | 6.23 | 5.58 |
| NFATC3 | 3.70 | 3.55 | 3.99 | 3.30 | 3.51 | 3.44 | 3.96 | 3.23 |
| NFATC4 | 1.71 | 1.60 | 1.88 | 1.54 | 1.86 | 2.20 | 2.09 | 1.85 |
| NFE2 | 0.93 | 0.30 | 0.42 | 0.37 | 1.55 | 0.97 | 0.27 | 0.53 |
| NFE2L1 | 7.26 | 7.58 | 7.28 | 7.35 | 7.01 | 7.27 | 7.21 | 7.78 |
| NFE2L2 | 7.57 | 7.73 | 6.90 | 7.57 | 7.56 | 7.24 | 7.91 | 8.07 |
| NFE2L3 | 6.09 | 4.89 | 5.40 | 4.39 | 5.42 | 5.80 | 4.30 | 5.46 |
| NFE4 | -1.45 | -1.50 | -1.37 | -1.51 | -1.50 | -1.52 | -1.52 | -1.53 |
| NFIA | 4.98 | 6.59 | 6.02 | 6.54 | 5.70 | 5.18 | 6.96 | 5.22 |
| NFIA-AS2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| NFIB | 6.80 | 6.48 | 7.39 | 6.31 | 6.27 | 5.62 | 7.74 | 6.63 |
| NFIC | 6.85 | 6.27 | 7.18 | 6.40 | 7.25 | 6.92 | 8.01 | 7.18 |
| NFIL3 | 4.31 | 3.87 | 3.98 | 3.73 | 4.19 | 4.33 | 3.73 | 3.76 |
| NFIX | 4.85 | 4.81 | 5.33 | 4.36 | 5.01 | 4.94 | 5.62 | 4.99 |
| NFKB1 | 4.55 | 5.38 | 5.10 | 4.98 | 4.38 | 4.84 | 5.34 | 5.21 |
| NFKB2 | 5.00 | 4.22 | 4.75 | 4.06 | 4.59 | 4.05 | 4.31 | 4.19 |
| NFKBIA | 8.89 | 7.88 | 8.13 | 7.49 | 7.55 | 7.85 | 7.55 | 8.37 |
| NFKBIB | 5.56 | 4.79 | 5.00 | 5.22 | 5.59 | 4.76 | 4.98 | 5.15 |
| NFKBID | 2.93 | 2.72 | 2.53 | 3.28 | 3.10 | 2.69 | 2.59 | 2.54 |
| NFKBIE | 5.31 | 4.57 | 4.34 | 3.99 | 4.20 | 4.80 | 4.04 | 4.82 |
| NFKBIL1 | 4.87 | 4.69 | 4.71 | 4.87 | 4.69 | 5.42 | 4.77 | 5.33 |
| NFKBIZ | 4.55 | 3.59 | 4.77 | 3.50 | 4.27 | 4.59 | 4.95 | 3.79 |
| NFRKB | 5.31 | 4.65 | 5.31 | 4.65 | 4.95 | 4.85 | 4.61 | 5.33 |
| NFS1 | 5.10 | 4.66 | 4.97 | 4.24 | 5.09 | 5.07 | 4.42 | 4.99 |
| NFU1 | 6.75 | 6.27 | 5.45 | 6.26 | 6.74 | 5.91 | 5.30 | 5.81 |
| NFU1P1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| NFX1 | 4.63 | 4.88 | 4.77 | 5.23 | 5.07 | 4.69 | 5.18 | 5.08 |
| NFXL1 | 3.78 | 4.23 | 3.84 | 4.15 | 3.71 | 4.09 | 4.30 | 4.33 |
| NFYA | 4.32 | 3.71 | 3.83 | 3.62 | 4.17 | 4.16 | 3.96 | 4.42 |
| NFYB | 5.95 | 5.23 | 5.25 | 5.36 | 5.16 | 5.37 | 5.26 | 5.84 |
| NFYC | 5.09 | 5.32 | 4.90 | 5.45 | 5.49 | 5.23 | 4.91 | 5.06 |
| NFYC-AS1 | 0.45 | 0.40 | 0.24 | 0.49 | 0.35 | 0.35 | 0.78 | 0.25 |
| NGDN | 5.94 | 5.76 | 5.54 | 5.83 | 6.36 | 6.19 | 5.45 | 5.95 |
| NGEF | 4.88 | 4.52 | 3.61 | 4.75 | 4.05 | 5.36 | 4.77 | 4.60 |
| NGF | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NGFR | 0.75 | 0.25 | 0.26 | 0.23 | 0.16 | 0.21 | 0.22 | 0.18 |
| NGLY1 | 5.03 | 5.24 | 4.68 | 5.22 | 5.04 | 4.55 | 4.89 | 4.95 |
| NGRN | 3.25 | 3.72 | 3.30 | 3.55 | 3.26 | 3.63 | 3.49 | 3.61 |
| NHEJ1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| NHLH1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.85 | -1.86 | -1.90 | -1.91 |
| NHLH2 | -1.74 | -1.64 | -1.73 | -1.56 | -1.74 | -1.75 | -1.74 | -1.71 |
| NHLRC1 | 1.20 | 1.70 | 1.42 | 1.64 | 1.72 | 1.23 | 1.55 | 1.56 |
| NHLRC2 | 5.12 | 5.53 | 5.23 | 5.11 | 4.94 | 5.27 | 5.70 | 5.05 |
| NHLRC3 | 3.96 | 4.34 | 4.47 | 4.17 | 4.64 | 3.60 | 4.31 | 5.09 |
| NHLRC4 | -1.88 | -1.94 | -1.93 | -1.94 | -1.94 | -1.91 | -1.94 | -1.89 |
| NHP2 | 8.12 | 8.11 | 7.98 | 8.35 | 8.70 | 8.08 | 7.72 | 7.83 |
| NHP2P1 | -0.24 | -0.44 | -0.36 | -0.53 | -0.26 | -0.37 | -0.38 | -0.43 |
| NHP2P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| NHS | 1.94 | 2.56 | 3.62 | 2.44 | 1.91 | 3.04 | 1.56 | 1.70 |
| NHS-AS1 | -1.61 | -1.61 | -1.55 | -1.61 | -1.61 | -1.52 | -1.61 | -1.44 |
| NHSL1 | 4.92 | 3.29 | 3.41 | 3.26 | 3.24 | 4.22 | 3.29 | 3.32 |
| NHSL2 | -0.08 | 0.10 | -0.14 | 0.07 | 0.12 | -0.04 | 0.09 | 0.05 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| NID1 | 4.38 | 3.67 | 3.11 | 3.70 | 2.82 | 4.22 | 4.75 | 3.08 |
| NID2 | 0.43 | 0.54 | 0.58 | 0.42 | 0.59 | 0.49 | 0.58 | 0.52 |
| NIF3L1 | 5.90 | 4.81 | 5.11 | 5.14 | 5.48 | 5.58 | 4.99 | 5.72 |
| NIFK | 7.06 | 6.77 | 5.90 | 6.81 | 7.06 | 6.77 | 5.82 | 6.63 |
| NIFK-AS1 | 3.90 | 3.26 | 3.86 | 3.37 | 3.77 | 3.17 | 3.37 | 3.36 |
| NIFKP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| NIFKP3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| NIFKP4 | -2.20 | -2.18 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| NIFKP6 | -2.15 | -2.15 | -2.14 | -2.08 | -2.13 | -2.15 | -2.15 | -2.16 |
| NIM1K | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| NIN | 4.77 | 5.39 | 5.32 | 5.16 | 4.99 | 5.80 | 5.70 | 4.81 |
| NINJ1 | 7.40 | 5.99 | 5.62 | 6.41 | 5.71 | 6.35 | 6.27 | 6.37 |
| NINJ2 | 1.91 | 2.13 | 1.44 | 2.03 | 1.49 | 1.74 | 1.43 | 2.63 |
| NINL | 2.08 | 2.55 | 2.37 | 2.16 | 1.97 | 2.37 | 1.92 | 1.81 |
| NIP7 | 6.25 | 5.79 | 5.76 | 5.86 | 5.73 | 6.05 | 5.22 | 6.22 |
| NIPA1 | 4.98 | 4.89 | 5.19 | 4.53 | 5.08 | 4.49 | 5.23 | 4.85 |
| NIPA2 | 6.44 | 6.49 | 6.23 | 6.47 | 6.64 | 6.04 | 6.03 | 6.85 |
| NIPAL1 | 3.61 | 3.83 | 3.63 | 3.76 | 3.15 | 3.90 | 3.71 | 3.02 |
| NIPAL2 | 3.50 | 4.60 | 3.87 | 4.47 | 3.80 | 4.02 | 4.38 | 4.67 |
| NIPAL3 | 4.65 | 5.12 | 5.71 | 5.04 | 5.21 | 5.55 | 5.86 | 5.38 |
| NIPAL4 | -1.60 | -1.54 | -1.58 | -1.60 | -1.57 | -1.43 | -1.55 | -1.57 |
| NIPBL | 6.16 | 6.83 | 7.12 | 6.56 | 6.57 | 6.55 | 7.05 | 6.77 |
| NIPBL-DT | 2.31 | 2.36 | 2.11 | 2.64 | 2.39 | 1.95 | 2.03 | 2.19 |
| NIPSNAP1 | 7.77 | 6.96 | 6.11 | 6.99 | 6.82 | 7.38 | 6.99 | 7.36 |
| NIPSNAP2 | 6.85 | 5.63 | 6.32 | 5.76 | 7.23 | 6.52 | 6.56 | 6.52 |
| NIPSNAP3A | 4.74 | 5.17 | 5.15 | 4.81 | 4.52 | 5.20 | 4.50 | 5.10 |
| NIPSNAP3B | -0.58 | -0.72 | -0.79 | -0.74 | -0.65 | -0.60 | -0.81 | -0.76 |
| NISCH | 4.07 | 3.81 | 4.30 | 3.93 | 4.21 | 4.10 | 4.69 | 4.13 |
| NIT1 | 5.28 | 4.55 | 5.07 | 4.94 | 5.22 | 5.31 | 5.41 | 5.60 |
| NIT2 | 7.34 | 5.77 | 7.13 | 5.94 | 6.76 | 6.51 | 6.21 | 7.27 |
| NKAIN1 | -1.70 | -1.78 | -1.78 | -1.79 | -1.76 | -1.80 | -1.79 | -1.76 |
| NKAIN3 | -1.11 | -1.02 | -1.09 | -0.82 | -1.10 | -0.65 | -1.12 | -0.89 |
| NKAIN3-IT1 | -1.69 | -1.64 | -1.63 | -1.64 | -1.68 | -1.48 | -1.69 | -1.66 |
| NKAIN4 | -2.25 | -2.23 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| NKAP | 6.59 | 6.21 | 6.35 | 5.88 | 6.48 | 6.03 | 6.02 | 6.67 |
| NKAPD1 | 5.04 | 5.43 | 5.28 | 5.33 | 5.20 | 5.20 | 5.17 | 5.52 |
| NKAPL | -0.43 | -0.59 | -0.58 | -0.60 | -0.59 | -0.53 | -0.52 | -0.62 |
| NKAPP1 | 1.03 | 0.97 | 1.19 | 1.16 | 0.92 | 0.87 | 1.07 | 1.43 |
| NKD1 | 3.18 | 2.02 | 2.37 | 2.21 | 2.17 | 2.34 | 4.13 | 1.81 |
| NKD2 | 3.83 | 3.93 | 2.72 | 3.73 | 3.94 | 3.76 | 2.46 | 2.57 |
| NKILA | 0.94 | 0.92 | 1.01 | 0.67 | 0.76 | 1.25 | 0.74 | 1.08 |
| NKIRAS1 | 4.37 | 3.41 | 3.49 | 3.75 | 3.72 | 3.94 | 3.38 | 3.47 |
| NKIRAS2 | 6.48 | 5.75 | 5.32 | 5.76 | 5.65 | 6.05 | 5.33 | 5.93 |
| NKPD1 | -1.10 | -1.09 | -1.08 | -1.03 | -0.99 | -1.14 | -1.10 | -1.12 |
| NKRF | 3.14 | 4.00 | 4.22 | 3.60 | 3.69 | 3.43 | 3.82 | 3.94 |
| NKTR | 5.96 | 6.49 | 6.40 | 6.42 | 5.79 | 6.08 | 7.28 | 5.30 |
| NKX1-2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| NKX2-1 | -0.71 | -0.77 | -0.91 | -0.71 | -0.88 | -0.94 | -0.86 | -0.94 |
| NKX2-1-AS1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NKX2-3 | -0.93 | -0.57 | -1.07 | -0.33 | -1.04 | -1.06 | -1.09 | -1.10 |
| NKX2-8 | 1.37 | 1.00 | 0.55 | 0.85 | 0.63 | 0.45 | 0.50 | 0.97 |
| NKX3-1 | 3.00 | 2.86 | 3.26 | 2.68 | 2.25 | 3.12 | 2.24 | 1.86 |
| NKX3-2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| NKX6-1 | -0.54 | -0.25 | -0.42 | -0.47 | -0.35 | -0.46 | -0.41 | -0.32 |
| NKX6-2 | -0.03 | -0.02 | 0.00 | 0.14 | 1.55 | -0.01 | 0.05 | 0.07 |
| NKX6-3 | -1.68 | -1.76 | -1.76 | -1.77 | -1.76 | -1.78 | -1.77 | -1.47 |
| NLE1 | 3.33 | 3.60 | 4.02 | 3.71 | 3.61 | 3.85 | 2.84 | 3.34 |
| NLGN1 | -1.84 | -1.80 | -1.83 | -1.60 | -1.84 | -1.85 | -1.84 | -1.86 |
| NLGN2 | 3.06 | 2.76 | 3.74 | 2.69 | 3.14 | 3.12 | 3.38 | 2.53 |
| NLGN3 | -1.69 | -1.69 | -1.52 | -1.69 | -1.63 | -1.59 | -1.70 | -1.71 |
| NLGN4Y | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| NLK | 2.97 | 3.17 | 3.66 | 3.21 | 3.28 | 3.26 | 2.87 | 3.05 |
| NLN | 4.47 | 4.49 | 4.80 | 4.38 | 4.43 | 4.48 | 4.35 | 4.61 |
| NLRC4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| NLRC5 | 2.47 | 2.13 | 2.62 | 2.10 | 2.43 | 2.54 | 2.94 | 1.99 |
| NLRP1 | -0.64 | -0.33 | -0.70 | -0.34 | -0.41 | -0.69 | -0.72 | -0.73 |
| NLRP11 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| NLRP12 | -2.04 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| NLRP14 | -1.99 | -1.99 | -1.98 | -1.96 | -1.96 | -1.98 | -1.96 | -2.01 |
| NLRP2 | 4.58 | 3.15 | 2.92 | 3.03 | 5.54 | 4.51 | 5.52 | 2.75 |
| NLRP3 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| NLRP3P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| NLRP7 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| NLRX1 | 3.16 | 3.27 | 3.57 | 2.90 | 2.87 | 2.78 | 3.27 | 3.06 |
| NMB | 5.14 | 4.87 | 4.51 | 4.89 | 5.83 | 5.61 | 4.25 | 5.97 |
| NMD3 | 5.06 | 4.90 | 5.39 | 4.47 | 5.27 | 5.27 | 4.95 | 5.69 |
| NMD3P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| NME1 | 8.62 | 8.26 | 8.36 | 8.45 | 8.35 | 8.20 | 7.49 | 7.75 |
| NME1-NME2 | -1.59 | -1.53 | -1.52 | -1.59 | -1.56 | -1.57 | -1.49 | -1.56 |
| NME2 | 2.14 | 2.06 | 1.82 | 1.97 | 2.56 | 2.30 | 1.90 | 2.19 |
| NME2P1 | 1.42 | 1.25 | 1.05 | 1.54 | 1.49 | 1.45 | 1.20 | 1.58 |
| NME3 | 7.41 | 6.99 | 6.38 | 7.31 | 6.61 | 6.80 | 6.94 | 7.13 |
| NME4 | 7.25 | 5.42 | 5.46 | 5.50 | 6.62 | 5.71 | 6.09 | 7.46 |
| NME5 | 2.14 | 3.32 | 2.70 | 3.21 | 2.36 | 3.28 | 2.78 | 2.25 |
| NME6 | 5.12 | 4.81 | 4.12 | 4.98 | 4.65 | 4.50 | 4.06 | 4.58 |
| NME7 | 5.59 | 5.28 | 4.78 | 5.44 | 5.79 | 5.95 | 4.92 | 5.14 |
| NME9 | -2.10 | -2.05 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.03 |
| NMI | 7.34 | 6.26 | 5.95 | 6.71 | 6.84 | 7.09 | 5.65 | 7.59 |
| NMNAT1 | 3.82 | 3.64 | 3.53 | 3.82 | 3.46 | 3.87 | 3.51 | 3.55 |
| NMNAT2 | 2.63 | 3.01 | 2.71 | 3.15 | 2.25 | 2.62 | 2.07 | 1.94 |
| NMNAT3 | 2.58 | 2.23 | 1.98 | 2.24 | 2.49 | 1.94 | 2.22 | 1.40 |
| NMRAL1 | 6.15 | 5.57 | 5.82 | 5.78 | 5.12 | 5.70 | 5.47 | 5.58 |
| NMRAL2P | 1.42 | 1.16 | 1.37 | 1.19 | 1.23 | 1.20 | 1.45 | 2.20 |
| NMRK1 | 5.46 | 5.14 | 4.73 | 4.98 | 5.23 | 5.12 | 5.05 | 5.51 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| NMT1 | 6.59 | 7.10 | 7.33 | 6.89 | 7.05 | 7.51 | 7.06 | 7.45 |
| NMT2 | 4.31 | 4.94 | 4.68 | 5.03 | 4.68 | 4.73 | 5.83 | 4.25 |
| NMU | 5.87 | 5.93 | 6.56 | 5.91 | 5.20 | 6.86 | 3.59 | 7.42 |
| NMUR2 | 1.14 | 1.95 | 0.60 | 1.44 | 0.62 | 0.65 | 0.63 | 0.51 |
| NNAT | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| NNMT | 5.55 | 5.72 | 7.48 | 4.74 | 5.78 | 7.48 | 5.20 | 6.53 |
| NNT | 4.30 | 5.17 | 5.23 | 5.28 | 5.26 | 5.44 | 5.28 | 4.57 |
| NNT-AS1 | 3.70 | 4.18 | 4.37 | 3.86 | 4.39 | 4.18 | 4.05 | 3.42 |
| NOA1 | 3.70 | 5.21 | 4.34 | 5.32 | 4.97 | 4.99 | 4.76 | 5.37 |
| NOB1 | 6.57 | 6.45 | 5.93 | 6.88 | 6.17 | 6.54 | 5.49 | 6.49 |
| NOC2L | 7.01 | 6.43 | 6.77 | 6.44 | 6.31 | 6.35 | 6.25 | 5.98 |
| NOC2LP1 | -0.68 | -0.59 | -0.66 | -0.68 | -0.68 | -0.66 | -0.29 | -0.70 |
| NOC3L | 5.97 | 5.60 | 5.14 | 5.69 | 5.89 | 5.60 | 4.91 | 5.27 |
| NOC4L | 5.27 | 5.12 | 5.42 | 5.28 | 5.39 | 5.31 | 4.67 | 5.54 |
| NOCT | 1.73 | 1.37 | 1.70 | 1.26 | 1.49 | 1.46 | 1.53 | 1.22 |
| NOD1 | 1.53 | 1.50 | 1.73 | 1.38 | 1.48 | 1.65 | 1.83 | 1.51 |
| NOD2 | -0.28 | -0.27 | 0.01 | -0.21 | -0.27 | -0.19 | -0.44 | -0.46 |
| NOG | -0.10 | -0.02 | -0.06 | 0.22 | -0.05 | -0.19 | -0.11 | 0.58 |
| NOL10 | 5.32 | 5.29 | 5.11 | 5.54 | 4.58 | 5.07 | 5.14 | 5.39 |
| NOL11 | 5.15 | 5.00 | 5.51 | 4.90 | 4.99 | 5.32 | 4.94 | 5.22 |
| NOL12 | 3.93 | 3.46 | 3.32 | 3.82 | 3.54 | 3.89 | 3.52 | 3.65 |
| NOL4L | 4.59 | 4.56 | 5.20 | 4.33 | 5.21 | 4.74 | 5.13 | 4.72 |
| NOL6 | 3.75 | 4.38 | 4.31 | 4.29 | 4.18 | 4.10 | 3.98 | 4.16 |
| NOL7 | 9.51 | 8.62 | 8.27 | 8.41 | 8.62 | 8.26 | 8.44 | 7.93 |
| NOL8 | 5.70 | 5.60 | 5.66 | 5.66 | 5.00 | 5.46 | 5.29 | 4.99 |
| NOL8P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NOL9 | 4.44 | 4.34 | 4.51 | 4.31 | 3.82 | 4.07 | 3.96 | 3.60 |
| NOLC1 | 7.99 | 7.32 | 7.05 | 7.43 | 7.29 | 7.29 | 6.78 | 6.91 |
| NOM1 | 4.66 | 6.01 | 5.27 | 5.87 | 5.85 | 5.57 | 5.47 | 5.26 |
| NOMO1 | 4.57 | 5.05 | 5.01 | 4.76 | 4.18 | 4.19 | 5.02 | 4.76 |
| NOMO2 | 0.16 | 0.32 | 0.36 | 0.66 | 0.50 | 0.14 | 0.55 | 0.50 |
| NOMO3 | -0.50 | -0.63 | -0.62 | -0.48 | -0.71 | -0.62 | -0.64 | -0.46 |
| NONO | 7.34 | 7.45 | 7.88 | 7.46 | 7.41 | 7.44 | 7.32 | 6.73 |
| NONOP2 | -1.69 | -1.69 | -1.57 | -1.69 | -1.69 | -1.65 | -1.64 | -1.66 |
| NOP10 | 9.46 | 8.90 | 8.43 | 9.02 | 9.51 | 9.06 | 8.53 | 9.31 |
| NOP14 | 5.37 | 6.16 | 5.87 | 6.30 | 5.53 | 6.05 | 5.99 | 6.22 |
| NOP14-AS1 | 2.57 | 3.05 | 2.91 | 3.18 | 3.02 | 3.21 | 3.19 | 3.31 |
| NOP16 | 6.67 | 7.36 | 7.12 | 7.43 | 7.25 | 6.95 | 6.42 | 6.81 |
| NOP2 | -0.53 | -0.73 | -0.72 | -0.67 | -0.77 | -0.78 | -0.49 | -0.61 |
| NOP53 | 7.81 | 8.39 | 7.17 | 8.67 | 9.40 | 7.99 | 7.79 | 8.21 |
| NOP53-AS1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| NOP56 | 7.99 | 7.08 | 7.29 | 7.20 | 6.85 | 7.26 | 6.82 | 7.11 |
| NOP56P1 | 0.67 | 0.68 | 2.56 | 0.75 | 2.15 | 0.76 | 1.11 | 0.60 |
| NOP58 | 8.13 | 7.77 | 7.19 | 7.66 | 7.58 | 7.61 | 6.87 | 7.41 |
| NOP9 | 3.76 | 4.22 | 5.12 | 4.18 | 3.78 | 4.39 | 4.73 | 3.80 |
| NORAD | 7.14 | 7.87 | 8.02 | 7.63 | 7.72 | 7.66 | 7.86 | 7.57 |
| NOS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| NOS1AP | 3.47 | 3.29 | 2.60 | 3.30 | 3.45 | 3.45 | 3.18 | 3.17 |
| NOS2 | -1.49 | -1.49 | -1.47 | -1.36 | -1.45 | -1.51 | -1.50 | -1.52 |
| NOS3 | 1.20 | 0.97 | 0.91 | 0.87 | 1.39 | 1.07 | 0.99 | 1.20 |
| NOSIP | 7.15 | 6.53 | 6.10 | 6.67 | 7.00 | 6.66 | 6.25 | 6.80 |
| NOSTRIN | 3.60 | 4.90 | 3.70 | 5.21 | 4.99 | 3.40 | 6.23 | 4.53 |
| NOTCH1 | 3.98 | 3.71 | 3.66 | 3.63 | 3.27 | 4.21 | 3.93 | 3.01 |
| NOTCH2 | 4.65 | 4.93 | 5.44 | 4.79 | 4.61 | 5.43 | 4.96 | 6.31 |
| NOTCH2NLA | -1.41 | -1.40 | -1.39 | -1.34 | -1.40 | -1.17 | -1.28 | -1.43 |
| NOTCH3 | 3.57 | 3.39 | 2.60 | 3.32 | 3.34 | 3.29 | 3.39 | 2.73 |
| NOTCH4 | 1.91 | 1.40 | 1.38 | 1.85 | 1.44 | 1.23 | 1.28 | 1.19 |
| NOTUM | 1.49 | 0.52 | 0.54 | 0.50 | 0.89 | 0.51 | 0.49 | 0.44 |
| NOVA1 | -0.41 | -0.40 | -0.37 | -0.49 | -0.49 | -0.46 | -0.50 | 0.37 |
| NOVA2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.07 | -2.11 |
| NOX1 | 0.31 | 0.32 | 0.45 | 0.38 | 0.41 | 0.64 | 0.38 | 0.25 |
| NOX4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| NOX5 | -1.70 | -1.69 | -1.64 | -1.70 | -1.69 | -1.59 | -1.70 | -1.71 |
| NOXA1 | 4.05 | 3.94 | 3.70 | 4.40 | 3.63 | 3.70 | 4.23 | 3.52 |
| NOXO1 | 5.60 | 5.72 | 3.86 | 5.88 | 3.59 | 4.53 | 3.85 | 3.67 |
| NOXRED1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| NPAS1 | 3.10 | 2.59 | 2.31 | 2.91 | 2.60 | 2.28 | 3.48 | 2.66 |
| NPAS2 | 5.54 | 5.36 | 5.10 | 5.34 | 6.03 | 5.65 | 5.59 | 5.72 |
| NPAS3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.05 | -2.10 | -2.10 | -2.11 |
| NPAT | 4.88 | 4.52 | 5.28 | 4.45 | 4.59 | 4.61 | 5.15 | 4.82 |
| NPB | 2.13 | 1.35 | 1.68 | 1.52 | 1.48 | 1.66 | 1.36 | 2.09 |
| NPC1 | 4.58 | 5.21 | 5.97 | 4.96 | 5.70 | 5.03 | 5.47 | 6.10 |
| NPC1L1 | 2.06 | 2.65 | 2.50 | 2.81 | 2.25 | 2.06 | 3.20 | 2.77 |
| NPC2 | 7.71 | 8.50 | 7.33 | 8.64 | 8.94 | 8.52 | 7.75 | 7.86 |
| NPDC1 | 6.81 | 8.37 | 7.24 | 8.60 | 6.87 | 6.89 | 8.02 | 5.07 |
| NPEPL1 | 4.46 | 4.10 | 4.12 | 4.24 | 4.30 | 3.59 | 3.75 | 3.90 |
| NPEPPS | 5.83 | 6.67 | 7.55 | 6.26 | 6.23 | 6.79 | 7.32 | 6.30 |
| NPFFR1 | -1.37 | -1.37 | -1.36 | -1.26 | -1.37 | -1.27 | -1.38 | -1.29 |
| NPFFR2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| NPHP1 | 3.59 | 3.67 | 3.65 | 3.82 | 3.81 | 4.18 | 3.40 | 3.45 |
| NPHP3 | 3.14 | 2.67 | 3.33 | 2.69 | 2.82 | 3.02 | 2.71 | 2.97 |
| NPHP4 | 2.42 | 2.42 | 2.99 | 2.29 | 2.70 | 2.72 | 2.81 | 2.50 |
| NPHS1 | -1.69 | -1.74 | -1.73 | -1.75 | -1.61 | -1.75 | -1.75 | -1.76 |
| NPIPA1 | 1.23 | 1.15 | 1.42 | 1.17 | 1.14 | 1.21 | 1.58 | 1.37 |
| NPIPA5 | -1.36 | -1.36 | -1.10 | -1.30 | -1.33 | -1.38 | -1.31 | -1.38 |
| NPIPB11 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| NPIPB12 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NPIPB15 | -0.94 | -0.94 | -0.92 | -0.94 | -0.78 | -0.88 | -0.43 | -0.84 |
| NPIPB2 | -0.84 | -0.84 | -0.74 | -0.85 | -0.84 | -0.65 | -0.85 | -0.86 |
| NPIPB4 | 0.06 | 0.01 | 0.19 | 0.00 | 0.09 | -0.02 | 0.32 | -0.05 |
| NPIPB5 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| NPIPP1 | 1.94 | 1.73 | 1.79 | 2.21 | 1.71 | 1.89 | 1.89 | 1.75 |
| NPL | 3.30 | 2.23 | 2.40 | 2.97 | 2.36 | 2.04 | 2.44 | 2.67 |
| NPLOC4 | 6.44 | 5.67 | 6.41 | 5.78 | 5.61 | 5.91 | 5.97 | 5.99 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| NPM1 | 8.37 | 8.99 | 8.89 | 9.23 | 9.69 | 9.05 | 8.64 | 8.51 |
| NPM1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NPM1P12 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| NPM1P18 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| NPM1P19 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| NPM1P21 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| NPM1P24 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| NPM1P25 | -0.94 | -0.86 | -0.85 | -0.95 | -0.94 | -0.92 | -0.74 | -0.90 |
| NPM1P26 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| NPM1P27 | 2.31 | 2.21 | 1.74 | 2.19 | 2.20 | 2.08 | 2.39 | 2.01 |
| NPM1P29 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| NPM1P30 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.96 |
| NPM1P32 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| NPM1P33 | -1.74 | -1.69 | -1.73 | -1.70 | -1.69 | -1.68 | -1.74 | -1.71 |
| NPM1P35 | -2.10 | -2.09 | -2.06 | -2.04 | -2.08 | -2.09 | -2.10 | -2.11 |
| NPM1P37 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -1.97 |
| NPM1P38 | -2.05 | -2.01 | -2.04 | -2.01 | -2.03 | -2.04 | -2.05 | -2.06 |
| NPM1P39 | -0.19 | 0.13 | -0.02 | 0.15 | -0.03 | -0.06 | -0.06 | -0.04 |
| NPM1P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| NPM1P40 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NPM1P41 | -1.84 | -1.84 | -1.83 | -1.84 | -1.77 | -1.85 | -1.84 | -1.86 |
| NPM1P42 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.26 |
| NPM1P46 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| NPM1P49 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| NPM1P5 | -1.94 | -1.94 | -1.90 | -1.94 | -1.92 | -1.95 | -1.91 | -1.96 |
| NPM1P6 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 | -2.18 | -2.21 |
| NPM1P8 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.01 | -2.05 | -2.03 |
| NPM1P9 | -1.38 | -1.37 | -1.42 | -1.50 | -1.46 | -1.50 | -1.44 | -1.51 |
| NPM2 | 2.12 | 2.41 | 1.63 | 1.77 | 2.25 | 2.15 | 1.64 | 1.36 |
| NPM3 | 6.52 | 6.14 | 5.79 | 5.96 | 7.03 | 6.52 | 5.68 | 6.17 |
| NPNT | 4.63 | 4.33 | 3.74 | 3.95 | 3.34 | 4.65 | 5.01 | 4.32 |
| NPPB | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NPPC | -1.10 | -1.17 | -1.15 | -1.18 | -0.89 | -1.15 | -1.18 | -1.19 |
| NPR1 | -1.56 | -1.56 | -1.55 | -1.57 | -1.56 | -1.57 | -1.57 | -1.48 |
| NPR2 | 0.07 | 0.39 | 0.35 | 0.43 | 0.19 | 0.22 | 0.34 | 0.10 |
| NPR3 | -1.76 | -1.79 | -1.83 | -1.84 | -1.79 | -1.81 | -1.84 | -1.82 |
| NPRL2 | 5.58 | 4.85 | 5.16 | 5.28 | 5.28 | 4.99 | 4.98 | 4.60 |
| NPRL3 | 5.29 | 5.03 | 5.47 | 4.89 | 4.66 | 4.69 | 4.66 | 4.62 |
| NPSR1 | 0.91 | 0.57 | 2.28 | 1.55 | 0.61 | 0.60 | 0.54 | 1.17 |
| NPSR1-AS1 | 1.98 | 3.01 | 2.59 | 2.64 | 1.98 | 2.10 | 3.26 | 1.67 |
| NPTN | 7.46 | 7.69 | 7.53 | 7.73 | 6.96 | 7.09 | 6.93 | 7.42 |
| NPTN-IT1 | 1.30 | 1.42 | 1.89 | 1.67 | 1.63 | 1.55 | 2.08 | 1.27 |
| NPTX1 | 1.56 | 0.99 | 2.64 | 1.28 | 1.35 | 0.94 | 1.12 | 0.89 |
| NPTX2 | 0.19 | 0.39 | 0.22 | 0.27 | 0.25 | 0.25 | 0.51 | 0.15 |
| NPTXR | 1.88 | 1.16 | 1.20 | 1.31 | 1.37 | 1.11 | 1.21 | 0.96 |
| NPW | 3.77 | 1.59 | 1.72 | 1.54 | 1.96 | 2.35 | 1.67 | 1.49 |
| NPY | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| NPY1R | 0.62 | 0.41 | 0.33 | 0.29 | 0.36 | 0.28 | 0.29 | 2.16 |
| NPY4R | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NPY5R | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.09 |
| NPY6R | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| NQO1 | 11.14 | 9.99 | 9.74 | 9.95 | 10.30 | 9.93 | 8.99 | 10.28 |
| NQO2 | 6.85 | 5.69 | 5.24 | 5.89 | 5.72 | 5.69 | 6.53 | 5.37 |
| NR0B2 | 1.59 | 1.46 | 1.31 | 1.31 | 3.95 | 1.35 | 1.47 | 1.65 |
| NR1D1 | 3.68 | 3.85 | 5.26 | 3.48 | 4.38 | 4.39 | 4.01 | 4.55 |
| NR1D2 | 4.09 | 4.89 | 4.96 | 4.41 | 4.22 | 4.34 | 4.19 | 4.72 |
| NR1H2 | 7.38 | 6.55 | 6.35 | 6.39 | 7.07 | 7.01 | 6.64 | 7.42 |
| NR1H3 | 4.66 | 3.94 | 3.93 | 3.83 | 4.43 | 4.34 | 3.75 | 5.53 |
| NR1H4 | 0.66 | 0.59 | 0.88 | 0.65 | 0.63 | 0.63 | 1.05 | 0.72 |
| NR1I2 | 0.15 | 0.02 | 0.29 | 0.09 | 0.45 | 0.14 | 0.15 | 0.11 |
| NR1I3 | -2.10 | -2.10 | -2.09 | -2.02 | -2.08 | -2.09 | -2.10 | -2.12 |
| NR2C1 | 3.83 | 4.11 | 4.36 | 4.28 | 4.38 | 4.24 | 4.56 | 4.47 |
| NR2C2 | 3.70 | 3.97 | 4.08 | 4.04 | 3.93 | 4.06 | 4.66 | 3.63 |
| NR2C2AP | 4.88 | 5.19 | 5.01 | 5.20 | 5.21 | 5.29 | 4.78 | 4.72 |
| NR2E1 | -1.91 | -1.90 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.89 |
| NR2E3 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |
| NR2F1 | 2.85 | 3.88 | 4.75 | 3.58 | 3.00 | 4.28 | 5.22 | 3.31 |
| NR2F1-AS1 | 2.46 | 3.12 | 3.41 | 2.69 | 2.36 | 3.37 | 3.06 | 2.57 |
| NR2F2 | 6.30 | 6.87 | 7.30 | 6.73 | 5.67 | 7.25 | 7.53 | 6.19 |
| NR2F2-AS1 | 1.34 | 1.25 | 2.04 | 1.13 | 1.00 | 1.55 | 1.53 | 1.14 |
| NR2F6 | 7.03 | 7.29 | 7.15 | 7.05 | 7.38 | 7.22 | 6.66 | 7.62 |
| NR3C1 | 4.02 | 5.24 | 5.45 | 4.47 | 4.50 | 4.45 | 5.42 | 4.84 |
| NR3C2 | 2.49 | 2.44 | 2.52 | 2.32 | 1.95 | 2.06 | 3.21 | 2.48 |
| NR4A1 | 4.31 | 3.55 | 4.22 | 3.58 | 4.93 | 3.98 | 3.87 | 4.29 |
| NR4A2 | 2.56 | 2.21 | 2.42 | 2.20 | 2.74 | 2.34 | 2.57 | 2.58 |
| NR4A3 | -1.85 | -1.84 | -1.83 | -1.79 | -1.84 | -1.77 | -1.85 | -1.87 |
| NR5A2 | 3.36 | 4.42 | 3.08 | 4.06 | 3.39 | 2.89 | 3.21 | 2.73 |
| NR6A1 | 2.24 | 2.45 | 2.52 | 2.20 | 2.30 | 2.35 | 2.35 | 1.77 |
| NRADDP | -1.04 | -1.03 | -1.16 | -0.98 | -1.17 | -1.12 | -1.19 | -1.14 |
| NRAP | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| NRARP | 5.33 | 3.99 | 4.14 | 4.23 | 3.61 | 4.51 | 4.14 | 3.46 |
| NRAS | 6.20 | 5.77 | 5.38 | 5.21 | 5.53 | 5.65 | 5.51 | 5.52 |
| NRAV | 3.23 | 4.01 | 3.34 | 3.90 | 3.41 | 3.90 | 3.59 | 3.67 |
| NRBF2 | 5.85 | 5.64 | 4.87 | 5.49 | 5.86 | 5.46 | 5.28 | 5.70 |
| NRBF2P3 | -2.31 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.32 |
| NRBP1 | 6.99 | 6.74 | 6.52 | 6.87 | 5.62 | 6.81 | 6.59 | 6.76 |
| NRBP2 | 2.52 | 2.63 | 3.24 | 2.81 | 2.28 | 2.68 | 2.83 | 2.95 |
| NRCAM | 3.40 | 4.92 | 3.72 | 4.47 | 3.50 | 3.56 | 5.68 | 3.40 |
| NRDC | 6.25 | 6.75 | 6.45 | 6.96 | 6.96 | 6.67 | 6.97 | 6.41 |
| NRDE2 | 4.80 | 5.31 | 5.29 | 5.29 | 5.16 | 5.63 | 5.40 | 4.71 |
| NREP | 2.02 | 2.82 | 2.07 | 2.83 | 2.37 | 2.08 | 2.85 | 2.11 |
| NRF1 | 2.81 | 2.91 | 2.81 | 2.51 | 2.74 | 2.77 | 2.53 | 2.17 |
| NRG1 | -0.50 | -0.32 | -0.48 | -0.27 | -0.49 | -0.20 | -0.27 | -0.39 |
| NRG2 | 0.66 | 0.63 | 0.67 | 0.66 | 0.76 | 0.36 | 0.65 | 0.45 |

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|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| NRG3 | -1.70 | -1.65 | -1.69 | -1.70 | -1.70 | -1.44 | -1.71 | -1.72 |
| NRG4 | 0.82 | 0.72 | 0.76 | 0.67 | 0.52 | 0.47 | 0.60 | 1.69 |
| NRGN | 3.79 | 3.50 | 4.39 | 3.41 | 3.17 | 3.54 | 3.42 | 2.35 |
| NRIP1 | 5.13 | 6.41 | 6.45 | 5.65 | 5.18 | 6.27 | 5.47 | 4.52 |
| NRIP2 | -1.74 | -1.73 | -1.73 | -1.74 | -1.69 | -1.70 | -1.74 | -1.71 |
| NRIP3 | 0.93 | 1.03 | 0.55 | 0.51 | 0.68 | 0.70 | 0.58 | 0.80 |
| NRIR | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| NRL | 0.31 | 0.26 | 0.12 | -0.05 | 0.39 | 0.14 | 0.14 | -0.02 |
| NRM | 4.60 | 4.59 | 4.32 | 4.82 | 4.23 | 4.84 | 4.49 | 4.31 |
| NRN1 | 0.10 | 2.11 | 0.13 | 2.04 | 0.20 | 0.16 | 0.18 | 0.91 |
| NRN1L | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| NRP1 | 3.42 | 4.27 | 4.87 | 3.72 | 4.42 | 6.28 | 4.57 | 4.06 |
| NRP2 | 3.36 | 5.21 | 5.53 | 4.00 | 5.70 | 4.99 | 4.80 | 6.24 |
| NRSN2 | 4.38 | 2.98 | 4.47 | 3.15 | 4.07 | 3.44 | 3.97 | 3.72 |
| NRSN2-AS1 | 4.73 | 3.00 | 3.29 | 3.35 | 3.89 | 2.96 | 3.97 | 3.64 |
| NRTN | 3.46 | 2.51 | 3.53 | 2.53 | 3.66 | 2.79 | 3.00 | 2.15 |
| NRXN1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| NRXN2 | -1.53 | -1.59 | -1.52 | -1.59 | -1.50 | -1.60 | -1.60 | -1.61 |
| NRXN3 | 0.27 | 1.10 | 0.30 | 0.98 | 0.41 | 0.29 | 0.62 | 0.23 |
| NSA2 | 6.84 | 7.87 | 7.09 | 7.54 | 7.05 | 7.99 | 6.93 | 7.24 |
| NSD1 | 5.42 | 6.11 | 6.06 | 6.48 | 5.81 | 6.15 | 6.24 | 6.14 |
| NSD2 | 6.42 | 6.08 | 6.65 | 6.19 | 5.73 | 6.43 | 6.56 | 6.16 |
| NSD3 | 7.89 | 7.48 | 8.51 | 7.34 | 6.93 | 7.92 | 7.56 | 7.38 |
| NSDHL | 6.39 | 6.05 | 6.15 | 6.23 | 6.92 | 6.81 | 6.34 | 6.68 |
| NSF | 4.86 | 4.82 | 4.60 | 4.58 | 4.80 | 4.85 | 4.68 | 5.14 |
| NSFL1C | 8.29 | 6.71 | 7.04 | 6.91 | 7.20 | 7.52 | 6.55 | 7.27 |
| NSFP1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.17 |
| NSG1 | 0.12 | 0.56 | 0.06 | 0.55 | 0.14 | 0.10 | 0.03 | 0.14 |
| NSL1 | 5.81 | 5.48 | 4.99 | 5.21 | 5.74 | 6.00 | 5.05 | 5.21 |
| NSMAF | 3.19 | 3.98 | 3.92 | 3.90 | 3.59 | 3.94 | 3.61 | 4.24 |
| NSMCE1 | 6.91 | 6.39 | 7.18 | 6.66 | 7.30 | 7.10 | 6.53 | 6.75 |
| NSMCE1-DT | 0.92 | 0.79 | 0.93 | 1.13 | 1.02 | 0.97 | 0.95 | 0.64 |
| NSMCE2 | 5.84 | 5.16 | 5.30 | 5.22 | 5.46 | 5.88 | 5.06 | 5.89 |
| NSMCE3 | 5.04 | 4.86 | 4.25 | 4.82 | 5.42 | 4.94 | 4.67 | 5.11 |
| NSMCE4A | 6.82 | 6.14 | 5.51 | 6.50 | 6.88 | 6.09 | 5.81 | 5.57 |
| NSMF | 5.38 | 5.28 | 5.40 | 5.17 | 4.20 | 4.60 | 4.89 | 5.01 |
| NSRP1 | 8.31 | 8.07 | 7.85 | 7.94 | 7.99 | 7.83 | 7.38 | 7.78 |
| NSRP1P1 | 1.25 | 1.35 | 1.33 | 1.42 | 1.42 | 1.34 | 1.58 | 1.15 |
| NSUN2 | 5.61 | 5.53 | 6.08 | 5.75 | 5.53 | 5.41 | 5.09 | 5.65 |
| NSUN3 | 4.38 | 3.65 | 4.11 | 3.31 | 3.80 | 3.81 | 4.02 | 4.27 |
| NSUN4 | 4.05 | 4.57 | 4.51 | 4.49 | 4.79 | 4.48 | 4.80 | 4.64 |
| NSUN5 | 6.24 | 5.39 | 5.57 | 5.40 | 5.94 | 5.47 | 4.79 | 5.99 |
| NSUN5P1 | 3.39 | 2.20 | 3.18 | 2.84 | 3.64 | 2.90 | 3.12 | 2.78 |
| NSUN5P2 | 3.65 | 2.54 | 3.03 | 3.32 | 3.52 | 3.35 | 3.69 | 2.89 |
| NSUN6 | 4.54 | 5.32 | 4.80 | 5.06 | 5.10 | 4.98 | 5.36 | 4.66 |
| NSUN7 | 2.95 | 3.55 | 2.89 | 3.20 | 3.05 | 3.48 | 3.16 | 3.68 |
| NT5C | 6.74 | 6.56 | 6.41 | 6.81 | 7.27 | 6.46 | 6.04 | 6.83 |
| NT5C1B | -0.34 | -0.25 | -0.32 | -0.21 | -0.33 | -0.09 | -0.14 | -0.16 |
| NT5C2 | 6.08 | 5.63 | 5.81 | 5.67 | 5.69 | 6.03 | 5.74 | 5.27 |
| NT5C3A | 6.20 | 6.22 | 5.93 | 6.21 | 6.73 | 6.41 | 6.04 | 6.59 |
| NT5C3AP1 | -0.19 | -0.11 | -0.18 | -0.20 | 0.11 | 0.02 | 0.01 | -0.10 |
| NT5C3B | 7.98 | 6.11 | 5.63 | 6.55 | 6.67 | 6.39 | 5.30 | 5.79 |
| NT5DC1 | 5.79 | 5.13 | 5.64 | 5.28 | 5.47 | 5.62 | 5.85 | 5.19 |
| NT5DC2 | 4.49 | 5.38 | 5.40 | 5.46 | 5.14 | 5.08 | 4.87 | 4.60 |
| NT5DC3 | 2.27 | 3.31 | 2.99 | 3.02 | 2.89 | 3.51 | 2.29 | 2.82 |
| NT5DC4 | 1.65 | 1.06 | 0.78 | 0.93 | 1.14 | 1.08 | 0.84 | 0.78 |
| NT5E | 4.46 | 5.72 | 5.21 | 5.40 | 5.32 | 6.41 | 4.91 | 5.39 |
| NT5M | 2.77 | 1.71 | 1.39 | 1.45 | 2.22 | 1.33 | 1.81 | 1.40 |
| NTAN1 | 4.90 | 4.23 | 4.29 | 4.36 | 4.22 | 4.32 | 4.13 | 4.48 |
| NTAN1P2 | -0.13 | 0.16 | 0.21 | -0.14 | -0.17 | -0.02 | -0.07 | 0.05 |
| NTF4 | 1.03 | 0.93 | 0.97 | 0.76 | 0.85 | 0.99 | 0.81 | 1.14 |
| NTHL1 | 6.03 | 5.29 | 5.41 | 5.30 | 5.08 | 5.87 | 4.92 | 5.79 |
| NTMT1 | 6.86 | 6.34 | 6.26 | 6.29 | 5.73 | 6.64 | 6.28 | 6.05 |
| NTN1 | -0.66 | -0.30 | -0.79 | -0.35 | -0.80 | -0.78 | -0.81 | -0.82 |
| NTN4 | 4.11 | 4.61 | 5.28 | 4.31 | 4.08 | 4.65 | 4.78 | 5.50 |
| NTN5 | -1.59 | -1.41 | -1.52 | -1.48 | -1.47 | -1.51 | -1.60 | -1.61 |
| NTNG1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| NTNG2 | -0.62 | -0.89 | -0.62 | -0.83 | -0.89 | -0.84 | -0.90 | -0.85 |
| NTPCR | 6.34 | 6.63 | 5.71 | 6.83 | 6.80 | 6.91 | 6.18 | 6.77 |
| NTRK2 | 3.67 | 5.34 | 2.84 | 4.53 | 2.47 | 3.20 | 2.89 | 2.65 |
| NTRK3 | -2.23 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| NTS | 0.34 | 0.27 | 0.20 | 0.25 | 0.56 | 0.16 | 0.17 | 0.14 |
| NTSR1 | 2.33 | 2.96 | 2.74 | 2.74 | 4.78 | 3.63 | 2.15 | 3.64 |
| NUAK1 | 2.53 | 2.13 | 3.38 | 2.50 | 2.56 | 2.81 | 3.06 | 2.88 |
| NUAK2 | 1.80 | 1.46 | 1.29 | 1.52 | 1.33 | 1.50 | 1.27 | 1.24 |
| NUB1 | 6.36 | 6.72 | 6.36 | 6.72 | 7.08 | 6.59 | 6.74 | 6.91 |
| NUBP1 | 6.20 | 5.75 | 5.91 | 6.18 | 5.76 | 6.13 | 5.54 | 5.56 |
| NUBP2 | 7.55 | 6.67 | 6.56 | 6.98 | 6.49 | 6.95 | 6.51 | 7.10 |
| NUBPL | 2.87 | 3.40 | 3.54 | 3.36 | 3.30 | 3.15 | 3.63 | 3.35 |
| NUCB1 | 7.87 | 7.27 | 7.11 | 7.46 | 8.20 | 6.85 | 7.46 | 7.46 |
| NUCB1-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| NUCB2 | 7.46 | 6.78 | 6.89 | 7.30 | 8.12 | 7.25 | 7.50 | 8.40 |
| NUCKS1 | 9.20 | 9.25 | 8.90 | 9.01 | 9.14 | 9.97 | 9.06 | 9.58 |
| NUCKS1P1 | -1.64 | -1.58 | -1.63 | -1.64 | -1.61 | -1.60 | -1.65 | -1.61 |
| NUDC | 7.57 | 7.11 | 8.01 | 7.29 | 7.91 | 8.09 | 7.49 | 6.64 |
| NUDCD1 | 5.01 | 4.97 | 5.55 | 4.61 | 5.06 | 5.55 | 4.59 | 5.45 |
| NUDCD2 | 7.42 | 7.02 | 7.12 | 7.30 | 7.73 | 7.34 | 6.90 | 7.09 |
| NUDCD3 | 4.96 | 5.13 | 5.38 | 5.29 | 5.10 | 4.82 | 5.58 | 5.18 |
| NUDT1 | 7.95 | 6.88 | 6.82 | 7.19 | 7.84 | 7.67 | 6.67 | 7.27 |
| NUDT11 | 0.18 | 0.11 | 0.76 | 0.09 | 0.15 | 0.87 | 0.38 | 0.06 |
| NUDT12 | 4.38 | 4.02 | 5.06 | 4.31 | 4.91 | 4.12 | 5.57 | 4.65 |
| NUDT13 | 1.34 | 1.43 | 1.33 | 1.69 | 1.61 | 1.50 | 1.35 | 1.46 |
| NUDT14 | 5.60 | 5.80 | 5.60 | 5.83 | 6.66 | 6.22 | 5.25 | 5.47 |
| NUDT15 | 5.61 | 5.81 | 5.41 | 5.92 | 6.03 | 5.54 | 5.36 | 6.30 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| NUDT16 | 5.79 | 5.19 | 5.45 | 5.24 | 5.31 | 5.47 | 5.95 | 5.93 |
| NUDT16L1 | 6.19 | 5.75 | 5.11 | 5.85 | 4.95 | 5.91 | 5.20 | 6.22 |
| NUDT16P1 | 4.36 | 3.32 | 3.60 | 3.33 | 4.13 | 3.46 | 3.65 | 4.19 |
| NUDT17 | 1.23 | 1.33 | 1.30 | 1.65 | 1.76 | 1.70 | 1.28 | 1.97 |
| NUDT18 | 3.19 | 3.28 | 3.47 | 2.95 | 3.31 | 3.08 | 3.74 | 3.49 |
| NUDT19 | 4.17 | 4.57 | 4.23 | 4.71 | 4.38 | 4.37 | 3.99 | 4.53 |
| NUDT19P5 | -2.15 | -2.12 | -2.14 | -2.10 | -2.15 | -2.13 | -2.15 | -2.16 |
| NUDT2 | 3.65 | 4.75 | 4.66 | 4.94 | 5.83 | 5.31 | 5.06 | 4.50 |
| NUDT21 | 7.12 | 6.61 | 6.90 | 6.60 | 7.09 | 7.13 | 6.54 | 7.29 |
| NUDT22 | 6.99 | 6.02 | 6.71 | 6.22 | 7.20 | 6.34 | 6.15 | 7.05 |
| NUDT3 | 4.77 | 5.82 | 5.48 | 5.44 | 4.73 | 5.17 | 5.86 | 5.06 |
| NUDT4 | 4.88 | 5.67 | 5.53 | 5.37 | 5.02 | 5.11 | 5.46 | 5.78 |
| NUDT5 | 7.47 | 7.39 | 6.79 | 7.52 | 7.96 | 7.56 | 7.36 | 7.16 |
| NUDT6 | 3.42 | 3.66 | 3.12 | 3.71 | 3.34 | 3.34 | 2.97 | 3.01 |
| NUDT8 | 6.76 | 6.90 | 5.67 | 7.08 | 5.95 | 5.43 | 5.76 | 5.29 |
| NUDT9 | 5.30 | 5.89 | 5.67 | 5.86 | 5.39 | 5.89 | 5.84 | 6.27 |
| NUDT9P1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| NUF2 | 5.22 | 4.83 | 4.89 | 4.69 | 5.24 | 5.98 | 4.99 | 5.26 |
| NUFIP1 | 4.41 | 4.41 | 4.15 | 4.28 | 4.94 | 4.42 | 4.28 | 5.21 |
| NUFIP1P1 | -1.64 | -1.58 | -1.63 | -1.59 | -1.61 | -1.65 | -1.59 | -1.66 |
| NUFIP2 | 6.64 | 6.97 | 7.03 | 6.79 | 6.70 | 6.97 | 6.91 | 7.14 |
| NUGGC | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| NUMA1 | 6.13 | 6.50 | 6.87 | 6.35 | 6.25 | 6.18 | 6.56 | 6.56 |
| NUMB | 4.88 | 5.83 | 5.82 | 5.91 | 5.89 | 5.55 | 6.33 | 5.48 |
| NUMBL | 3.25 | 3.19 | 3.74 | 2.73 | 3.11 | 2.99 | 3.02 | 2.76 |
| NUP107 | 5.09 | 4.99 | 5.86 | 4.97 | 5.26 | 6.10 | 5.37 | 5.26 |
| NUP133 | 4.55 | 4.67 | 5.10 | 4.65 | 4.26 | 4.66 | 4.57 | 4.83 |
| NUP153 | 4.42 | 4.30 | 4.64 | 4.01 | 3.94 | 3.63 | 4.66 | 5.35 |
| NUP155 | 4.72 | 4.75 | 5.49 | 4.36 | 4.65 | 4.64 | 4.92 | 4.82 |
| NUP160 | 5.02 | 4.84 | 5.18 | 4.71 | 4.78 | 4.96 | 4.84 | 5.16 |
| NUP188 | 4.97 | 5.20 | 4.89 | 4.82 | 4.16 | 5.08 | 5.32 | 4.48 |
| NUP205 | 4.54 | 5.13 | 5.63 | 4.84 | 4.93 | 5.31 | 5.46 | 5.10 |
| NUP210 | 4.95 | 5.53 | 5.83 | 5.63 | 5.27 | 5.37 | 4.98 | 4.58 |
| NUP210L | -1.85 | -1.89 | -1.88 | -1.89 | -1.85 | -1.90 | -1.89 | -1.83 |
| NUP214 | 5.04 | 4.87 | 5.26 | 4.76 | 4.23 | 4.62 | 4.82 | 4.57 |
| NUP35 | 5.13 | 4.88 | 4.90 | 5.21 | 5.16 | 4.86 | 4.43 | 4.95 |
| NUP37 | 5.85 | 6.11 | 5.95 | 6.08 | 6.18 | 6.40 | 5.48 | 6.78 |
| NUP43 | 4.92 | 4.10 | 5.01 | 4.12 | 4.34 | 4.73 | 5.04 | 4.49 |
| NUP50 | 5.64 | 5.48 | 5.83 | 5.38 | 5.07 | 5.51 | 5.80 | 5.44 |
| NUP50-DT | 3.60 | 4.18 | 3.27 | 3.78 | 4.04 | 3.97 | 3.85 | 3.80 |
| NUP54 | 4.97 | 5.13 | 5.02 | 5.26 | 4.80 | 5.44 | 5.53 | 5.40 |
| NUP58 | 4.25 | 5.03 | 5.18 | 4.75 | 5.08 | 4.87 | 5.72 | 5.26 |
| NUP62 | 6.12 | 6.12 | 5.59 | 5.71 | 5.94 | 5.88 | 5.98 | 5.80 |
| NUP62CL | 3.85 | 2.40 | 3.33 | 2.32 | 3.11 | 3.10 | 3.32 | 2.99 |
| NUP85 | 5.98 | 5.87 | 6.38 | 6.03 | 5.83 | 6.22 | 6.01 | 5.79 |
| NUP88 | 4.61 | 4.60 | 5.20 | 4.68 | 4.43 | 4.58 | 4.90 | 4.91 |
| NUP93 | 5.66 | 5.25 | 5.88 | 5.22 | 4.98 | 5.44 | 5.07 | 5.12 |
| NUP98 | 5.35 | 5.59 | 5.74 | 4.97 | 5.29 | 5.26 | 5.46 | 5.22 |
| NUPL2 | 5.12 | 4.73 | 4.69 | 5.18 | 5.38 | 4.84 | 4.89 | 5.05 |
| NUPR1 | 3.76 | 3.35 | 4.43 | 3.49 | 4.16 | 3.28 | 5.93 | 7.55 |
| NUPR2 | 5.24 | 2.27 | 2.10 | 2.38 | 2.17 | 2.04 | 2.17 | 2.52 |
| NUS1 | 3.78 | 4.00 | 3.66 | 3.52 | 3.69 | 3.92 | 3.98 | 4.04 |
| NUS1P1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.09 | -2.10 | -2.11 |
| NUS1P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| NUS1P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| NUSAP1 | 1.63 | 1.34 | 1.37 | 1.32 | 1.45 | 1.79 | 1.36 | 1.54 |
| NUTF2 | 8.23 | 7.55 | 7.31 | 7.66 | 7.74 | 7.72 | 6.93 | 7.67 |
| NUTF2P2 | -2.12 | -2.14 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.09 |
| NUTM1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| NUTM2A-AS1 | 4.01 | 4.82 | 3.95 | 4.76 | 4.35 | 4.19 | 4.34 | 4.06 |
| NUTM2B-AS1 | 4.23 | 4.33 | 3.80 | 4.21 | 3.78 | 3.96 | 4.36 | 3.75 |
| NVL | 4.95 | 4.83 | 4.65 | 4.73 | 4.40 | 4.95 | 4.50 | 4.77 |
| NWD1 | -1.99 | -1.99 | -1.92 | -1.99 | -1.99 | -1.93 | -2.00 | -2.01 |
| NWD2 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.79 | -1.76 | -1.86 |
| NXF1 | 4.94 | 4.56 | 4.84 | 4.72 | 4.77 | 4.65 | 4.71 | 4.70 |
| NXF3 | 0.50 | 2.05 | 0.76 | 2.78 | 0.52 | 0.38 | 0.65 | 0.42 |
| NXN | 4.16 | 3.86 | 3.35 | 3.68 | 4.55 | 4.96 | 4.19 | 2.73 |
| NXNL2 | 1.49 | 1.02 | 1.30 | 0.98 | 0.98 | 0.96 | 1.18 | 1.24 |
| NXPE2 | -1.52 | -1.51 | -1.50 | -1.52 | -1.51 | -1.53 | -1.46 | -1.54 |
| NXPE3 | 1.99 | 1.92 | 2.75 | 1.86 | 1.91 | 2.55 | 1.72 | 1.60 |
| NXPH3 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -2.01 |
| NXPH4 | 2.57 | 1.38 | 3.09 | 1.50 | 1.74 | 2.32 | 1.99 | 1.45 |
| NXT1 | 6.21 | 5.85 | 5.79 | 5.79 | 6.35 | 6.22 | 5.20 | 6.07 |
| NXT2 | 3.21 | 2.83 | 3.24 | 2.44 | 2.47 | 2.57 | 2.83 | 2.86 |
| NYAP1 | -1.74 | -1.74 | -1.68 | -1.74 | -1.71 | -1.75 | -1.74 | -1.76 |
| NYAP2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.13 |
| NYNRIN | 0.99 | 1.70 | 1.61 | 1.76 | 1.34 | 1.56 | 1.27 | 2.02 |
| OACYLP | -0.35 | -0.55 | -0.35 | -0.48 | -0.47 | -0.57 | -0.11 | -0.51 |
| OAF | 6.63 | 5.97 | 6.86 | 6.27 | 6.71 | 6.03 | 6.39 | 8.02 |
| OARD1 | 6.21 | 6.05 | 5.62 | 6.23 | 5.95 | 5.95 | 5.75 | 6.22 |
| OAS2 | 5.05 | 3.96 | 4.55 | 4.24 | 4.64 | 4.16 | 3.49 | 4.06 |
| OAS3 | 5.52 | 4.46 | 5.38 | 4.15 | 4.78 | 4.48 | 4.46 | 4.32 |
| OASL | 6.09 | 5.60 | 6.28 | 5.46 | 5.03 | 6.35 | 4.55 | 5.24 |
| OAT | 7.38 | 6.10 | 6.27 | 6.76 | 7.52 | 6.94 | 5.96 | 4.95 |
| OAZ1 | 9.85 | 9.29 | 9.69 | 9.50 | 10.48 | 10.17 | 9.65 | 10.80 |
| OAZ2 | 6.74 | 6.13 | 6.25 | 6.19 | 6.33 | 6.10 | 5.87 | 6.70 |
| OAZ3 | 1.62 | 1.53 | 1.34 | 1.60 | 1.24 | 1.93 | 1.27 | 1.72 |
| OBSCN | 3.56 | 2.50 | 2.82 | 2.46 | 2.44 | 3.30 | 2.32 | 2.60 |
| OBSCN-AS1 | -1.09 | -1.15 | -1.21 | -1.10 | -1.22 | -1.08 | -1.17 | -1.13 |
| OBSL1 | 4.18 | 3.73 | 3.96 | 3.89 | 4.54 | 3.97 | 3.33 | 3.73 |
| OCA2 | -1.74 | -1.79 | -1.78 | -1.79 | -1.79 | -1.80 | -1.80 | -1.81 |
| OCEL1 | 5.80 | 5.53 | 5.19 | 5.54 | 6.27 | 5.62 | 5.60 | 5.64 |
| OCIAD1 | 7.27 | 7.75 | 7.32 | 8.01 | 7.42 | 7.67 | 7.76 | 8.33 |
| OCIAD2 | 8.70 | 9.23 | 8.92 | 9.59 | 8.79 | 9.22 | 8.48 | 9.08 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| OCLM | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| OCLN | 2.03 | 2.22 | 2.52 | 2.20 | 2.39 | 2.23 | 2.76 | 2.15 |
| OCLNP1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 |
| OCRL | 3.98 | 4.49 | 4.81 | 3.99 | 3.86 | 4.35 | 4.56 | 5.12 |
| ODAM | 5.41 | 7.60 | 7.18 | 8.98 | 5.06 | 4.19 | 8.55 | 5.41 |
| ODAPH | -1.79 | -1.79 | -1.78 | -1.75 | -1.76 | -1.66 | -1.79 | -1.81 |
| ODC1 | 7.18 | 6.57 | 6.36 | 6.67 | 5.87 | 6.52 | 6.06 | 6.14 |
| ODC1-DT | -0.10 | -0.29 | -0.10 | -0.38 | -0.33 | -0.35 | -0.24 | -0.22 |
| ODCP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| ODF2 | 4.57 | 4.43 | 4.11 | 4.46 | 3.97 | 4.54 | 4.25 | 4.16 |
| ODF2L | 5.57 | 4.95 | 4.77 | 4.85 | 4.14 | 5.22 | 5.33 | 4.33 |
| ODF3B | 3.83 | 3.08 | 3.23 | 2.93 | 3.32 | 3.07 | 2.80 | 3.06 |
| ODF3L1 | -1.61 | -1.74 | -1.78 | -1.79 | -1.79 | -1.80 | -1.70 | -1.76 |
| ODF3L2 | -1.54 | -1.59 | -1.58 | -1.59 | -1.59 | -1.55 | -1.60 | -1.56 |
| ODR4 | 5.28 | 5.65 | 5.41 | 5.45 | 6.03 | 5.70 | 5.61 | 6.56 |
| OFCC1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| OFD1 | 6.63 | 5.96 | 6.89 | 6.10 | 6.28 | 6.06 | 6.46 | 5.90 |
| OFD1P17 | -1.54 | -1.36 | -1.47 | -1.54 | -1.45 | -1.49 | -1.55 | -1.56 |
| OFD1P2Y | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OGA | 6.26 | 6.67 | 6.94 | 6.32 | 6.24 | 6.59 | 6.38 | 5.89 |
| OGDH | 6.13 | 5.95 | 6.13 | 5.57 | 5.84 | 5.84 | 6.25 | 5.74 |
| OGDHL | -0.27 | -0.35 | -0.34 | -0.36 | 0.12 | -0.23 | -0.36 | -0.32 |
| OGFOD1 | 5.44 | 4.87 | 5.13 | 4.98 | 4.97 | 5.03 | 5.04 | 5.21 |
| OGFOD2 | -0.73 | -0.65 | -0.70 | -0.60 | -0.73 | -0.66 | -0.74 | -0.71 |
| OGFOD3 | 5.60 | 5.65 | 5.52 | 5.55 | 5.77 | 5.56 | 5.13 | 5.79 |
| OGFR | 6.51 | 5.96 | 6.09 | 5.87 | 5.94 | 5.92 | 5.63 | 5.72 |
| OGFR-AS1 | -1.12 | -1.31 | -1.23 | -1.32 | -1.28 | -1.33 | -1.26 | -1.22 |
| OGFRL1 | 5.36 | 3.95 | 4.70 | 4.25 | 3.83 | 3.83 | 5.95 | 4.20 |
| OGFRP1 | 1.76 | 1.40 | 1.42 | 1.64 | 1.25 | 1.34 | 1.32 | 1.65 |
| OGG1 | 4.39 | 4.02 | 3.78 | 4.25 | 4.06 | 4.15 | 4.53 | 3.95 |
| OGN | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| OGT | 5.43 | 5.07 | 6.04 | 5.43 | 5.59 | 5.13 | 5.72 | 5.23 |
| OIP5 | 6.47 | 5.05 | 5.06 | 5.03 | 5.12 | 5.31 | 4.38 | 5.65 |
| OIP5-AS1 | 7.07 | 7.01 | 6.31 | 6.65 | 6.80 | 6.80 | 7.08 | 6.86 |
| OIT3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| OLA1 | 7.69 | 7.28 | 6.70 | 7.46 | 7.66 | 7.56 | 6.98 | 7.10 |
| OLA1P1 | -0.81 | -0.87 | -0.85 | -0.82 | -0.77 | -0.86 | -0.95 | -0.96 |
| OLAH | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.04 | -2.11 |
| OLFM1 | 3.54 | 4.28 | 2.21 | 3.98 | 4.62 | 1.90 | 2.54 | 2.13 |
| OLFM2 | 2.91 | 1.64 | 1.59 | 1.42 | 1.70 | 1.66 | 1.83 | 1.32 |
| OLFM4 | 4.71 | 8.24 | 7.33 | 7.99 | 9.96 | 4.45 | 4.97 | 4.39 |
| OLFML2A | -0.13 | -0.49 | -0.39 | -0.49 | -0.49 | -0.36 | -0.50 | -0.45 |
| OLFML3 | -2.12 | -2.15 | -2.11 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| OLIG1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| OLMALINC | 4.20 | 4.82 | 4.37 | 4.85 | 6.53 | 4.93 | 4.95 | 3.97 |
| OLR1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.28 |
| OMA1 | 4.10 | 5.19 | 4.47 | 4.81 | 4.83 | 4.86 | 4.65 | 4.77 |
| OMD | -2.30 | -2.30 | -2.30 | -2.30 | -2.28 | -2.31 | -2.31 | -2.31 |
| OMG | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ONECUT1 | -0.37 | -0.09 | -0.35 | -0.20 | -0.32 | -0.39 | 1.16 | -0.41 |
| ONECUT2 | 4.90 | 6.31 | 5.07 | 5.97 | 5.44 | 4.98 | 8.48 | 5.39 |
| ONECUT3 | 5.62 | 6.00 | 6.42 | 6.01 | 5.93 | 5.51 | 8.06 | 5.10 |
| OOEP | -0.95 | -0.95 | -0.69 | -0.96 | -0.95 | -0.89 | -0.96 | -0.54 |
| OOSP3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OPA1 | 5.60 | 5.85 | 6.08 | 6.00 | 5.57 | 5.59 | 5.83 | 6.34 |
| OPA3 | 5.05 | 4.88 | 5.13 | 4.85 | 4.92 | 4.82 | 4.97 | 5.24 |
| OPHN1 | 1.90 | 1.47 | 1.84 | 1.42 | 2.04 | 1.95 | 1.83 | 1.77 |
| OPLAH | 3.64 | 3.68 | 4.32 | 3.56 | 2.86 | 3.08 | 3.53 | 4.07 |
| OPN1SW | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| OPN3 | 3.66 | 3.52 | 3.25 | 3.44 | 4.55 | 5.25 | 4.32 | 5.25 |
| OPRL1 | -1.66 | -1.66 | -1.65 | -1.62 | -1.61 | -1.67 | -1.62 | -1.55 |
| OPRM1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| OPTN | 5.82 | 6.18 | 6.40 | 6.26 | 7.06 | 6.54 | 6.36 | 6.11 |
| OR10AC1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| OR11G2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| OR14J1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR1L1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR2A1-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| OR2A12 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| OR2A20P | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| OR2A7 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| OR2A9P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| OR2AF1P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR2AG1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 |
| OR2AG2 | -1.50 | -1.49 | -1.48 | -1.44 | -1.46 | -1.51 | -1.44 | -1.41 |
| OR2B6 | 0.04 | -0.07 | -0.22 | 0.11 | -0.13 | -0.11 | -0.18 | 0.02 |
| OR211P | -1.02 | -0.94 | -0.93 | -0.95 | -1.02 | -0.94 | -0.96 | -0.98 |
| OR2J2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR2J3 | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 |
| OR2S1P | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| OR2W6P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR3A1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| OR4D1 | -1.63 | -1.69 | -1.56 | -1.70 | -1.66 | -1.71 | -1.70 | -1.72 |
| OR51B5 | -1.96 | -1.99 | -1.98 | -1.99 | -1.99 | -1.94 | -2.00 | -2.00 |
| OR52K1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| OR52K3P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| OR52N2 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 |
| OR55B1P | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| OR5A1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR5A2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR5AU1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR5BA1P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.34 |
| OR6A2 | -1.94 | -1.90 | -1.93 | -1.91 | -1.92 | -1.95 | -1.83 | -1.96 |
| OR7A19P | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| OR7D2 | -2.15 | -2.15 | -2.14 | -2.13 | -2.12 | -2.15 | -2.15 | -2.13 |
| OR7E11P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| OR7E122P | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| OR7E126P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| OR7E13P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR7E14P | 3.68 | 3.22 | 3.39 | 3.48 | 3.73 | 3.58 | 3.49 | 3.35 |
| OR7E22P | -1.09 | -0.92 | -0.82 | -1.01 | -1.09 | -1.03 | -1.10 | -0.80 |
| OR7E28P | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.21 |
| OR7E29P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| OR7E35P | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR7E38P | -1.51 | -1.44 | -1.49 | -1.45 | -1.50 | -1.52 | -1.51 | -1.42 |
| OR7E39P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OR7E4P | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| OR7E62P | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| OR7E7P | -1.99 | -1.96 | -1.98 | -1.99 | -1.97 | -2.00 | -2.00 | -2.01 |
| OR7E91P | -0.50 | -0.97 | -0.96 | -0.98 | -0.85 | -0.89 | -0.98 | -0.44 |
| OR7G2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| OR8G1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| OR9Q1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ORAI1 | 5.54 | 5.90 | 5.30 | 6.40 | 5.63 | 5.29 | 5.34 | 5.35 |
| ORAI2 | 2.64 | 3.61 | 3.81 | 3.30 | 3.36 | 4.15 | 2.87 | 3.13 |
| ORAI3 | 5.29 | 5.23 | 4.81 | 5.19 | 5.03 | 5.15 | 5.54 | 5.29 |
| ORC1 | 2.98 | 2.93 | 3.23 | 3.00 | 2.47 | 3.01 | 2.73 | 2.31 |
| ORC2 | 5.33 | 5.32 | 5.09 | 5.47 | 5.43 | 5.29 | 5.40 | 5.31 |
| ORC3 | 5.47 | 4.29 | 4.83 | 4.39 | 4.67 | 4.92 | 4.73 | 4.69 |
| ORC4 | 6.83 | 5.57 | 5.74 | 5.81 | 6.16 | 5.81 | 5.50 | 5.57 |
| ORC5 | 4.31 | 4.70 | 4.36 | 4.77 | 4.94 | 4.37 | 4.42 | 4.66 |
| ORC6 | 6.58 | 5.29 | 6.12 | 5.62 | 5.47 | 6.04 | 5.48 | 5.24 |
| ORM1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.67 | -1.84 | -1.86 |
| ORMDL1 | 7.44 | 6.60 | 6.67 | 7.01 | 7.36 | 7.00 | 6.56 | 7.36 |
| ORMDL2 | 7.41 | 7.21 | 6.61 | 7.49 | 7.28 | 7.62 | 6.99 | 7.23 |
| ORMDL3 | 6.81 | 6.25 | 6.23 | 6.37 | 6.47 | 6.46 | 5.50 | 6.66 |
| OS9 | 7.00 | 7.55 | 7.27 | 7.59 | 7.30 | 7.24 | 7.36 | 7.37 |
| OSBP | 6.47 | 6.37 | 6.65 | 6.66 | 6.58 | 6.53 | 6.53 | 7.35 |
| OSBP2 | 2.07 | 2.15 | 1.87 | 1.99 | 1.93 | 1.99 | 2.10 | 2.15 |
| OSBPL10 | 5.67 | 6.05 | 5.18 | 6.40 | 5.40 | 6.34 | 5.53 | 4.95 |
| OSBPL10-AS1 | 0.75 | 1.06 | 0.73 | 0.85 | 0.56 | 0.73 | 0.72 | 0.57 |
| OSBPL11 | 4.25 | 3.35 | 4.09 | 3.53 | 3.66 | 3.96 | 4.06 | 4.14 |
| OSBPL1A | 4.68 | 5.20 | 5.20 | 5.03 | 4.29 | 5.59 | 4.95 | 5.70 |
| OSBPL2 | 6.44 | 5.88 | 6.20 | 6.19 | 6.20 | 5.85 | 6.30 | 6.96 |
| OSBPL3 | 3.79 | 5.18 | 4.40 | 5.03 | 4.94 | 4.53 | 4.93 | 4.16 |
| OSBPL5 | 2.85 | 4.29 | 3.92 | 3.84 | 2.78 | 3.42 | 3.08 | 3.63 |
| OSBPL6 | 1.42 | 1.81 | 1.79 | 1.67 | 1.44 | 1.21 | 2.03 | 1.29 |
| OSBPL8 | 5.84 | 6.69 | 6.53 | 6.35 | 5.95 | 6.68 | 6.71 | 6.80 |
| OSBPL9 | 4.67 | 6.19 | 5.78 | 5.78 | 5.49 | 5.51 | 5.48 | 6.02 |
| OSCAR | -1.89 | -1.85 | -1.88 | -1.89 | -1.89 | -1.90 | -1.86 | -1.83 |
| OSCP1 | 2.64 | 2.66 | 2.86 | 2.93 | 2.56 | 2.92 | 3.01 | 2.50 |
| OSER1 | 6.76 | 5.18 | 5.68 | 5.02 | 6.19 | 5.91 | 5.02 | 6.11 |
| OSER1-DT | 2.00 | 1.27 | 1.70 | 1.31 | 1.66 | 1.44 | 1.30 | 1.79 |
| OSGEP | 5.31 | 5.12 | 5.18 | 5.43 | 4.97 | 5.35 | 4.95 | 4.82 |
| OSGEPL1 | 4.38 | 3.54 | 3.88 | 4.12 | 4.50 | 3.78 | 4.08 | 4.34 |
| OSGEPL1-AS1 | 0.18 | -0.04 | 0.05 | -0.13 | 0.19 | 0.03 | -0.06 | -0.09 |
| OSGIN1 | 5.49 | 3.77 | 4.34 | 3.89 | 4.29 | 3.61 | 3.99 | 4.42 |
| OSGIN2 | 4.82 | 5.10 | 5.87 | 4.93 | 4.58 | 5.85 | 5.01 | 5.32 |
| OSMR | 5.55 | 4.99 | 5.83 | 4.88 | 5.93 | 5.02 | 5.95 | 5.31 |
| OSMR-AS1 | 1.56 | 1.29 | 1.49 | 1.18 | 1.65 | 1.23 | 1.34 | 1.51 |
| OSR1 | 3.32 | 2.86 | 2.57 | 3.15 | 3.11 | 3.05 | 4.03 | 3.82 |
| OSR2 | 3.21 | 3.16 | 2.91 | 2.64 | 2.82 | 3.94 | 1.76 | 2.70 |
| OST4 | 10.10 | 9.85 | 8.52 | 9.98 | 9.66 | 9.74 | 9.17 | 10.02 |
| OSTC | 7.90 | 8.35 | 7.58 | 8.63 | 8.06 | 8.08 | 7.79 | 9.32 |
| OSTCP4 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -1.88 |
| OSTCP5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| OSTF1 | 6.99 | 6.88 | 6.58 | 6.69 | 6.11 | 6.87 | 6.55 | 6.97 |
| OSTM1 | 4.29 | 3.77 | 4.00 | 3.73 | 3.70 | 4.04 | 4.12 | 3.88 |
| OSTN-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| OTC | -1.08 | -1.08 | -1.06 | -1.09 | -1.04 | -1.09 | -1.09 | -1.10 |
| OTOA | -1.93 | -1.99 | -1.98 | -2.00 | -1.94 | -2.00 | -2.00 | -1.97 |
| OTOAP1 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 |
| OTOG | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.24 |
| OTOGL | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OTOP2 | -2.10 | -2.10 | -2.09 | -2.10 | -2.05 | -2.09 | -2.10 | -2.08 |
| OTOP3 | 2.87 | 2.57 | 2.59 | 2.48 | 3.14 | 2.45 | 4.72 | 2.51 |
| OTP | -2.15 | -2.20 | -2.19 | -2.16 | -2.19 | -2.20 | -2.20 | -2.21 |
| OTUB1 | 8.73 | 6.98 | 7.48 | 6.84 | 7.88 | 7.70 | 7.19 | 7.86 |
| OTUB2 | 2.90 | 3.11 | 3.23 | 3.05 | 3.78 | 3.18 | 3.02 | 2.68 |
| OTUD1 | 3.06 | 3.08 | 3.77 | 2.79 | 3.20 | 3.43 | 3.03 | 3.01 |
| OTUD3 | 2.93 | 2.63 | 3.24 | 2.75 | 3.42 | 3.37 | 3.11 | 2.95 |
| OTUD4 | 3.76 | 4.24 | 4.10 | 3.96 | 3.72 | 4.22 | 4.09 | 4.13 |
| OTUD5 | 4.77 | 4.97 | 6.02 | 4.83 | 4.96 | 5.04 | 5.01 | 5.00 |
| OTUD6B | 3.90 | 4.27 | 4.92 | 4.16 | 4.18 | 4.73 | 4.21 | 4.54 |
| OTUD6B-AS1 | 6.21 | 6.56 | 6.04 | 6.27 | 6.48 | 6.84 | 5.90 | 6.94 |
| OTUD7A | -0.62 | -0.77 | -0.75 | -0.64 | -0.58 | -0.75 | -0.70 | -0.79 |
| OTUD7B | 4.55 | 4.57 | 4.14 | 4.15 | 4.31 | 4.73 | 4.65 | 4.50 |
| OTULIN | 4.90 | 4.94 | 4.85 | 4.73 | 4.66 | 4.78 | 5.03 | 4.96 |
| OTULINL | 3.50 | 2.75 | 3.60 | 3.02 | 3.00 | 3.08 | 2.52 | 2.44 |
| OTX1 | 2.64 | 2.51 | 2.13 | 2.39 | 2.43 | 2.12 | 1.98 | 2.18 |
| OVAAL | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| OVCH1-AS1 | -1.43 | -1.30 | -1.29 | -1.44 | -1.40 | -1.41 | -1.38 | -1.30 |
| OVGP1 | 0.09 | 0.34 | 0.29 | 0.85 | 0.18 | 0.31 | 0.50 | 0.18 |
| OVOL1 | 4.09 | 3.34 | 4.37 | 3.07 | 3.76 | 4.45 | 4.05 | 4.49 |
| OVOL1-AS1 | -1.45 | -1.44 | -1.31 | -1.45 | -1.44 | -1.43 | -1.39 | -1.36 |
| OVOL2 | 4.14 | 4.98 | 3.55 | 5.00 | 4.49 | 3.79 | 4.36 | 4.56 |
| OVOL3 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.10 | -2.11 |
| OXA1L | 6.58 | 7.34 | 6.40 | 7.62 | 8.27 | 7.27 | 7.06 | 7.10 |

| | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| OXCT1 | 3.60 | 4.18 | 4.13 | 4.25 | 3.91 | 4.32 | 3.84 | 3.56 |
| OXCT1-AS1 | -2.03 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.11 |
| OXCT2 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.02 | -1.99 | -2.06 |
| OXCT2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| OXER1 | -0.66 | -0.95 | -0.93 | -0.96 | -0.91 | -0.89 | -0.89 | -0.97 |
| OXGR1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| OXLD1 | 7.39 | 6.15 | 6.55 | 6.15 | 6.75 | 6.45 | 5.82 | 6.51 |
| OXNAD1 | 4.09 | 4.58 | 3.75 | 4.63 | 4.21 | 3.94 | 4.48 | 4.37 |
| OXR1 | 5.94 | 6.34 | 7.41 | 6.07 | 5.57 | 6.97 | 6.36 | 6.94 |
| OXSM | 4.72 | 3.99 | 4.29 | 4.02 | 4.95 | 4.23 | 4.36 | 4.40 |
| OXSR1 | 5.86 | 5.45 | 5.81 | 5.06 | 5.83 | 5.59 | 5.96 | 5.87 |
| OXT | -0.47 | -0.44 | -0.60 | 0.00 | -0.49 | -0.49 | -0.62 | -0.57 |
| OXTR | 2.54 | 3.25 | 2.78 | 3.81 | 3.67 | 3.76 | 2.94 | 2.59 |
| P2RX1 | -1.31 | -1.50 | -1.49 | -1.51 | -1.06 | -1.52 | -1.51 | -1.53 |
| P2RX4 | 5.45 | 4.87 | 5.06 | 5.35 | 5.66 | 5.16 | 4.05 | 5.38 |
| P2RX5 | 2.24 | 1.28 | 1.73 | 1.51 | 2.47 | 1.98 | 1.47 | 1.64 |
| P2RX5-TAX1BP3 | 0.04 | -0.04 | 0.35 | 0.03 | 0.08 | 0.11 | 0.09 | 0.05 |
| P2RX6 | -1.48 | -1.64 | -1.57 | -1.64 | -1.64 | -1.65 | -1.65 | -1.66 |
| P2RX6P | -0.71 | -0.70 | -0.68 | -0.78 | -0.78 | -0.44 | -0.71 | -0.80 |
| P2RX7 | -1.27 | -1.33 | -1.19 | -1.35 | -1.34 | -1.03 | -1.28 | -1.30 |
| P2RY1 | 1.65 | 2.17 | 2.12 | 1.57 | 1.84 | 1.64 | 2.31 | 1.53 |
| P2RY11 | 3.04 | 3.48 | 3.33 | 3.50 | 3.10 | 3.06 | 3.49 | 2.85 |
| P2RY13 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| P2RY2 | 3.45 | 3.78 | 3.47 | 3.46 | 3.00 | 3.38 | 3.35 | 3.07 |
| P2RY6 | -1.55 | -1.55 | -1.54 | -1.50 | -1.49 | -1.45 | -1.56 | -1.47 |
| P3H1 | 4.13 | 4.91 | 4.52 | 5.42 | 5.11 | 4.23 | 4.66 | 4.35 |
| P3H2 | 2.99 | 4.76 | 2.80 | 4.80 | 2.59 | 2.58 | 3.88 | 4.35 |
| P3H2-AS1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| P3H3 | 3.98 | 3.34 | 2.80 | 3.31 | 3.23 | 3.23 | 3.32 | 2.33 |
| P3H4 | 8.02 | 5.37 | 5.56 | 5.67 | 5.49 | 5.37 | 4.93 | 5.72 |
| P4HA1 | 6.24 | 7.27 | 7.35 | 6.63 | 7.64 | 6.27 | 7.78 | 6.44 |
| P4HA2 | 5.62 | 6.21 | 7.29 | 6.37 | 7.31 | 6.18 | 6.40 | 5.29 |
| P4HA2-AS1 | -1.22 | -1.29 | -1.13 | -1.30 | -1.07 | -1.17 | -1.30 | -1.31 |
| P4HA3 | -1.64 | -1.63 | -1.63 | -1.59 | -1.61 | -1.65 | -1.59 | -1.61 |
| P4HB | 9.48 | 9.86 | 10.14 | 10.14 | 10.51 | 9.61 | 9.94 | 10.10 |
| P4HTM | 5.81 | 5.31 | 5.07 | 5.89 | 6.34 | 5.66 | 5.29 | 5.68 |
| PA2G4 | 8.57 | 8.34 | 8.17 | 8.39 | 7.88 | 8.70 | 8.16 | 8.11 |
| PA2G4P1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.86 | -1.89 | -1.87 |
| PA2G4P2 | -1.79 | -1.79 | -1.83 | -1.79 | -1.81 | -1.77 | -1.80 | -1.87 |
| PA2G4P3 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 | -2.31 | -2.31 |
| PA2G4P4 | 0.77 | 1.00 | 1.48 | 1.09 | 0.89 | 1.02 | 1.16 | 0.98 |
| PA2G4P6 | -1.31 | -1.42 | -1.41 | -1.43 | -1.39 | -1.35 | -1.43 | -1.35 |
| PAAF1 | 5.34 | 4.43 | 5.06 | 4.15 | 5.28 | 5.14 | 4.47 | 5.62 |
| PABPC1 | 9.77 | 10.32 | 10.77 | 10.06 | 10.51 | 10.56 | 10.00 | 10.08 |
| PABPC1L | 3.41 | 2.61 | 3.34 | 3.02 | 3.10 | 3.22 | 3.06 | 3.04 |
| PABPC1P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| PABPC1P10 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PABPC1P3 | 2.21 | 2.09 | 2.67 | 2.24 | 2.28 | 2.60 | 2.31 | 2.22 |
| PABPC1P4 | -0.71 | -0.70 | -0.39 | -0.57 | -0.59 | -0.46 | -0.71 | -0.66 |
| PABPC3 | 0.88 | 0.98 | 1.06 | 0.85 | 1.16 | 0.99 | 1.10 | 1.03 |
| PABPC4 | 6.11 | 7.70 | 6.75 | 7.42 | 6.58 | 7.19 | 6.76 | 6.82 |
| PABPC4-AS1 | -2.20 | -2.20 | -2.17 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| PABPN1 | 5.99 | 6.23 | 6.54 | 6.44 | 6.39 | 6.47 | 6.76 | 5.55 |
| PACERR | -1.99 | -1.96 | -1.95 | -1.96 | -1.97 | -1.98 | -2.00 | -1.97 |
| PACRG | -1.79 | -1.79 | -1.74 | -1.79 | -1.79 | -1.73 | -1.80 | -1.68 |
| PACRGL | 2.42 | 3.02 | 3.04 | 3.22 | 2.94 | 2.97 | 3.43 | 3.18 |
| PACS1 | 3.23 | 3.91 | 4.61 | 3.50 | 3.88 | 4.19 | 3.88 | 4.30 |
| PACS2 | 4.18 | 4.46 | 4.97 | 4.55 | 4.55 | 4.42 | 4.79 | 4.11 |
| PACSIN1 | -0.71 | -0.71 | -0.70 | -0.63 | -0.54 | -0.33 | -0.72 | -0.73 |
| PACSIN2 | 6.98 | 7.08 | 7.11 | 7.14 | 6.82 | 7.06 | 7.24 | 7.11 |
| PACSIN3 | 5.76 | 5.09 | 4.46 | 5.02 | 4.49 | 5.13 | 5.19 | 6.14 |
| PADI1 | 3.03 | 3.17 | 5.74 | 3.17 | 3.27 | 3.95 | 2.70 | 5.83 |
| PADI2 | 1.53 | 1.34 | 1.46 | 1.30 | 1.10 | 1.39 | 0.99 | 1.98 |
| PADI3 | -0.54 | -0.54 | -0.44 | -0.55 | -0.34 | -0.37 | -0.55 | -0.43 |
| PADI4 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| PAEP | -0.99 | -0.99 | -0.52 | -1.00 | -0.95 | -0.33 | -1.00 | -1.01 |
| PAF1 | 6.01 | 5.62 | 5.50 | 5.93 | 5.89 | 5.96 | 5.84 | 5.71 |
| PAFAH1B1 | 6.47 | 5.97 | 6.89 | 5.79 | 6.17 | 6.29 | 6.97 | 6.68 |
| PAFAH1B2 | 7.11 | 7.05 | 7.43 | 6.96 | 6.95 | 6.62 | 7.01 | 7.04 |
| PAFAH1B3 | 7.25 | 6.85 | 6.05 | 6.86 | 7.27 | 6.90 | 6.04 | 6.10 |
| PAFAH2 | 3.57 | 4.10 | 4.30 | 3.98 | 3.73 | 4.19 | 4.63 | 3.89 |
| PAG1 | 4.82 | 4.62 | 5.49 | 4.32 | 3.82 | 5.06 | 6.46 | 3.99 |
| PAGE2B | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 | -2.31 | -2.31 |
| PAGE4 | -2.07 | -2.04 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| PAGR1 | 2.84 | 3.45 | 3.52 | 3.26 | 2.85 | 2.90 | 3.52 | 2.97 |
| PAH | -1.12 | -1.11 | -1.10 | -1.04 | -1.08 | -1.13 | -1.13 | -1.01 |
| PAICS | 6.91 | 6.94 | 6.93 | 7.45 | 6.89 | 7.45 | 7.28 | 7.22 |
| PAICSP1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| PAICSP4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 |
| PAIP1 | 5.02 | 4.94 | 4.63 | 4.85 | 5.04 | 5.08 | 4.59 | 5.00 |
| PAIP1P1 | -1.59 | -1.59 | -1.53 | -1.54 | -1.59 | -1.58 | -1.49 | -1.56 |
| PAIP2 | 7.84 | 7.42 | 7.68 | 7.68 | 8.37 | 7.97 | 6.96 | 7.77 |
| PAIP2B | 4.00 | 3.46 | 3.71 | 3.13 | 4.33 | 2.27 | 3.28 | 2.89 |
| PAK1 | 6.04 | 6.69 | 6.78 | 6.93 | 6.91 | 6.11 | 6.88 | 6.89 |
| PAK1IP1 | 6.37 | 5.59 | 5.48 | 5.21 | 5.59 | 5.12 | 5.54 | 6.36 |
| PAK2 | 6.36 | 6.62 | 6.62 | 6.43 | 6.21 | 6.70 | 6.69 | 7.11 |
| PAK3 | -2.15 | -2.12 | -2.14 | -2.10 | -2.15 | -2.15 | -2.15 | -2.16 |
| PAK4 | 5.01 | 5.09 | 5.06 | 4.85 | 4.94 | 5.22 | 5.26 | 4.94 |
| PAK5 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -2.00 | -2.00 | -2.01 |
| PAK6 | 3.52 | 3.04 | 2.78 | 3.05 | 2.90 | 3.37 | 3.17 | 3.39 |
| PALB2 | 4.69 | 4.45 | 4.43 | 4.54 | 4.36 | 4.40 | 4.69 | 5.07 |
| PALD1 | 2.33 | 1.32 | 1.48 | 1.43 | 1.80 | 1.82 | 1.42 | 1.32 |
| PALLD | 4.96 | 6.14 | 5.81 | 5.70 | 4.57 | 5.02 | 6.27 | 5.20 |
| PALM | -1.05 | -1.12 | -1.11 | -1.13 | -1.08 | -1.10 | -1.00 | -1.02 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PALM2 | -1.08 | -1.07 | -0.91 | -0.80 | -1.07 | -1.02 | -0.90 | -0.97 |
| PALM3 | 4.72 | 3.08 | 4.73 | 3.56 | 3.97 | 5.15 | 4.43 | 4.42 |
| PALMD | 0.26 | 0.27 | 0.37 | 0.48 | 1.30 | 0.31 | 0.32 | 0.28 |
| PAM | 4.94 | 6.93 | 6.44 | 6.80 | 5.72 | 6.47 | 6.14 | 5.64 |
| PAM16 | 1.26 | 0.89 | 0.70 | 0.97 | 1.00 | 0.76 | 0.90 | 0.92 |
| PAN2 | 3.17 | 3.57 | 4.06 | 3.69 | 3.44 | 3.75 | 4.22 | 3.55 |
| PAN3 | 3.24 | 4.08 | 3.99 | 3.77 | 4.39 | 3.65 | 4.33 | 4.66 |
| PAN3-AS1 | -0.01 | 0.00 | 0.12 | 0.23 | 0.07 | -0.14 | -0.02 | -0.02 |
| PANCR | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PANK1 | 2.77 | 3.20 | 2.83 | 3.35 | 2.93 | 2.75 | 3.23 | 2.61 |
| PANK2 | 5.25 | 5.37 | 5.31 | 5.49 | 5.49 | 5.46 | 5.12 | 5.21 |
| PANK3 | 6.22 | 6.19 | 6.21 | 5.83 | 6.60 | 6.07 | 6.97 | 5.23 |
| PANK4 | 2.93 | 2.81 | 3.09 | 2.75 | 2.60 | 2.73 | 3.06 | 2.69 |
| PANO1 | 0.78 | 0.73 | 0.59 | 0.89 | 0.96 | 0.87 | 0.62 | 0.83 |
| PANX1 | 3.64 | 3.06 | 3.97 | 3.02 | 3.69 | 3.44 | 3.31 | 3.86 |
| PANX2 | 1.66 | 1.05 | 1.10 | 0.93 | 0.91 | 0.93 | 0.92 | 2.17 |
| PAOX | 4.02 | 3.56 | 2.87 | 3.61 | 3.25 | 3.09 | 3.44 | 3.22 |
| PAPLN | 0.59 | 0.24 | 0.35 | 0.45 | 0.50 | 0.38 | 0.82 | 0.36 |
| PAPOLA | 7.30 | 7.71 | 7.61 | 7.54 | 8.36 | 7.90 | 7.72 | 7.75 |
| PAPOLB | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PAPOLG | 4.12 | 4.18 | 3.43 | 3.96 | 4.15 | 3.75 | 3.98 | 3.81 |
| PAPPA | -1.38 | -1.38 | -1.37 | -1.39 | -1.38 | -1.06 | -1.26 | -1.40 |
| PAPPA-AS1 | -2.04 | -2.04 | -2.01 | -2.02 | -2.04 | -2.04 | -1.99 | -2.03 |
| PAPPA2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| PAPSS1 | 4.12 | 5.65 | 5.47 | 5.66 | 4.75 | 5.37 | 5.23 | 5.04 |
| PAPSS2 | 2.94 | 3.27 | 2.74 | 2.59 | 2.69 | 3.49 | 2.63 | 3.38 |
| PAQR3 | 3.13 | 2.84 | 3.37 | 2.51 | 2.80 | 3.25 | 3.10 | 2.75 |
| PAQR4 | 6.24 | 5.82 | 5.58 | 5.80 | 5.06 | 5.44 | 5.61 | 5.06 |
| PAQR5 | 5.03 | 3.45 | 3.34 | 3.20 | 3.25 | 3.50 | 3.89 | 3.66 |
| PAQR6 | 1.48 | 1.93 | 1.65 | 2.41 | 1.81 | 1.65 | 1.84 | 1.46 |
| PAQR7 | 2.06 | 2.13 | 2.38 | 2.16 | 1.78 | 2.39 | 1.79 | 1.79 |
| PAQR8 | 2.94 | 3.43 | 3.01 | 3.50 | 4.04 | 3.73 | 4.10 | 3.20 |
| PAQR9 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.86 | -1.91 |
| PAQR9-AS1 | -2.05 | -2.05 | -2.04 | -2.00 | -2.05 | -2.06 | -2.05 | -2.07 |
| PARAL1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PARD3 | 4.66 | 5.14 | 5.15 | 5.01 | 5.18 | 5.04 | 5.40 | 4.77 |
| PARD3-AS1 | -0.74 | -0.81 | -0.59 | -0.82 | -0.67 | -0.73 | -0.62 | -0.83 |
| PARD3B | 3.22 | 3.35 | 4.06 | 3.81 | 3.77 | 3.44 | 4.71 | 3.07 |
| PARD6A | 5.78 | 4.72 | 4.73 | 4.48 | 5.22 | 4.18 | 3.94 | 3.88 |
| PARD6B | 6.47 | 5.26 | 6.20 | 5.33 | 5.70 | 5.48 | 6.03 | 5.44 |
| PARD6G | 1.28 | 1.01 | 0.82 | 1.15 | 0.97 | 0.73 | 1.42 | 0.70 |
| PARD6G-AS1 | 0.42 | -0.13 | 0.22 | -0.07 | -0.18 | -0.04 | -0.23 | -0.18 |
| PARG | 5.17 | 5.03 | 5.09 | 4.87 | 4.71 | 4.65 | 5.13 | 4.75 |
| PARGP1 | 1.09 | 0.81 | 0.84 | 0.71 | 0.77 | 0.80 | 0.95 | 0.70 |
| PARK7 | 10.05 | 9.28 | 8.74 | 9.50 | 9.09 | 9.53 | 8.81 | 9.14 |
| PARL | 6.69 | 5.99 | 6.28 | 6.10 | 6.43 | 5.89 | 5.60 | 6.72 |
| PARM1 | 2.92 | 3.87 | 2.91 | 4.58 | 4.27 | 2.64 | 1.88 | 2.75 |
| PARN | 5.32 | 4.88 | 5.29 | 4.81 | 4.37 | 4.54 | 4.86 | 5.33 |
| PARP1 | 7.49 | 6.97 | 7.31 | 7.16 | 7.49 | 7.27 | 6.86 | 6.81 |
| PARP10 | 4.51 | 3.89 | 4.84 | 3.84 | 4.09 | 4.33 | 4.09 | 3.69 |
| PARP11 | 2.01 | 2.05 | 2.29 | 1.76 | 1.72 | 1.96 | 1.92 | 1.68 |
| PARP12 | 3.58 | 3.74 | 4.47 | 3.78 | 4.19 | 3.86 | 3.68 | 3.75 |
| PARP14 | 7.26 | 5.42 | 7.25 | 5.40 | 6.19 | 6.81 | 6.04 | 6.50 |
| PARP15 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.01 | -2.05 | -2.05 |
| PARP16 | 4.01 | 3.83 | 3.49 | 3.63 | 3.90 | 3.30 | 3.79 | 3.55 |
| PARP1P1 | -1.79 | -1.74 | -1.78 | -1.75 | -1.76 | -1.73 | -1.79 | -1.72 |
| PARP2 | 6.34 | 4.87 | 5.71 | 5.35 | 5.95 | 6.07 | 5.43 | 5.62 |
| PARP3 | 3.08 | 3.76 | 3.13 | 3.85 | 3.68 | 3.13 | 2.97 | 3.34 |
| PARP4 | 5.55 | 6.59 | 6.00 | 6.42 | 6.21 | 5.93 | 6.51 | 7.29 |
| PARP4P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| PARP4P2 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| PARP6 | 4.64 | 4.06 | 4.38 | 4.06 | 3.59 | 3.86 | 4.26 | 4.26 |
| PARP8 | 2.83 | 4.19 | 4.11 | 3.79 | 3.09 | 3.45 | 4.05 | 3.45 |
| PARP9 | 6.27 | 4.63 | 6.00 | 4.73 | 5.75 | 5.29 | 5.43 | 5.12 |
| PARPBP | 4.04 | 4.15 | 4.65 | 4.15 | 4.02 | 4.21 | 4.19 | 4.29 |
| PARS2 | 2.11 | 1.96 | 2.18 | 1.85 | 2.25 | 2.27 | 2.11 | 1.97 |
| PART1 | 1.83 | 2.07 | 1.44 | 2.39 | 1.30 | 1.23 | 1.32 | 1.18 |
| PARTICL | 2.68 | 2.67 | 2.45 | 2.64 | 2.61 | 2.27 | 2.60 | 2.49 |
| PARVA | 5.75 | 5.56 | 5.37 | 5.66 | 5.49 | 5.66 | 5.14 | 5.67 |
| PARVB | 3.82 | 3.41 | 3.83 | 3.61 | 3.11 | 2.54 | 2.57 | 2.87 |
| PASK | 2.49 | 2.33 | 2.97 | 2.42 | 2.45 | 2.76 | 2.99 | 2.28 |
| PATE2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| PATJ | 4.81 | 5.97 | 5.39 | 5.26 | 5.41 | 5.42 | 6.42 | 5.33 |
| PATL1 | 4.97 | 5.30 | 5.52 | 5.15 | 4.68 | 4.82 | 5.05 | 5.17 |
| PATL2 | 0.28 | 0.08 | 0.01 | 0.12 | 0.08 | 0.05 | 0.06 | 0.14 |
| PATZ1 | 3.68 | 4.11 | 3.47 | 4.16 | 3.64 | 4.05 | 3.45 | 3.75 |
| PAWR | 5.61 | 6.39 | 6.74 | 6.08 | 6.06 | 6.46 | 6.66 | 6.25 |
| PAX2 | -1.64 | -1.68 | -1.68 | -1.64 | -1.66 | -1.70 | -1.50 | -1.66 |
| PAX3 | -1.39 | -1.38 | -1.37 | -1.39 | -0.90 | -1.40 | -1.32 | -1.35 |
| PAX5 | -1.53 | -1.52 | -1.51 | -1.53 | -1.41 | -1.51 | -1.53 | -1.55 |
| PAX6 | 1.68 | 2.16 | 2.27 | 2.45 | 2.60 | 2.27 | 1.43 | 2.29 |
| PAX7 | -1.60 | -1.64 | -1.64 | -1.65 | -1.65 | -1.66 | -1.66 | -1.67 |
| PAX8 | 2.70 | 2.46 | 2.45 | 2.33 | 3.09 | 3.12 | 2.80 | 2.88 |
| PAX8-AS1 | 6.25 | 3.69 | 4.03 | 3.88 | 5.80 | 6.63 | 5.92 | 5.84 |
| PAX9 | 2.49 | 1.78 | 1.58 | 1.96 | 1.58 | 2.75 | 1.48 | 2.22 |
| PAXBP1 | 6.13 | 5.99 | 5.95 | 5.99 | 5.63 | 6.04 | 6.38 | 5.73 |
| PAXBP1-AS1 | 0.77 | 0.44 | 0.63 | 0.48 | 0.40 | 0.50 | 0.62 | 0.55 |
| PAXIP1 | 3.94 | 4.12 | 4.25 | 4.11 | 4.02 | 3.54 | 4.53 | 3.85 |
| PAXIP1-AS1 | 5.10 | 3.69 | 4.44 | 4.18 | 4.97 | 4.09 | 4.43 | 4.81 |
| PAXIP1-AS2 | 2.25 | 2.90 | 2.68 | 2.50 | 2.76 | 2.60 | 2.84 | 2.92 |
| PAXX | 6.76 | 6.39 | 5.73 | 6.51 | 6.11 | 6.08 | 5.94 | 5.67 |
| PBDC1 | 6.00 | 6.40 | 6.28 | 6.32 | 6.23 | 6.32 | 5.98 | 5.77 |
| PBK | 6.60 | 6.16 | 6.91 | 6.06 | 5.77 | 7.16 | 5.85 | 5.54 |
| PBLD | 2.59 | 2.98 | 2.73 | 2.88 | 2.39 | 2.69 | 2.96 | 2.60 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PBOV1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| PBRM1 | 6.18 | 6.52 | 6.44 | 6.25 | 5.84 | 6.44 | 7.01 | 6.02 |
| PBX1 | 3.28 | 4.10 | 4.37 | 3.85 | 3.23 | 3.69 | 5.89 | 4.28 |
| PBX2 | 1.62 | 1.92 | 1.80 | 1.80 | 1.72 | 1.87 | 1.83 | 2.22 |
| PBX3 | 3.45 | 3.42 | 3.55 | 3.49 | 2.83 | 3.88 | 3.93 | 3.00 |
| PBX4 | 2.20 | 1.75 | 2.20 | 2.25 | 2.74 | 2.46 | 2.19 | 1.75 |
| PBXIP1 | 4.72 | 4.40 | 5.27 | 4.80 | 5.06 | 5.04 | 5.36 | 5.84 |
| PC | 3.94 | 2.70 | 4.18 | 3.67 | 3.36 | 3.88 | 4.16 | 3.38 |
| PCA3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| PCAT1 | 2.07 | 2.24 | 3.24 | 2.78 | 1.75 | 2.06 | 2.55 | 1.72 |
| PCAT14 | 0.24 | 0.68 | 0.27 | 0.70 | 0.99 | 0.34 | 1.67 | 0.19 |
| PCAT18 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.85 | -1.87 |
| PCAT19 | -0.52 | -0.79 | -0.86 | -0.88 | -0.79 | -0.72 | -0.88 | -0.89 |
| PCAT6 | 2.37 | 2.32 | 2.28 | 2.34 | 2.58 | 2.51 | 2.23 | 2.45 |
| PCAT7 | 2.92 | 2.47 | 1.87 | 2.37 | 2.04 | 1.84 | 1.66 | 2.00 |
| PCBD1 | 8.39 | 8.29 | 7.85 | 8.73 | 9.09 | 8.30 | 8.06 | 7.91 |
| PCBD2 | 4.46 | 4.72 | 5.10 | 4.72 | 5.13 | 5.33 | 4.69 | 4.77 |
| PCBP1 | 8.55 | 8.46 | 8.00 | 8.36 | 9.17 | 8.30 | 8.41 | 8.39 |
| PCBP1-AS1 | 3.69 | 3.77 | 3.33 | 3.81 | 4.05 | 3.38 | 3.48 | 3.52 |
| PCBP2 | 8.32 | 8.57 | 8.80 | 8.29 | 8.35 | 8.86 | 8.39 | 8.14 |
| PCBP2-OT1 | -0.12 | -0.11 | -0.18 | -0.12 | -0.15 | -0.01 | 0.14 | -0.16 |
| PCBP2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| PCBP3 | -1.81 | -1.80 | -1.80 | -1.90 | -1.89 | -1.90 | -1.90 | -1.91 |
| PCBP4 | 5.39 | 4.59 | 4.81 | 4.41 | 4.38 | 4.27 | 4.50 | 4.79 |
| PCCA | 2.98 | 3.78 | 3.93 | 3.90 | 3.71 | 3.48 | 3.58 | 3.36 |
| PCCB | 6.35 | 4.99 | 6.05 | 5.44 | 6.77 | 6.11 | 6.06 | 6.48 |
| PCDH1 | 6.47 | 6.82 | 8.00 | 6.72 | 6.89 | 6.14 | 6.43 | 6.30 |
| PCDH10 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PCDH17 | -1.32 | -1.49 | -1.48 | -1.50 | -1.49 | -1.45 | -1.50 | -1.46 |
| PCDH18 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| PCDH19 | -1.69 | -1.63 | -1.68 | -1.69 | -1.69 | -1.70 | -1.64 | -1.71 |
| PCDH20 | -2.10 | -1.97 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| PCDH7 | 6.20 | 7.38 | 7.42 | 7.19 | 4.60 | 6.83 | 8.03 | 7.17 |
| PCDH9 | 1.08 | 1.42 | 1.78 | 0.92 | 1.03 | 0.93 | 1.44 | 1.11 |
| PCDHA1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| PCDHA10 | -1.00 | -0.61 | -0.98 | -0.92 | -1.00 | -0.90 | -1.01 | -0.83 |
| PCDHA11 | -2.12 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| PCDHA12 | 0.95 | 2.39 | 1.00 | 2.20 | 1.05 | 0.95 | 1.24 | 1.62 |
| PCDHA13 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PCDHA2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| PCDHA4 | -1.17 | -1.24 | -0.99 | -1.17 | -1.24 | -1.08 | -1.25 | -1.20 |
| PCDHA5 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| PCDHA6 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| PCDHA7 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| PCDHA9 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 |
| PCDHAC1 | -0.31 | 0.61 | -0.29 | 0.69 | -0.22 | -0.08 | -0.32 | -0.11 |
| PCDHAC2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| PCDHB1 | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| PCDHB10 | -1.39 | -1.32 | -1.12 | -1.39 | -1.38 | -1.25 | -1.39 | -1.25 |
| PCDHB11 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.04 | -2.05 | -2.00 |
| PCDHB12 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 |
| PCDHB13 | -1.25 | -1.31 | -1.11 | -1.32 | -1.31 | -1.27 | -1.26 | -1.18 |
| PCDHB14 | -0.49 | -0.49 | 0.22 | -0.58 | -0.53 | -0.41 | -0.51 | -0.32 |
| PCDHB15 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PCDHB16 | -0.10 | -0.32 | 0.60 | -0.34 | -0.33 | 0.28 | -0.34 | 0.18 |
| PCDHB2 | -1.14 | -1.14 | -1.05 | -1.15 | -1.14 | -1.15 | -1.08 | -0.67 |
| PCDHB3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| PCDHB4 | -0.22 | -0.56 | -0.55 | -0.57 | -0.20 | -0.58 | -0.49 | 0.26 |
| PCDHB5 | -1.59 | -1.58 | -1.57 | -1.59 | -1.58 | -1.60 | -1.59 | -1.23 |
| PCDHB7 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| PCDHB8 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -1.97 | -2.05 | -2.05 |
| PCDHB9 | -0.33 | -0.40 | 0.07 | -0.41 | -0.48 | -0.10 | -0.42 | 0.33 |
| PCDHGA1 | -1.64 | -1.68 | -1.58 | -1.69 | -1.68 | -1.67 | -1.69 | -1.71 |
| PCDHGA10 | 1.74 | 0.99 | 1.29 | 1.03 | 1.33 | 1.27 | 1.55 | 0.97 |
| PCDHGA11 | -2.10 | -2.09 | -2.00 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| PCDHGA12 | -1.61 | -1.61 | -1.60 | -1.61 | -1.61 | -1.57 | -1.62 | -1.63 |
| PCDHGA2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| PCDHGA3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PCDHGA5 | -1.99 | -1.99 | -1.95 | -2.00 | -1.95 | -1.96 | -2.00 | -2.01 |
| PCDHGA6 | -1.61 | -1.54 | -1.59 | -1.61 | -1.51 | -1.59 | -1.61 | -1.63 |
| PCDHGA7 | -1.79 | -1.79 | -1.64 | -1.79 | -1.79 | -1.78 | -1.75 | -1.81 |
| PCDHGA8 | -1.84 | -1.84 | -1.79 | -1.76 | -1.82 | -1.83 | -1.80 | -1.86 |
| PCDHGA9 | -1.74 | -1.73 | -1.73 | -1.74 | -1.73 | -1.70 | -1.66 | -1.67 |
| PCDHGB1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PCDHGB2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.86 | -1.89 | -1.84 |
| PCDHGB4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| PCDHGB5 | -1.23 | -1.22 | -1.21 | -1.23 | -1.15 | -1.06 | -1.17 | -1.08 |
| PCDHGB6 | -0.60 | -0.80 | -0.79 | -0.81 | -0.73 | -0.72 | -0.61 | -0.61 |
| PCDHGB7 | -1.54 | -1.59 | -1.47 | -1.60 | -1.59 | -1.58 | -1.43 | -1.62 |
| PCDHGB9P | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.08 |
| PCDHGC3 | 0.90 | 0.64 | 0.99 | 0.54 | 0.94 | 0.59 | 0.75 | 1.16 |
| PCED1A | 4.42 | 3.93 | 4.67 | 3.42 | 4.59 | 4.16 | 3.99 | 4.15 |
| PCED1B | 1.35 | 2.05 | 1.89 | 1.69 | 1.50 | 2.57 | 1.55 | 2.50 |
| PCED1B-AS1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| PCF11 | 5.15 | 5.27 | 5.42 | 5.52 | 5.68 | 5.64 | 5.42 | 5.70 |
| PCF11-AS1 | 0.33 | 0.35 | 0.62 | 0.59 | 0.38 | 0.20 | 0.62 | 0.33 |
| PCGF1 | 5.39 | 5.02 | 4.67 | 5.29 | 5.52 | 5.39 | 4.58 | 5.59 |
| PCGF2 | 3.97 | 4.66 | 4.85 | 4.22 | 4.43 | 4.68 | 4.36 | 4.03 |
| PCGF3 | 4.63 | 4.83 | 4.63 | 4.53 | 4.27 | 4.85 | 4.87 | 4.75 |
| PCGF5 | 6.06 | 5.69 | 5.49 | 5.68 | 6.31 | 5.30 | 6.18 | 5.67 |
| PCGF6 | 4.40 | 3.73 | 3.46 | 4.24 | 3.91 | 3.79 | 3.72 | 3.95 |
| PCGF7P | -2.15 | -2.15 | -2.14 | -2.13 | -2.15 | -2.14 | -2.15 | -2.16 |
| PCID2 | 5.66 | 5.83 | 5.58 | 5.72 | 6.73 | 5.29 | 5.59 | 6.52 |
| PCIF1 | 4.34 | 4.39 | 4.75 | 4.42 | 4.63 | 4.49 | 4.45 | 4.43 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PCK1 | 2.54 | 2.44 | 2.62 | 2.47 | 4.22 | 2.10 | 5.07 | 2.11 |
| PCK2 | 5.02 | 5.23 | 5.29 | 5.18 | 5.69 | 5.70 | 5.90 | 6.04 |
| PCLAF | 8.09 | 7.46 | 7.85 | 7.73 | 7.19 | 7.70 | 6.85 | 7.48 |
| PCLO | 3.69 | 4.53 | 4.02 | 4.09 | 3.96 | 3.70 | 4.05 | 3.62 |
| PCM1 | 6.50 | 6.91 | 7.43 | 6.76 | 6.17 | 7.35 | 7.12 | 6.38 |
| PCMT1 | 8.30 | 6.45 | 7.33 | 6.72 | 7.12 | 7.63 | 7.23 | 7.28 |
| PCMTD1 | 5.88 | 6.02 | 6.37 | 6.33 | 6.58 | 6.09 | 6.54 | 6.85 |
| PCMTD1P3 | -2.04 | -2.01 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| PCMTD1P7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PCMTD2 | 4.15 | 3.66 | 4.28 | 4.14 | 4.19 | 4.26 | 4.08 | 3.91 |
| PCNA | 8.61 | 8.16 | 8.02 | 8.23 | 7.84 | 8.15 | 8.07 | 7.66 |
| PCNAP3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| PCNP | 7.64 | 6.66 | 7.18 | 6.60 | 7.10 | 7.28 | 7.25 | 7.61 |
| PCNPP1 | -1.59 | -1.53 | -1.53 | -1.60 | -1.59 | -1.55 | -1.49 | -1.56 |
| PCNPP3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| PCNPP5 | -1.35 | -1.47 | -1.40 | -1.48 | -1.47 | -1.43 | -1.48 | -1.44 |
| PCNT | 5.44 | 4.90 | 5.32 | 5.79 | 5.04 | 6.07 | 6.19 | 5.33 |
| PCNX1 | 3.94 | 4.35 | 4.73 | 4.32 | 3.83 | 4.34 | 4.68 | 3.35 |
| PCNX2 | 3.33 | 4.27 | 3.81 | 4.55 | 3.54 | 4.39 | 3.85 | 2.96 |
| PCNX3 | 5.07 | 4.90 | 5.76 | 4.50 | 5.08 | 5.15 | 5.35 | 5.40 |
| PCNX4 | 3.42 | 4.28 | 4.57 | 4.28 | 4.16 | 5.18 | 4.81 | 3.79 |
| PCOLCE | 2.41 | 2.77 | 2.12 | 2.95 | 2.97 | 2.79 | 2.59 | 2.60 |
| PCOLCE-AS1 | -2.13 | -2.14 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| PCOLCE2 | 1.62 | 1.72 | 1.60 | 2.08 | 1.02 | 1.30 | 1.17 | 1.20 |
| PCOTH | 0.01 | -0.20 | -0.01 | -0.13 | -0.01 | -0.02 | -0.06 | 0.15 |
| PCP2 | -0.25 | -0.39 | -0.22 | -0.33 | -0.15 | -0.33 | -0.18 | -0.23 |
| PCP4 | -1.36 | -1.08 | -1.20 | -1.30 | -1.36 | -1.31 | -1.37 | -1.32 |
| PCP4L1 | 2.28 | 0.80 | 1.03 | 1.10 | 0.84 | 0.87 | 0.85 | 0.79 |
| PCSK1N | 4.18 | 4.03 | 3.02 | 4.01 | 4.61 | 3.05 | 3.86 | 3.03 |
| PCSK4 | -0.04 | -0.08 | -0.12 | -0.11 | 0.03 | -0.22 | -0.10 | 0.11 |
| PCSK5 | 3.86 | 4.43 | 5.18 | 4.69 | 3.39 | 3.94 | 5.58 | 3.14 |
| PCSK6 | 2.81 | 3.64 | 2.93 | 3.97 | 3.49 | 2.79 | 3.51 | 3.13 |
| PCSK7 | 5.27 | 6.63 | 5.92 | 6.74 | 5.24 | 5.16 | 6.59 | 5.60 |
| PCSK9 | 5.84 | 6.85 | 7.08 | 7.04 | 6.88 | 6.29 | 7.21 | 6.28 |
| PCTP | 5.81 | 5.65 | 5.30 | 5.69 | 5.41 | 5.83 | 4.42 | 5.61 |
| PCYOX1 | 6.94 | 6.73 | 6.68 | 6.74 | 6.74 | 6.05 | 7.04 | 6.22 |
| PCYOX1L | 3.08 | 3.48 | 4.13 | 3.31 | 4.15 | 3.74 | 4.15 | 3.18 |
| PCYT1A | 5.12 | 5.21 | 5.27 | 5.35 | 5.10 | 5.00 | 5.32 | 5.41 |
| PCYT1B | -1.92 | -1.96 | -1.98 | -1.89 | -1.99 | -2.00 | -2.00 | -2.01 |
| PCYT2 | 7.66 | 7.16 | 6.90 | 7.50 | 8.01 | 7.42 | 6.95 | 7.29 |
| PDAP1 | 6.75 | 6.80 | 6.49 | 6.98 | 7.25 | 7.03 | 7.03 | 7.33 |
| PDCD1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| PDCD10 | 8.28 | 6.94 | 7.63 | 7.13 | 7.58 | 7.51 | 7.39 | 8.38 |
| PDCD11 | 6.23 | 6.18 | 5.99 | 6.06 | 6.15 | 6.02 | 5.84 | 5.33 |
| PDCD1LG2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PDCD2 | 7.38 | 6.34 | 6.03 | 6.43 | 6.71 | 6.39 | 6.44 | 6.71 |
| PDCD2L | 4.86 | 4.55 | 4.21 | 4.46 | 5.14 | 4.44 | 4.24 | 4.31 |
| PDCD4 | 5.32 | 6.47 | 5.78 | 6.54 | 6.71 | 6.31 | 5.97 | 6.17 |
| PDCD4-AS1 | 0.40 | 0.33 | 0.39 | 0.44 | 0.64 | 0.35 | 0.24 | 0.29 |
| PDCD5 | 9.32 | 8.51 | 8.08 | 8.62 | 8.74 | 8.38 | 7.70 | 7.46 |
| PDCD5P1 | 0.44 | 0.45 | 0.58 | 0.44 | 0.39 | 0.40 | 0.35 | 0.30 |
| PDCD5P2 | -0.84 | -0.83 | -0.75 | -0.84 | -0.80 | -0.83 | -0.92 | -0.93 |
| PDCD6 | 2.40 | 2.25 | 2.24 | 2.28 | 2.60 | 2.27 | 2.09 | 2.61 |
| PDCD6IP | 6.62 | 7.03 | 6.72 | 6.83 | 6.42 | 6.46 | 7.20 | 6.40 |
| PDCD6IPP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| PDCD6IPP2 | -1.75 | -1.79 | -1.78 | -1.79 | -1.79 | -1.78 | -1.79 | -1.81 |
| PDCD7 | 6.76 | 6.08 | 6.75 | 6.11 | 6.37 | 6.18 | 6.12 | 6.39 |
| PDCL | 5.29 | 4.98 | 4.65 | 4.66 | 4.28 | 4.84 | 4.52 | 4.54 |
| PDCL2 | -2.04 | -2.04 | -1.98 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| PDCL3 | 5.50 | 4.09 | 4.84 | 4.46 | 5.01 | 5.16 | 4.55 | 4.81 |
| PDCL3P2 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.05 |
| PDCL3P4 | -1.65 | -1.59 | -1.64 | -1.65 | -1.62 | -1.58 | -1.60 | -1.53 |
| PDCL3P5 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.05 | -2.03 |
| PDCL3P6 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| PDE10A | -0.24 | -0.39 | -0.38 | -0.40 | -0.39 | -0.41 | -0.40 | -0.36 |
| PDE12 | 4.15 | 4.88 | 4.71 | 4.84 | 4.43 | 4.61 | 4.96 | 4.11 |
| PDE1A | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| PDE1B | -2.30 | -2.30 | -2.27 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| PDE1C | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| PDE2A | -1.45 | -1.51 | -1.19 | -1.52 | -1.42 | -1.49 | -1.52 | -1.54 |
| PDE3A | 0.09 | 0.10 | 0.12 | 0.09 | 0.15 | 0.07 | 0.85 | 0.19 |
| PDE3B | 1.35 | 1.43 | 1.22 | 1.20 | 1.77 | 0.99 | 0.89 | 1.04 |
| PDE4A | 3.75 | 3.44 | 3.66 | 2.68 | 3.30 | 3.30 | 2.88 | 3.10 |
| PDE4B | -0.57 | -0.72 | -0.71 | -0.66 | -0.72 | -0.70 | -0.73 | -0.68 |
| PDE4D | 3.48 | 3.55 | 3.51 | 3.99 | 2.86 | 3.47 | 3.39 | 3.25 |
| PDE4DIP | 4.80 | 5.12 | 4.04 | 5.44 | 4.60 | 5.12 | 4.91 | 5.05 |
| PDE5A | 2.79 | 2.45 | 3.22 | 2.54 | 2.92 | 2.69 | 3.79 | 2.16 |
| PDE6A | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 |
| PDE6B | -0.04 | 0.65 | 0.00 | -0.05 | -0.07 | -0.14 | 0.02 | -0.16 |
| PDE6C | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| PDE6D | 5.81 | 4.94 | 5.36 | 5.41 | 6.33 | 6.35 | 5.25 | 5.59 |
| PDE7A | 3.19 | 2.86 | 4.03 | 3.10 | 3.38 | 3.28 | 3.45 | 3.36 |
| PDE7B | -1.49 | -1.54 | -1.58 | -1.60 | -1.57 | -1.37 | -1.60 | -1.62 |
| PDE8A | 4.35 | 4.22 | 4.67 | 4.00 | 3.92 | 4.41 | 4.80 | 4.10 |
| PDE8B | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.69 | -1.75 | -1.81 |
| PDE9A | 4.31 | 4.25 | 4.09 | 3.82 | 3.59 | 3.30 | 5.05 | 4.89 |
| PDF | -1.48 | -1.59 | -1.52 | -1.54 | -1.56 | -1.60 | -1.54 | -1.56 |
| PDGFA | 4.56 | 4.72 | 4.28 | 4.54 | 5.23 | 4.17 | 4.68 | 4.91 |
| PDGFB | 2.32 | 2.68 | 3.17 | 2.28 | 2.32 | 2.53 | 3.24 | 3.22 |
| PDGFC | 3.05 | 3.91 | 3.68 | 4.05 | 2.57 | 3.22 | 3.78 | 3.71 |
| PDGFD | -1.84 | -1.84 | -1.78 | -1.85 | -1.84 | -1.85 | -1.80 | -1.86 |
| PDGFRA | -0.76 | -0.76 | -0.74 | -0.77 | -0.12 | -0.74 | -0.77 | -0.72 |
| PDGFRB | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| PDGFRL | 0.63 | 0.85 | 0.85 | 1.35 | 1.26 | 0.74 | 0.69 | 0.63 |

| | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| PDHA1 | 7.59 | 6.98 | 7.55 | 6.91 | 7.35 | 6.91 | 6.92 | 6.56 |
| PDHB | 7.03 | 6.82 | 6.75 | 7.26 | 7.71 | 7.25 | 7.07 | 7.16 |
| PDHX | 5.56 | 4.95 | 5.25 | 4.78 | 5.08 | 4.83 | 5.15 | 5.62 |
| PDIA2 | -1.40 | -1.45 | -1.39 | -1.46 | -1.28 | -1.41 | -1.47 | -1.37 |
| PDIA3 | 10.40 | 9.99 | 10.03 | 10.41 | 10.87 | 9.59 | 9.69 | 10.98 |
| PDIA3P1 | 3.01 | 2.93 | 2.51 | 3.33 | 3.39 | 2.72 | 2.85 | 3.63 |
| PDIA4 | 8.19 | 8.67 | 8.76 | 8.97 | 9.56 | 8.37 | 8.37 | 8.74 |
| PDIA5 | 5.98 | 5.15 | 6.16 | 5.33 | 7.41 | 5.43 | 6.06 | 6.61 |
| PDIA6 | 9.76 | 9.19 | 9.07 | 9.65 | 9.46 | 9.21 | 8.78 | 10.02 |
| PDIK1L | 2.65 | 2.79 | 3.11 | 2.39 | 2.52 | 3.17 | 2.99 | 2.87 |
| PDK1 | 3.93 | 4.55 | 4.92 | 4.20 | 4.51 | 3.70 | 5.25 | 3.85 |
| PDK2 | 5.37 | 4.40 | 4.27 | 4.84 | 4.97 | 4.83 | 4.53 | 4.78 |
| PDK3 | 4.91 | 4.37 | 5.84 | 4.02 | 5.23 | 5.28 | 4.98 | 3.93 |
| PDK4 | 3.80 | 3.41 | 4.14 | 2.92 | 3.66 | 3.30 | 3.77 | 4.60 |
| PDLIM1 | 7.59 | 7.79 | 7.28 | 7.51 | 7.64 | 7.51 | 7.52 | 6.73 |
| PDLIM1P4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| PDLIM2 | 5.24 | 4.75 | 5.15 | 4.50 | 4.57 | 5.29 | 5.24 | 4.88 |
| PDLIM3 | -0.64 | -0.64 | -0.79 | -0.73 | -0.80 | -0.71 | -0.81 | -0.60 |
| PDLIM4 | 3.89 | 2.91 | 5.38 | 3.33 | 5.69 | 6.68 | 4.46 | 3.20 |
| PDLIM5 | 5.14 | 6.66 | 6.65 | 6.31 | 5.50 | 6.09 | 7.00 | 6.38 |
| PDLIM7 | 5.72 | 6.25 | 6.49 | 6.11 | 5.86 | 6.31 | 5.55 | 6.28 |
| PDP1 | 3.87 | 3.60 | 4.50 | 3.34 | 3.77 | 4.78 | 4.17 | 4.06 |
| PDP2 | 4.44 | 4.72 | 4.34 | 4.34 | 4.48 | 4.18 | 5.01 | 4.32 |
| PDPK1 | 5.12 | 5.77 | 5.54 | 5.72 | 5.09 | 5.53 | 5.91 | 5.83 |
| PDPR | 3.75 | 4.60 | 4.97 | 4.28 | 4.03 | 4.18 | 4.60 | 3.67 |
| PDRG1 | 6.57 | 6.15 | 5.87 | 6.16 | 6.11 | 5.91 | 5.27 | 5.71 |
| PDS5A | 5.73 | 6.20 | 6.45 | 5.97 | 5.75 | 6.12 | 6.82 | 6.27 |
| PDS5B | 4.91 | 5.48 | 6.09 | 5.25 | 5.62 | 5.31 | 6.30 | 5.61 |
| PDSS1 | 3.50 | 3.69 | 3.47 | 3.91 | 3.36 | 3.26 | 3.62 | 2.90 |
| PDSS2 | 4.31 | 3.50 | 3.67 | 3.45 | 3.65 | 3.81 | 3.87 | 3.88 |
| PDX1 | 3.64 | 4.03 | 3.83 | 4.38 | 5.11 | 3.47 | 4.38 | 3.46 |
| PDXDC1 | 5.99 | 6.98 | 6.76 | 7.06 | 5.98 | 6.32 | 6.94 | 6.92 |
| PDXDC2P | -0.77 | -0.83 | -0.82 | -0.77 | -0.80 | -0.72 | -0.77 | -0.68 |
| PDXK | 8.65 | 8.89 | 8.25 | 8.58 | 7.81 | 8.79 | 7.84 | 9.31 |
| PDXP | -1.64 | -1.68 | -1.68 | -1.69 | -1.69 | -1.70 | -1.59 | -1.71 |
| PDZD11 | 6.87 | 6.69 | 6.52 | 6.71 | 6.91 | 6.47 | 6.12 | 6.22 |
| PDZD2 | -0.24 | -0.23 | -0.11 | -0.15 | -0.18 | -0.26 | 0.03 | -0.20 |
| PDZD3 | 1.58 | 2.60 | 2.05 | 2.97 | 1.80 | 1.75 | 2.88 | 1.76 |
| PDZD4 | -1.74 | -1.79 | -1.78 | -1.79 | -1.62 | -1.80 | -1.80 | -1.81 |
| PDZD7 | 1.79 | 1.41 | 1.68 | 1.59 | 2.08 | 2.13 | 1.58 | 1.53 |
| PDZD8 | 6.35 | 7.44 | 6.87 | 7.29 | 6.50 | 6.73 | 7.46 | 6.67 |
| PDZK1 | 0.86 | 0.88 | 1.01 | 1.07 | 1.54 | 1.04 | 1.40 | 0.93 |
| PDZK1IP1 | 6.55 | 6.42 | 6.98 | 6.40 | 6.21 | 5.32 | 7.27 | 6.08 |
| PEA15 | 6.25 | 5.90 | 5.89 | 5.89 | 5.55 | 6.00 | 6.08 | 6.16 |
| PEAK1 | 3.74 | 4.49 | 4.80 | 4.44 | 4.59 | 4.18 | 4.77 | 3.44 |
| PEAR1 | 0.57 | 0.49 | 0.50 | 0.69 | 0.41 | 0.68 | 0.50 | 0.71 |
| PEBP1 | 5.99 | 8.95 | 8.69 | 9.32 | 8.83 | 8.83 | 8.81 | 9.15 |
| PEBP1P2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.26 |
| PEBP4 | 0.37 | 0.74 | 0.50 | 0.29 | 0.42 | 0.52 | 0.66 | 1.09 |
| PECAM1 | -0.62 | -0.53 | 0.14 | -0.54 | -0.62 | -0.52 | -0.48 | 0.21 |
| PECR | 5.19 | 4.79 | 5.17 | 4.60 | 4.84 | 4.76 | 5.65 | 4.39 |
| PEF1 | 5.16 | 5.55 | 5.69 | 5.49 | 6.05 | 6.32 | 5.90 | 6.28 |
| PEG10 | 3.02 | 3.16 | 3.16 | 3.05 | 3.19 | 5.20 | 4.95 | 2.95 |
| PEG13 | -1.41 | -1.41 | -1.39 | -1.42 | -0.98 | -1.39 | -1.35 | -1.44 |
| PEG3 | -1.45 | -1.44 | -1.37 | -1.39 | -1.44 | -1.46 | -1.09 | -1.47 |
| PELI1 | 4.50 | 5.02 | 4.78 | 4.80 | 4.80 | 4.27 | 4.83 | 4.35 |
| PELI2 | 2.78 | 2.44 | 2.84 | 2.50 | 3.31 | 2.69 | 2.41 | 2.54 |
| PELI3 | 4.79 | 3.27 | 4.20 | 3.92 | 3.40 | 3.26 | 3.45 | 3.71 |
| PELO | 5.10 | 5.52 | 5.37 | 5.53 | 5.66 | 5.73 | 5.11 | 5.69 |
| PELP1 | 4.32 | 4.24 | 5.44 | 4.48 | 4.68 | 4.70 | 4.78 | 4.40 |
| PEMT | 5.30 | 4.31 | 4.35 | 4.10 | 4.89 | 4.79 | 4.86 | 5.20 |
| PEPD | 6.91 | 6.98 | 6.17 | 7.26 | 7.14 | 8.16 | 6.86 | 9.11 |
| PER2 | 4.44 | 4.65 | 4.30 | 4.60 | 4.07 | 4.53 | 4.51 | 4.82 |
| PER3 | 4.66 | 5.52 | 4.57 | 5.62 | 3.92 | 4.04 | 4.16 | 4.93 |
| PERM1 | -0.26 | -0.70 | -0.77 | -0.79 | -0.74 | -0.76 | -0.79 | -0.74 |
| PERP | 9.84 | 10.40 | 9.06 | 10.51 | 8.96 | 9.40 | 9.37 | 10.38 |
| PES1 | 6.58 | 5.92 | 6.15 | 6.24 | 5.70 | 6.24 | 5.88 | 6.19 |
| PES1P2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| PET100 | 6.91 | 6.99 | 6.74 | 7.00 | 7.54 | 7.10 | 6.38 | 7.29 |
| PET117 | 5.90 | 5.78 | 5.41 | 5.88 | 5.62 | 5.61 | 6.11 | 5.78 |
| PEX1 | 4.12 | 4.80 | 4.43 | 4.87 | 4.84 | 4.47 | 4.87 | 4.56 |
| PEX10 | 5.21 | 4.70 | 4.81 | 4.68 | 4.79 | 4.73 | 4.42 | 4.70 |
| PEX11A | 4.81 | 4.27 | 4.28 | 4.07 | 4.28 | 3.87 | 4.65 | 4.84 |
| PEX11B | 5.85 | 6.02 | 5.37 | 6.47 | 5.48 | 5.69 | 5.34 | 6.00 |
| PEX11G | 3.07 | 3.36 | 3.04 | 3.35 | 3.45 | 2.86 | 2.95 | 2.96 |
| PEX12 | 2.32 | 1.86 | 2.28 | 2.35 | 2.41 | 2.15 | 2.51 | 2.45 |
| PEX13 | 5.61 | 5.45 | 5.26 | 5.66 | 6.04 | 5.68 | 5.30 | 6.02 |
| PEX14 | 4.62 | 4.51 | 4.36 | 4.45 | 4.34 | 4.33 | 4.31 | 4.37 |
| PEX16 | 5.98 | 5.83 | 5.50 | 5.86 | 5.94 | 5.54 | 4.78 | 6.28 |
| PEX19 | 5.63 | 5.29 | 5.03 | 5.22 | 5.47 | 5.78 | 5.25 | 6.21 |
| PEX2 | 5.73 | 5.71 | 5.71 | 5.86 | 5.77 | 6.01 | 5.53 | 6.54 |
| PEX26 | 4.54 | 5.38 | 5.02 | 5.02 | 4.37 | 4.69 | 5.22 | 4.40 |
| PEX3 | 4.72 | 4.54 | 4.23 | 4.55 | 3.94 | 4.67 | 4.67 | 4.00 |
| PEX5 | 4.53 | 4.40 | 4.92 | 4.56 | 5.00 | 3.52 | 4.17 | 4.27 |
| PEX5L | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PEX6 | 5.14 | 4.65 | 4.79 | 4.54 | 4.72 | 5.38 | 4.61 | 4.99 |
| PEX7 | 4.62 | 4.15 | 4.50 | 4.32 | 4.52 | 4.59 | 4.37 | 4.30 |
| PF4 | 2.98 | 2.23 | 2.48 | 3.12 | 3.81 | 2.51 | 4.04 | 2.57 |
| PF4V1 | -0.05 | -0.26 | 0.02 | -0.27 | -0.22 | -0.05 | -0.20 | -0.11 |
| PFAS | 2.50 | 2.21 | 2.86 | 2.30 | 2.17 | 2.38 | 2.78 | 2.31 |
| PFDN1 | 6.97 | 7.05 | 6.58 | 7.13 | 7.39 | 7.12 | 6.84 | 7.14 |
| PFDN2 | 8.72 | 8.08 | 7.81 | 7.89 | 8.60 | 8.80 | 7.49 | 8.97 |
| PFDN4 | 8.57 | 7.27 | 7.14 | 6.98 | 7.60 | 7.59 | 6.42 | 7.43 |
| PFDN5 | 9.19 | 9.47 | 8.60 | 9.49 | 9.83 | 9.71 | 8.67 | 9.30 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PFDN6 | 7.16 | 6.55 | 6.20 | 6.63 | 6.11 | 7.16 | 6.42 | 7.31 |
| PFKFB1 | -1.96 | -1.96 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -2.01 |
| PFKFB2 | 4.77 | 4.63 | 5.68 | 4.43 | 5.66 | 4.52 | 5.34 | 5.60 |
| PFKFB3 | 4.05 | 4.81 | 5.58 | 4.69 | 5.10 | 4.25 | 5.92 | 4.20 |
| PFKFB4 | 3.19 | 3.18 | 3.85 | 3.12 | 3.19 | 3.14 | 4.34 | 2.43 |
| PFKL | 7.12 | 6.77 | 7.14 | 6.75 | 6.45 | 7.00 | 7.18 | 6.82 |
| PFKM | 5.55 | 5.63 | 5.65 | 5.46 | 5.30 | 5.43 | 5.32 | 4.82 |
| PFKP | 5.80 | 7.18 | 7.74 | 6.79 | 7.31 | 7.27 | 7.57 | 6.70 |
| PFN1 | 10.43 | 10.18 | 10.19 | 10.30 | 10.32 | 10.26 | 10.38 | 10.49 |
| PFN1P1 | 3.40 | 3.13 | 3.08 | 3.40 | 3.48 | 3.37 | 3.26 | 3.75 |
| PFN1P2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| PFN1P9 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| PFN2 | 6.73 | 4.80 | 5.93 | 4.76 | 6.21 | 5.43 | 5.91 | 7.05 |
| PFN3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| PFN4 | -0.83 | -0.96 | -0.87 | -0.90 | -0.89 | -0.94 | -0.97 | -0.72 |
| PGAM1 | 3.29 | 3.38 | 2.63 | 3.04 | 3.23 | 3.42 | 3.19 | 3.00 |
| PGAM1P11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.34 |
| PGAM1P5 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| PGAM1P6 | -1.96 | -1.99 | -1.98 | -1.93 | -1.99 | -1.98 | -1.93 | -2.01 |
| PGAM1P7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| PGAM1P8 | 0.71 | 0.49 | 0.51 | 0.70 | 0.65 | 0.85 | 0.88 | 0.68 |
| PGAM2 | -1.35 | -1.46 | -1.45 | -1.41 | -1.46 | -1.47 | -1.41 | -1.48 |
| PGAM4 | -2.07 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 |
| PGAM5 | 5.49 | 6.20 | 6.40 | 6.07 | 5.79 | 5.71 | 5.52 | 6.13 |
| PGAP1 | 2.98 | 3.47 | 3.30 | 3.41 | 3.53 | 3.07 | 3.21 | 3.49 |
| PGAP2 | 6.09 | 5.32 | 5.07 | 5.42 | 5.83 | 5.21 | 5.42 | 5.63 |
| PGAP3 | 3.83 | 4.03 | 4.09 | 4.10 | 3.66 | 4.06 | 3.99 | 4.90 |
| PGBD1 | 1.56 | 0.75 | 1.02 | 0.94 | 1.24 | 1.21 | 1.10 | 0.97 |
| PGBD2 | 2.22 | 2.57 | 2.08 | 2.82 | 2.36 | 2.20 | 2.81 | 2.34 |
| PGBD4 | 2.20 | 1.92 | 2.25 | 2.28 | 2.59 | 2.34 | 2.50 | 2.20 |
| PGBD4P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PGBD5 | 1.38 | 1.48 | 1.27 | 1.48 | 1.32 | 1.18 | 1.48 | 0.97 |
| PGC | 6.91 | 5.41 | 6.49 | 5.29 | 10.41 | 4.85 | 9.12 | 4.82 |
| PGD | 8.40 | 7.80 | 7.64 | 8.07 | 7.90 | 7.80 | 7.66 | 7.64 |
| PGDP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| PGF | 2.86 | 1.87 | 1.75 | 1.59 | 2.31 | 2.11 | 1.72 | 1.88 |
| PGGHG | 3.05 | 2.75 | 2.68 | 3.88 | 3.56 | 2.66 | 2.73 | 2.95 |
| PGGT1B | 4.30 | 5.25 | 4.96 | 5.02 | 4.88 | 4.45 | 4.99 | 4.64 |
| PGK1 | 9.75 | 9.88 | 10.73 | 9.76 | 10.53 | 9.72 | 10.04 | 8.99 |
| PGK1P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PGLYRP1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| PGLYRP4 | -1.99 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| PGM1 | 5.65 | 6.19 | 5.70 | 6.08 | 6.43 | 6.11 | 6.00 | 6.54 |
| PGM2 | 4.38 | 4.86 | 4.70 | 4.56 | 4.31 | 5.08 | 4.54 | 4.68 |
| PGM2L1 | 4.64 | 4.91 | 5.08 | 4.55 | 4.55 | 5.94 | 4.53 | 3.52 |
| PGM3 | 5.86 | 4.91 | 4.96 | 4.95 | 5.50 | 5.43 | 5.82 | 6.22 |
| PGM5P2 | -1.75 | -1.79 | -1.78 | -1.79 | -1.76 | -1.75 | -1.79 | -1.81 |
| PGP | 7.79 | 7.10 | 6.61 | 7.39 | 6.71 | 7.24 | 6.97 | 7.65 |
| PGPEP1 | 3.90 | 5.31 | 4.65 | 5.21 | 4.66 | 4.75 | 6.15 | 4.64 |
| PGRMC1 | 7.08 | 7.61 | 7.36 | 7.54 | 7.50 | 6.75 | 7.16 | 8.44 |
| PGRMC2 | 5.93 | 6.62 | 6.29 | 6.66 | 6.12 | 6.39 | 6.56 | 6.70 |
| PGS1 | 4.80 | 3.88 | 4.68 | 4.35 | 4.59 | 4.54 | 4.08 | 4.26 |
| PHACTR1 | -0.03 | -0.25 | -0.24 | 0.03 | -0.14 | -0.20 | -0.26 | -0.07 |
| PHACTR2 | 6.16 | 6.54 | 6.14 | 6.52 | 5.11 | 6.40 | 7.06 | 5.42 |
| PHACTR2-AS1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| PHACTR3 | 4.46 | 5.08 | 4.08 | 5.31 | 4.26 | 4.47 | 3.98 | 5.74 |
| PHACTR4 | 5.40 | 5.62 | 5.65 | 5.40 | 5.84 | 5.90 | 6.36 | 5.13 |
| PHAX | 6.81 | 7.18 | 6.98 | 6.91 | 6.70 | 7.08 | 6.76 | 6.36 |
| PHB | 9.27 | 9.03 | 8.83 | 9.15 | 9.39 | 9.08 | 8.45 | 8.83 |
| PHB2 | 7.73 | 7.40 | 7.18 | 7.58 | 8.81 | 6.69 | 7.18 | 7.45 |
| PHBP11 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| PHBP19 | -0.43 | -0.34 | -0.28 | -0.19 | -0.35 | -0.28 | -0.37 | -0.41 |
| PHBP20 | -1.85 | -1.89 | -1.84 | -1.89 | -1.89 | -1.88 | -1.86 | -1.91 |
| PHBP3 | -2.18 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| PHBP7 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| PHBP8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| PHC1 | 1.15 | 1.10 | 1.15 | 1.11 | 1.09 | 1.05 | 0.99 | 1.17 |
| PHC2 | 5.97 | 6.23 | 7.16 | 6.20 | 7.50 | 6.91 | 7.38 | 6.87 |
| PHC3 | 4.76 | 4.96 | 5.04 | 4.95 | 4.28 | 4.80 | 5.20 | 4.92 |
| PHETA1 | 3.26 | 4.71 | 4.01 | 4.61 | 3.59 | 3.51 | 4.55 | 4.47 |
| PHETA2 | 2.05 | 3.73 | 2.13 | 3.25 | 2.92 | 2.95 | 2.61 | 3.93 |
| PHEX | 0.18 | 0.55 | 0.64 | 0.25 | 0.23 | 0.16 | 0.31 | 0.13 |
| PHF1 | 4.34 | 4.11 | 4.23 | 4.37 | 4.51 | 4.86 | 4.37 | 6.01 |
| PHF10 | 5.56 | 4.84 | 5.01 | 4.41 | 5.01 | 4.95 | 5.71 | 4.98 |
| PHF11 | 4.42 | 4.31 | 4.47 | 4.07 | 4.79 | 4.04 | 4.67 | 5.55 |
| PHF12 | 3.86 | 4.04 | 4.61 | 3.95 | 4.03 | 4.38 | 4.33 | 4.26 |
| PHF13 | 4.05 | 3.80 | 4.62 | 3.70 | 4.09 | 3.92 | 4.19 | 4.12 |
| PHF14 | 6.39 | 6.71 | 6.47 | 6.63 | 6.55 | 6.44 | 6.23 | 6.15 |
| PHF19 | 4.63 | 5.29 | 4.79 | 5.43 | 4.69 | 5.71 | 4.75 | 4.64 |
| PHF2 | 3.95 | 4.38 | 4.49 | 4.57 | 3.90 | 4.39 | 4.72 | 4.44 |
| PHF20 | 6.61 | 5.66 | 6.12 | 6.07 | 6.35 | 6.38 | 5.89 | 6.11 |
| PHF20L1 | 6.31 | 6.33 | 7.03 | 6.49 | 6.09 | 6.62 | 6.37 | 6.54 |
| PHF21A | 3.51 | 3.74 | 3.52 | 3.63 | 3.80 | 3.51 | 3.99 | 3.89 |
| PHF21B | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| PHF23 | 5.27 | 4.73 | 4.93 | 4.81 | 4.88 | 5.19 | 4.83 | 5.69 |
| PHF24 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.18 | -2.20 | -2.21 |
| PHF3 | 6.16 | 5.69 | 6.38 | 5.46 | 6.11 | 6.10 | 6.77 | 5.88 |
| PHF5A | 6.44 | 6.06 | 5.74 | 6.51 | 6.09 | 6.28 | 5.91 | 6.48 |
| PHF5CP | -2.25 | -2.25 | -2.23 | -2.23 | -2.25 | -2.26 | -2.24 | -2.26 |
| PHF6 | 5.81 | 5.81 | 6.07 | 5.18 | 5.94 | 6.29 | 5.85 | 6.02 |
| PHF7 | 4.28 | 2.92 | 2.82 | 2.96 | 3.34 | 3.15 | 2.93 | 3.31 |
| PHF8 | 2.65 | 3.03 | 3.36 | 2.91 | 3.33 | 2.86 | 2.88 | 2.79 |
| PHGDH | 6.01 | 6.30 | 7.13 | 6.75 | 6.90 | 7.85 | 6.96 | 9.69 |
| PHGR1 | 6.39 | 8.78 | 6.90 | 9.17 | 7.92 | 7.43 | 9.92 | 8.95 |

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|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PHIP | 6.36 | 6.93 | 7.20 | 6.45 | 6.09 | 6.77 | 7.24 | 5.85 |
| PHKA1 | 3.69 | 4.30 | 4.48 | 4.17 | 4.29 | 3.73 | 4.58 | 4.08 |
| PHKA1-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| PHKA1P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| PHKA2 | 3.81 | 3.67 | 4.88 | 3.98 | 4.63 | 4.09 | 5.06 | 3.54 |
| PHKA2-AS1 | -1.69 | -1.69 | -1.73 | -1.74 | -1.74 | -1.75 | -1.70 | -1.76 |
| PHKB | 5.10 | 6.26 | 5.85 | 5.76 | 5.11 | 4.95 | 5.73 | 5.52 |
| PHKG1 | 4.21 | 4.07 | 3.48 | 4.27 | 4.87 | 3.95 | 4.07 | 4.02 |
| PHKG2 | 6.22 | 5.10 | 5.33 | 5.30 | 4.98 | 5.26 | 5.16 | 5.54 |
| PHLDA1 | 7.35 | 7.91 | 7.84 | 6.90 | 8.55 | 9.07 | 7.07 | 8.82 |
| PHLDA2 | 10.09 | 8.99 | 9.44 | 9.15 | 9.65 | 9.92 | 9.24 | 9.97 |
| PHLDA3 | 6.90 | 7.54 | 6.28 | 7.65 | 7.29 | 6.90 | 6.70 | 7.84 |
| PHLDB1 | 3.75 | 2.88 | 4.71 | 3.06 | 3.08 | 3.54 | 3.40 | 2.96 |
| PHLDB2 | 3.47 | 3.44 | 4.12 | 3.32 | 3.79 | 4.16 | 5.21 | 4.56 |
| PHLDB3 | 4.12 | 2.75 | 2.61 | 2.77 | 2.98 | 2.93 | 3.21 | 3.47 |
| PHLPP1 | 2.75 | 2.87 | 3.43 | 2.55 | 2.73 | 2.63 | 3.64 | 2.54 |
| PHLPP2 | 3.16 | 2.70 | 3.14 | 2.71 | 2.88 | 3.19 | 3.42 | 2.30 |
| PHOSPHO2 | 3.80 | 2.97 | 3.17 | 3.32 | 3.01 | 2.93 | 2.76 | 2.72 |
| PHOX2A | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| PHPT1 | 7.73 | 7.81 | 6.70 | 8.19 | 6.90 | 7.48 | 6.94 | 7.09 |
| PHRF1 | 5.33 | 5.72 | 6.06 | 5.58 | 5.42 | 5.26 | 5.51 | 5.56 |
| PHTF1 | 5.05 | 4.42 | 4.43 | 4.61 | 4.21 | 3.86 | 4.42 | 3.92 |
| PHTF2 | 3.31 | 3.54 | 4.28 | 3.40 | 4.03 | 3.83 | 3.92 | 4.22 |
| PHYH | 5.85 | 6.09 | 5.78 | 6.13 | 6.41 | 5.76 | 5.15 | 6.48 |
| PHYHD1 | 0.89 | 1.78 | 0.85 | 1.82 | 1.88 | 0.93 | 1.16 | 1.76 |
| PHYHIP | -0.91 | -0.81 | -0.39 | -0.91 | -0.77 | -0.80 | -0.91 | -0.92 |
| PHYHIPL | -0.57 | -0.56 | -0.55 | -0.50 | -0.57 | -0.58 | -0.35 | -0.53 |
| PHYKPL | 3.44 | 4.13 | 3.72 | 4.42 | 4.49 | 3.91 | 4.28 | 4.22 |
| PI16 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.04 | -2.05 | -2.06 |
| PI3 | 10.85 | 6.16 | 6.74 | 6.53 | 6.74 | 5.98 | 7.25 | 7.35 |
| PI4K2A | 4.65 | 4.19 | 4.22 | 4.53 | 4.30 | 4.24 | 4.31 | 4.44 |
| PI4K2B | 3.83 | 4.94 | 4.76 | 4.56 | 3.89 | 4.33 | 4.62 | 4.03 |
| PI4KA | 4.55 | 4.68 | 5.06 | 4.90 | 3.99 | 4.39 | 4.88 | 4.12 |
| PI4KAP1 | -0.50 | -0.37 | -0.63 | -0.37 | -0.65 | -0.62 | -0.65 | -0.44 |
| PI4KAP2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.13 | -2.16 |
| PI4KB | 5.09 | 5.39 | 5.13 | 5.14 | 5.16 | 5.24 | 5.50 | 5.48 |
| PIANP | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| PIAS1 | 6.02 | 6.06 | 6.43 | 6.04 | 5.94 | 5.74 | 6.29 | 6.23 |
| PIAS2 | 4.07 | 4.12 | 5.55 | 4.30 | 4.67 | 4.05 | 5.50 | 3.50 |
| PIAS3 | 4.84 | 5.30 | 4.96 | 5.33 | 4.88 | 5.58 | 5.14 | 5.43 |
| PIAS4 | 5.69 | 5.25 | 5.35 | 5.37 | 5.65 | 5.77 | 5.38 | 5.32 |
| PIBF1 | 4.84 | 5.34 | 5.25 | 5.28 | 5.28 | 4.85 | 5.62 | 5.75 |
| PICALM | 5.61 | 6.06 | 6.72 | 5.77 | 5.90 | 5.93 | 6.26 | 6.17 |
| PICART1 | -0.24 | -0.46 | -0.19 | -0.33 | -0.38 | -0.34 | -0.47 | 0.32 |
| PICK1 | 4.66 | 4.76 | 4.02 | 4.94 | 4.09 | 4.16 | 4.72 | 4.31 |
| PICSAR | 0.51 | 0.43 | 0.47 | 0.31 | 0.51 | 2.36 | 0.47 | 0.61 |
| PID1 | -1.11 | -1.10 | -1.09 | -0.86 | -1.06 | -1.12 | -1.04 | -0.84 |
| PIDD1 | 3.36 | 3.53 | 3.67 | 4.02 | 3.44 | 3.07 | 4.22 | 3.56 |
| PIEZO1 | 5.91 | 6.36 | 7.04 | 6.22 | 5.46 | 6.21 | 5.99 | 5.75 |
| PIEZO2 | -0.31 | 0.19 | -0.11 | 0.09 | -0.30 | -0.28 | -0.32 | 0.15 |
| PIF1 | 2.96 | 2.55 | 3.00 | 2.70 | 2.54 | 2.98 | 2.80 | 2.95 |
| PIFO | 1.04 | 1.25 | 0.96 | 1.19 | 1.19 | 0.88 | 0.82 | 1.05 |
| PIGA | 2.08 | 2.86 | 3.20 | 2.24 | 2.64 | 2.53 | 2.83 | 2.25 |
| PIGB | 4.30 | 3.75 | 3.54 | 4.07 | 4.26 | 3.61 | 3.51 | 3.88 |
| PIGBOS1 | 5.35 | 4.46 | 4.63 | 4.67 | 5.12 | 4.76 | 4.42 | 4.87 |
| PIGC | 5.43 | 5.24 | 4.59 | 5.22 | 5.23 | 5.57 | 4.87 | 5.01 |
| PIGF | 6.44 | 5.88 | 5.53 | 6.22 | 7.67 | 5.94 | 5.94 | 6.01 |
| PIGFP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| PIGG | 4.08 | 4.57 | 4.40 | 5.10 | 4.22 | 4.50 | 4.57 | 4.98 |
| PIGH | 5.22 | 5.36 | 4.90 | 5.45 | 6.26 | 5.32 | 5.03 | 4.65 |
| PIGK | 5.10 | 5.62 | 5.19 | 5.78 | 5.77 | 5.50 | 5.20 | 5.32 |
| PIGL | 5.45 | 3.74 | 4.51 | 3.88 | 4.80 | 4.51 | 4.42 | 4.63 |
| PIGM | 5.14 | 5.57 | 5.04 | 5.58 | 5.16 | 5.12 | 4.73 | 4.71 |
| PIGN | 3.80 | 3.95 | 4.46 | 3.96 | 3.92 | 3.61 | 5.18 | 3.47 |
| PIGO | 3.40 | 4.15 | 4.27 | 4.32 | 4.46 | 4.23 | 4.32 | 3.60 |
| PIGP | 6.43 | 6.09 | 5.73 | 6.26 | 5.91 | 4.92 | 5.76 | 6.88 |
| PIGQ | 5.38 | 4.94 | 5.15 | 5.12 | 4.10 | 4.72 | 5.16 | 4.38 |
| PIGR | 6.68 | 8.77 | 8.43 | 8.97 | 8.25 | 6.87 | 9.45 | 6.46 |
| PIGS | 6.41 | 6.31 | 6.38 | 6.44 | 6.29 | 6.12 | 6.23 | 6.18 |
| PIGT | 7.72 | 6.95 | 6.76 | 7.31 | 7.49 | 7.09 | 6.85 | 6.79 |
| PIGU | 6.37 | 5.35 | 5.98 | 5.64 | 6.71 | 6.18 | 6.48 | 6.25 |
| PIGV | 3.62 | 3.67 | 3.85 | 3.99 | 4.54 | 3.84 | 4.08 | 3.55 |
| PIGW | 3.98 | 3.99 | 3.76 | 3.76 | 3.48 | 3.78 | 3.27 | 3.28 |
| PIGX | 6.73 | 5.78 | 6.09 | 5.69 | 5.81 | 5.77 | 6.00 | 5.93 |
| PIGY-DT | -0.70 | -0.76 | -0.67 | -0.70 | -0.80 | -0.79 | -0.64 | -0.64 |
| PIGZ | 3.27 | 2.51 | 3.06 | 3.10 | 2.97 | 2.59 | 2.88 | 2.63 |
| PIH1D1 | 6.72 | 6.49 | 6.27 | 6.60 | 7.18 | 5.91 | 6.37 | 6.55 |
| PIH1D2 | 1.10 | 0.92 | 1.20 | 1.13 | 1.13 | 1.05 | 1.00 | 1.17 |
| PIH1D3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PIK3AP1 | 4.58 | 4.62 | 4.33 | 4.43 | 4.13 | 5.34 | 5.00 | 3.07 |
| PIK3C2A | 5.71 | 6.38 | 6.57 | 6.32 | 6.30 | 6.04 | 7.28 | 6.75 |
| PIK3C2B | 4.46 | 4.78 | 4.80 | 4.50 | 4.74 | 4.53 | 4.95 | 4.90 |
| PIK3C2G | 3.96 | 1.97 | 4.30 | 2.27 | 2.57 | 2.92 | 2.73 | 2.08 |
| PIK3C3 | 3.30 | 4.06 | 4.47 | 3.75 | 3.62 | 3.60 | 5.00 | 3.68 |
| PIK3CA | 3.75 | 4.58 | 5.11 | 4.31 | 4.02 | 4.72 | 5.00 | 5.08 |
| PIK3CB | 5.35 | 4.91 | 6.14 | 4.72 | 5.53 | 5.34 | 5.80 | 6.06 |
| PIK3CD | 1.80 | 1.66 | 1.46 | 1.34 | 1.31 | 1.66 | 1.22 | 1.35 |
| PIK3CD-AS2 | 3.47 | 1.73 | 1.96 | 1.59 | 2.06 | 2.75 | 1.57 | 1.78 |
| PIK3CG | -1.89 | -1.85 | -1.84 | -1.89 | -1.89 | -1.90 | -1.89 | -1.83 |
| PIK3IP1 | 3.25 | 3.05 | 3.61 | 3.62 | 3.18 | 2.92 | 3.21 | 4.17 |
| PIK3IP1-AS1 | -1.28 | -1.35 | -1.33 | -1.23 | -1.28 | -1.33 | -1.36 | -1.31 |
| PIK3R1 | 4.84 | 7.24 | 5.43 | 7.31 | 5.50 | 5.11 | 6.79 | 5.05 |
| PIK3R2 | -0.41 | -0.17 | -0.40 | -0.20 | -0.29 | -0.25 | -0.15 | -0.37 |
| PIK3R3 | 3.23 | 3.14 | 2.92 | 2.94 | 2.83 | 3.24 | 3.15 | 2.54 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PIK3R4 | 3.85 | 3.46 | 4.48 | 3.33 | 3.50 | 4.11 | 4.11 | 4.45 |
| PIKFYVE | 4.29 | 4.39 | 4.27 | 4.66 | 4.49 | 4.97 | 4.85 | 4.35 |
| PILRA | -1.11 | -1.29 | -1.14 | -1.30 | -1.25 | -1.24 | -1.16 | -1.25 |
| PILRB | 2.68 | 3.02 | 3.29 | 3.26 | 2.85 | 2.90 | 2.96 | 2.02 |
| PIM1 | 4.77 | 4.35 | 5.48 | 3.60 | 5.31 | 5.00 | 4.97 | 6.52 |
| PIM2 | 3.74 | 3.62 | 3.35 | 3.63 | 3.98 | 3.58 | 3.40 | 3.04 |
| PIM3 | 8.33 | 7.35 | 7.21 | 6.92 | 7.29 | 7.50 | 7.34 | 8.61 |
| PIMREG | 3.85 | 3.38 | 3.73 | 3.45 | 3.21 | 4.22 | 3.64 | 4.05 |
| PIN1 | 7.23 | 7.46 | 7.16 | 7.49 | 7.25 | 7.53 | 6.87 | 6.84 |
| PIN1P1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.05 |
| PIN4 | 7.29 | 7.21 | 7.06 | 7.13 | 6.84 | 6.83 | 6.73 | 6.28 |
| PIN4P1 | 1.95 | 1.41 | 1.56 | 1.63 | 1.29 | 1.32 | 1.55 | 1.70 |
| PINCR | -1.65 | -1.59 | -1.64 | -1.07 | -1.62 | -1.66 | -1.65 | -1.67 |
| PINK1 | 5.68 | 5.63 | 6.24 | 5.82 | 6.07 | 6.28 | 6.32 | 6.74 |
| PINK1-AS | 0.88 | 1.09 | 1.11 | 1.02 | 0.95 | 1.04 | 1.17 | 1.11 |
| PINLYP | -0.14 | -0.22 | -0.12 | -0.14 | -0.22 | -0.20 | 0.20 | -0.19 |
| PIP | 0.08 | 0.29 | 0.40 | 0.06 | 0.04 | -0.03 | -0.02 | 0.08 |
| PIP4K2A | 3.51 | 4.40 | 4.36 | 4.13 | 4.68 | 4.80 | 4.21 | 4.24 |
| PIP4K2B | 5.00 | 4.68 | 4.96 | 4.92 | 4.35 | 4.50 | 4.81 | 4.64 |
| PIP4K2C | 5.15 | 5.42 | 5.67 | 5.12 | 5.15 | 5.61 | 5.35 | 5.84 |
| PIP4P1 | 6.56 | 5.82 | 5.62 | 6.26 | 6.58 | 6.14 | 5.52 | 5.98 |
| PIP4P2 | 5.28 | 4.45 | 4.84 | 4.54 | 4.75 | 4.73 | 4.68 | 5.25 |
| PIP5K1A | 4.77 | 5.14 | 5.05 | 4.65 | 4.89 | 5.27 | 5.56 | 5.49 |
| PIP5K1B | 3.49 | 4.38 | 3.01 | 4.12 | 3.24 | 2.95 | 3.56 | 3.46 |
| PIP5K1C | 3.74 | 3.52 | 4.36 | 3.63 | 3.80 | 4.26 | 4.45 | 3.92 |
| PIP5KL1 | 2.43 | 1.67 | 2.20 | 1.85 | 2.07 | 2.57 | 1.95 | 2.36 |
| PIPOX | -0.94 | -1.01 | -1.00 | -1.02 | -1.01 | -0.83 | -0.88 | -0.97 |
| PIPSL | -0.19 | -0.45 | -0.44 | -0.26 | -0.46 | -0.32 | -0.54 | -0.50 |
| PIR | 7.59 | 5.54 | 6.06 | 6.05 | 6.28 | 5.31 | 5.16 | 6.99 |
| PISD | 4.87 | 4.64 | 3.88 | 4.87 | 4.46 | 4.45 | 4.54 | 4.62 |
| PITHD1 | 5.21 | 5.12 | 5.68 | 5.25 | 5.79 | 5.38 | 5.54 | 5.55 |
| PITPNA | 5.87 | 5.60 | 5.82 | 5.38 | 5.38 | 5.44 | 6.15 | 5.51 |
| PITPNA-AS1 | 5.41 | 3.76 | 4.45 | 3.97 | 4.63 | 4.48 | 4.01 | 4.44 |
| PITPNB | 6.52 | 5.85 | 5.69 | 5.76 | 5.69 | 6.30 | 6.49 | 6.82 |
| PITPNC1 | 4.68 | 5.21 | 4.63 | 4.82 | 5.71 | 5.16 | 5.27 | 5.54 |
| PITPNM1 | 4.79 | 5.26 | 4.75 | 4.90 | 4.70 | 4.56 | 5.15 | 5.13 |
| PITPNM2 | 1.28 | 1.72 | 1.26 | 1.71 | 1.48 | 1.42 | 1.27 | 1.61 |
| PITPNM3 | 3.84 | 3.82 | 4.48 | 4.01 | 3.35 | 3.69 | 5.53 | 4.49 |
| PITRM1 | 5.47 | 6.17 | 6.31 | 6.26 | 5.34 | 5.76 | 5.98 | 5.64 |
| PITRM1-AS1 | -0.75 | -0.66 | -0.73 | -0.54 | -0.70 | -0.72 | -0.55 | -0.77 |
| PITX1 | 6.19 | 8.15 | 7.59 | 7.64 | 7.67 | 6.78 | 5.98 | 7.51 |
| PITX2 | 0.36 | 0.22 | 0.15 | 0.48 | 0.22 | 0.69 | 0.27 | 0.66 |
| PITX3 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 |
| PIWIL1 | 0.05 | 0.35 | 0.23 | 0.13 | 0.15 | 0.53 | 0.98 | 0.14 |
| PIWIL2 | -0.70 | -0.86 | -0.92 | -0.88 | -0.98 | -0.96 | -0.82 | -0.76 |
| PIWIL4 | 1.15 | 1.24 | 1.49 | 1.53 | 1.39 | 1.44 | 1.92 | 1.49 |
| PJA1 | 4.26 | 3.63 | 4.91 | 3.40 | 4.72 | 4.61 | 4.00 | 5.04 |
| PJA2 | 4.95 | 5.94 | 5.84 | 5.80 | 6.09 | 5.82 | 6.23 | 6.14 |
| PJVK | 0.41 | 0.51 | 0.29 | 0.41 | 0.73 | 0.55 | 0.45 | 0.40 |
| PKD1 | 2.57 | 2.75 | 3.05 | 3.06 | 2.67 | 2.71 | 2.99 | 2.89 |
| PKD1L1 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| PKD1L2 | -0.49 | -0.65 | -0.48 | -0.57 | -0.49 | -0.60 | -0.66 | -0.49 |
| PKD1L3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PKD1P5 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| PKD1P6 | 0.15 | 0.36 | 0.38 | 0.20 | 0.00 | 0.15 | 0.18 | 0.09 |
| PKD2 | 3.14 | 3.91 | 3.89 | 3.60 | 2.88 | 3.40 | 3.71 | 2.93 |
| PKD2L1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| PKD2L2 | -1.64 | -1.63 | -1.63 | -1.49 | -1.61 | -1.60 | -1.54 | -1.66 |
| PKDCC | 6.84 | 6.94 | 4.93 | 7.29 | 7.42 | 4.75 | 5.97 | 4.40 |
| PKDREJ | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.08 |
| PKHD1 | 0.54 | 0.73 | 1.03 | 0.70 | 0.55 | 0.63 | 1.62 | 0.49 |
| PKHD1L1 | -0.98 | -1.30 | -1.29 | -1.31 | -1.30 | -1.32 | -1.32 | -1.27 |
| PKIA | 1.48 | 1.26 | 2.67 | 1.12 | 1.30 | 3.80 | 1.59 | 2.38 |
| PKIA-AS1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PKIB | 5.99 | 4.79 | 5.41 | 5.08 | 5.22 | 6.63 | 6.92 | 6.55 |
| PKIG | 4.42 | 3.88 | 3.83 | 3.65 | 4.31 | 4.18 | 3.58 | 3.07 |
| PKLR | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.01 | -2.11 |
| PKM | 11.18 | 10.66 | 11.22 | 10.72 | 10.38 | 10.33 | 10.38 | 11.02 |
| PKMP1 | -0.47 | -0.72 | -0.64 | -0.66 | -0.68 | -0.74 | -0.80 | -0.59 |
| PKMP2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PKMP4 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PKMP5 | -1.54 | -1.58 | -1.58 | -1.64 | -1.64 | -1.60 | -1.65 | -1.61 |
| PKMYT1 | 6.19 | 5.29 | 5.72 | 5.09 | 4.64 | 5.32 | 5.27 | 4.96 |
| PKN1 | 4.48 | 5.32 | 5.44 | 4.81 | 5.03 | 5.19 | 3.86 | 4.34 |
| PKN2 | 6.86 | 6.74 | 6.39 | 6.40 | 6.29 | 6.78 | 6.56 | 6.33 |
| PKN2-AS1 | -1.59 | -1.59 | -1.58 | -1.54 | -1.56 | -1.52 | -1.60 | -1.51 |
| PKN3 | 2.65 | 2.47 | 2.46 | 2.36 | 2.27 | 2.41 | 3.00 | 2.90 |
| PKNOX1 | 4.23 | 4.07 | 4.07 | 3.79 | 4.39 | 3.95 | 4.09 | 4.00 |
| PKNOX2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| PKP1 | 0.26 | 0.41 | -0.03 | 0.24 | 0.08 | 0.48 | 0.02 | -0.08 |
| PKP2 | 5.92 | 5.74 | 5.51 | 5.60 | 5.40 | 4.83 | 5.62 | 4.74 |
| PKP3 | 6.94 | 7.34 | 7.44 | 6.96 | 6.83 | 6.38 | 7.08 | 7.45 |
| PKP4 | 6.36 | 6.41 | 6.55 | 6.44 | 6.81 | 6.41 | 7.03 | 6.63 |
| PKP4-AS1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| PLA1A | 0.59 | 0.11 | 0.28 | 0.17 | 0.35 | 0.22 | 0.17 | 0.26 |
| PLA2G10 | 3.63 | 5.05 | 3.92 | 5.60 | 3.59 | 3.37 | 3.06 | 3.84 |
| PLA2G12A | 4.59 | 4.90 | 5.16 | 4.52 | 4.28 | 4.58 | 5.00 | 4.34 |
| PLA2G12AP1 | -1.84 | -1.84 | -1.83 | -1.75 | -1.77 | -1.85 | -1.80 | -1.82 |
| PLA2G15 | 4.78 | 4.43 | 4.88 | 4.92 | 4.44 | 4.23 | 4.17 | 4.65 |
| PLA2G1B | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| PLA2G2A | 0.14 | 0.37 | 0.30 | 0.13 | 2.28 | 0.25 | 0.64 | 0.25 |
| PLA2G2C | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| PLA2G2D | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| PLA2G2F | -0.19 | -0.26 | 0.34 | -0.36 | -0.23 | 0.19 | -0.29 | -0.38 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PLA2G3 | 1.62 | 1.38 | 1.51 | 1.92 | 2.19 | 1.72 | 2.06 | 1.77 |
| PLA2G4A | 3.86 | 4.01 | 3.61 | 3.80 | 3.70 | 3.11 | 3.11 | 2.81 |
| PLA2G4B | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| PLA2G4C | 1.63 | 1.04 | 1.07 | 1.14 | 1.28 | 1.00 | 0.92 | 1.49 |
| PLA2G4D | -1.89 | -1.85 | -1.88 | -1.89 | -1.87 | -1.90 | -1.90 | -1.91 |
| PLA2G4E | -0.45 | -0.45 | -0.24 | -0.46 | -0.40 | -0.35 | -0.31 | -0.41 |
| PLA2G4E-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| PLA2G4F | 0.96 | 1.11 | 1.01 | 1.40 | 1.10 | 1.11 | 1.58 | 1.44 |
| PLA2G6 | 2.59 | 2.61 | 2.22 | 2.97 | 2.54 | 2.05 | 2.77 | 2.56 |
| PLA2G7 | 1.23 | 0.63 | 0.75 | 0.69 | 0.79 | 1.22 | 0.68 | 0.92 |
| PLA2R1 | 3.51 | 4.15 | 3.30 | 4.06 | 3.43 | 3.64 | 3.47 | 4.04 |
| PLAA | 3.34 | 4.22 | 4.12 | 3.80 | 3.73 | 3.56 | 4.08 | 3.88 |
| PLAAT1 | -1.48 | -1.48 | -1.40 | -1.36 | -1.18 | -1.49 | -1.42 | -1.45 |
| PLAAT2 | 5.15 | 3.58 | 5.04 | 3.58 | 5.66 | 3.44 | 4.42 | 4.27 |
| PLAAT3 | 9.21 | 7.36 | 8.71 | 7.50 | 9.19 | 9.55 | 8.24 | 9.62 |
| PLAAT4 | 7.09 | 6.34 | 7.53 | 5.95 | 6.99 | 7.16 | 6.48 | 6.32 |
| PLAAT5 | 1.51 | 0.71 | 0.84 | 0.81 | 0.87 | 0.77 | 0.67 | 1.04 |
| PLAC1 | 0.91 | 1.49 | 0.71 | 1.76 | 0.83 | 0.67 | 0.41 | 0.49 |
| PLAC4 | -1.30 | -1.22 | -1.20 | -1.23 | -1.30 | -1.32 | -1.23 | -1.32 |
| PLAC8 | 5.30 | 6.84 | 6.09 | 6.90 | 7.89 | 7.91 | 5.89 | 8.47 |
| PLAC8L1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.77 | -1.85 | -1.84 | -1.82 |
| PLAC9 | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| PLAG1 | 2.04 | 1.72 | 3.16 | 1.88 | 1.98 | 2.86 | 2.01 | 2.97 |
| PLAGL1 | 2.98 | 3.01 | 3.60 | 3.22 | 2.89 | 3.51 | 4.95 | 2.69 |
| PLAGL2 | 3.69 | 3.36 | 3.51 | 3.43 | 3.53 | 3.36 | 3.43 | 3.21 |
| PLAT | 6.15 | 7.31 | 7.62 | 6.46 | 9.02 | 8.63 | 7.10 | 6.34 |
| PLAU | 3.94 | 3.77 | 5.87 | 3.82 | 4.62 | 5.87 | 3.51 | 7.27 |
| PLAUR | 7.04 | 6.28 | 7.05 | 6.24 | 7.47 | 6.56 | 6.74 | 6.54 |
| PLB1 | -0.68 | -0.45 | -0.58 | -0.44 | -0.40 | -0.65 | -0.68 | -0.47 |
| PLBD1 | 6.18 | 7.00 | 6.50 | 7.07 | 7.87 | 5.89 | 4.73 | 7.89 |
| PLBD1-AS1 | 2.14 | 2.06 | 2.12 | 2.02 | 3.15 | 1.51 | 1.55 | 2.02 |
| PLBD2 | 4.57 | 4.86 | 4.97 | 5.15 | 4.72 | 4.42 | 4.51 | 4.71 |
| PLCB1 | 1.68 | 2.14 | 2.10 | 2.10 | 1.65 | 1.69 | 1.24 | 1.99 |
| PLCB2 | -0.16 | -0.45 | -0.36 | -0.38 | -0.45 | -0.36 | -0.39 | -0.41 |
| PLCB3 | 4.61 | 4.81 | 5.51 | 4.73 | 4.68 | 4.68 | 5.32 | 5.27 |
| PLCB4 | 2.99 | 5.21 | 3.66 | 5.51 | 3.73 | 2.32 | 2.98 | 2.44 |
| PLCD1 | 3.90 | 3.10 | 2.85 | 2.65 | 3.40 | 3.31 | 3.22 | 3.79 |
| PLCD3 | 5.73 | 6.57 | 6.13 | 6.39 | 6.20 | 6.16 | 6.04 | 7.22 |
| PLCD4 | -1.99 | -1.96 | -1.98 | -1.99 | -1.99 | -1.97 | -2.00 | -1.97 |
| PLCE1 | 3.48 | 3.82 | 3.21 | 4.26 | 3.62 | 3.65 | 4.32 | 2.87 |
| PLCE1-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| PLCG1 | 2.84 | 2.95 | 3.23 | 3.04 | 2.58 | 2.87 | 3.12 | 2.41 |
| PLCG1-AS1 | -1.34 | -1.40 | -1.26 | -1.34 | -1.37 | -1.38 | -1.28 | -1.37 |
| PLCG2 | 1.58 | 1.85 | 2.05 | 2.18 | 2.32 | 1.99 | 1.61 | 1.42 |
| PLCH1 | 2.94 | 2.96 | 3.47 | 3.53 | 2.80 | 3.32 | 3.21 | 2.75 |
| PLCH2 | -0.59 | -0.58 | -0.57 | -0.59 | -0.37 | 0.14 | -0.52 | -0.61 |
| PLCL1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| PLCL2 | 2.89 | 2.75 | 2.47 | 3.26 | 2.46 | 2.23 | 2.86 | 2.81 |
| PLCXD2 | 2.84 | 3.08 | 3.30 | 2.92 | 3.13 | 3.35 | 3.77 | 2.86 |
| PLCXD3 | -1.96 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -1.96 | -1.97 |
| PLD1 | 4.75 | 4.35 | 4.80 | 4.84 | 5.37 | 4.33 | 5.82 | 4.39 |
| PLD2 | 2.56 | 2.58 | 3.06 | 2.56 | 2.59 | 2.75 | 2.93 | 2.88 |
| PLD3 | 7.86 | 7.39 | 7.54 | 7.73 | 8.16 | 7.46 | 7.47 | 7.21 |
| PLD4 | -1.24 | -1.17 | -1.16 | -1.18 | -1.24 | -1.26 | -1.25 | -1.22 |
| PLD6 | 0.56 | 0.50 | 0.70 | 0.48 | 0.57 | 0.48 | 0.32 | 0.67 |
| PLEC | 8.07 | 8.45 | 9.22 | 8.27 | 8.21 | 8.70 | 7.88 | 9.24 |
| PLEK2 | 4.78 | 6.14 | 6.39 | 6.88 | 6.51 | 5.88 | 6.16 | 5.49 |
| PLEKHA1 | 6.21 | 6.47 | 6.20 | 6.31 | 7.00 | 5.77 | 6.74 | 6.19 |
| PLEKHA2 | 4.68 | 5.29 | 5.16 | 4.93 | 4.18 | 4.97 | 5.17 | 4.55 |
| PLEKHA3 | 5.78 | 5.66 | 5.54 | 5.50 | 5.35 | 5.49 | 5.48 | 5.93 |
| PLEKHA3P1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.81 | -1.84 | -1.82 |
| PLEKHA4 | 5.63 | 5.19 | 4.52 | 5.60 | 5.41 | 5.17 | 4.30 | 4.44 |
| PLEKHA5 | 5.99 | 5.74 | 6.21 | 5.69 | 6.67 | 5.54 | 6.33 | 5.72 |
| PLEKHA6 | 4.67 | 5.41 | 4.91 | 5.40 | 5.23 | 5.38 | 5.51 | 5.14 |
| PLEKHA7 | 4.43 | 4.40 | 5.44 | 4.71 | 4.79 | 4.58 | 5.41 | 4.87 |
| PLEKHA8 | 3.83 | 4.70 | 4.16 | 4.18 | 4.37 | 4.47 | 4.74 | 3.65 |
| PLEKHA8P1 | 1.35 | 1.48 | 1.27 | 1.61 | 1.27 | 1.65 | 1.54 | 1.63 |
| PLEKHB1 | 6.17 | 5.76 | 6.07 | 6.47 | 7.07 | 5.50 | 4.52 | 4.72 |
| PLEKHB2 | 6.63 | 6.78 | 6.52 | 6.60 | 6.68 | 6.61 | 6.56 | 7.23 |
| PLEKHD1 | 1.29 | 0.64 | 0.86 | 0.85 | 1.58 | 0.72 | 0.83 | 0.58 |
| PLEKHF1 | 4.27 | 3.45 | 3.08 | 3.29 | 3.22 | 3.00 | 2.52 | 2.79 |
| PLEKHF2 | 4.54 | 4.52 | 4.77 | 3.90 | 4.98 | 4.57 | 4.30 | 4.75 |
| PLEKHG1 | 2.99 | 3.05 | 3.30 | 2.67 | 2.50 | 3.10 | 3.27 | 3.23 |
| PLEKHG2 | 2.74 | 2.53 | 2.73 | 2.62 | 2.23 | 2.65 | 2.56 | 2.39 |
| PLEKHG3 | 3.60 | 4.29 | 4.39 | 4.05 | 4.40 | 4.56 | 4.61 | 3.66 |
| PLEKHG4 | 2.41 | 2.92 | 1.87 | 2.82 | 1.93 | 1.95 | 2.25 | 1.94 |
| PLEKHG4B | -0.45 | -0.34 | -0.43 | -0.36 | -0.07 | -0.47 | -0.28 | -0.49 |
| PLEKHG5 | 2.95 | 2.61 | 2.39 | 2.73 | 2.80 | 2.67 | 2.22 | 2.32 |
| PLEKHG6 | 5.42 | 4.30 | 4.57 | 4.28 | 4.14 | 4.26 | 4.95 | 4.33 |
| PLEKHH1 | 3.48 | 3.66 | 3.90 | 4.74 | 4.83 | 3.77 | 4.95 | 3.65 |
| PLEKHH2 | 3.34 | 2.75 | 3.18 | 3.37 | 3.44 | 3.68 | 3.04 | 3.33 |
| PLEKHH3 | 4.06 | 4.81 | 5.15 | 4.66 | 4.77 | 4.57 | 5.33 | 5.67 |
| PLEKHJ1 | 6.35 | 6.29 | 6.72 | 6.65 | 7.38 | 6.61 | 7.08 | 6.30 |
| PLEKHM1 | 4.35 | 4.57 | 4.64 | 4.22 | 4.35 | 4.42 | 4.74 | 4.92 |
| PLEKHM1P1 | 3.57 | 3.43 | 3.52 | 3.98 | 3.60 | 3.44 | 4.66 | 4.14 |
| PLEKHM2 | 5.08 | 4.98 | 5.03 | 5.00 | 4.72 | 5.06 | 5.58 | 5.16 |
| PLEKHM3 | 1.97 | 1.94 | 2.14 | 1.63 | 2.00 | 1.89 | 1.95 | 1.92 |
| PLEKHN1 | 3.74 | 3.25 | 3.87 | 3.62 | 3.34 | 3.73 | 4.28 | 3.37 |
| PLEKHO1 | 3.95 | 2.80 | 3.32 | 2.94 | 3.55 | 3.81 | 3.77 | 2.93 |
| PLEKHO2 | 2.05 | 1.71 | 1.78 | 1.71 | 1.53 | 1.82 | 1.69 | 1.57 |
| PLEKHS1 | 5.15 | 5.23 | 3.98 | 5.27 | 4.15 | 3.70 | 3.57 | 3.14 |
| PLGRKT | 6.11 | 6.55 | 5.95 | 6.47 | 6.10 | 6.30 | 5.87 | 6.15 |
| PLIN1 | -0.97 | -1.04 | -1.03 | -1.13 | -1.00 | -1.14 | -0.85 | -1.08 |
| PLIN2 | 8.10 | 4.23 | 4.82 | 4.33 | 5.96 | 6.54 | 5.61 | 6.08 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PLIN3 | 6.19 | 6.70 | 6.48 | 6.56 | 6.77 | 7.53 | 6.73 | 6.96 |
| PLIN4 | -0.71 | -0.70 | -0.69 | -0.80 | -0.75 | -0.70 | -0.73 | 0.17 |
| PLIN5 | 0.40 | 0.05 | 0.22 | 0.11 | 0.58 | 0.15 | 0.36 | 0.33 |
| PLK1 | 6.61 | 5.98 | 6.60 | 6.25 | 6.03 | 7.01 | 5.44 | 6.94 |
| PLK2 | 5.36 | 7.31 | 6.67 | 7.12 | 6.49 | 7.26 | 6.60 | 6.06 |
| PLK3 | 3.27 | 3.67 | 3.82 | 3.80 | 3.86 | 3.74 | 4.03 | 3.85 |
| PLK4 | 3.13 | 3.76 | 4.18 | 3.52 | 3.11 | 3.97 | 3.93 | 3.63 |
| PLK5 | -1.15 | -1.28 | -1.27 | -1.29 | -1.21 | -0.93 | -1.29 | -1.25 |
| PLLP | 7.49 | 8.02 | 6.29 | 8.48 | 6.93 | 6.09 | 7.43 | 7.04 |
| PLOD1 | 6.43 | 6.45 | 7.20 | 6.72 | 5.96 | 6.37 | 6.63 | 5.87 |
| PLOD2 | 4.85 | 4.83 | 6.82 | 4.10 | 5.27 | 5.19 | 6.62 | 4.62 |
| PLOD3 | 5.10 | 6.32 | 6.42 | 6.46 | 6.58 | 5.78 | 5.72 | 5.38 |
| PLP1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PLP2 | 8.37 | 8.23 | 8.02 | 8.13 | 8.98 | 7.94 | 7.66 | 6.56 |
| PLPBP | 6.62 | 6.02 | 6.24 | 5.89 | 5.98 | 6.21 | 6.22 | 5.80 |
| PLPP1 | 3.96 | 4.36 | 4.40 | 4.15 | 4.22 | 3.92 | 3.78 | 3.92 |
| PLPP2 | 8.03 | 7.45 | 7.53 | 7.80 | 8.48 | 8.42 | 7.50 | 8.00 |
| PLPP3 | 4.99 | 4.25 | 4.38 | 4.09 | 4.16 | 3.84 | 3.99 | 4.20 |
| PLPP4 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.03 |
| PLPP5 | 6.71 | 6.30 | 6.65 | 6.79 | 6.20 | 6.52 | 6.14 | 6.71 |
| PLPP6 | 2.88 | 3.75 | 3.26 | 3.84 | 3.00 | 3.35 | 3.58 | 2.86 |
| PLPP7 | -1.85 | -1.85 | -1.84 | -1.85 | -1.85 | -1.86 | -1.85 | -1.47 |
| PLPPR1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| PLPPR2 | 3.94 | 4.41 | 4.44 | 4.49 | 3.82 | 4.18 | 4.18 | 4.28 |
| PLPPR3 | -0.95 | -1.14 | -1.06 | -1.15 | -1.14 | -0.95 | -1.02 | -1.11 |
| PLRG1 | 5.25 | 5.46 | 5.56 | 5.64 | 5.27 | 5.71 | 5.73 | 5.72 |
| PLS1 | 6.51 | 6.64 | 7.12 | 6.22 | 6.89 | 6.89 | 7.69 | 7.09 |
| PLS3 | 5.63 | 6.37 | 6.13 | 6.10 | 4.69 | 5.80 | 5.78 | 5.91 |
| PLS3-AS1 | 0.34 | -0.28 | -0.27 | -0.07 | -0.20 | -0.26 | -0.29 | -0.18 |
| PLSCR1 | 8.17 | 5.85 | 6.61 | 6.17 | 6.67 | 7.04 | 6.31 | 6.41 |
| PLSCR2 | -0.23 | -0.50 | -0.32 | -0.43 | -0.42 | -0.27 | -0.51 | -0.30 |
| PLSCR4 | 2.59 | 2.29 | 2.83 | 2.24 | 2.42 | 2.36 | 3.16 | 2.26 |
| PLTP | 4.92 | 4.11 | 3.93 | 4.48 | 5.35 | 4.56 | 3.50 | 4.63 |
| PLXDC1 | -1.84 | -1.71 | -1.79 | -1.80 | -1.84 | -1.83 | -1.85 | -1.86 |
| PLXDC2 | 1.14 | 1.17 | 1.22 | 1.04 | 1.24 | 1.05 | 1.55 | 1.03 |
| PLXNA1 | 4.84 | 4.41 | 5.96 | 4.29 | 4.24 | 5.01 | 4.68 | 5.12 |
| PLXNA2 | 3.76 | 5.20 | 5.29 | 5.18 | 4.85 | 3.72 | 5.63 | 4.11 |
| PLXNA3 | 4.22 | 3.93 | 5.28 | 4.40 | 4.04 | 4.53 | 4.70 | 4.25 |
| PLXNA4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| PLXNB1 | 4.40 | 5.17 | 5.03 | 5.26 | 4.47 | 4.77 | 5.64 | 4.03 |
| PLXNB2 | 8.43 | 8.50 | 7.16 | 8.64 | 8.08 | 8.14 | 9.28 | 8.76 |
| PLXNB3 | -0.96 | -0.89 | -0.87 | -0.97 | -0.85 | -0.95 | -0.92 | -0.89 |
| PLXNC1 | -0.11 | 0.13 | -0.08 | -0.04 | -0.07 | 0.19 | -0.18 | -0.04 |
| PLXND1 | 3.41 | 3.39 | 4.59 | 3.08 | 3.63 | 4.86 | 4.21 | 3.08 |
| PM20D1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| PM20D2 | 4.54 | 3.90 | 4.40 | 3.83 | 4.06 | 3.65 | 4.72 | 3.14 |
| PMAIP1 | 4.80 | 4.84 | 5.46 | 4.36 | 4.63 | 5.53 | 4.14 | 4.74 |
| PMCH | -2.04 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| PMEL | 1.82 | 1.77 | 1.90 | 1.67 | 1.84 | 1.73 | 1.76 | 2.03 |
| PMEPA1 | 7.08 | 10.41 | 9.86 | 9.34 | 6.76 | 9.96 | 7.08 | 9.63 |
| PMF1 | 6.41 | 5.95 | 5.84 | 5.98 | 5.99 | 6.41 | 6.15 | 6.69 |
| PMF1-BGLAP | -1.94 | -1.90 | -1.93 | -1.94 | -1.94 | -1.91 | -1.94 | -1.92 |
| PMFBP1 | 0.09 | 0.39 | 0.36 | 0.84 | 0.24 | 0.34 | 0.08 | 0.21 |
| PML | 5.10 | 5.45 | 6.12 | 5.11 | 5.43 | 5.58 | 5.25 | 5.30 |
| PMM1 | 5.53 | 2.98 | 3.80 | 3.29 | 3.59 | 4.97 | 4.54 | 4.74 |
| PMM2 | 4.22 | 4.50 | 3.96 | 4.89 | 4.09 | 4.07 | 4.42 | 4.81 |
| PMP22 | 4.56 | 2.34 | 2.88 | 2.44 | 3.57 | 2.88 | 2.48 | 2.13 |
| PMPCA | 6.62 | 5.74 | 6.10 | 6.15 | 5.51 | 6.47 | 5.66 | 5.93 |
| PMPCB | 6.07 | 6.13 | 6.08 | 6.34 | 7.10 | 6.01 | 6.19 | 6.21 |
| PMS1 | 4.95 | 5.02 | 4.99 | 4.81 | 5.01 | 4.75 | 4.84 | 4.76 |
| PMS2 | 2.57 | 2.59 | 2.13 | 2.49 | 2.61 | 2.31 | 2.33 | 2.41 |
| PMS2CL | 1.10 | 1.17 | 1.32 | 1.40 | 1.31 | 0.98 | 1.28 | 1.82 |
| PMS2P1 | 2.57 | 2.46 | 2.46 | 2.41 | 3.62 | 3.09 | 2.73 | 3.22 |
| PMS2P10 | -0.99 | -0.90 | -0.81 | -0.99 | -0.87 | -1.08 | -1.07 | -1.09 |
| PMS2P2 | -2.30 | -2.30 | -2.30 | -2.31 | -2.28 | -2.31 | -2.31 | -2.31 |
| PMS2P3 | -0.02 | 0.13 | 0.00 | 0.18 | 0.21 | 0.16 | 0.23 | 0.12 |
| PMS2P4 | 1.37 | 1.01 | 1.06 | 0.84 | 1.62 | 0.85 | 1.04 | 1.21 |
| PMS2P5 | -2.15 | -2.12 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| PMS2P7 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -2.00 | -2.01 |
| PMVK | 5.86 | 6.74 | 5.52 | 7.03 | 6.56 | 6.26 | 6.04 | 6.36 |
| PNCK | -1.79 | -1.78 | -1.78 | -1.79 | -1.76 | -1.80 | -1.75 | -1.76 |
| PNISR | 7.34 | 6.49 | 8.02 | 6.68 | 7.28 | 7.73 | 8.30 | 7.40 |
| PNKD | 8.57 | 7.67 | 7.44 | 7.84 | 7.87 | 8.23 | 7.85 | 7.33 |
| PNKDP1 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -1.95 | -2.00 | -2.01 |
| PNKP | 5.14 | 5.67 | 5.14 | 5.69 | 5.87 | 5.58 | 5.46 | 5.87 |
| PNLDC1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| PNLIIPRP1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| PNLIIPRP3 | -0.69 | -0.54 | -0.67 | -0.70 | -0.78 | -0.75 | -0.70 | 0.47 |
| PNMA1 | 3.85 | 5.09 | 5.08 | 4.87 | 4.76 | 5.80 | 5.86 | 4.70 |
| PNMA2 | 1.38 | 1.33 | 2.13 | 1.36 | 1.68 | 1.70 | 1.09 | 1.01 |
| PNMA6A | -1.30 | -1.22 | -1.35 | -1.00 | -1.33 | -1.38 | -1.37 | -1.39 |
| PNMA8A | -1.02 | -0.93 | -1.00 | -1.02 | -0.40 | -1.03 | -0.95 | -0.97 |
| PNMA8B | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.90 | -1.85 | -1.87 |
| PNMT | 0.06 | -0.09 | -0.08 | -0.19 | -0.09 | 0.05 | -0.19 | 0.42 |
| PNN | 6.70 | 6.94 | 7.52 | 7.21 | 7.51 | 7.38 | 7.21 | 6.76 |
| PNO1 | 6.30 | 5.79 | 5.08 | 5.96 | 6.46 | 5.72 | 5.20 | 6.16 |
| PNP | 6.06 | 6.73 | 6.28 | 6.62 | 6.78 | 6.43 | 6.36 | 5.72 |
| PNPLA1 | -1.80 | -1.84 | -1.79 | -1.84 | -1.82 | -1.83 | -1.84 | -1.86 |
| PNPLA2 | 6.64 | 5.92 | 6.73 | 6.30 | 6.50 | 6.10 | 6.51 | 7.75 |
| PNPLA3 | 3.00 | 3.84 | 3.34 | 4.01 | 3.06 | 3.01 | 3.85 | 3.29 |
| PNPLA4 | 7.01 | 5.73 | 6.28 | 5.59 | 6.24 | 5.24 | 5.79 | 5.11 |
| PNPLA6 | 3.96 | 4.74 | 5.03 | 4.60 | 4.46 | 4.62 | 5.06 | 3.84 |
| PNPLA7 | -1.17 | -1.23 | -1.22 | -1.10 | -1.13 | -1.25 | -1.24 | -1.25 |
| PNPLA8 | 4.88 | 5.45 | 5.45 | 4.82 | 5.69 | 4.98 | 5.91 | 6.05 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PNPO | 4.61 | 4.81 | 4.89 | 4.79 | 4.60 | 4.82 | 4.68 | 4.34 |
| PNPT1 | 6.36 | 5.60 | 5.29 | 5.56 | 5.84 | 5.17 | 5.18 | 5.21 |
| PNPT1P1 | -1.94 | -1.90 | -1.93 | -1.91 | -1.94 | -1.95 | -1.95 | -1.96 |
| PNRC1 | 7.04 | 5.84 | 6.23 | 6.29 | 7.63 | 6.75 | 7.51 | 7.24 |
| PNRC2 | 6.05 | 5.66 | 6.19 | 5.65 | 6.53 | 6.24 | 6.46 | 5.61 |
| PNRC2P1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| POC1A | 5.08 | 4.34 | 4.61 | 4.69 | 4.67 | 4.99 | 4.14 | 4.67 |
| POC1B | 4.52 | 4.96 | 4.84 | 4.71 | 4.90 | 4.96 | 5.20 | 4.47 |
| POC1B-AS1 | 2.77 | 2.87 | 3.22 | 3.13 | 2.81 | 2.66 | 2.83 | 2.94 |
| POC1B-GALNT4 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| POC5 | 4.00 | 3.93 | 3.66 | 3.78 | 4.03 | 4.10 | 3.69 | 3.68 |
| PODNL1 | 1.63 | 1.72 | 1.25 | 1.75 | 1.48 | 1.66 | 1.23 | 1.15 |
| PODXL | 4.68 | 4.52 | 4.89 | 4.57 | 4.57 | 3.85 | 4.33 | 4.09 |
| PODXL2 | 5.62 | 4.76 | 5.08 | 4.91 | 5.95 | 4.46 | 4.51 | 5.66 |
| POF1B | 5.37 | 5.37 | 5.06 | 5.10 | 4.98 | 4.90 | 5.60 | 4.50 |
| POFUT1 | 4.35 | 4.57 | 4.91 | 4.59 | 4.73 | 4.46 | 4.35 | 4.67 |
| POFUT2 | 3.97 | 3.84 | 4.62 | 4.08 | 4.27 | 4.51 | 4.24 | 4.98 |
| POGK | 5.65 | 5.90 | 5.31 | 5.74 | 5.26 | 5.73 | 5.20 | 5.72 |
| POGLUT1 | 4.45 | 4.10 | 4.69 | 4.32 | 4.47 | 4.17 | 4.61 | 4.06 |
| POGLUT2 | 1.98 | 1.83 | 2.51 | 2.10 | 2.35 | 1.84 | 2.13 | 1.65 |
| POGLUT3 | 3.87 | 4.88 | 4.23 | 4.57 | 4.40 | 3.76 | 3.83 | 4.10 |
| POGZ | 4.54 | 5.34 | 5.66 | 5.13 | 5.44 | 5.76 | 5.79 | 4.96 |
| POLA1 | 4.00 | 4.00 | 5.05 | 3.87 | 4.13 | 3.98 | 4.83 | 3.42 |
| POLA2 | 4.55 | 3.37 | 4.48 | 3.71 | 3.76 | 3.72 | 4.03 | 3.52 |
| POLB | 6.52 | 5.95 | 6.40 | 6.02 | 6.71 | 6.72 | 7.26 | 6.29 |
| POLD1 | 4.09 | 4.55 | 5.04 | 3.96 | 4.17 | 4.07 | 4.54 | 3.86 |
| POLD2 | 7.83 | 7.37 | 6.76 | 7.42 | 7.32 | 7.08 | 6.86 | 6.92 |
| POLD2P1 | -2.25 | -2.25 | -2.25 | -2.23 | -2.24 | -2.26 | -2.25 | -2.26 |
| POLD3 | 6.45 | 5.53 | 6.10 | 5.75 | 5.41 | 5.47 | 5.85 | 5.48 |
| POLD4 | 3.03 | 2.58 | 2.84 | 2.76 | 3.12 | 2.68 | 2.83 | 3.17 |
| POLDIP2 | 7.40 | 6.80 | 7.02 | 6.89 | 7.14 | 6.78 | 6.55 | 6.96 |
| POLDIP3 | 5.72 | 5.29 | 5.06 | 5.11 | 4.74 | 5.12 | 5.29 | 5.63 |
| POLE | 3.51 | 4.03 | 4.83 | 4.13 | 3.89 | 3.91 | 4.76 | 3.66 |
| POLE2 | 3.00 | 3.10 | 3.49 | 3.20 | 3.08 | 3.26 | 3.44 | 2.79 |
| POLE3 | 8.02 | 7.64 | 6.86 | 7.94 | 6.90 | 7.76 | 7.11 | 7.16 |
| POLE4 | 7.08 | 6.97 | 5.92 | 6.96 | 6.66 | 7.00 | 6.18 | 6.79 |
| POLG | 4.94 | 4.81 | 6.08 | 4.82 | 5.08 | 4.90 | 5.19 | 5.45 |
| POLG2 | 4.03 | 3.49 | 3.80 | 3.68 | 4.15 | 4.17 | 3.46 | 3.72 |
| POLH | 2.94 | 3.31 | 3.08 | 3.43 | 2.61 | 3.24 | 3.24 | 3.02 |
| POLI | 2.68 | 2.84 | 3.08 | 3.30 | 2.77 | 2.99 | 3.27 | 2.25 |
| POLK | 4.38 | 5.35 | 5.81 | 4.99 | 5.57 | 5.11 | 5.48 | 4.60 |
| POLL | 4.19 | 4.18 | 4.34 | 4.49 | 4.49 | 4.23 | 4.14 | 3.66 |
| POLM | 3.94 | 4.56 | 3.91 | 4.37 | 4.37 | 3.70 | 3.86 | 3.94 |
| POLN | 0.91 | 0.88 | 1.13 | 0.97 | 0.75 | 0.67 | 0.83 | 0.64 |
| POLQ | 3.92 | 2.86 | 4.45 | 3.18 | 2.96 | 3.35 | 3.99 | 3.02 |
| POLR1A | 4.41 | 4.83 | 4.71 | 4.63 | 4.84 | 4.55 | 4.70 | 4.50 |
| POLR1B | 4.23 | 4.07 | 4.02 | 4.18 | 4.34 | 3.73 | 4.31 | 3.99 |
| POLR1C | 6.40 | 6.02 | 5.89 | 6.29 | 6.23 | 6.63 | 5.35 | 6.35 |
| POLR1D | 6.99 | 7.42 | 6.88 | 7.73 | 7.99 | 7.10 | 7.28 | 8.07 |
| POLR1E | 3.93 | 4.13 | 4.01 | 3.97 | 4.55 | 3.98 | 3.75 | 3.61 |
| POLR2A | 5.02 | 5.41 | 6.27 | 4.96 | 5.33 | 5.71 | 5.98 | 5.52 |
| POLR2B | 5.62 | 6.31 | 6.53 | 6.53 | 5.93 | 6.27 | 6.63 | 6.50 |
| POLR2C | 7.19 | 6.03 | 5.93 | 6.33 | 6.52 | 6.31 | 5.89 | 6.57 |
| POLR2D | 5.71 | 5.19 | 5.22 | 5.40 | 5.29 | 5.24 | 5.20 | 5.23 |
| POLR2E | 9.61 | 7.79 | 8.24 | 7.94 | 8.72 | 8.76 | 8.02 | 8.50 |
| POLR2F | 8.39 | 7.57 | 6.55 | 7.73 | 7.21 | 7.51 | 7.25 | 7.39 |
| POLR2G | 7.58 | 6.95 | 6.95 | 6.87 | 7.35 | 7.18 | 6.49 | 7.36 |
| POLR2H | 8.10 | 7.99 | 7.32 | 8.15 | 7.72 | 7.67 | 7.40 | 7.92 |
| POLR2I | 8.41 | 7.59 | 7.18 | 7.84 | 8.00 | 7.65 | 7.14 | 7.27 |
| POLR2J | 8.13 | 8.09 | 7.25 | 8.19 | 8.31 | 7.94 | 7.43 | 8.07 |
| POLR2J2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| POLR2K | 8.56 | 7.78 | 7.84 | 8.04 | 8.38 | 8.66 | 7.42 | 8.85 |
| POLR2L | 10.57 | 10.06 | 9.10 | 10.11 | 10.02 | 9.63 | 9.01 | 9.51 |
| POLR2M | 3.85 | 4.02 | 3.49 | 3.89 | 3.97 | 3.81 | 3.86 | 4.21 |
| POLR3A | 4.02 | 4.40 | 4.56 | 4.30 | 4.24 | 4.02 | 4.29 | 3.98 |
| POLR3B | 2.70 | 3.30 | 3.29 | 3.41 | 3.13 | 3.17 | 3.46 | 3.41 |
| POLR3C | 3.95 | 3.95 | 3.70 | 4.28 | 4.05 | 4.13 | 3.71 | 3.88 |
| POLR3D | 4.18 | 4.18 | 4.51 | 3.92 | 4.81 | 5.00 | 4.51 | 4.70 |
| POLR3DP1 | -2.05 | -2.01 | -2.04 | -2.01 | -2.01 | -2.02 | -2.05 | -2.06 |
| POLR3E | 5.17 | 5.00 | 5.04 | 5.20 | 4.93 | 4.56 | 4.64 | 5.04 |
| POLR3F | 3.59 | 3.41 | 3.42 | 3.12 | 2.98 | 3.47 | 3.06 | 3.24 |
| POLR3G | 1.69 | 2.18 | 2.52 | 1.93 | 2.80 | 2.01 | 2.03 | 1.72 |
| POLR3GL | 5.76 | 6.01 | 5.30 | 5.89 | 5.70 | 5.94 | 5.40 | 6.19 |
| POLR3GP2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| POLR3H | 6.01 | 5.50 | 5.52 | 5.72 | 4.61 | 5.44 | 4.77 | 5.66 |
| POLR3K | 8.07 | 6.98 | 6.98 | 7.22 | 6.88 | 7.00 | 6.34 | 7.13 |
| POLRMT | 4.38 | 4.04 | 5.03 | 3.69 | 4.81 | 4.52 | 4.52 | 4.20 |
| POLRMTP1 | -0.56 | -0.48 | -0.53 | -0.32 | -0.49 | -0.65 | -0.65 | -0.60 |
| POM121 | 3.88 | 4.10 | 4.10 | 3.77 | 3.65 | 3.91 | 4.12 | 4.25 |
| POM121C | 3.71 | 4.00 | 4.14 | 4.13 | 4.16 | 4.12 | 4.58 | 4.34 |
| POMC | 1.94 | 1.82 | 2.08 | 1.84 | 2.03 | 1.84 | 2.79 | 1.50 |
| POMGNT1 | 4.97 | 4.83 | 5.50 | 4.49 | 5.12 | 5.15 | 5.26 | 5.22 |
| POMGNT2 | 4.79 | 3.73 | 4.61 | 3.78 | 4.35 | 3.86 | 3.59 | 3.48 |
| POMK | 1.95 | 1.88 | 1.90 | 1.96 | 1.46 | 1.87 | 1.70 | 2.29 |
| POMP | 9.30 | 9.26 | 8.92 | 9.37 | 9.75 | 8.88 | 8.62 | 9.98 |
| POMT1 | 3.87 | 3.85 | 3.86 | 3.94 | 3.48 | 3.56 | 4.16 | 3.03 |
| POMT2 | 2.46 | 2.92 | 2.70 | 2.95 | 2.78 | 2.91 | 2.80 | 2.55 |
| POMZP3 | 0.74 | 1.17 | 0.86 | 1.08 | 1.21 | 1.07 | 1.33 | 1.16 |
| PON1 | -0.90 | -0.89 | -0.88 | -0.82 | -0.79 | -0.48 | -0.76 | -0.85 |
| PON2 | 8.12 | 7.85 | 7.07 | 8.31 | 7.66 | 7.77 | 7.65 | 6.82 |
| PON3 | 5.21 | 3.76 | 3.52 | 4.32 | 6.08 | 4.18 | 2.92 | 3.26 |
| POP1 | 5.60 | 5.22 | 5.53 | 5.35 | 4.87 | 5.84 | 4.45 | 5.46 |
| POP4 | 6.80 | 6.15 | 5.57 | 6.24 | 6.43 | 6.11 | 5.85 | 6.02 |
| POP5 | 6.76 | 6.22 | 6.36 | 6.40 | 6.47 | 6.73 | 6.00 | 6.76 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| POP7 | 6.73 | 6.71 | 6.14 | 6.73 | 6.78 | 6.44 | 6.27 | 7.05 |
| POPDC2 | -1.70 | -1.69 | -1.68 | -1.70 | -1.69 | -1.66 | -1.70 | -1.62 |
| POPDC3 | 1.24 | 0.34 | 0.45 | 0.49 | 0.38 | 1.01 | 0.32 | 1.57 |
| POR | 6.86 | 7.24 | 7.40 | 7.14 | 7.46 | 7.12 | 7.43 | 7.19 |
| PORCN | 4.43 | 4.54 | 4.95 | 4.71 | 4.83 | 4.68 | 3.93 | 4.81 |
| POSTN | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| POT1 | 2.66 | 3.27 | 3.31 | 2.88 | 2.99 | 3.21 | 3.13 | 3.47 |
| POT1-AS1 | 0.31 | 0.60 | 0.51 | 0.44 | 0.39 | 0.23 | 0.21 | 0.35 |
| POTEE | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| POTEKP | -1.89 | -1.89 | -1.88 | -1.90 | -1.87 | -1.86 | -1.85 | -1.91 |
| POU2AF1 | -1.24 | -1.23 | -1.22 | -1.10 | -0.75 | -1.25 | -1.24 | -1.26 |
| POU2F1 | 4.73 | 4.66 | 4.97 | 4.24 | 4.45 | 4.67 | 5.04 | 4.34 |
| POU2F2 | 0.38 | 0.25 | 0.60 | 0.15 | 0.33 | 0.37 | 0.22 | 0.31 |
| POU2F3 | 1.63 | 1.16 | 2.16 | 1.22 | 1.29 | 0.98 | 1.43 | 1.15 |
| POU3F1 | -1.74 | -1.74 | -1.73 | -1.64 | -1.71 | -1.70 | -1.75 | -1.76 |
| POU3F4 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| POU4F1 | 0.79 | 0.22 | 0.24 | 0.28 | 1.44 | 0.19 | 0.20 | 0.45 |
| POU4F3 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| POU5F1 | 1.03 | 0.98 | 1.24 | 0.85 | 0.93 | 0.86 | 1.32 | 0.91 |
| POU5F1B | -1.25 | -1.25 | -1.02 | -1.12 | -1.25 | -1.23 | -1.19 | -1.27 |
| POU5F1P4 | -1.49 | -1.64 | -1.63 | -1.60 | -1.61 | -1.65 | -1.60 | -1.57 |
| POU5F1P5 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -1.99 | -2.03 |
| POU5F2 | -0.25 | -0.17 | -0.06 | 0.09 | -0.21 | -0.07 | 0.14 | -0.22 |
| POU6F2 | -1.61 | -1.65 | -1.65 | -1.61 | -1.66 | -1.67 | -1.66 | -1.68 |
| POU6F2-AS2 | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| PP2D1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| PPA1 | 9.06 | 9.10 | 8.18 | 9.21 | 9.27 | 9.00 | 8.25 | 8.85 |
| PPA2 | 7.42 | 7.13 | 6.93 | 7.55 | 7.58 | 7.98 | 7.32 | 8.21 |
| PPAN | 5.43 | 5.52 | 5.21 | 5.46 | 5.61 | 5.57 | 5.06 | 5.33 |
| PPARA | 5.16 | 5.15 | 5.42 | 5.16 | 4.74 | 4.74 | 5.48 | 5.00 |
| PPARD | 4.78 | 4.77 | 5.26 | 4.88 | 4.30 | 5.13 | 5.38 | 4.94 |
| PPARG | 6.88 | 6.24 | 6.82 | 6.33 | 7.85 | 7.77 | 6.05 | 8.08 |
| PPARGC1A | 3.08 | 3.67 | 3.01 | 3.62 | 2.81 | 2.57 | 3.70 | 2.20 |
| PPARGC1B | 2.28 | 3.00 | 2.75 | 2.99 | 3.14 | 2.33 | 2.93 | 2.47 |
| PPAT | 4.17 | 4.31 | 4.15 | 4.20 | 3.88 | 4.71 | 4.10 | 4.51 |
| PPATP1 | -2.20 | -2.20 | -2.19 | -2.16 | -2.20 | -2.19 | -2.20 | -2.19 |
| PPBP | 2.89 | 2.78 | 3.36 | 3.12 | 2.92 | 3.04 | 4.46 | 2.97 |
| PPCDC | 5.25 | 4.81 | 4.99 | 4.62 | 5.42 | 4.87 | 4.62 | 4.98 |
| PPCS | 6.71 | 7.31 | 6.80 | 7.31 | 7.46 | 7.32 | 7.07 | 7.33 |
| PPDPF | 10.12 | 9.17 | 8.36 | 9.10 | 8.95 | 9.10 | 8.82 | 9.22 |
| PPDPFL | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PPEF1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| PPFIA1 | 6.52 | 6.42 | 6.57 | 6.17 | 6.46 | 6.40 | 6.86 | 6.56 |
| PPFIA2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PPFIA3 | 4.91 | 4.14 | 4.07 | 4.73 | 4.42 | 3.98 | 4.08 | 3.73 |
| PPFIA4 | -0.25 | -0.23 | -0.16 | -0.18 | -0.20 | -0.20 | 0.06 | -0.28 |
| PPFIBP1 | 5.16 | 5.48 | 4.98 | 5.58 | 6.00 | 4.81 | 5.31 | 5.16 |
| PPFIBP2 | 4.37 | 4.69 | 4.07 | 4.99 | 4.50 | 3.38 | 4.48 | 3.62 |
| PPHLN1 | 6.89 | 6.43 | 6.06 | 6.43 | 5.97 | 6.85 | 6.34 | 6.67 |
| PPIA | 8.24 | 8.56 | 7.85 | 8.89 | 8.74 | 8.32 | 7.96 | 8.50 |
| PPIAL4A | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PPIAL4G | -1.74 | -1.69 | -1.68 | -1.70 | -1.72 | -1.75 | -1.75 | -1.63 |
| PPIAL4H | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| PPIAP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PPIAP11 | -1.19 | -1.25 | -1.30 | -1.13 | -1.31 | -1.27 | -1.32 | -1.23 |
| PPIAP13 | -0.21 | -0.11 | -0.17 | 0.05 | -0.09 | -0.13 | -0.08 | -0.25 |
| PPIAP14 | -2.20 | -2.20 | -2.19 | -2.18 | -2.18 | -2.19 | -2.20 | -2.21 |
| PPIAP16 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.86 | -1.90 | -1.87 |
| PPIAP19 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| PPIAP2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| PPIAP21 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 |
| PPIAP22 | 2.09 | 2.02 | 1.97 | 2.56 | 2.49 | 2.14 | 1.76 | 2.18 |
| PPIAP23 | -2.15 | -2.12 | -2.14 | -2.12 | -2.12 | -2.14 | -2.15 | -2.16 |
| PPIAP26 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.95 | -1.95 | -1.92 |
| PPIAP28 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PPIAP29 | -1.69 | -1.73 | -1.73 | -1.65 | -1.69 | -1.72 | -1.74 | -1.76 |
| PPIAP3 | -1.69 | -1.68 | -1.68 | -1.69 | -1.56 | -1.65 | -1.69 | -1.71 |
| PPIAP30 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.06 | -2.01 | -2.07 |
| PPIAP31 | -1.29 | -1.28 | -1.27 | -1.23 | -1.25 | -1.30 | -1.16 | -1.25 |
| PPIAP33 | -1.64 | -1.64 | -1.63 | -1.65 | -1.61 | -1.63 | -1.60 | -1.61 |
| PPIAP34 | -1.84 | -1.80 | -1.83 | -1.84 | -1.84 | -1.79 | -1.80 | -1.85 |
| PPIAP35 | -0.48 | -0.68 | -0.75 | -0.69 | -0.54 | -0.67 | -0.77 | -0.67 |
| PPIAP4 | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| PPIAP41 | -1.54 | -1.54 | -1.53 | -1.49 | -1.51 | -1.44 | -1.49 | -1.56 |
| PPIAP42 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| PPIAP44 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PPIAP45 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.08 | -2.10 | -2.10 |
| PPIAP46 | -1.04 | -0.88 | -1.03 | -0.98 | -0.96 | -1.02 | -1.05 | -1.06 |
| PPIAP47 | -2.04 | -2.04 | -2.04 | -1.99 | -2.04 | -2.05 | -2.05 | -2.06 |
| PPIAP49 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.30 | -2.31 |
| PPIAP50 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -1.97 |
| PPIAP51 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| PPIAP53 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| PPIAP54 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| PPIAP55 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| PPIAP58 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| PPIAP59 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PPIAP6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PPIAP60 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| PPIAP62 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| PPIAP64 | -2.15 | -2.12 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| PPIAP65 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.19 | -2.20 | -2.21 |
| PPIAP66 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| PPIAP68 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PPIAP70 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PPIAP71 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.97 | -2.00 | -2.01 |
| PPIAP72 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| PPIAP73 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PPIAP74 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -2.00 | -1.99 | -1.94 |
| PPIAP75 | -2.05 | -2.04 | -2.04 | -2.05 | -2.01 | -2.04 | -2.05 | -2.06 |
| PPIAP76 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PPIAP77 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| PPIAP78 | -1.99 | -1.99 | -1.91 | -1.96 | -1.99 | -1.96 | -2.00 | -2.01 |
| PPIAP79 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| PPIAP8 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| PPIAP80 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PPIAP81 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PPIAP82 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| PPIAP83 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| PPIAP84 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| PPIAP85 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PPIAP87 | -2.10 | -2.06 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.08 |
| PPIAP9 | -1.80 | -1.75 | -1.79 | -1.84 | -1.82 | -1.83 | -1.80 | -1.82 |
| PPIAP91 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PPIB | 10.60 | 10.37 | 10.14 | 10.70 | 10.98 | 9.70 | 9.84 | 10.53 |
| PPIC | 6.87 | 7.87 | 7.36 | 8.13 | 7.79 | 6.86 | 7.30 | 7.43 |
| PPID | 6.03 | 5.88 | 5.81 | 6.06 | 6.03 | 6.27 | 5.62 | 5.95 |
| PPIE | 6.16 | 6.37 | 6.22 | 6.35 | 6.78 | 6.79 | 5.94 | 6.23 |
| PPIEL | -0.10 | -0.01 | 0.02 | 0.25 | -0.05 | 0.43 | 0.71 | -0.07 |
| PPIF | 6.41 | 6.22 | 5.59 | 6.59 | 6.14 | 5.97 | 5.51 | 5.58 |
| PIIG | 7.70 | 7.91 | 7.74 | 7.68 | 7.86 | 7.68 | 7.72 | 8.05 |
| PPIH | 5.06 | 5.26 | 5.67 | 5.67 | 5.57 | 5.66 | 5.03 | 5.48 |
| PPIHP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PPIL1 | 6.49 | 5.22 | 5.06 | 5.27 | 5.78 | 6.06 | 4.93 | 6.08 |
| PPIL2 | 4.63 | 4.80 | 4.89 | 4.76 | 3.96 | 4.41 | 5.00 | 5.11 |
| PPIL3 | 5.52 | 5.30 | 4.87 | 5.37 | 5.60 | 5.47 | 4.36 | 5.16 |
| PPIL4 | 5.77 | 4.97 | 5.71 | 5.17 | 5.60 | 5.94 | 5.77 | 5.75 |
| PPIL6 | 2.32 | 1.90 | 1.88 | 2.02 | 2.58 | 2.91 | 1.76 | 2.78 |
| PPIP5K1 | 2.87 | 3.63 | 3.50 | 3.33 | 3.14 | 3.05 | 3.66 | 3.45 |
| PPIP5K2 | 4.10 | 5.09 | 4.74 | 4.99 | 5.10 | 5.13 | 5.23 | 4.71 |
| PPL | 6.16 | 6.15 | 6.69 | 5.62 | 5.74 | 6.10 | 6.48 | 6.37 |
| PPM1A | 4.69 | 5.12 | 5.45 | 5.10 | 4.88 | 4.85 | 5.42 | 4.73 |
| PPM1B | 4.10 | 4.78 | 4.70 | 4.78 | 5.22 | 4.39 | 5.20 | 4.74 |
| PPM1D | 3.74 | 3.71 | 3.57 | 3.64 | 3.56 | 3.41 | 4.14 | 3.40 |
| PPM1E | -1.89 | -1.89 | -1.88 | -1.85 | -1.83 | -1.90 | -1.90 | -1.83 |
| PPM1F | 2.55 | 2.61 | 2.57 | 2.75 | 2.42 | 2.62 | 2.95 | 3.01 |
| PPM1G | 7.34 | 7.31 | 7.39 | 7.56 | 6.94 | 7.38 | 7.31 | 7.19 |
| PPM1H | 3.08 | 3.47 | 3.69 | 3.56 | 3.22 | 3.04 | 3.22 | 3.02 |
| PPM1J | 3.10 | 2.50 | 2.36 | 2.73 | 3.14 | 2.83 | 2.38 | 2.63 |
| PPM1K | 2.55 | 3.15 | 2.90 | 2.98 | 2.82 | 3.94 | 2.91 | 2.89 |
| PPM1K-DT | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.24 | -2.26 | -2.27 |
| PPM1L | 3.52 | 3.91 | 4.67 | 4.17 | 4.49 | 3.91 | 3.65 | 3.17 |
| PPM1M | 1.86 | 2.05 | 1.81 | 1.76 | 1.54 | 1.74 | 1.54 | 2.05 |
| PPM1N | 4.34 | 3.55 | 3.77 | 3.68 | 3.65 | 3.72 | 2.94 | 3.28 |
| PPME1 | 5.59 | 5.57 | 6.18 | 5.19 | 5.71 | 5.72 | 5.72 | 6.04 |
| PPOX | 3.63 | 3.42 | 3.58 | 3.32 | 3.92 | 3.95 | 3.47 | 3.87 |
| PPP1CA | 9.12 | 8.59 | 8.54 | 8.88 | 8.79 | 8.66 | 8.15 | 9.04 |
| PPP1CB | 7.37 | 7.50 | 7.48 | 7.04 | 6.73 | 7.63 | 7.50 | 7.43 |
| PPP1CC | 6.35 | 7.41 | 6.83 | 7.12 | 6.93 | 6.82 | 7.11 | 7.17 |
| PPP1R10 | 6.06 | 5.78 | 5.93 | 5.61 | 5.86 | 6.43 | 6.17 | 6.44 |
| PPP1R11 | 7.18 | 5.91 | 5.90 | 5.92 | 6.43 | 6.98 | 6.13 | 7.43 |
| PPP1R11P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PPP1R11P2 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.24 | -2.26 |
| PPP1R12A | 5.23 | 6.59 | 7.13 | 6.56 | 6.33 | 6.70 | 6.77 | 6.87 |
| PPP1R12A-AS1 | 0.36 | 0.31 | 0.24 | 0.42 | 0.19 | 0.35 | 0.41 | 0.34 |
| PPP1R12B | 3.73 | 4.26 | 3.82 | 4.30 | 3.52 | 3.87 | 4.50 | 4.14 |
| PPP1R12C | 4.18 | 4.65 | 4.80 | 4.80 | 4.72 | 4.41 | 4.50 | 4.29 |
| PPP1R13B | 3.31 | 3.43 | 3.38 | 3.72 | 3.97 | 3.55 | 4.25 | 3.04 |
| PPP1R13L | 4.39 | 5.06 | 4.77 | 5.13 | 4.80 | 4.79 | 4.84 | 5.13 |
| PPP1R14A | 4.42 | 1.49 | 1.75 | 1.52 | 1.86 | 1.84 | 2.03 | 1.60 |
| PPP1R14B | 7.88 | 7.74 | 7.50 | 7.60 | 7.79 | 7.93 | 7.00 | 8.87 |
| PPP1R14BP2 | 1.01 | 1.19 | 1.00 | 0.98 | 1.05 | 1.10 | 0.78 | 1.66 |
| PPP1R14BP3 | 2.87 | 2.39 | 2.80 | 2.30 | 2.47 | 2.62 | 2.30 | 3.38 |
| PPP1R14C | 3.46 | 3.07 | 2.78 | 2.98 | 2.67 | 3.78 | 2.46 | 2.23 |
| PPP1R14D | 6.13 | 3.15 | 3.28 | 3.01 | 3.92 | 2.91 | 3.06 | 2.92 |
| PPP1R15A | 6.33 | 5.74 | 6.27 | 5.65 | 6.73 | 6.41 | 5.44 | 6.57 |
| PPP1R15B | 5.48 | 5.93 | 5.78 | 5.59 | 5.88 | 6.16 | 6.05 | 6.41 |
| PPP1R16A | 5.61 | 5.88 | 6.22 | 5.98 | 5.49 | 5.75 | 6.11 | 5.80 |
| PPP1R16B | 0.27 | 1.50 | 0.21 | 0.80 | 0.62 | 0.20 | 0.17 | 0.14 |
| PPP1R18 | 2.95 | 2.96 | 3.75 | 3.02 | 3.35 | 4.85 | 3.74 | 3.99 |
| PPP1R1A | -0.90 | -1.03 | -1.10 | -0.85 | -1.03 | -1.12 | -1.12 | -1.13 |
| PPP1R1B | 8.01 | 7.62 | 6.39 | 8.10 | 9.00 | 5.51 | 6.37 | 8.25 |
| PPP1R1C | 3.28 | 2.43 | 3.28 | 2.54 | 3.34 | 2.96 | 2.98 | 4.39 |
| PPP1R2 | 6.87 | 6.53 | 6.07 | 6.21 | 6.24 | 6.66 | 6.43 | 6.95 |
| PPP1R21 | 4.15 | 4.32 | 4.07 | 4.09 | 4.58 | 3.71 | 4.21 | 4.06 |
| PPP1R26 | 4.38 | 4.33 | 4.69 | 4.32 | 4.08 | 4.38 | 4.57 | 4.46 |
| PPP1R26-AS1 | 0.58 | 0.53 | 0.64 | 0.50 | 0.51 | 0.44 | 0.75 | 0.64 |
| PPP1R27 | -1.64 | -1.64 | -1.57 | -1.65 | -1.64 | -1.57 | -1.65 | -1.61 |
| PPP1R2B | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.81 |
| PPP1R2P1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| PPP1R2P6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| PPP1R32 | 1.48 | 1.16 | 1.59 | 1.25 | 1.79 | 1.60 | 1.51 | 1.73 |
| PPP1R35 | 6.67 | 6.37 | 5.87 | 6.56 | 7.00 | 6.68 | 6.25 | 6.80 |
| PPP1R36 | 2.83 | 3.68 | 2.72 | 4.00 | 3.49 | 2.78 | 3.19 | 3.13 |
| PPP1R37 | 3.78 | 3.96 | 4.10 | 4.04 | 3.91 | 3.87 | 3.98 | 3.50 |
| PPP1R3B | 3.17 | 3.99 | 4.87 | 3.66 | 3.54 | 4.02 | 4.07 | 3.16 |
| PPP1R3C | 3.11 | 3.48 | 3.14 | 3.25 | 3.06 | 3.17 | 5.16 | 2.74 |
| PPP1R3D | 4.43 | 4.17 | 3.98 | 3.99 | 4.03 | 4.10 | 4.23 | 4.53 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PPP1R3E | 2.64 | 3.10 | 2.90 | 2.90 | 2.82 | 2.46 | 3.33 | 2.28 |
| PPP1R3F | 2.43 | 2.74 | 2.50 | 2.64 | 2.77 | 2.57 | 2.42 | 2.64 |
| PPP1R3G | 2.12 | 2.10 | 1.92 | 1.89 | 2.27 | 1.87 | 3.27 | 3.81 |
| PPP1R42 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| PPP1R7 | 7.93 | 7.06 | 6.88 | 7.13 | 8.08 | 7.78 | 7.37 | 7.95 |
| PPP1R8 | 4.67 | 4.75 | 5.08 | 4.95 | 4.84 | 5.08 | 5.19 | 4.94 |
| PPP1R8P1 | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.14 | -2.13 | -2.16 |
| PPP1R9A | 3.98 | 3.97 | 4.58 | 4.18 | 4.68 | 3.79 | 4.66 | 3.80 |
| PPP1R9B | 4.57 | 4.77 | 5.47 | 4.40 | 4.46 | 4.69 | 4.79 | 4.42 |
| PPP2CA | 7.31 | 7.36 | 7.41 | 7.35 | 7.72 | 7.58 | 7.23 | 6.70 |
| PPP2CB | 6.25 | 6.50 | 7.05 | 6.34 | 5.72 | 6.30 | 6.96 | 6.60 |
| PPP2R1A | 8.33 | 8.01 | 8.03 | 7.89 | 7.95 | 8.05 | 7.79 | 8.06 |
| PPP2R1B | 4.78 | 4.75 | 4.66 | 4.77 | 4.30 | 4.66 | 4.82 | 4.82 |
| PPP2R2A | 5.57 | 5.83 | 6.76 | 5.88 | 5.77 | 6.40 | 6.74 | 6.02 |
| PPP2R2B | -0.10 | -0.32 | -0.31 | -0.26 | -0.01 | 0.19 | -0.34 | -0.29 |
| PPP2R2C | 3.63 | 3.50 | 3.80 | 3.42 | 3.74 | 3.65 | 4.55 | 2.53 |
| PPP2R2D | 6.75 | 6.65 | 6.14 | 7.02 | 7.20 | 7.09 | 6.68 | 6.65 |
| PPP2R3A | 4.06 | 3.27 | 4.23 | 3.33 | 2.88 | 4.06 | 4.36 | 4.45 |
| PPP2R3C | 4.35 | 4.83 | 4.26 | 4.90 | 4.98 | 4.78 | 4.54 | 4.33 |
| PPP2R5A | 5.37 | 5.62 | 5.69 | 5.52 | 5.84 | 5.88 | 5.61 | 6.05 |
| PPP2R5B | 2.93 | 2.77 | 3.53 | 2.65 | 3.51 | 2.81 | 3.15 | 2.92 |
| PPP2R5C | 6.51 | 6.92 | 6.29 | 6.88 | 7.10 | 7.01 | 6.75 | 6.84 |
| PPP2R5D | 4.74 | 4.75 | 4.77 | 4.23 | 4.33 | 5.22 | 4.88 | 5.28 |
| PPP2R5E | 4.98 | 6.11 | 5.96 | 5.66 | 5.79 | 6.21 | 6.27 | 5.74 |
| PPP3CA | 6.05 | 7.04 | 6.52 | 6.92 | 5.46 | 7.18 | 6.63 | 7.47 |
| PPP3CB | 3.94 | 4.62 | 3.91 | 4.36 | 4.03 | 4.17 | 4.52 | 3.59 |
| PPP3CB-AS1 | 3.05 | 2.46 | 2.44 | 2.32 | 2.37 | 2.74 | 2.08 | 2.10 |
| PPP3CC | 3.05 | 3.06 | 2.92 | 2.46 | 2.98 | 3.28 | 2.86 | 2.52 |
| PPP3R1 | 5.02 | 5.27 | 5.54 | 4.85 | 5.57 | 4.66 | 5.35 | 5.27 |
| PPP4C | 9.20 | 8.44 | 8.57 | 8.57 | 8.76 | 8.70 | 8.35 | 9.15 |
| PPP4R1 | 4.97 | 5.39 | 5.98 | 4.94 | 4.90 | 5.05 | 5.27 | 5.94 |
| PPP4R1-AS1 | -0.33 | -0.31 | -0.20 | -0.41 | -0.14 | -0.27 | -0.25 | -0.36 |
| PPP4R1L | 3.08 | 2.65 | 2.69 | 2.69 | 2.97 | 2.77 | 2.96 | 2.98 |
| PPP4R2 | 6.05 | 6.87 | 6.43 | 6.60 | 6.25 | 6.62 | 6.54 | 6.21 |
| PPP4R3A | 5.15 | 6.42 | 6.01 | 6.18 | 5.90 | 6.16 | 6.63 | 5.70 |
| PPP4R3B | 6.14 | 6.33 | 5.45 | 6.09 | 6.17 | 5.78 | 6.13 | 6.25 |
| PPP4R4 | -1.43 | -1.53 | -1.36 | -1.54 | -1.53 | -1.52 | -1.49 | -1.56 |
| PPP5C | 6.74 | 6.04 | 6.24 | 6.34 | 6.47 | 6.35 | 6.17 | 6.02 |
| PPP5D1 | -0.45 | -0.53 | -0.21 | -0.32 | -0.45 | -0.48 | -0.33 | -0.56 |
| PPP6C | 6.50 | 6.03 | 5.77 | 6.10 | 5.75 | 6.16 | 6.17 | 6.17 |
| PPP6R1 | 3.29 | 3.68 | 3.50 | 3.12 | 3.33 | 3.21 | 3.08 | 3.47 |
| PPP6R2 | 5.42 | 5.28 | 4.50 | 5.61 | 4.78 | 5.02 | 5.87 | 5.73 |
| PPP6R3 | 6.27 | 6.38 | 7.01 | 6.23 | 6.09 | 6.05 | 6.51 | 6.58 |
| PPRC1 | 4.81 | 5.10 | 4.77 | 5.10 | 4.94 | 4.70 | 4.64 | 4.95 |
| PPT1 | 6.17 | 6.87 | 6.08 | 6.88 | 5.91 | 6.29 | 5.44 | 5.39 |
| PPT2 | 3.60 | 3.91 | 3.21 | 4.06 | 3.41 | 4.13 | 3.28 | 4.25 |
| PPT2-EGFL8 | 0.01 | -0.19 | -0.26 | -0.13 | -0.19 | -0.29 | -0.14 | 0.02 |
| PPTC7 | 3.83 | 4.73 | 4.97 | 4.80 | 4.32 | 4.77 | 4.86 | 4.74 |
| PPWD1 | 4.33 | 4.83 | 4.80 | 4.89 | 5.03 | 4.85 | 4.63 | 4.68 |
| PPY | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.20 | -2.26 |
| PQBP1 | 7.33 | 6.57 | 6.85 | 7.02 | 7.10 | 7.03 | 6.38 | 6.33 |
| PQLC1 | 5.37 | 5.90 | 6.03 | 5.88 | 5.31 | 4.72 | 5.38 | 4.82 |
| PQLC2 | 3.51 | 3.13 | 3.55 | 3.05 | 3.92 | 3.50 | 3.80 | 3.67 |
| PQLC2L | 1.14 | 0.72 | 1.18 | 0.75 | 0.74 | 1.01 | 0.53 | 0.94 |
| PQLC3 | 6.24 | 5.09 | 4.71 | 4.85 | 4.64 | 4.54 | 4.90 | 5.12 |
| PRAC2 | 1.65 | 2.19 | 1.09 | 2.23 | 1.21 | 0.94 | 0.84 | 1.27 |
| PRADC1 | 6.28 | 5.76 | 5.18 | 6.30 | 6.30 | 5.14 | 5.08 | 5.18 |
| PRAF2 | 5.48 | 4.96 | 4.15 | 5.23 | 5.84 | 5.48 | 5.63 | 3.94 |
| PRAG1 | 4.60 | 5.51 | 5.82 | 5.29 | 4.27 | 5.31 | 5.47 | 4.84 |
| PRAL | -0.21 | -0.35 | -0.57 | -0.59 | -0.39 | -0.49 | -0.59 | -0.61 |
| PRAM1 | 0.01 | -0.13 | 0.07 | -0.06 | -0.09 | 0.17 | -0.07 | 0.13 |
| PRAME | 3.85 | 2.47 | 1.73 | 2.10 | 1.70 | 1.47 | 1.74 | 3.23 |
| PRAMEF12 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PRAP1 | 1.18 | 0.88 | 1.17 | 0.76 | 1.26 | 0.81 | 0.91 | 0.83 |
| PRB1 | -2.05 | -2.01 | -2.04 | -2.01 | -2.03 | -2.00 | -2.05 | -2.06 |
| PRB2 | -2.20 | -2.17 | -2.17 | -2.18 | -2.20 | -2.18 | -2.20 | -2.21 |
| PRB3 | -1.45 | -1.27 | -1.43 | -1.09 | -1.50 | -1.52 | -1.51 | -1.33 |
| PRC1 | 4.75 | 4.89 | 5.89 | 4.62 | 4.42 | 5.10 | 4.66 | 4.97 |
| PRC1-AS1 | -0.52 | -0.59 | -0.57 | -0.52 | -0.55 | -0.61 | -0.53 | -0.41 |
| PRCC | 6.46 | 6.18 | 5.58 | 6.35 | 6.40 | 6.50 | 5.79 | 6.43 |
| PRCD | -1.85 | -1.84 | -1.83 | -1.85 | -1.74 | -1.70 | -1.85 | -1.81 |
| PRCP | 5.15 | 4.54 | 5.24 | 4.79 | 5.69 | 4.58 | 4.33 | 5.02 |
| PRDM1 | 3.14 | 3.54 | 4.08 | 3.82 | 3.11 | 3.13 | 3.79 | 3.15 |
| PRDM10 | 2.15 | 2.51 | 2.53 | 2.67 | 2.16 | 2.27 | 2.53 | 2.40 |
| PRDM11 | 0.04 | -0.01 | -0.08 | 0.10 | 0.12 | -0.09 | -0.11 | -0.15 |
| PRDM12 | 0.18 | -0.07 | -0.11 | -0.15 | 0.01 | -0.18 | -0.09 | -0.19 |
| PRDM13 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| PRDM15 | 2.16 | 2.22 | 2.30 | 2.49 | 2.17 | 2.23 | 2.47 | 2.34 |
| PRDM16 | 3.04 | 3.30 | 3.64 | 3.62 | 3.88 | 2.67 | 4.45 | 2.88 |
| PRDM16-DT | 1.61 | 1.33 | 1.79 | 1.60 | 2.30 | 1.38 | 2.61 | 1.48 |
| PRDM2 | 5.09 | 4.91 | 4.44 | 4.98 | 5.06 | 5.03 | 5.15 | 4.51 |
| PRDM4 | 3.36 | 4.13 | 4.29 | 3.73 | 3.55 | 3.88 | 3.98 | 4.02 |
| PRDM5 | 1.77 | 1.98 | 1.95 | 2.36 | 1.95 | 1.32 | 1.89 | 1.91 |
| PRDM6 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.02 | -2.05 | -2.03 |
| PRDM7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PRDM8 | 0.89 | 0.78 | 0.74 | 0.59 | 0.70 | 1.18 | 0.51 | 1.09 |
| PRDX1 | 10.39 | 9.05 | 9.46 | 9.22 | 9.82 | 9.54 | 9.68 | 10.28 |
| PRDX1P1 | 0.55 | 0.35 | 0.61 | 0.74 | 0.60 | 0.49 | 0.61 | 0.42 |
| PRDX2 | 9.41 | 9.84 | 8.94 | 10.06 | 9.32 | 9.49 | 9.21 | 8.89 |
| PRDX2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| PRDX2P2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 | -2.26 |
| PRDX2P4 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| PRDX3 | 9.52 | 8.65 | 8.22 | 9.04 | 9.14 | 8.92 | 7.85 | 8.28 |
| PRDX3P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PRDX4 | 8.79 | 8.49 | 8.51 | 8.95 | 9.11 | 8.03 | 7.74 | 7.61 |
| PRDX5 | 9.92 | 8.33 | 9.03 | 8.51 | 10.03 | 8.77 | 9.15 | 10.18 |
| PRDX6 | 8.90 | 8.59 | 8.05 | 8.75 | 8.93 | 9.14 | 8.44 | 9.46 |
| PREB | 6.71 | 6.56 | 6.11 | 6.38 | 6.12 | 6.01 | 5.86 | 6.73 |
| PRELID1 | 8.40 | 8.68 | 8.62 | 8.88 | 8.96 | 8.31 | 8.29 | 8.15 |
| PRELID1P1 | -0.51 | -0.35 | -0.49 | -0.52 | -0.54 | -0.46 | -0.59 | -0.49 |
| PRELID2 | 4.55 | 5.45 | 5.64 | 5.36 | 5.51 | 5.48 | 5.74 | 4.57 |
| PRELID3A | 0.65 | 0.36 | 0.48 | 0.61 | 0.71 | 0.48 | 0.60 | 0.65 |
| PRELID3B | 8.03 | 7.18 | 7.34 | 7.29 | 7.80 | 7.83 | 6.99 | 8.11 |
| PRELID3BP10 | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.13 |
| PRELP | -0.92 | -0.91 | -0.98 | -1.00 | -0.95 | -0.91 | -1.00 | -1.01 |
| PREP | 5.68 | 4.87 | 5.25 | 5.15 | 5.08 | 5.23 | 5.73 | 5.37 |
| PREPL | 5.32 | 5.34 | 5.24 | 5.82 | 5.76 | 5.09 | 5.68 | 5.54 |
| PREX1 | 1.43 | 1.01 | 1.12 | 1.11 | 0.88 | 0.99 | 0.72 | 0.74 |
| PRF1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| PRG4 | -1.39 | -1.44 | -1.43 | -1.45 | -1.50 | -1.52 | -1.45 | -1.42 |
| PRH1 | 2.56 | 2.97 | 3.11 | 3.05 | 2.43 | 2.93 | 2.87 | 3.14 |
| PRICKLE1 | 1.87 | 2.33 | 2.31 | 2.40 | 2.17 | 2.24 | 3.07 | 2.54 |
| PRICKLE2 | 1.39 | 2.04 | 1.67 | 1.80 | 1.45 | 1.77 | 1.66 | 1.26 |
| PRICKLE3 | 4.09 | 3.87 | 4.27 | 3.82 | 4.36 | 3.68 | 3.58 | 3.56 |
| PRIM1 | 5.53 | 4.75 | 4.68 | 4.48 | 4.67 | 5.18 | 4.30 | 4.30 |
| PRIM2 | 3.63 | 3.47 | 3.56 | 3.41 | 3.18 | 3.30 | 3.24 | 3.30 |
| PRIMA1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PRIMPOL | 3.71 | 3.64 | 3.31 | 3.84 | 3.33 | 3.64 | 3.68 | 3.72 |
| PRKAA1 | 5.58 | 5.94 | 6.07 | 5.95 | 5.72 | 5.39 | 5.99 | 5.82 |
| PRKAA2 | 3.33 | 4.70 | 4.65 | 4.06 | 4.02 | 3.91 | 5.15 | 3.52 |
| PRKAB1 | 4.16 | 5.28 | 4.43 | 4.51 | 5.27 | 4.85 | 4.77 | 5.06 |
| PRKAB2 | 3.20 | 3.52 | 3.66 | 4.06 | 3.45 | 3.80 | 4.05 | 3.51 |
| PRKACA | 5.15 | 5.77 | 5.62 | 5.66 | 5.23 | 5.57 | 5.64 | 5.23 |
| PRKACB | 2.81 | 2.88 | 2.83 | 2.63 | 2.78 | 2.91 | 2.91 | 4.27 |
| PRKAG1 | 6.33 | 5.99 | 6.09 | 6.50 | 6.21 | 6.61 | 5.90 | 6.33 |
| PRKAG2 | 4.06 | 4.43 | 4.15 | 4.58 | 4.46 | 4.09 | 4.08 | 4.44 |
| PRKAG2-AS1 | -0.66 | -0.40 | -0.64 | -0.23 | -0.33 | -0.60 | -0.67 | -0.26 |
| PRKAR1A | 6.72 | 7.02 | 7.24 | 6.93 | 6.79 | 7.48 | 7.06 | 6.97 |
| PRKAR1AP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| PRKAR1B | 3.74 | 3.94 | 3.40 | 3.89 | 3.13 | 3.11 | 3.43 | 3.40 |
| PRKAR2A | 6.42 | 6.58 | 6.55 | 6.36 | 6.12 | 6.02 | 7.04 | 5.93 |
| PRKAR2A-AS1 | 0.24 | -0.04 | 0.22 | 0.03 | 0.25 | 0.11 | 0.14 | 0.21 |
| PRKAR2B | -0.06 | -0.36 | -0.34 | -0.38 | -0.41 | -0.46 | -0.46 | -0.15 |
| PRKCA | 5.02 | 6.58 | 6.45 | 6.39 | 6.20 | 5.80 | 6.49 | 5.23 |
| PRKCA-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PRKCB | -0.04 | -0.43 | -0.42 | -0.44 | -0.43 | -0.45 | -0.45 | -0.47 |
| PRKCD | 5.47 | 4.96 | 5.59 | 4.86 | 4.91 | 5.32 | 5.25 | 5.21 |
| PRKCE | 2.43 | 2.65 | 2.96 | 2.54 | 2.80 | 2.66 | 2.92 | 2.23 |
| PRKCG | -0.21 | -0.36 | -0.25 | -0.18 | -0.24 | -0.25 | -0.37 | -0.33 |
| PRKCH | 2.86 | 3.45 | 3.12 | 3.31 | 3.68 | 3.55 | 3.12 | 3.17 |
| PRKCI | 6.03 | 5.94 | 6.00 | 5.83 | 5.68 | 5.46 | 5.76 | 5.98 |
| PRKCQ | -1.27 | -1.12 | -1.18 | -1.28 | -0.85 | -1.25 | -1.28 | -1.29 |
| PRKCQ-AS1 | 1.59 | 2.23 | 1.22 | 2.47 | 2.34 | 1.40 | 1.35 | 1.43 |
| PRKCSH | 6.52 | 6.63 | 7.19 | 6.92 | 7.42 | 6.67 | 6.98 | 6.57 |
| PRKCZ | 4.28 | 5.08 | 4.69 | 5.14 | 4.73 | 4.56 | 4.15 | 4.16 |
| PRKCZ-AS1 | -1.74 | -1.74 | -1.73 | -1.74 | -1.69 | -1.68 | -1.70 | -1.68 |
| PRKD1 | -1.59 | -1.64 | -1.63 | -1.64 | -1.53 | -1.65 | -1.59 | -1.56 |
| PRKD2 | 5.72 | 5.20 | 5.10 | 5.24 | 5.89 | 5.33 | 5.43 | 5.76 |
| PRKD3 | 5.00 | 4.94 | 4.84 | 4.41 | 3.32 | 4.89 | 4.89 | 4.89 |
| PRKDC | 8.07 | 8.05 | 8.73 | 7.89 | 7.73 | 8.09 | 8.12 | 7.94 |
| PRKG1 | -0.16 | 0.02 | -0.14 | 0.32 | -0.11 | -0.17 | 0.19 | 0.16 |
| PRKG1-AS1 | -0.71 | -0.79 | -0.60 | -0.80 | -0.79 | -0.54 | -0.80 | -0.43 |
| PRKG2 | -1.13 | -1.05 | -1.18 | -1.13 | -1.16 | -1.03 | -1.01 | -1.05 |
| PRKN | 0.73 | 0.66 | 0.68 | 0.63 | 0.77 | 0.72 | 1.37 | 0.95 |
| PRKRA | 7.01 | 6.19 | 5.79 | 6.37 | 6.82 | 6.50 | 5.60 | 6.58 |
| PRKRA-AS1 | 2.32 | 2.53 | 2.41 | 2.35 | 2.16 | 2.19 | 1.80 | 2.11 |
| PRKRIP1 | 4.13 | 4.71 | 4.50 | 4.92 | 5.03 | 4.93 | 4.90 | 5.24 |
| PRKX | 4.94 | 5.39 | 6.02 | 5.22 | 4.74 | 4.39 | 5.34 | 3.98 |
| PRKY | 0.27 | 0.28 | 0.30 | 0.35 | 0.28 | 0.29 | 0.50 | 0.21 |
| PRLH | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| PRLR | -0.63 | -0.54 | -0.43 | -0.63 | -0.52 | -0.53 | -0.48 | -0.08 |
| PRMT1 | 8.37 | 7.69 | 7.45 | 7.96 | 8.16 | 7.99 | 7.21 | 7.86 |
| PRMT1P1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| PRMT2 | 6.40 | 6.99 | 6.14 | 6.99 | 6.39 | 7.29 | 6.84 | 6.37 |
| PRMT3 | 4.76 | 4.05 | 4.54 | 4.25 | 4.19 | 4.02 | 4.23 | 4.59 |
| PRMT5 | 5.52 | 5.71 | 5.62 | 5.58 | 6.02 | 6.10 | 5.37 | 5.73 |
| PRMT5-AS1 | -0.17 | -0.08 | 0.02 | 0.02 | 0.20 | 0.11 | 0.03 | -0.13 |
| PRMT6 | 4.58 | 4.79 | 3.80 | 4.81 | 3.99 | 4.20 | 3.98 | 3.84 |
| PRMT7 | 4.52 | 4.44 | 4.93 | 4.54 | 4.18 | 4.08 | 4.05 | 4.74 |
| PRMT9 | 2.77 | 3.05 | 3.10 | 2.79 | 2.67 | 3.18 | 3.52 | 3.12 |
| PRNCR1 | -0.33 | -0.24 | -0.31 | -0.26 | -0.24 | -0.18 | -0.06 | -0.18 |
| PRNP | 6.67 | 7.01 | 6.73 | 6.99 | 6.72 | 6.63 | 6.60 | 7.03 |
| PROB1 | 0.83 | 0.83 | 1.14 | 0.75 | 0.77 | 0.72 | 1.08 | 0.79 |
| PROC | 0.37 | 0.87 | 0.32 | 0.76 | 0.70 | 0.69 | 0.36 | 0.58 |
| PROCA1 | 1.69 | 1.91 | 2.14 | 1.91 | 1.60 | 1.80 | 1.90 | 1.42 |
| PROCR | 5.05 | 6.04 | 3.97 | 6.90 | 5.96 | 6.05 | 4.76 | 4.31 |
| PRODH | -1.64 | -1.63 | -1.63 | -1.44 | -1.64 | -1.62 | -1.59 | -1.61 |
| PRODH2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| PROM1 | 5.29 | 5.43 | 5.58 | 5.61 | 5.01 | 3.69 | 5.46 | 3.98 |
| PROM2 | 4.83 | 4.90 | 6.24 | 4.56 | 5.20 | 5.85 | 6.66 | 5.05 |
| PRORS1P | 1.27 | 1.11 | 1.12 | 1.45 | 1.73 | 1.41 | 1.14 | 1.56 |
| PROS1 | 2.25 | 3.75 | 2.62 | 3.77 | 2.41 | 3.37 | 3.61 | 2.54 |
| PROSER1 | 3.62 | 4.43 | 4.36 | 4.44 | 4.30 | 3.87 | 4.31 | 4.85 |
| PROSER2 | 4.18 | 4.49 | 4.55 | 3.88 | 5.10 | 4.89 | 4.84 | 4.66 |
| PROSER2-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| PROSER3 | 3.05 | 3.43 | 3.21 | 3.31 | 3.55 | 3.43 | 3.55 | 2.83 |
| PROX1 | 2.52 | 2.73 | 2.85 | 2.55 | 4.01 | 2.85 | 3.71 | 2.54 |
| PROX1-AS1 | 0.01 | 0.10 | 0.13 | 0.08 | 0.48 | 0.37 | 0.22 | 0.10 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PROZ | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| PRPF18 | 4.15 | 4.55 | 4.28 | 4.93 | 4.66 | 4.67 | 4.84 | 4.66 |
| PRPF19 | 5.84 | 6.15 | 6.27 | 5.74 | 5.61 | 5.54 | 5.81 | 5.29 |
| PRPF3 | 5.94 | 4.68 | 5.05 | 5.24 | 4.85 | 5.95 | 4.69 | 5.89 |
| PRPF31 | 7.06 | 6.34 | 6.31 | 6.71 | 6.93 | 6.49 | 6.13 | 6.41 |
| PRPF38A | 5.72 | 5.90 | 5.40 | 5.86 | 5.75 | 6.06 | 5.30 | 5.67 |
| PRPF38AP2 | -2.31 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.26 |
| PRPF38B | 6.41 | 6.91 | 6.71 | 6.94 | 6.43 | 7.03 | 7.00 | 6.08 |
| PRPF39 | 4.25 | 4.67 | 4.60 | 4.94 | 4.98 | 4.90 | 5.17 | 4.17 |
| PRPF4 | 5.43 | 5.07 | 5.06 | 5.10 | 4.94 | 5.55 | 5.39 | 5.03 |
| PRPF40A | 8.06 | 8.07 | 7.95 | 7.65 | 7.84 | 8.03 | 8.01 | 7.92 |
| PRPF40B | 3.91 | 2.95 | 3.84 | 3.17 | 3.49 | 3.60 | 3.46 | 3.71 |
| PRPF4B | 6.99 | 6.96 | 6.46 | 6.94 | 6.77 | 6.38 | 7.38 | 7.63 |
| PRPF6 | 7.32 | 6.51 | 7.40 | 6.57 | 7.33 | 7.33 | 6.71 | 7.09 |
| PRPF8 | 5.99 | 5.72 | 7.43 | 5.58 | 5.98 | 6.29 | 6.98 | 6.25 |
| PRPH | 0.65 | 0.18 | 0.19 | 0.23 | 0.22 | 0.27 | 0.21 | 0.18 |
| PRPH2 | -1.64 | -1.69 | -1.63 | -1.70 | -1.61 | -1.62 | -1.70 | -1.61 |
| PRPS1 | 5.50 | 3.36 | 5.80 | 3.23 | 5.46 | 4.73 | 4.35 | 4.18 |
| PRPS2 | 5.40 | 5.81 | 6.36 | 5.58 | 5.18 | 5.31 | 5.39 | 5.01 |
| PRPSAP1 | 6.03 | 5.48 | 5.74 | 5.54 | 6.18 | 6.10 | 5.14 | 5.42 |
| PRPSAP2 | 5.52 | 4.59 | 4.65 | 4.48 | 4.36 | 4.63 | 4.82 | 4.80 |
| PRR11 | 4.64 | 4.79 | 5.33 | 4.87 | 4.56 | 5.94 | 4.76 | 5.43 |
| PRR12 | 2.46 | 2.73 | 2.88 | 2.59 | 2.71 | 2.60 | 3.00 | 3.09 |
| PRR13 | 8.09 | 7.91 | 7.16 | 8.01 | 7.51 | 7.74 | 7.59 | 8.01 |
| PRR13P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PRR13P5 | -1.96 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| PRR14 | 4.92 | 4.97 | 4.87 | 4.74 | 4.66 | 4.43 | 4.87 | 4.62 |
| PRR14L | 5.30 | 5.70 | 5.20 | 5.70 | 4.98 | 5.53 | 6.12 | 5.96 |
| PRR15 | 6.37 | 6.48 | 6.06 | 6.51 | 6.39 | 6.47 | 6.26 | 7.46 |
| PRR15L | 6.88 | 6.40 | 6.48 | 6.88 | 7.16 | 6.62 | 7.09 | 6.73 |
| PRR18 | -0.64 | -0.76 | -0.83 | -0.93 | -0.93 | -0.90 | -0.86 | -0.83 |
| PRR19 | 0.68 | 0.69 | 0.48 | 0.66 | 0.77 | 0.71 | 0.64 | 0.85 |
| PRR20G | -2.05 | -2.04 | -2.00 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| PRR22 | 0.15 | 0.08 | 0.37 | 0.42 | 0.15 | 0.23 | 0.62 | 0.27 |
| PRR26 | 1.71 | 1.42 | 1.61 | 1.52 | 1.91 | 1.46 | 2.15 | 1.47 |
| PRR29 | -1.64 | -1.68 | -1.58 | -1.64 | -1.69 | -1.65 | -1.69 | -1.61 |
| PRR29-AS1 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| PRR3 | 3.49 | 2.82 | 3.37 | 3.06 | 3.13 | 3.69 | 3.10 | 3.22 |
| PRR34 | -2.04 | -2.04 | -2.04 | -2.02 | -2.03 | -2.05 | -2.05 | -2.03 |
| PRR34-AS1 | 6.22 | 6.53 | 5.90 | 6.18 | 4.84 | 5.52 | 4.76 | 5.25 |
| PRR36 | 1.03 | 1.37 | 1.29 | 1.35 | 1.21 | 1.01 | 1.06 | 1.23 |
| PRR4 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| PRR5 | 5.70 | 4.67 | 4.33 | 4.78 | 4.16 | 3.93 | 4.04 | 4.50 |
| PRR5-ARHGAP8 | 0.04 | -0.06 | -0.02 | -0.22 | -0.06 | -0.06 | -0.03 | -0.18 |
| PRR5L | 2.60 | 4.34 | 3.52 | 3.54 | 2.71 | 4.14 | 3.07 | 2.36 |
| PRR7 | 5.46 | 5.43 | 5.49 | 5.95 | 6.33 | 5.46 | 5.09 | 4.67 |
| PRR7-AS1 | 1.38 | 1.22 | 1.19 | 1.85 | 1.54 | 1.41 | 1.17 | 1.31 |
| PRRC1 | 5.52 | 6.47 | 6.31 | 6.43 | 6.28 | 6.06 | 6.45 | 6.30 |
| PRRC2A | 5.90 | 6.24 | 6.33 | 5.52 | 5.28 | 6.60 | 5.92 | 6.37 |
| PRRC2B | 6.28 | 6.44 | 6.85 | 6.42 | 6.35 | 6.99 | 6.95 | 6.12 |
| PRRC2C | 8.40 | 8.64 | 8.74 | 8.62 | 8.72 | 9.07 | 9.00 | 8.78 |
| PRRG1 | 4.12 | 4.73 | 5.46 | 4.62 | 4.47 | 4.68 | 5.29 | 4.12 |
| PRRG2 | 4.24 | 4.37 | 4.21 | 4.77 | 4.52 | 3.90 | 3.91 | 4.78 |
| PRRG3 | 1.60 | 1.87 | 1.77 | 1.80 | 1.57 | 1.52 | 1.71 | 1.50 |
| PRRG4 | 6.34 | 6.56 | 6.53 | 6.49 | 5.81 | 5.70 | 6.50 | 5.50 |
| PRRT1 | 0.18 | -0.03 | -0.02 | 0.03 | 0.05 | 0.16 | 0.09 | 0.32 |
| PRRT2 | 1.66 | 1.38 | 1.44 | 1.56 | 1.82 | 1.29 | 1.25 | 1.35 |
| PRRT3 | 3.36 | 3.26 | 3.55 | 3.07 | 3.31 | 3.16 | 2.83 | 2.40 |
| PRRT3-AS1 | 2.62 | 1.86 | 1.70 | 1.65 | 1.81 | 1.79 | 1.71 | 1.88 |
| PRRT4 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| PRRX1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PRRX2 | 3.11 | 2.16 | 1.85 | 2.30 | 2.02 | 2.09 | 1.70 | 1.59 |
| PRSS1 | 4.70 | 4.29 | 5.82 | 4.80 | 5.75 | 4.83 | 4.34 | 10.04 |
| PRSS12 | 3.94 | 4.94 | 4.24 | 4.08 | 3.46 | 4.01 | 3.76 | 4.35 |
| PRSS16 | 4.15 | 4.40 | 3.81 | 4.61 | 4.05 | 4.36 | 4.54 | 3.76 |
| PRSS2 | 5.27 | 5.65 | 6.05 | 6.34 | 8.22 | 7.60 | 5.36 | 10.57 |
| PRSS21 | 3.39 | 1.82 | 3.81 | 1.92 | 2.13 | 4.60 | 2.49 | 2.05 |
| PRSS22 | 6.50 | 5.96 | 6.50 | 5.58 | 6.49 | 6.87 | 5.77 | 7.11 |
| PRSS23 | 6.52 | 7.65 | 7.09 | 8.27 | 7.44 | 6.49 | 6.17 | 7.26 |
| PRSS27 | 1.62 | 1.32 | 1.40 | 1.60 | 1.61 | 1.48 | 1.45 | 2.02 |
| PRSS29P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PRSS3 | 7.44 | 5.89 | 7.75 | 6.33 | 8.01 | 8.93 | 8.67 | 8.26 |
| PRSS30P | 1.88 | 0.97 | 1.10 | 1.02 | 1.13 | 1.22 | 1.09 | 0.80 |
| PRSS33 | 2.40 | 3.13 | 2.13 | 2.68 | 4.24 | 2.61 | 1.86 | 1.72 |
| PRSS35 | -1.45 | -1.68 | -1.68 | -1.64 | -1.66 | -1.70 | -1.69 | -1.66 |
| PRSS36 | 2.68 | 2.56 | 2.17 | 2.38 | 2.40 | 1.97 | 2.12 | 2.62 |
| PRSS37 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| PRSS3P1 | -1.20 | -1.19 | -1.18 | -1.20 | -1.00 | -1.21 | -1.21 | -0.23 |
| PRSS51 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.23 |
| PRSS53 | -2.07 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.07 | -2.11 |
| PRSS54 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PRSS56 | -1.64 | -1.94 | -1.93 | -1.95 | -1.94 | -1.96 | -1.95 | -1.97 |
| PRSS57 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| PRSS8 | 10.28 | 10.35 | 9.74 | 10.56 | 10.71 | 9.61 | 10.23 | 10.65 |
| PRTFDC1 | 3.71 | 3.93 | 3.62 | 3.97 | 4.55 | 3.91 | 3.55 | 3.68 |
| PRTG | 1.57 | 0.53 | 0.55 | 0.65 | 0.57 | 0.88 | 0.58 | 0.72 |
| PRTN3 | -0.88 | -1.02 | -0.93 | -1.03 | -0.99 | -0.84 | -0.90 | -1.05 |
| PRUNE1 | 3.80 | 3.63 | 3.56 | 3.31 | 3.83 | 3.73 | 3.91 | 3.98 |
| PRUNE2 | -1.22 | -1.15 | -1.21 | -0.74 | -1.22 | -1.24 | -1.23 | -1.24 |
| PRX | 1.36 | 1.29 | 0.87 | 0.96 | 1.24 | 1.37 | 1.03 | 1.54 |
| PRXL2A | 7.90 | 7.40 | 6.67 | 7.49 | 7.93 | 7.16 | 7.42 | 6.84 |
| PRXL2AP2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| PRXL2B | 6.33 | 6.31 | 6.27 | 6.17 | 5.73 | 5.54 | 6.39 | 5.53 |
| PRXL2C | 4.47 | 3.65 | 3.14 | 3.69 | 4.06 | 3.98 | 3.44 | 3.69 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| PSAP | 9.67 | 9.32 | 9.94 | 9.07 | 10.11 | 9.31 | 9.47 | 9.22 |
| PSAPL1 | 1.55 | 1.61 | 1.68 | 1.98 | 4.19 | 1.41 | 2.12 | 1.47 |
| PSAT1 | 5.77 | 5.67 | 5.17 | 5.75 | 4.16 | 5.34 | 6.40 | 7.07 |
| PSCA | 8.61 | 9.52 | 10.41 | 9.51 | 9.60 | 10.12 | 9.01 | 11.17 |
| PSD | 1.08 | 0.64 | 0.67 | 1.09 | 1.02 | 0.78 | 0.81 | 0.84 |
| PSD3 | 3.84 | 5.25 | 5.95 | 5.02 | 4.55 | 5.65 | 4.54 | 4.54 |
| PSD4 | 6.37 | 5.30 | 4.86 | 5.24 | 4.97 | 4.96 | 5.35 | 5.35 |
| PSEN1 | 5.29 | 5.67 | 5.84 | 5.57 | 5.44 | 5.36 | 6.28 | 5.44 |
| PSEN2 | 4.02 | 4.11 | 4.07 | 3.69 | 4.31 | 4.20 | 3.95 | 3.75 |
| PSENNEN | 7.78 | 7.32 | 6.95 | 7.53 | 7.67 | 7.26 | 7.05 | 7.25 |
| PSG2 | -1.90 | -1.89 | -1.88 | -1.90 | -1.89 | -1.91 | -1.90 | -1.92 |
| PSG3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PSG4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| PSG5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| PSG6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| PSG9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| PSIP1 | 6.15 | 6.14 | 6.85 | 5.96 | 6.00 | 6.72 | 6.60 | 5.93 |
| PSKH1 | 4.41 | 4.57 | 4.96 | 4.72 | 4.28 | 4.18 | 4.66 | 4.65 |
| PSMA1 | 9.19 | 7.99 | 8.01 | 8.12 | 8.56 | 8.42 | 7.82 | 8.84 |
| PSMA2 | 8.20 | 7.22 | 7.23 | 7.49 | 7.84 | 7.45 | 7.14 | 7.74 |
| PSMA2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| PSMA2P2 | -1.02 | -1.09 | -1.07 | -1.02 | -1.01 | -1.04 | -1.10 | -0.89 |
| PSMA2P3 | -0.46 | -0.66 | -0.72 | -0.67 | -0.62 | -0.68 | -0.75 | -0.76 |
| PSMA3 | 8.48 | 8.17 | 7.87 | 8.26 | 8.76 | 8.62 | 7.89 | 8.48 |
| PSMA3-AS1 | 5.21 | 5.91 | 5.53 | 6.23 | 5.52 | 5.72 | 5.96 | 4.98 |
| PSMA4 | 9.54 | 8.65 | 8.79 | 8.76 | 8.90 | 8.77 | 8.37 | 8.87 |
| PSMA5 | 9.05 | 8.01 | 7.71 | 8.22 | 8.39 | 8.29 | 7.50 | 8.13 |
| PSMA6 | 2.21 | 2.05 | 2.25 | 1.73 | 1.82 | 1.86 | 2.49 | 1.78 |
| PSMA6P1 | 2.20 | 1.72 | 1.76 | 1.86 | 1.91 | 2.13 | 2.00 | 1.91 |
| PSMA6P2 | -1.66 | -1.60 | -1.65 | -1.66 | -1.65 | -1.62 | -1.66 | -1.68 |
| PSMA6P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| PSMA7 | 10.58 | 9.38 | 9.76 | 9.37 | 9.59 | 9.58 | 8.90 | 9.61 |
| PSMB1 | 10.39 | 8.41 | 9.04 | 8.44 | 8.83 | 9.31 | 8.83 | 9.24 |
| PSMB10 | 1.00 | 1.32 | 1.28 | 1.11 | 1.18 | 1.14 | 1.17 | 1.30 |
| PSMB2 | 8.42 | 7.36 | 7.99 | 7.27 | 8.39 | 8.52 | 7.82 | 8.48 |
| PSMB3 | 9.76 | 8.74 | 8.85 | 8.82 | 9.43 | 9.33 | 8.42 | 9.26 |
| PSMB3P2 | 0.29 | 0.11 | 0.37 | 0.40 | 0.14 | 0.32 | 0.01 | 0.17 |
| PSMB4 | 8.17 | 7.77 | 7.73 | 7.65 | 7.68 | 7.87 | 7.55 | 8.08 |
| PSMB5 | 8.60 | 8.91 | 7.85 | 9.32 | 9.52 | 9.09 | 8.34 | 9.15 |
| PSMB6 | 9.02 | 7.93 | 8.37 | 8.13 | 8.46 | 8.60 | 8.26 | 8.77 |
| PSMB7 | 8.79 | 7.66 | 7.53 | 7.71 | 7.27 | 8.25 | 7.50 | 8.01 |
| PSMB8 | 8.34 | 8.17 | 7.81 | 8.08 | 7.69 | 8.69 | 7.33 | 7.90 |
| PSMB8-AS1 | 4.66 | 3.50 | 3.70 | 3.49 | 3.78 | 4.39 | 3.45 | 2.73 |
| PSMB9 | 7.45 | 6.47 | 6.93 | 6.02 | 6.67 | 7.39 | 5.78 | 5.72 |
| PSMC1 | 4.19 | 4.00 | 3.95 | 4.38 | 4.15 | 4.38 | 4.52 | 4.11 |
| PSMC1P1 | 0.16 | 0.17 | 0.35 | 0.23 | 0.17 | 0.38 | 0.29 | 0.34 |
| PSMC1P10 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PSMC1P2 | -1.42 | -1.22 | -1.40 | -1.00 | -1.32 | -1.37 | -1.42 | -1.43 |
| PSMC1P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PSMC1P6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PSMC1P7 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| PSMC1P9 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| PSMC2 | 7.12 | 7.09 | 6.65 | 7.23 | 7.40 | 7.24 | 6.76 | 7.53 |
| PSMC3 | 8.15 | 7.78 | 7.95 | 7.68 | 7.59 | 7.74 | 7.34 | 7.94 |
| PSMC3IP | 4.78 | 4.52 | 4.96 | 5.04 | 4.20 | 5.31 | 4.58 | 3.96 |
| PSMC4 | 8.43 | 7.64 | 7.26 | 7.66 | 8.18 | 7.59 | 7.29 | 7.31 |
| PSMC5 | 8.42 | 8.11 | 8.02 | 8.11 | 8.20 | 8.25 | 7.66 | 8.31 |
| PSMC6 | 6.62 | 6.39 | 6.55 | 6.64 | 7.18 | 7.11 | 6.63 | 6.98 |
| PSMD1 | 7.63 | 7.93 | 7.49 | 7.50 | 7.44 | 7.55 | 7.65 | 7.49 |
| PSMD10 | 6.64 | 3.77 | 6.60 | 4.46 | 6.66 | 6.51 | 5.81 | 6.33 |
| PSMD10P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PSMD10P2 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| PSMD11 | 9.05 | 7.52 | 8.02 | 7.64 | 7.94 | 8.41 | 7.36 | 8.19 |
| PSMD12 | 7.64 | 7.21 | 7.22 | 6.85 | 7.33 | 7.54 | 6.94 | 7.53 |
| PSMD12P | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -1.98 | -2.00 | -2.01 |
| PSMD13 | 7.57 | 6.56 | 7.31 | 6.61 | 7.09 | 6.85 | 6.67 | 7.37 |
| PSMD14 | 8.41 | 7.15 | 7.27 | 7.21 | 7.66 | 7.67 | 7.19 | 7.90 |
| PSMD2 | 8.10 | 7.57 | 8.21 | 7.56 | 7.12 | 7.35 | 7.67 | 8.10 |
| PSMD3 | 7.53 | 6.41 | 7.33 | 6.76 | 6.95 | 7.24 | 6.71 | 7.25 |
| PSMD4 | 9.09 | 7.80 | 7.79 | 8.05 | 8.28 | 8.47 | 7.48 | 8.56 |
| PSMD4P1 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 |
| PSMD5 | 5.02 | 4.81 | 4.43 | 4.75 | 4.16 | 4.58 | 4.74 | 4.79 |
| PSMD6 | 7.12 | 7.04 | 6.87 | 7.17 | 6.96 | 7.19 | 6.81 | 6.96 |
| PSMD6-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| PSMD6-AS2 | -1.49 | -1.48 | -1.41 | -1.49 | -1.36 | -1.50 | -1.26 | -1.51 |
| PSMD7 | 9.09 | 8.48 | 8.45 | 8.41 | 8.47 | 8.76 | 8.05 | 9.11 |
| PSMD7P1 | -1.94 | -1.94 | -1.93 | -1.95 | -1.94 | -1.95 | -1.95 | -1.92 |
| PSMD8 | 9.18 | 8.41 | 7.91 | 8.53 | 8.93 | 8.38 | 7.96 | 8.34 |
| PSMD8P1 | -1.89 | -1.89 | -1.88 | -1.85 | -1.87 | -1.90 | -1.89 | -1.91 |
| PSMD9 | 3.59 | 3.74 | 3.51 | 3.92 | 3.40 | 3.82 | 3.51 | 3.88 |
| PSME1 | 8.37 | 8.79 | 8.33 | 8.85 | 9.38 | 8.80 | 8.02 | 8.21 |
| PSME2 | 8.99 | 9.05 | 8.48 | 8.96 | 9.23 | 9.10 | 8.56 | 8.37 |
| PSME2P2 | 2.00 | 2.11 | 2.02 | 2.30 | 2.29 | 2.37 | 1.76 | 1.89 |
| PSME2P6 | -0.37 | -0.51 | -0.50 | -0.46 | -0.48 | -0.45 | -0.52 | -0.49 |
| PSME3 | 6.02 | 6.79 | 6.60 | 6.64 | 6.55 | 6.62 | 6.33 | 6.53 |
| PSME4 | 5.53 | 6.06 | 6.03 | 5.71 | 5.71 | 5.59 | 6.19 | 5.94 |
| PSMF1 | 8.13 | 7.38 | 7.25 | 7.32 | 7.74 | 7.65 | 6.84 | 7.56 |
| PSMG1 | 7.82 | 6.71 | 6.25 | 6.86 | 6.40 | 6.01 | 5.99 | 6.66 |
| PSMG2 | 7.80 | 6.97 | 6.97 | 7.18 | 7.88 | 7.01 | 6.82 | 8.25 |
| PSMG3 | 6.98 | 6.11 | 5.96 | 6.27 | 6.54 | 6.26 | 5.92 | 6.30 |
| PSMG3-AS1 | 2.55 | 2.01 | 1.77 | 2.17 | 2.10 | 1.91 | 1.74 | 1.79 |
| PSMG4 | 7.08 | 5.60 | 5.63 | 5.53 | 6.00 | 5.25 | 5.78 | 6.30 |
| PSORS1C1 | 4.01 | 3.69 | 3.22 | 3.80 | 4.08 | 3.55 | 3.89 | 3.47 |
| PSORS1C2 | 0.61 | 0.72 | 0.92 | 0.68 | 0.92 | 0.84 | 1.54 | 0.76 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| PSORS1C3 | 1.67 | 1.48 | 1.44 | 1.35 | 1.51 | 1.19 | 1.34 | 1.70 |
| PSPC1 | 4.53 | 5.38 | 4.89 | 5.39 | 5.47 | 5.26 | 4.91 | 5.90 |
| PSPC1-AS2 | -1.89 | -1.81 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.87 |
| PSPH | 5.05 | 4.88 | 4.18 | 5.10 | 5.12 | 5.50 | 5.33 | 5.38 |
| PSPHP1 | 2.64 | 1.32 | 1.47 | 1.36 | 1.31 | 3.52 | 1.27 | 2.19 |
| PSPN | 1.78 | 1.98 | 1.95 | 2.02 | 1.85 | 2.01 | 1.86 | 1.76 |
| PSRC1 | 5.54 | 4.27 | 4.56 | 4.57 | 4.45 | 5.17 | 4.14 | 4.38 |
| PSTK | 3.38 | 3.03 | 3.14 | 3.19 | 3.80 | 3.30 | 3.40 | 3.19 |
| PSTPIP1 | -1.04 | -1.33 | -1.32 | -1.21 | -1.27 | -1.32 | -1.35 | -1.36 |
| PSTPIP2 | 3.81 | 4.15 | 2.95 | 3.27 | 3.02 | 3.54 | 3.37 | 3.36 |
| PTAFR | 3.61 | 3.94 | 3.83 | 3.44 | 3.63 | 3.31 | 2.52 | 2.89 |
| PTAR1 | 5.23 | 5.28 | 5.27 | 5.38 | 4.79 | 5.48 | 6.15 | 4.49 |
| PTBP1 | 6.72 | 7.13 | 7.43 | 7.11 | 6.87 | 7.30 | 7.18 | 7.29 |
| PTBP2 | 2.71 | 3.48 | 3.23 | 3.00 | 3.01 | 3.25 | 3.14 | 2.88 |
| PTBP3 | 7.21 | 7.42 | 7.11 | 7.04 | 6.71 | 7.41 | 7.76 | 7.19 |
| PTCD1 | 3.60 | 3.58 | 3.86 | 3.85 | 3.99 | 3.56 | 3.26 | 3.96 |
| PTCD2 | 3.69 | 3.84 | 3.41 | 3.45 | 3.62 | 3.54 | 3.55 | 3.14 |
| PTCD3 | 5.78 | 5.93 | 5.67 | 6.19 | 5.91 | 5.55 | 6.25 | 5.64 |
| PTCH1 | 1.83 | 2.06 | 1.74 | 1.69 | 1.69 | 1.94 | 2.23 | 1.94 |
| PTCH2 | -1.42 | -1.47 | -1.46 | -1.47 | -1.47 | -1.30 | -1.48 | -1.35 |
| PTCHD1 | -1.84 | -1.83 | -1.83 | -1.84 | -1.82 | -1.85 | -1.80 | -1.85 |
| PTCHD3P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| PTCHD4 | -0.88 | -0.64 | -0.86 | -0.67 | -0.88 | -0.86 | -0.67 | -0.84 |
| PTCSC2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| PTDSS1 | 5.97 | 5.95 | 6.77 | 6.10 | 5.80 | 5.80 | 5.67 | 5.75 |
| PTDSS2 | 5.35 | 4.92 | 5.46 | 5.28 | 5.12 | 4.61 | 4.67 | 4.73 |
| PTEN | 5.60 | 6.15 | 5.50 | 6.00 | 5.94 | 5.89 | 6.27 | 5.38 |
| PTENP1 | -1.45 | -1.45 | -1.44 | -1.46 | -1.45 | -1.46 | -1.40 | -1.42 |
| PTENP1-AS | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| PTER | 4.50 | 5.37 | 5.42 | 5.50 | 4.73 | 5.31 | 5.01 | 5.57 |
| PTF1A | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| PTGDS | 2.39 | 1.30 | 1.25 | 1.42 | 1.30 | 1.60 | 1.48 | 3.21 |
| PTGER1 | 1.29 | 1.52 | 1.48 | 1.50 | 1.73 | 2.04 | 1.97 | 2.66 |
| PTGER2 | 2.22 | 4.07 | 2.76 | 4.18 | 4.65 | 2.18 | 3.20 | 2.30 |
| PTGER3 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| PTGER4 | 3.24 | 3.73 | 3.56 | 4.03 | 4.62 | 3.16 | 4.20 | 3.28 |
| PTGES | 3.67 | 4.17 | 2.83 | 3.89 | 2.99 | 3.44 | 2.62 | 4.43 |
| PTGES2 | 8.25 | 7.41 | 7.17 | 7.68 | 7.41 | 7.81 | 7.23 | 6.86 |
| PTGES3 | 8.97 | 8.44 | 8.85 | 8.47 | 8.68 | 9.38 | 8.43 | 8.89 |
| PTGES3L | -0.79 | -0.78 | -0.84 | -0.65 | -0.74 | -0.67 | -0.86 | -0.87 |
| PTGES3P1 | 0.43 | 0.37 | 0.23 | 0.28 | 0.44 | 0.58 | 0.62 | 0.45 |
| PTGES3P2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| PTGES3P3 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.05 | -2.06 |
| PTGES3P4 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| PTGFR | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.95 | -1.84 | -1.92 |
| PTGFRN | 5.48 | 5.66 | 5.57 | 5.51 | 5.33 | 5.18 | 5.88 | 5.22 |
| PTGIR | -1.79 | -1.79 | -1.73 | -1.75 | -1.79 | -1.80 | -1.80 | -1.81 |
| PTGIS | -1.89 | -1.89 | -1.88 | -1.89 | -1.81 | -1.88 | -1.86 | -1.91 |
| PTGR1 | 7.44 | 6.86 | 6.84 | 6.95 | 6.90 | 7.38 | 7.14 | 7.68 |
| PTGR2 | 4.09 | 4.01 | 3.87 | 4.32 | 4.94 | 3.96 | 4.73 | 3.96 |
| PTGS1 | 1.56 | 1.37 | 1.41 | 1.25 | 1.45 | 1.32 | 1.30 | 1.27 |
| PTGS2 | 2.32 | 1.98 | 2.41 | 1.85 | 1.76 | 1.72 | 1.77 | 2.68 |
| PTH1R | -1.75 | -1.79 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.81 |
| PTH2 | -2.00 | -1.99 | -1.98 | -2.00 | -1.83 | -2.00 | -2.00 | -2.01 |
| PTH2R | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| PTHLH | 1.62 | 1.67 | 1.85 | 1.44 | 1.34 | 1.78 | 1.42 | 2.01 |
| PTK2 | 6.23 | 5.86 | 6.96 | 5.96 | 6.46 | 6.44 | 6.07 | 6.63 |
| PTK2B | 3.58 | 4.22 | 4.64 | 3.98 | 3.58 | 4.72 | 4.15 | 3.59 |
| PTK6 | 5.84 | 5.68 | 5.69 | 5.29 | 5.55 | 5.08 | 5.00 | 6.29 |
| PTK7 | 4.44 | 3.42 | 2.88 | 2.80 | 3.45 | 4.59 | 4.12 | 4.29 |
| PTMA | 11.45 | 11.01 | 10.50 | 10.96 | 11.23 | 11.37 | 10.73 | 10.68 |
| PTMAP1 | -0.63 | -0.78 | -0.55 | -0.78 | -0.74 | -0.66 | -0.57 | -0.74 |
| PTMAP10 | -1.49 | -1.49 | -1.29 | -1.50 | -1.49 | -1.47 | -1.44 | -1.51 |
| PTMAP11 | -0.90 | -0.81 | -0.96 | -0.91 | -0.89 | -0.89 | -0.90 | -0.99 |
| PTMAP12 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 |
| PTMAP15 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| PTMAP2 | 2.27 | 2.15 | 2.33 | 2.09 | 2.38 | 2.24 | 2.23 | 2.03 |
| PTMAP3 | -1.16 | -1.35 | -1.33 | -1.29 | -1.35 | -1.30 | -1.36 | -1.32 |
| PTMAP4 | -1.14 | -1.21 | -1.20 | -1.15 | -1.10 | -1.13 | -1.15 | -1.17 |
| PTMAP5 | 4.54 | 4.46 | 4.13 | 4.34 | 4.56 | 4.68 | 4.01 | 4.40 |
| PTMAP6 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| PTMAP8 | -0.57 | -0.64 | -0.63 | -0.44 | -0.47 | -0.45 | -0.58 | -0.67 |
| PTMAP9 | 0.47 | 0.31 | 0.61 | 0.68 | 0.42 | 0.52 | 0.48 | 0.25 |
| PTMS | 8.45 | 8.54 | 7.72 | 8.62 | 7.54 | 8.18 | 7.61 | 7.16 |
| PTN | -1.43 | -1.43 | -1.10 | -1.44 | -1.43 | -1.45 | -1.44 | -1.40 |
| PTOV1 | 7.42 | 6.74 | 6.81 | 6.90 | 7.72 | 7.33 | 7.16 | 7.39 |
| PTOV1-AS1 | 0.86 | 0.83 | 0.39 | 0.50 | 0.57 | 0.61 | 0.51 | 0.57 |
| PTOV1-AS2 | -1.74 | -1.74 | -1.73 | -1.75 | -1.69 | -1.75 | -1.75 | -1.59 |
| PTP4A1 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| PTP4A2 | 8.25 | 7.75 | 8.40 | 7.53 | 8.55 | 8.56 | 8.31 | 8.86 |
| PTP4A2P1 | -1.42 | -1.42 | -1.41 | -1.43 | -1.39 | -1.38 | -1.43 | -1.34 |
| PTP4A2P2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| PTP4A3 | 3.09 | 1.88 | 1.93 | 2.16 | 3.47 | 2.42 | 2.26 | 2.71 |
| PTPA | 6.53 | 6.48 | 6.34 | 6.52 | 5.97 | 6.47 | 6.41 | 6.16 |
| PTPDC1 | 3.41 | 2.98 | 3.28 | 3.27 | 2.80 | 3.32 | 3.38 | 2.83 |
| PTPMT1 | 6.62 | 5.75 | 6.00 | 6.03 | 6.34 | 5.68 | 5.38 | 6.40 |
| PTPN1 | 6.39 | 5.64 | 6.16 | 5.49 | 5.47 | 6.06 | 5.51 | 6.25 |
| PTPN11 | 6.43 | 6.74 | 6.90 | 6.80 | 6.47 | 6.82 | 6.96 | 7.63 |
| PTPN12 | 6.92 | 7.53 | 6.59 | 7.43 | 6.94 | 7.71 | 7.07 | 7.89 |
| PTPN13 | 3.27 | 4.22 | 4.15 | 3.87 | 2.70 | 4.25 | 5.13 | 3.66 |
| PTPN14 | 4.48 | 4.82 | 5.17 | 4.52 | 5.60 | 5.58 | 5.66 | 5.22 |
| PTPN18 | 5.86 | 6.30 | 5.62 | 6.24 | 6.00 | 5.56 | 6.20 | 5.46 |
| PTPN2 | 6.47 | 5.88 | 6.62 | 6.03 | 6.76 | 6.51 | 5.78 | 7.61 |
| PTPN20 | 2.10 | 1.91 | 1.68 | 2.47 | 2.08 | 1.80 | 1.50 | 2.10 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PTPN20CP | -2.13 | -2.14 | -2.14 | -2.08 | -2.15 | -2.15 | -2.15 | -2.13 |
| PTPN22 | 0.68 | 0.96 | 0.75 | 0.98 | 0.62 | 0.63 | 0.84 | 0.53 |
| PTPN23 | 4.54 | 5.02 | 4.76 | 4.63 | 4.31 | 4.55 | 4.93 | 4.48 |
| PTPN2P1 | -1.85 | -1.89 | -1.84 | -1.89 | -1.89 | -1.90 | -1.86 | -1.87 |
| PTPN2P2 | -2.04 | -2.04 | -2.04 | -2.04 | -2.03 | -2.05 | -2.05 | -2.00 |
| PTPN3 | 5.16 | 5.42 | 5.11 | 5.29 | 5.09 | 5.18 | 5.70 | 5.04 |
| PTPN4 | 3.87 | 4.28 | 3.99 | 4.00 | 4.04 | 3.73 | 4.31 | 4.25 |
| PTPN5 | -1.55 | -1.54 | -1.53 | -1.55 | -1.54 | -1.47 | -1.55 | -1.57 |
| PTPN6 | 4.65 | 4.59 | 4.55 | 4.26 | 5.12 | 3.83 | 4.22 | 4.46 |
| PTPN7 | -1.99 | -1.96 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -2.01 |
| PTPN9 | 3.83 | 4.40 | 4.49 | 4.26 | 3.96 | 3.68 | 4.10 | 4.10 |
| PTPRA | 6.55 | 6.20 | 6.60 | 6.26 | 6.67 | 6.45 | 6.75 | 6.63 |
| PTPRB | 1.89 | 2.54 | 1.91 | 2.52 | 1.95 | 1.83 | 2.38 | 2.91 |
| PTPRD | -1.35 | -1.34 | -1.33 | -1.35 | -1.31 | -1.33 | -1.36 | -0.41 |
| PTPRD-AS2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PTPRE | 5.49 | 4.57 | 5.07 | 4.65 | 5.61 | 5.70 | 5.07 | 4.62 |
| PTPRF | 6.94 | 7.84 | 8.41 | 7.49 | 7.70 | 7.60 | 8.45 | 7.60 |
| PTPRG | 2.69 | 3.90 | 2.65 | 3.76 | 3.68 | 2.80 | 4.29 | 2.87 |
| PTPRG-AS1 | 1.18 | 0.88 | 0.68 | 0.79 | 1.32 | 0.73 | 0.98 | 1.21 |
| PTPRJ | 4.67 | 5.60 | 5.59 | 5.63 | 6.54 | 5.07 | 5.10 | 5.41 |
| PTPRK | 5.90 | 5.14 | 6.16 | 5.20 | 4.89 | 5.80 | 6.23 | 5.33 |
| PTPRM | 2.71 | 3.02 | 3.73 | 3.01 | 2.93 | 3.03 | 4.79 | 4.22 |
| PTPRN | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.26 |
| PTPRN2 | 4.65 | 6.11 | 4.34 | 6.13 | 6.40 | 4.27 | 5.84 | 5.85 |
| PTPRO | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.05 |
| PTPRQ | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| PTPRR | 2.97 | 3.11 | 3.24 | 2.90 | 2.88 | 2.68 | 3.56 | 3.24 |
| PTPRS | 2.86 | 1.77 | 1.91 | 1.57 | 2.08 | 1.72 | 2.15 | 1.61 |
| PTPRU | 4.18 | 4.91 | 5.40 | 4.60 | 4.19 | 4.51 | 4.84 | 3.94 |
| PTPRZ1 | -0.09 | 0.11 | 0.61 | 0.55 | 0.16 | 0.91 | -0.01 | -0.12 |
| PTRH1 | 5.41 | 4.75 | 5.06 | 4.67 | 4.65 | 5.05 | 4.54 | 4.68 |
| PTRH2 | 7.43 | 6.58 | 6.23 | 7.01 | 7.66 | 7.23 | 6.26 | 7.29 |
| PTRHD1 | 6.71 | 6.71 | 6.02 | 6.80 | 6.29 | 6.33 | 5.91 | 6.24 |
| PTS | 7.67 | 7.11 | 6.83 | 7.22 | 7.20 | 7.15 | 6.91 | 7.51 |
| PTTG1 | 8.43 | 7.95 | 8.33 | 7.89 | 8.46 | 8.90 | 6.98 | 8.05 |
| PTTG1IP | 9.32 | 8.74 | 8.14 | 8.43 | 7.95 | 8.84 | 8.48 | 8.98 |
| PTTG2 | -0.71 | -0.76 | -0.43 | -0.63 | -0.76 | -0.68 | -0.86 | -0.74 |
| PTTG3P | -0.62 | -0.62 | -0.27 | -0.55 | -0.46 | -0.31 | -0.56 | -0.38 |
| PTX3 | -1.32 | -1.37 | -1.36 | -1.38 | -1.37 | -1.36 | -1.39 | -0.74 |
| PUDP | 5.55 | 4.69 | 5.72 | 4.64 | 5.14 | 4.85 | 5.71 | 4.24 |
| PUF60 | 7.59 | 7.11 | 7.86 | 7.27 | 7.63 | 7.99 | 6.66 | 7.63 |
| PUM1 | 5.83 | 6.42 | 7.06 | 5.79 | 6.59 | 6.68 | 6.76 | 6.18 |
| PUM2 | 5.82 | 6.06 | 6.17 | 5.77 | 5.21 | 5.64 | 6.05 | 5.87 |
| PUM3 | 6.20 | 6.89 | 6.41 | 6.94 | 6.01 | 6.87 | 6.49 | 6.40 |
| PURA | 5.76 | 6.83 | 6.98 | 6.26 | 6.11 | 5.94 | 7.12 | 5.54 |
| PURB | 5.57 | 5.90 | 5.84 | 5.53 | 5.28 | 5.44 | 5.94 | 5.55 |
| PURG | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| PURPL | -0.31 | 0.57 | -0.19 | 0.73 | -0.31 | -0.29 | -0.17 | -0.27 |
| PUS1 | 4.70 | 5.17 | 5.68 | 5.57 | 5.35 | 5.07 | 4.96 | 5.55 |
| PUS10 | 1.74 | 1.90 | 1.87 | 1.90 | 2.19 | 1.82 | 2.09 | 2.40 |
| PUS3 | 5.10 | 4.69 | 4.72 | 4.83 | 5.04 | 4.56 | 4.38 | 5.11 |
| PUS7 | 4.20 | 4.59 | 4.02 | 4.78 | 4.19 | 4.10 | 4.44 | 4.29 |
| PUS7L | 5.02 | 5.48 | 5.10 | 5.36 | 5.04 | 5.63 | 5.78 | 5.55 |
| PUSL1 | 5.68 | 5.25 | 4.81 | 5.55 | 5.34 | 5.52 | 4.71 | 5.76 |
| PVR | 4.48 | 5.22 | 5.27 | 4.74 | 4.40 | 4.34 | 4.96 | 4.03 |
| PVT1 | 3.25 | 4.13 | 4.31 | 4.73 | 3.68 | 4.11 | 3.58 | 3.29 |
| PWP1 | 6.29 | 6.80 | 6.32 | 6.52 | 6.44 | 6.36 | 5.97 | 6.61 |
| PWP2 | 0.64 | 0.66 | 1.36 | 0.99 | 1.01 | 0.61 | 0.55 | 0.58 |
| PWRN1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| PWWP2A | 4.77 | 5.21 | 5.27 | 5.11 | 5.03 | 5.08 | 4.76 | 4.66 |
| PWWP2B | 5.73 | 5.65 | 5.49 | 5.44 | 5.53 | 5.36 | 5.11 | 5.74 |
| PWWP3A | 5.78 | 4.71 | 5.80 | 4.42 | 5.07 | 5.22 | 5.63 | 4.74 |
| PWWP3B | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| PXDC1 | 4.44 | 4.85 | 4.41 | 4.90 | 4.39 | 4.31 | 4.70 | 6.08 |
| PXDN | 1.76 | 1.90 | 1.88 | 1.82 | 1.83 | 1.54 | 2.43 | 1.64 |
| PXK | 4.60 | 4.45 | 4.44 | 4.34 | 4.11 | 4.32 | 4.51 | 3.58 |
| PXMP2 | 6.22 | 5.56 | 5.66 | 6.00 | 5.48 | 5.22 | 6.38 | 5.99 |
| PXMP4 | 4.98 | 5.04 | 5.16 | 4.90 | 5.12 | 4.64 | 5.02 | 4.75 |
| PXN | 5.79 | 6.58 | 6.79 | 6.13 | 5.77 | 6.68 | 6.61 | 6.60 |
| PXN-AS1 | 4.03 | 3.59 | 3.74 | 3.42 | 3.74 | 3.76 | 3.42 | 3.79 |
| PXT1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| PXYLP1 | 3.71 | 2.29 | 3.36 | 2.47 | 3.03 | 2.90 | 3.01 | 2.92 |
| PYCARD | 8.43 | 7.86 | 7.44 | 7.99 | 6.96 | 7.26 | 6.36 | 7.68 |
| PYCARD-AS1 | 1.22 | 0.85 | 0.82 | 0.94 | 0.81 | 0.78 | 0.80 | 0.84 |
| PYCR1 | 7.38 | 7.31 | 6.74 | 7.73 | 7.82 | 7.21 | 6.38 | 8.37 |
| PYCR2 | 7.19 | 6.16 | 6.49 | 6.27 | 6.88 | 6.95 | 6.09 | 7.01 |
| PYCR3 | 5.17 | 4.56 | 5.11 | 4.73 | 4.24 | 4.61 | 3.55 | 4.76 |
| PYDC1 | -0.60 | -0.78 | -0.93 | -0.80 | -0.94 | -0.95 | -0.88 | -0.90 |
| PYDC2 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| PYGB | 7.77 | 7.46 | 7.91 | 7.31 | 7.32 | 8.18 | 7.47 | 7.86 |
| PYGL | 5.31 | 6.25 | 5.41 | 5.78 | 4.96 | 5.81 | 5.23 | 4.84 |
| PYGM | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.88 | -1.92 |
| PYGO1 | 0.78 | 0.42 | 0.31 | 0.34 | 0.19 | 0.24 | 0.40 | 0.21 |
| PYGO2 | 5.13 | 4.99 | 4.70 | 4.83 | 4.57 | 5.00 | 4.99 | 4.88 |
| PYM1 | 7.55 | 6.61 | 5.95 | 6.84 | 6.87 | 6.98 | 6.37 | 6.89 |
| PYROXD1 | 4.11 | 3.96 | 4.40 | 3.74 | 4.60 | 3.50 | 5.22 | 4.74 |
| PYROXD2 | 2.87 | 3.33 | 3.35 | 3.59 | 4.42 | 3.34 | 4.75 | 3.20 |
| PYURF | 7.49 | 7.45 | 6.42 | 7.48 | 6.78 | 7.17 | 6.39 | 7.40 |
| PYY | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| PYY2 | 1.37 | 1.06 | 1.17 | 0.75 | 1.05 | 0.95 | 0.89 | 0.76 |
| QARS | 7.73 | 7.67 | 6.94 | 8.24 | 8.23 | 7.65 | 7.51 | 7.58 |
| QDPR | 5.45 | 6.18 | 5.36 | 6.41 | 5.80 | 5.90 | 5.74 | 5.84 |
| QKI | 5.36 | 4.85 | 5.53 | 4.32 | 4.22 | 5.78 | 5.50 | 5.33 |
| QPCT | 6.15 | 6.39 | 5.90 | 6.53 | 3.93 | 6.32 | 3.89 | 6.02 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| QPCTL | 2.37 | 2.00 | 2.07 | 2.04 | 2.32 | 2.30 | 2.19 | 2.20 |
| QPRT | 8.34 | 4.37 | 5.59 | 4.14 | 6.30 | 5.71 | 6.50 | 7.70 |
| QRFPR | -0.87 | -0.95 | -0.69 | -0.95 | -0.72 | -0.92 | -0.96 | -0.97 |
| QRICH1 | 5.37 | 5.13 | 5.19 | 5.33 | 4.93 | 5.20 | 5.48 | 5.32 |
| QRICH2 | -0.65 | -0.65 | -0.78 | -0.73 | -0.76 | -0.78 | -0.60 | -0.70 |
| QRSL1 | 5.26 | 4.10 | 4.08 | 4.04 | 4.09 | 4.18 | 4.44 | 4.00 |
| QRSL1P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| QSER1 | 4.48 | 5.13 | 5.59 | 4.83 | 4.64 | 4.86 | 5.69 | 5.06 |
| QSOX1 | 7.56 | 8.15 | 8.82 | 8.13 | 8.66 | 8.56 | 9.00 | 7.81 |
| QSOX2 | 4.30 | 4.40 | 4.62 | 4.09 | 4.07 | 4.21 | 4.14 | 3.80 |
| QTRT1 | 4.38 | 5.16 | 4.89 | 5.31 | 4.56 | 4.69 | 5.11 | 4.22 |
| QTRT2 | 5.06 | 4.30 | 5.06 | 4.51 | 4.83 | 4.88 | 4.74 | 5.43 |
| R3HCC1 | 4.89 | 4.67 | 5.73 | 4.45 | 5.00 | 5.52 | 4.68 | 4.59 |
| R3HCC1L | 4.09 | 4.09 | 4.28 | 3.98 | 3.97 | 3.84 | 4.42 | 3.84 |
| R3HDM1 | 5.52 | 5.77 | 5.41 | 5.44 | 5.49 | 5.54 | 5.74 | 5.64 |
| R3HDM2 | 5.36 | 4.96 | 5.27 | 5.13 | 5.14 | 5.86 | 5.29 | 5.76 |
| R3HDM4 | 6.18 | 5.39 | 6.28 | 5.56 | 6.81 | 5.97 | 6.27 | 6.86 |
| RAB10 | 8.29 | 8.45 | 7.80 | 8.37 | 7.62 | 7.76 | 8.58 | 8.53 |
| RAB11A | 8.50 | 8.59 | 8.34 | 8.64 | 8.96 | 8.46 | 8.50 | 8.99 |
| RAB11B | 6.47 | 6.72 | 6.58 | 6.98 | 6.80 | 6.90 | 6.45 | 7.00 |
| RAB11B-AS1 | 2.95 | 3.69 | 3.30 | 3.62 | 3.46 | 3.53 | 4.08 | 3.67 |
| RAB11FIP1 | 6.96 | 6.93 | 8.19 | 6.74 | 6.28 | 7.08 | 7.41 | 7.58 |
| RAB11FIP1P1 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RAB11FIP2 | 4.26 | 5.24 | 4.32 | 5.00 | 4.54 | 4.18 | 4.67 | 3.63 |
| RAB11FIP3 | 3.39 | 3.60 | 4.18 | 3.70 | 2.93 | 3.43 | 3.47 | 2.47 |
| RAB11FIP4 | 5.05 | 5.35 | 5.68 | 5.22 | 5.40 | 5.22 | 5.67 | 5.71 |
| RAB11FIP5 | 4.52 | 4.89 | 4.93 | 4.64 | 4.63 | 3.97 | 4.87 | 4.32 |
| RAB12 | 4.36 | 4.53 | 5.19 | 4.50 | 4.68 | 5.26 | 5.02 | 5.85 |
| RAB13 | 5.74 | 6.18 | 5.27 | 5.92 | 6.50 | 6.35 | 5.70 | 6.67 |
| RAB14 | 7.05 | 7.17 | 6.46 | 7.12 | 6.65 | 7.04 | 7.37 | 6.15 |
| RAB15 | 3.52 | 3.98 | 4.49 | 3.33 | 3.77 | 4.45 | 3.98 | 4.20 |
| RAB17 | 5.79 | 5.11 | 5.05 | 5.73 | 6.02 | 5.35 | 5.52 | 5.72 |
| RAB18 | 5.52 | 6.54 | 5.99 | 6.61 | 6.53 | 5.98 | 6.44 | 6.15 |
| RAB19 | -1.41 | -1.40 | -1.39 | -1.35 | -1.31 | -1.36 | -1.35 | -1.33 |
| RAB1A | 8.57 | 8.35 | 7.76 | 8.44 | 9.10 | 8.18 | 7.93 | 8.88 |
| RAB1B | 6.76 | 6.53 | 6.48 | 6.45 | 6.48 | 6.31 | 6.42 | 7.16 |
| RAB1C | -2.04 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| RAB20 | 5.19 | 5.24 | 5.14 | 5.42 | 6.19 | 4.87 | 5.36 | 5.32 |
| RAB21 | 5.77 | 6.54 | 6.59 | 6.46 | 6.01 | 6.47 | 6.50 | 6.67 |
| RAB22A | 6.88 | 6.41 | 6.36 | 6.24 | 6.46 | 6.46 | 6.59 | 7.15 |
| RAB23 | 3.38 | 3.66 | 3.05 | 3.61 | 3.26 | 3.26 | 3.63 | 3.30 |
| RAB24 | 0.90 | 0.76 | 1.05 | 0.95 | 1.16 | 1.01 | 1.07 | 1.08 |
| RAB25 | 7.35 | 7.70 | 6.73 | 7.66 | 8.23 | 7.67 | 7.23 | 7.92 |
| RAB26 | 2.32 | 1.99 | 2.18 | 2.10 | 1.77 | 2.25 | 2.27 | 2.44 |
| RAB27A | 4.43 | 4.44 | 4.55 | 4.67 | 5.08 | 5.12 | 4.66 | 4.50 |
| RAB27B | 3.37 | 5.31 | 4.10 | 5.09 | 4.05 | 4.61 | 5.67 | 4.26 |
| RAB28 | 4.16 | 3.65 | 3.86 | 4.00 | 3.76 | 4.30 | 4.15 | 4.31 |
| RAB29 | 4.97 | 5.29 | 5.27 | 4.99 | 5.15 | 5.27 | 4.69 | 4.87 |
| RAB2A | 8.04 | 8.37 | 8.47 | 8.25 | 8.41 | 8.14 | 7.92 | 9.34 |
| RAB2B | 3.84 | 3.25 | 3.90 | 3.64 | 3.84 | 3.70 | 4.05 | 3.78 |
| RAB30 | 1.72 | 1.51 | 1.98 | 1.78 | 2.18 | 1.68 | 1.60 | 2.30 |
| RAB30-DT | 5.99 | 4.98 | 5.16 | 5.12 | 5.27 | 5.06 | 5.22 | 5.53 |
| RAB31 | 6.11 | 3.69 | 4.53 | 3.56 | 4.03 | 5.35 | 3.72 | 5.77 |
| RAB32 | 6.33 | 4.87 | 5.46 | 5.11 | 5.44 | 5.78 | 6.06 | 5.50 |
| RAB33A | -0.72 | -0.77 | -0.76 | -0.79 | -0.68 | -0.67 | -0.73 | -0.81 |
| RAB33B | 2.57 | 3.21 | 2.34 | 3.11 | 2.46 | 2.84 | 2.90 | 2.66 |
| RAB34 | 7.40 | 4.47 | 5.22 | 4.34 | 7.19 | 6.59 | 6.03 | 7.27 |
| RAB35 | 5.04 | 5.72 | 5.70 | 5.62 | 5.09 | 5.14 | 5.03 | 5.65 |
| RAB36 | 5.26 | 5.06 | 4.52 | 5.27 | 3.60 | 4.96 | 4.18 | 3.52 |
| RAB37 | 2.38 | 2.59 | 1.71 | 2.58 | 2.31 | 2.12 | 1.90 | 1.78 |
| RAB38 | 3.28 | 3.27 | 3.03 | 3.99 | 3.77 | 3.24 | 2.90 | 3.41 |
| RAB39A | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| RAB39B | -1.01 | -1.00 | -0.73 | -1.01 | -0.38 | -1.02 | -1.02 | -1.03 |
| RAB3A | 2.83 | 3.40 | 2.94 | 3.33 | 3.18 | 2.64 | 2.85 | 2.64 |
| RAB3B | 4.08 | 4.83 | 4.92 | 4.76 | 6.35 | 4.31 | 7.66 | 4.54 |
| RAB3C | -0.42 | -0.47 | -0.54 | -0.34 | 0.02 | -0.57 | -0.57 | -0.52 |
| RAB3D | 4.50 | 5.50 | 5.09 | 5.64 | 4.93 | 4.48 | 5.31 | 5.01 |
| RAB3GAP1 | 5.63 | 5.93 | 6.03 | 5.90 | 5.85 | 5.82 | 6.14 | 6.52 |
| RAB3GAP2 | 5.13 | 5.83 | 5.60 | 5.34 | 5.33 | 5.66 | 5.75 | 6.04 |
| RAB3IL1 | 1.54 | 0.48 | 0.58 | 0.46 | 0.52 | 0.55 | 0.45 | 0.97 |
| RAB3IP | 6.31 | 5.63 | 6.27 | 5.72 | 5.77 | 6.71 | 6.48 | 5.85 |
| RAB40A | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RAB40B | 6.20 | 5.05 | 5.46 | 5.55 | 5.15 | 5.18 | 4.72 | 4.77 |
| RAB40C | 4.80 | 3.85 | 4.00 | 4.18 | 3.97 | 4.22 | 3.80 | 4.38 |
| RAB42 | 0.74 | 0.29 | 0.72 | 0.48 | 0.29 | 0.33 | 0.41 | 0.29 |
| RAB43 | -1.75 | -1.74 | -1.78 | -1.79 | -1.79 | -1.80 | -1.79 | -1.72 |
| RAB4A | 7.20 | 7.20 | 6.31 | 7.23 | 7.54 | 7.33 | 6.67 | 7.08 |
| RAB4B | 0.24 | 0.17 | 0.18 | 0.44 | 0.50 | 0.46 | 0.42 | 0.19 |
| RAB5A | 6.26 | 6.48 | 5.93 | 6.43 | 6.05 | 6.09 | 6.12 | 6.46 |
| RAB5C | 7.89 | 7.17 | 7.16 | 7.20 | 7.35 | 7.52 | 7.05 | 7.61 |
| RAB5IF | 8.79 | 8.00 | 7.44 | 8.00 | 8.06 | 7.79 | 7.64 | 8.61 |
| RAB6A | 5.54 | 5.95 | 6.30 | 5.75 | 5.75 | 5.49 | 6.22 | 5.82 |
| RAB6B | 4.84 | 3.45 | 5.27 | 3.53 | 5.62 | 3.60 | 4.54 | 4.38 |
| RAB6D | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| RAB7A | 8.32 | 7.26 | 8.27 | 7.43 | 7.87 | 7.93 | 7.71 | 8.83 |
| RAB7B | 2.65 | 3.24 | 2.94 | 3.50 | 3.08 | 3.13 | 3.88 | 2.74 |
| RAB8A | 7.09 | 7.23 | 6.64 | 7.35 | 7.18 | 7.25 | 7.07 | 7.11 |
| RAB8B | 4.69 | 4.92 | 5.36 | 4.54 | 5.16 | 4.90 | 5.46 | 4.60 |
| RAB9A | 6.38 | 5.09 | 5.75 | 5.52 | 5.57 | 5.54 | 5.42 | 5.82 |
| RAB9B | -1.34 | -1.33 | -1.32 | -1.34 | -1.37 | -1.35 | -1.35 | -1.42 |
| RABAC1 | 8.51 | 8.73 | 7.87 | 9.39 | 8.89 | 7.76 | 7.95 | 8.44 |
| RABEP1 | 5.09 | 5.25 | 5.71 | 4.80 | 5.20 | 5.39 | 5.96 | 5.23 |
| RABEP2 | 3.93 | 4.12 | 4.30 | 4.06 | 3.84 | 3.94 | 4.26 | 4.33 |
| RABEPK | 5.36 | 5.02 | 4.30 | 5.39 | 4.66 | 4.95 | 4.39 | 4.57 |

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|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RABGAP1 | 6.04 | 5.60 | 5.91 | 5.67 | 4.99 | 6.29 | 5.94 | 5.57 |
| RABGAP1L | 5.50 | 5.95 | 5.15 | 5.83 | 6.34 | 5.64 | 5.71 | 5.73 |
| RABGAP1L-IT1 | -0.19 | -0.18 | -0.07 | -0.13 | -0.08 | -0.25 | -0.28 | -0.25 |
| RABGEF1 | 2.73 | 2.52 | 2.45 | 2.60 | 2.48 | 2.36 | 2.52 | 2.28 |
| RABGGTA | 4.23 | 4.74 | 4.58 | 4.79 | 5.11 | 4.85 | 4.80 | 4.69 |
| RABGGTB | 5.27 | 6.10 | 5.45 | 6.61 | 6.15 | 6.24 | 5.51 | 5.41 |
| RABIF | 6.27 | 5.65 | 5.17 | 5.91 | 6.10 | 6.03 | 5.66 | 5.94 |
| RABL2A | 1.50 | 1.47 | 1.45 | 1.88 | 1.72 | 1.74 | 1.74 | 1.84 |
| RABL2B | 2.50 | 2.91 | 1.88 | 2.68 | 2.39 | 2.47 | 2.71 | 2.11 |
| RABL3 | 4.64 | 3.98 | 4.42 | 4.10 | 4.22 | 4.45 | 4.44 | 4.70 |
| RABL6 | 7.10 | 7.72 | 7.75 | 7.41 | 6.37 | 7.36 | 7.75 | 6.66 |
| RAC1 | 10.16 | 10.40 | 9.69 | 10.65 | 11.05 | 10.05 | 10.41 | 11.02 |
| RAC1P2 | 2.04 | 2.02 | 1.67 | 2.08 | 1.91 | 1.97 | 1.96 | 2.65 |
| RAC1P4 | -1.85 | -1.85 | -1.88 | -1.81 | -1.85 | -1.90 | -1.90 | -1.91 |
| RAC1P5 | -2.10 | -2.07 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.11 |
| RAC2 | 5.20 | 5.92 | 4.63 | 5.89 | 5.48 | 6.95 | 4.76 | 5.21 |
| RAC3 | 4.67 | 4.34 | 3.64 | 4.26 | 4.00 | 4.34 | 4.18 | 4.47 |
| RACGAP1 | 5.52 | 4.89 | 5.37 | 4.64 | 4.56 | 5.68 | 4.58 | 5.12 |
| RACK1 | 10.24 | 11.07 | 10.19 | 11.28 | 11.61 | 10.84 | 10.65 | 10.53 |
| RAD1 | 5.84 | 5.44 | 5.54 | 5.44 | 5.73 | 5.76 | 5.24 | 5.73 |
| RAD17 | 4.02 | 4.74 | 4.65 | 4.45 | 4.91 | 4.52 | 4.61 | 4.57 |
| RAD17P1 | -1.13 | -1.12 | -0.97 | -0.93 | -1.05 | -1.05 | -1.14 | -1.04 |
| RAD17P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RAD18 | 5.17 | 5.05 | 4.80 | 4.73 | 4.49 | 4.77 | 5.18 | 4.42 |
| RAD21 | 7.45 | 7.50 | 9.01 | 7.40 | 7.73 | 8.17 | 7.76 | 8.26 |
| RAD21-AS1 | -1.28 | -1.40 | -1.21 | -1.41 | -1.31 | -1.36 | -1.35 | -1.43 |
| RAD21L1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RAD23A | 8.21 | 8.26 | 8.08 | 8.26 | 8.46 | 8.66 | 8.19 | 8.52 |
| RAD23B | 7.67 | 7.30 | 7.17 | 7.03 | 6.60 | 7.21 | 7.13 | 7.18 |
| RAD23BP1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| RAD50 | 2.71 | 3.50 | 3.80 | 3.65 | 3.29 | 3.13 | 3.77 | 2.84 |
| RAD51 | 5.61 | 4.45 | 4.46 | 4.81 | 4.23 | 4.58 | 4.49 | 4.72 |
| RAD51-AS1 | 3.34 | 2.68 | 3.60 | 3.50 | 3.51 | 3.41 | 3.69 | 3.38 |
| RAD51AP1 | 6.11 | 5.26 | 5.95 | 5.08 | 4.62 | 4.88 | 5.30 | 5.55 |
| RAD51AP2 | -1.96 | -1.96 | -1.98 | -2.00 | -1.99 | -1.97 | -1.96 | -1.97 |
| RAD51B | 2.10 | 2.69 | 2.63 | 2.36 | 3.08 | 2.80 | 2.65 | 2.35 |
| RAD51C | 6.23 | 5.30 | 5.20 | 5.49 | 5.89 | 5.65 | 5.06 | 4.89 |
| RAD51D | 2.81 | 2.93 | 3.16 | 2.64 | 2.68 | 2.42 | 2.85 | 2.17 |
| RAD52 | 1.57 | 1.69 | 1.44 | 1.58 | 1.72 | 1.42 | 1.82 | 1.60 |
| RAD54B | 3.02 | 2.47 | 3.67 | 2.49 | 2.95 | 2.94 | 2.70 | 2.82 |
| RAD54L | 3.00 | 3.27 | 3.84 | 3.33 | 3.02 | 3.51 | 3.61 | 2.69 |
| RAD54L2 | 4.74 | 5.03 | 4.75 | 4.54 | 4.32 | 4.74 | 4.67 | 4.14 |
| RAD9A | 4.29 | 3.66 | 4.28 | 4.24 | 4.32 | 3.96 | 4.39 | 4.25 |
| RAD9B | -1.54 | -1.53 | -1.52 | -1.60 | -1.56 | -1.58 | -1.54 | -1.56 |
| RADIL | -0.55 | -0.91 | -0.89 | -0.91 | -0.87 | -0.92 | -0.77 | -0.92 |
| RADX | -0.05 | -0.04 | 0.51 | -0.06 | 0.35 | 0.11 | 0.40 | -0.02 |
| RAE1 | 6.68 | 5.64 | 5.78 | 5.77 | 6.42 | 6.45 | 5.36 | 5.65 |
| RAET1E | -0.44 | -0.36 | -0.24 | -0.30 | -0.40 | -0.17 | -0.30 | -0.35 |
| RAET1G | 0.88 | 1.43 | 1.11 | 1.60 | 1.25 | 2.04 | 1.02 | 0.94 |
| RAET1K | -1.74 | -1.73 | -1.68 | -1.70 | -1.74 | -1.70 | -1.74 | -1.62 |
| RAET1L | -0.28 | -0.35 | -0.29 | -0.49 | -0.48 | -0.26 | -0.57 | -0.59 |
| RAF1 | 5.42 | 5.42 | 5.83 | 5.63 | 5.32 | 5.18 | 5.60 | 5.32 |
| RAG1 | 0.05 | 0.15 | 0.21 | 0.20 | 0.09 | 0.19 | 0.18 | 0.11 |
| RAI1 | 5.50 | 4.84 | 5.61 | 4.77 | 4.64 | 4.77 | 5.59 | 4.78 |
| RAI14 | 4.19 | 4.77 | 5.40 | 4.90 | 5.69 | 5.07 | 4.50 | 4.39 |
| RAI2 | 1.54 | 1.57 | 1.53 | 1.80 | 1.73 | 1.56 | 2.74 | 1.41 |
| RALA | 7.67 | 7.48 | 7.15 | 7.37 | 7.24 | 7.31 | 7.90 | 6.98 |
| RALB | 6.67 | 6.56 | 6.37 | 6.46 | 6.68 | 6.86 | 6.92 | 6.57 |
| RALBP1 | 7.84 | 7.89 | 8.04 | 7.62 | 8.06 | 7.63 | 7.46 | 8.88 |
| RALGAPA1 | 3.14 | 4.15 | 3.60 | 4.10 | 3.69 | 4.15 | 4.74 | 3.87 |
| RALGAPA1P1 | -1.33 | -1.32 | -1.25 | -1.34 | -1.29 | -1.22 | -1.34 | -1.29 |
| RALGAPA2 | 5.89 | 6.44 | 6.54 | 6.32 | 5.83 | 5.83 | 6.38 | 5.63 |
| RALGAPB | 4.66 | 4.99 | 5.15 | 4.87 | 4.74 | 4.63 | 5.22 | 4.70 |
| RALGDS | 3.68 | 4.01 | 4.32 | 3.60 | 3.76 | 3.64 | 4.03 | 3.58 |
| RALGPS1 | 4.00 | 4.48 | 3.79 | 4.73 | 4.77 | 3.74 | 4.66 | 3.55 |
| RALGPS2 | 4.55 | 5.47 | 5.40 | 5.08 | 5.10 | 5.48 | 5.52 | 6.12 |
| RALY | 8.64 | 7.95 | 8.13 | 8.00 | 8.25 | 8.05 | 7.67 | 7.98 |
| RALY-AS1 | 3.13 | 2.50 | 2.54 | 2.88 | 3.04 | 2.55 | 2.34 | 2.72 |
| RALYL | -1.12 | -0.96 | -1.03 | -0.43 | -1.12 | -1.13 | -1.13 | -1.14 |
| RAMAC | 4.37 | 3.91 | 3.91 | 4.09 | 4.29 | 3.96 | 3.60 | 4.07 |
| RAMACL | -2.18 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| RAMP1 | 5.95 | 4.03 | 5.36 | 3.58 | 7.19 | 6.43 | 5.23 | 5.27 |
| RAMP2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.30 |
| RAMP2-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RAN | 8.71 | 9.03 | 8.81 | 9.21 | 9.08 | 9.27 | 8.20 | 9.13 |
| RANBP1 | 8.86 | 7.71 | 7.45 | 8.07 | 7.34 | 7.92 | 7.49 | 8.02 |
| RANBP10 | 3.16 | 3.40 | 3.70 | 3.16 | 2.95 | 3.01 | 3.22 | 3.44 |
| RANBP17 | 1.65 | 2.59 | 2.30 | 2.65 | 2.20 | 2.55 | 2.70 | 2.17 |
| RANBP2 | 5.67 | 6.37 | 6.18 | 6.17 | 5.78 | 5.83 | 6.42 | 5.92 |
| RANBP20P | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RANBP3 | 4.50 | 4.83 | 5.12 | 4.91 | 4.74 | 4.84 | 4.94 | 4.72 |
| RANBP3L | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RANBP6 | 3.41 | 4.41 | 3.92 | 4.36 | 3.32 | 3.98 | 3.65 | 3.71 |
| RANBP9 | 4.63 | 4.27 | 4.88 | 4.32 | 4.14 | 4.25 | 4.35 | 3.95 |
| RANGAP1 | 6.88 | 6.18 | 6.84 | 6.21 | 5.88 | 6.38 | 6.48 | 6.11 |
| RANGRF | 5.61 | 5.23 | 5.01 | 5.55 | 4.94 | 5.23 | 5.21 | 5.19 |
| RANP1 | -0.92 | -1.05 | -1.11 | -1.06 | -1.01 | -0.97 | -1.13 | -0.93 |
| RANP4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RANP6 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RAP1A | 6.86 | 6.83 | 6.14 | 6.84 | 6.69 | 6.59 | 6.64 | 6.60 |
| RAP1AP | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| RAP1B | 5.58 | 5.59 | 5.46 | 5.72 | 5.49 | 6.06 | 5.35 | 6.11 |
| RAP1GAP | 4.96 | 4.08 | 4.22 | 4.43 | 4.44 | 3.89 | 4.83 | 4.58 |
| RAP1GAP2 | 3.49 | 3.57 | 4.13 | 3.28 | 4.06 | 3.71 | 4.30 | 4.05 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RAP1GDS1 | 4.08 | 5.05 | 4.54 | 4.85 | 4.62 | 4.71 | 4.83 | 5.01 |
| RAP2A | 3.79 | 4.68 | 4.19 | 4.62 | 4.10 | 3.96 | 4.90 | 3.57 |
| RAP2B | 5.85 | 5.77 | 6.64 | 5.68 | 5.61 | 6.17 | 5.73 | 6.48 |
| RAP2C | 4.18 | 4.49 | 4.30 | 4.15 | 3.95 | 4.19 | 4.51 | 4.73 |
| RAP2C-AS1 | 0.30 | 0.11 | -0.03 | 0.10 | 0.00 | 0.04 | 0.02 | 0.20 |
| RAPGEF1 | 4.70 | 4.61 | 4.46 | 4.33 | 3.89 | 4.13 | 4.46 | 3.98 |
| RAPGEF2 | 3.36 | 4.01 | 4.12 | 4.24 | 3.73 | 3.95 | 4.41 | 3.99 |
| RAPGEF3 | 1.09 | 1.27 | 1.24 | 1.23 | 1.11 | 1.29 | 1.45 | 1.30 |
| RAPGEF4 | -1.69 | -1.63 | -1.68 | -1.69 | -1.66 | -1.65 | -1.64 | -1.71 |
| RAPGEF5 | 3.97 | 3.24 | 3.39 | 3.48 | 4.17 | 3.27 | 3.92 | 3.55 |
| RAPGEF6 | 2.52 | 2.73 | 3.46 | 2.27 | 2.56 | 2.64 | 2.70 | 2.80 |
| RAPGEFL1 | 3.97 | 4.59 | 3.85 | 4.65 | 3.96 | 4.06 | 4.93 | 4.74 |
| RAPH1 | 4.53 | 4.68 | 5.19 | 5.08 | 4.57 | 4.47 | 5.48 | 4.92 |
| RAPSN | -1.64 | -1.69 | -1.62 | -1.69 | -1.63 | -1.70 | -1.64 | -1.71 |
| RARA | 4.28 | 3.96 | 4.24 | 4.03 | 3.93 | 4.28 | 4.41 | 4.41 |
| RARA-AS1 | 4.05 | 3.34 | 3.82 | 3.26 | 3.55 | 3.91 | 3.16 | 3.88 |
| RARB | 0.80 | 0.91 | 1.30 | 0.87 | 0.86 | 0.85 | 0.87 | 0.80 |
| RARG | 5.13 | 5.52 | 5.89 | 4.87 | 4.87 | 5.70 | 5.29 | 5.08 |
| RARRES1 | 4.88 | 4.44 | 5.42 | 4.14 | 4.39 | 5.53 | 4.53 | 5.84 |
| RARRES2 | 6.93 | 5.17 | 4.71 | 5.59 | 4.20 | 6.00 | 5.55 | 5.18 |
| RARRES2P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RARS | 6.59 | 6.46 | 6.77 | 6.44 | 7.04 | 6.83 | 6.59 | 5.99 |
| RARS2 | 5.85 | 5.16 | 4.82 | 5.18 | 5.43 | 5.42 | 5.42 | 6.16 |
| RARSP1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RASA1 | 3.49 | 4.48 | 5.40 | 4.23 | 5.03 | 4.95 | 4.35 | 5.13 |
| RASA2 | 4.38 | 3.75 | 4.39 | 3.73 | 3.98 | 4.44 | 4.77 | 4.82 |
| RASA2-IT1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RASA3 | 3.08 | 3.96 | 4.16 | 3.60 | 4.78 | 3.39 | 2.82 | 5.04 |
| RASA4 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.02 | -2.11 |
| RASA4CP | 1.94 | 2.01 | 1.65 | 1.91 | 2.15 | 1.75 | 2.80 | 1.76 |
| RASAL1 | 2.48 | 2.88 | 3.50 | 3.15 | 2.48 | 2.68 | 2.79 | 2.81 |
| RASAL2 | 4.10 | 5.17 | 4.31 | 5.10 | 4.44 | 5.48 | 4.83 | 5.02 |
| RASAL2-AS1 | -0.25 | -0.24 | -0.39 | -0.13 | -0.33 | -0.18 | -0.14 | -0.05 |
| RASAL3 | -2.01 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| RASD1 | 2.79 | 1.73 | 1.88 | 1.84 | 1.96 | 1.78 | 2.40 | 2.41 |
| RASD2 | 1.13 | 0.65 | 0.38 | 0.42 | 0.48 | 0.46 | 0.41 | 0.35 |
| RASEF | 5.07 | 6.26 | 5.37 | 5.86 | 5.27 | 5.59 | 5.78 | 5.10 |
| RASGEF1A | 2.00 | 1.38 | 1.74 | 1.41 | 1.76 | 1.82 | 1.32 | 2.68 |
| RASGEF1B | 3.02 | 3.27 | 2.86 | 3.39 | 2.13 | 2.51 | 2.52 | 2.59 |
| RASGEF1C | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RASGRF1 | -0.65 | -0.79 | -0.69 | -0.80 | -0.79 | -0.27 | -0.73 | -0.75 |
| RASGRF2 | -0.02 | 0.15 | -0.07 | 0.31 | -0.09 | 0.40 | -0.10 | -0.12 |
| RASGRF2-AS1 | -2.16 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| RASGRP1 | -0.63 | -0.46 | -0.54 | -0.42 | -0.59 | -0.60 | -0.42 | -0.43 |
| RASGRP2 | -0.69 | -0.91 | -0.89 | -0.91 | -0.83 | -0.85 | -0.92 | -0.93 |
| RASGRP3 | 0.84 | 0.54 | 1.03 | 0.75 | 0.89 | 0.71 | 0.72 | 0.55 |
| RASGRP4 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| RASIP1 | 1.91 | 1.07 | 1.10 | 1.03 | 1.10 | 1.24 | 1.11 | 0.95 |
| RASL10A | -1.50 | -1.49 | -1.54 | -1.50 | -1.49 | -1.48 | -1.56 | -1.47 |
| RASL10B | 1.27 | 0.27 | 0.29 | 0.26 | 0.51 | 0.42 | 0.26 | 0.47 |
| RASL11A | 2.28 | 2.31 | 2.36 | 2.17 | 2.46 | 2.41 | 2.15 | 2.47 |
| RASL11B | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RASL12 | 0.34 | -0.14 | -0.14 | -0.16 | -0.19 | -0.01 | -0.17 | -0.26 |
| RASSF1 | 4.20 | 5.27 | 4.60 | 5.35 | 5.05 | 4.41 | 4.62 | 3.89 |
| RASSF1-AS1 | 1.09 | 0.84 | 0.56 | 0.85 | 0.76 | 0.62 | 0.52 | 0.47 |
| RASSF10 | 1.02 | 1.57 | 1.30 | 1.60 | 1.16 | 1.99 | 1.06 | 0.81 |
| RASSF2 | 0.67 | 0.29 | 0.22 | 0.49 | 0.29 | 0.18 | 0.62 | 0.29 |
| RASSF3 | 5.91 | 6.12 | 6.21 | 6.17 | 6.22 | 5.96 | 5.57 | 5.54 |
| RASSF4 | 3.75 | 2.70 | 2.94 | 2.78 | 3.46 | 3.59 | 3.64 | 3.36 |
| RASSF5 | 4.16 | 4.34 | 4.34 | 3.88 | 4.04 | 4.17 | 4.94 | 4.46 |
| RASSF6 | 3.71 | 4.82 | 4.56 | 4.78 | 4.69 | 4.85 | 5.57 | 5.31 |
| RASSF7 | 8.09 | 7.73 | 7.96 | 7.98 | 7.88 | 7.23 | 8.20 | 7.56 |
| RASSF8 | 2.71 | 2.12 | 2.04 | 1.97 | 2.01 | 1.69 | 2.51 | 2.28 |
| RASSF8-AS1 | -0.06 | -0.05 | 0.03 | -0.07 | -0.14 | -0.12 | -0.08 | 0.07 |
| RASSF9 | 2.81 | 3.16 | 2.92 | 3.60 | 3.17 | 3.42 | 3.41 | 3.98 |
| RAVER1 | 0.17 | 0.11 | -0.03 | 0.23 | 0.04 | 0.10 | 0.02 | 0.04 |
| RAVER2 | 2.97 | 3.46 | 3.21 | 3.32 | 3.43 | 3.12 | 4.19 | 2.69 |
| RAX | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -1.92 | -2.03 |
| RB1 | 4.97 | 5.51 | 6.01 | 5.52 | 5.16 | 4.90 | 6.03 | 5.96 |
| RB1-DT | -0.85 | -0.90 | -0.96 | -0.99 | -0.76 | -1.07 | -1.07 | -1.08 |
| RB1CC1 | 6.20 | 6.19 | 7.59 | 5.96 | 6.39 | 6.95 | 6.58 | 7.14 |
| RBAK | 3.92 | 4.21 | 4.19 | 3.79 | 4.09 | 3.85 | 4.42 | 3.56 |
| RBAK-RBAKDN | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| RBBP4 | 6.94 | 5.86 | 6.99 | 5.81 | 6.62 | 6.75 | 7.23 | 6.53 |
| RBBP4P1 | -1.24 | -1.23 | -1.22 | -1.24 | -1.20 | -1.25 | -0.93 | -1.10 |
| RBBP4P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| RBBP5 | 4.82 | 4.62 | 4.68 | 4.61 | 4.68 | 4.79 | 4.44 | 4.30 |
| RBBP6 | 6.14 | 6.31 | 6.88 | 6.24 | 6.15 | 6.44 | 6.54 | 6.37 |
| RBBP7 | 8.40 | 7.38 | 8.31 | 7.47 | 7.75 | 7.45 | 7.34 | 7.17 |
| RBBP8 | 5.43 | 6.02 | 6.77 | 5.93 | 5.90 | 5.76 | 6.56 | 6.62 |
| RBBP8NL | 3.18 | 3.93 | 2.52 | 4.45 | 2.25 | 2.83 | 2.26 | 1.97 |
| RBBP9 | 2.97 | 3.25 | 2.99 | 3.37 | 3.11 | 2.88 | 2.78 | 2.45 |
| RBCK1 | 8.03 | 7.18 | 7.37 | 7.11 | 8.36 | 7.60 | 7.83 | 8.51 |
| RBFA | 3.50 | 3.84 | 3.39 | 4.24 | 3.92 | 3.33 | 3.90 | 3.32 |
| RBFADN | -0.98 | -1.05 | -0.95 | -1.06 | -1.01 | -1.06 | -0.90 | -1.01 |
| RBFOX1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| RBFOX2 | 6.19 | 7.17 | 6.16 | 6.88 | 5.88 | 6.63 | 6.72 | 6.67 |
| RBFOX3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.21 |
| RBIS | 9.05 | 8.20 | 8.57 | 8.34 | 9.15 | 9.02 | 7.76 | 8.82 |
| RBISP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RBISP2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RBKS | 3.15 | 2.94 | 2.62 | 2.72 | 2.99 | 2.49 | 2.49 | 2.82 |
| RBL1 | 4.03 | 3.34 | 3.81 | 3.39 | 2.95 | 3.45 | 4.06 | 3.07 |
| RBL2 | 5.27 | 5.43 | 6.10 | 5.25 | 5.21 | 5.34 | 5.98 | 5.84 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RBM10 | 5.44 | 5.65 | 6.20 | 5.47 | 5.44 | 5.56 | 5.42 | 5.43 |
| RBM11 | 0.62 | 0.05 | 0.41 | 0.11 | 0.05 | 0.09 | -0.05 | -0.01 |
| RBM12 | 5.16 | 5.23 | 5.52 | 5.19 | 5.03 | 5.23 | 5.29 | 5.24 |
| RBM12B | 4.10 | 3.70 | 4.78 | 3.91 | 3.80 | 4.36 | 4.41 | 4.17 |
| RBM12B-AS1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RBM14 | 4.84 | 5.03 | 5.29 | 4.89 | 4.92 | 4.97 | 4.99 | 4.81 |
| RBM14-RBM4 | -1.59 | -1.59 | -1.58 | -1.54 | -1.56 | -1.60 | -1.60 | -1.56 |
| RBM15 | 3.84 | 4.22 | 4.65 | 4.17 | 3.88 | 4.30 | 4.20 | 3.46 |
| RBM15-AS1 | -1.28 | -1.33 | -1.32 | -1.41 | -1.40 | -1.35 | -1.35 | -1.37 |
| RBM15B | 6.03 | 6.05 | 5.67 | 5.98 | 5.64 | 5.99 | 5.58 | 5.62 |
| RBM17 | 7.11 | 7.55 | 7.53 | 7.54 | 7.98 | 7.45 | 7.38 | 6.81 |
| RBM17P4 | -0.71 | -0.70 | -0.61 | -0.79 | -0.67 | -0.69 | -0.72 | -0.69 |
| RBM18 | 5.64 | 5.27 | 5.03 | 5.33 | 5.26 | 5.77 | 4.94 | 5.21 |
| RBM19 | 4.06 | 4.50 | 4.72 | 4.38 | 4.15 | 4.22 | 4.42 | 4.49 |
| RBM20 | -1.99 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.06 |
| RBM22 | 5.43 | 5.30 | 6.01 | 5.63 | 5.97 | 5.73 | 5.71 | 5.37 |
| RBM22P2 | -2.18 | -2.17 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| RBM23 | 4.22 | 5.06 | 4.68 | 5.15 | 5.26 | 4.75 | 5.27 | 4.29 |
| RBM24 | -1.94 | -1.94 | -1.89 | -1.95 | -1.94 | -1.95 | -1.91 | -1.92 |
| RBM25 | 7.27 | 7.75 | 7.79 | 7.79 | 7.75 | 7.86 | 8.13 | 7.43 |
| RBM26 | 5.08 | 6.14 | 6.03 | 6.04 | 6.01 | 5.77 | 6.44 | 6.38 |
| RBM26-AS1 | 2.40 | 2.55 | 2.56 | 2.40 | 2.76 | 2.01 | 2.23 | 2.37 |
| RBM27 | 3.66 | 4.96 | 4.82 | 4.43 | 4.84 | 4.50 | 4.91 | 4.29 |
| RBM28 | 5.52 | 5.79 | 5.69 | 5.78 | 5.77 | 5.78 | 5.51 | 5.45 |
| RBM3 | 6.60 | 7.60 | 7.17 | 7.81 | 7.01 | 7.27 | 6.86 | 6.96 |
| RBM33 | 5.01 | 5.60 | 5.76 | 5.85 | 6.07 | 5.69 | 6.00 | 6.00 |
| RBM34 | 2.24 | 2.04 | 1.87 | 1.85 | 2.03 | 2.06 | 1.88 | 2.17 |
| RBM38 | 6.00 | 4.71 | 5.34 | 5.17 | 5.71 | 5.57 | 4.54 | 5.11 |
| RBM39 | 8.64 | 8.46 | 8.57 | 8.40 | 8.45 | 8.86 | 8.62 | 8.65 |
| RBM4 | 4.16 | 4.49 | 4.47 | 4.77 | 4.36 | 4.29 | 4.54 | 4.80 |
| RBM41 | 5.11 | 3.18 | 5.69 | 3.29 | 5.34 | 5.01 | 6.01 | 5.26 |
| RBM42 | 7.63 | 6.97 | 6.88 | 7.07 | 7.55 | 7.33 | 6.60 | 7.04 |
| RBM43 | 3.15 | 3.46 | 2.98 | 3.11 | 3.50 | 3.34 | 3.20 | 3.04 |
| RBM44 | -0.71 | -0.62 | -0.52 | -0.64 | -0.51 | -0.52 | -0.64 | -0.67 |
| RBM45 | 3.49 | 3.20 | 3.29 | 3.83 | 3.36 | 3.21 | 3.18 | 3.07 |
| RBM46 | -0.59 | -0.67 | -0.66 | -0.68 | -0.67 | -0.69 | -0.53 | -0.70 |
| RBM47 | 6.14 | 6.83 | 7.26 | 6.71 | 6.32 | 6.57 | 7.05 | 6.71 |
| RBM48 | 3.79 | 4.42 | 4.09 | 4.36 | 4.50 | 4.20 | 4.01 | 4.66 |
| RBM48P1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RBM4B | 4.62 | 4.04 | 4.25 | 3.63 | 4.05 | 3.96 | 3.64 | 4.05 |
| RBM5 | 4.90 | 5.49 | 5.17 | 5.59 | 5.08 | 5.01 | 5.93 | 5.00 |
| RBM5-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| RBM6 | 5.90 | 5.54 | 5.93 | 5.88 | 5.92 | 5.90 | 6.30 | 5.31 |
| RBM7 | 5.42 | 5.20 | 5.28 | 4.94 | 5.36 | 5.55 | 4.75 | 5.63 |
| RBM8A | 7.67 | 7.57 | 6.94 | 7.48 | 7.28 | 8.19 | 7.00 | 7.92 |
| RBM8B | 0.58 | 0.32 | 0.52 | 0.36 | 0.43 | 0.77 | 0.35 | 0.62 |
| RBMS1 | 5.57 | 5.31 | 6.01 | 4.66 | 4.93 | 6.10 | 4.94 | 6.08 |
| RBMS1P1 | -1.71 | -1.78 | -1.78 | -1.79 | -1.79 | -1.75 | -1.79 | -1.76 |
| RBMS2 | 4.45 | 5.15 | 5.02 | 4.78 | 3.89 | 5.09 | 5.27 | 3.90 |
| RBMS2P1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| RBMS3 | -1.89 | -1.89 | -1.84 | -1.90 | -1.89 | -1.90 | -1.90 | -1.91 |
| RBMS3-AS3 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RBMX | 7.62 | 7.58 | 7.26 | 7.49 | 7.56 | 8.16 | 7.33 | 7.68 |
| RBMX2 | 5.86 | 5.64 | 5.89 | 5.70 | 6.05 | 5.86 | 5.37 | 6.44 |
| RBMX2P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| RBMX2P2 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| RBMX2P3 | -1.84 | -1.84 | -1.79 | -1.84 | -1.82 | -1.83 | -1.80 | -1.86 |
| RBMX2P5 | -0.96 | -1.10 | -1.01 | -1.04 | -1.10 | -0.98 | -1.11 | -0.93 |
| RBMXL1 | 4.84 | 4.05 | 4.33 | 4.12 | 3.93 | 4.08 | 4.01 | 4.37 |
| RBMXP2 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| RBP1 | 4.02 | 5.01 | 7.03 | 4.61 | 5.20 | 7.75 | 4.50 | 4.06 |
| RBP2 | -1.91 | -1.90 | -1.93 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |
| RBP3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RBP4 | 4.20 | 2.72 | 2.65 | 2.78 | 3.74 | 2.55 | 2.72 | 3.74 |
| RBP5 | -1.60 | -1.52 | -1.51 | -1.53 | -1.56 | -1.58 | -1.60 | -1.62 |
| RBP7 | 6.16 | 2.59 | 2.66 | 2.65 | 2.72 | 2.88 | 2.78 | 2.21 |
| RBPJ | 6.12 | 6.71 | 6.72 | 6.76 | 6.65 | 6.87 | 6.88 | 6.69 |
| RBPJL | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RBPMS | 5.84 | 6.88 | 6.47 | 6.89 | 6.54 | 6.97 | 6.15 | 5.89 |
| RBPMS-AS1 | 2.09 | 2.15 | 2.16 | 1.71 | 1.96 | 2.12 | 1.95 | 1.65 |
| RBPMS2 | 2.37 | 1.66 | 1.50 | 1.41 | 2.10 | 1.57 | 1.40 | 2.10 |
| RBSN | 4.32 | 4.29 | 4.15 | 4.35 | 4.13 | 4.22 | 4.28 | 3.93 |
| RBX1 | 10.03 | 8.81 | 8.40 | 9.07 | 8.74 | 9.01 | 8.65 | 9.54 |
| RC3H1 | 5.08 | 5.42 | 5.21 | 5.35 | 5.38 | 5.41 | 5.63 | 5.63 |
| RC3H1-IT1 | -0.61 | -0.52 | -0.33 | -0.54 | -0.52 | -0.46 | -0.46 | -0.57 |
| RC3H2 | 5.01 | 5.37 | 5.17 | 4.92 | 4.65 | 5.04 | 5.28 | 4.85 |
| RCAN1 | 4.92 | 4.50 | 4.78 | 4.30 | 6.99 | 4.58 | 4.83 | 4.81 |
| RCAN2 | 0.32 | 0.25 | 0.26 | 0.31 | 0.79 | 0.52 | 0.23 | 0.26 |
| RCAN3 | 4.43 | 4.07 | 4.79 | 4.41 | 4.78 | 5.30 | 5.53 | 4.24 |
| RCAN3AS | 0.38 | 0.23 | 0.57 | 0.41 | 0.79 | 0.58 | 0.21 | 0.48 |
| RCBTB1 | 3.06 | 3.33 | 3.63 | 3.17 | 3.30 | 2.98 | 3.61 | 3.31 |
| RCBTB2 | 1.48 | 1.88 | 1.99 | 1.70 | 1.55 | 1.57 | 2.02 | 1.74 |
| RCC1 | 5.48 | 5.26 | 6.35 | 5.46 | 5.74 | 6.25 | 6.03 | 5.44 |
| RCC1L | 4.89 | 5.55 | 5.48 | 5.62 | 5.42 | 5.22 | 5.09 | 5.89 |
| RCC2 | 5.50 | 5.77 | 6.77 | 5.69 | 5.87 | 6.44 | 6.12 | 5.91 |
| RCC2-AS1 | -0.78 | -0.77 | -0.40 | -0.69 | -0.77 | -0.59 | -0.78 | -0.60 |
| RCC2P6 | -1.81 | -1.89 | -1.84 | -1.89 | -1.89 | -1.88 | -1.86 | -1.87 |
| RCC2P8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RCCD1 | 6.20 | 4.82 | 5.39 | 5.22 | 5.35 | 4.96 | 5.27 | 4.88 |
| RCE1 | 4.17 | 3.96 | 4.15 | 4.07 | 4.41 | 4.37 | 3.78 | 4.79 |
| RCHY1 | 4.71 | 5.16 | 4.17 | 5.15 | 4.90 | 4.89 | 4.44 | 5.28 |
| RCL1 | 3.38 | 3.50 | 3.95 | 3.48 | 4.11 | 3.94 | 3.22 | 3.76 |
| RCN1 | 4.73 | 5.62 | 6.54 | 5.82 | 5.57 | 5.28 | 5.23 | 6.89 |
| RCN1P2 | -1.84 | -1.75 | -1.79 | -1.84 | -1.84 | -1.83 | -1.84 | -1.86 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| RCN2 | 8.26 | 7.47 | 7.66 | 7.56 | 7.88 | 7.74 | 7.15 | 7.37 |
| RCN3 | 4.22 | 2.44 | 3.31 | 2.67 | 5.28 | 2.52 | 2.70 | 2.32 |
| RCOR1 | 5.19 | 6.04 | 5.99 | 5.61 | 5.98 | 6.17 | 6.44 | 6.59 |
| RCOR2 | 1.12 | 1.22 | 1.22 | 1.04 | 1.20 | 1.17 | 1.15 | 0.89 |
| RCOR3 | 4.73 | 4.64 | 4.56 | 4.49 | 4.57 | 4.50 | 4.50 | 4.95 |
| RDH10 | 5.59 | 5.42 | 5.41 | 5.42 | 5.41 | 7.53 | 5.34 | 6.22 |
| RDH10-AS1 | -1.49 | -1.43 | -1.47 | -1.43 | -1.46 | -1.44 | -1.50 | -1.51 |
| RDH11 | 7.18 | 8.02 | 7.67 | 8.25 | 8.46 | 8.02 | 8.55 | 7.49 |
| RDH12 | 1.61 | 1.47 | 1.71 | 2.07 | 2.42 | 1.74 | 2.40 | 1.58 |
| RDH13 | 5.17 | 5.40 | 5.31 | 5.81 | 5.92 | 4.98 | 5.22 | 5.57 |
| RDH14 | 5.75 | 5.43 | 5.01 | 5.78 | 5.11 | 5.34 | 5.08 | 5.24 |
| RDH16 | -1.09 | -1.05 | -1.24 | -1.26 | -1.29 | -1.27 | -1.33 | -1.35 |
| RDH5 | 2.08 | 1.94 | 2.17 | 2.29 | 1.86 | 2.28 | 2.71 | 1.63 |
| RDH8 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 |
| RDM1 | 3.40 | 2.53 | 3.23 | 2.48 | 3.73 | 3.09 | 2.22 | 2.42 |
| RDM1P5 | 0.85 | 0.38 | 0.42 | 0.36 | 0.57 | 0.33 | 0.28 | 0.41 |
| RDX | 7.84 | 6.67 | 7.32 | 6.13 | 6.59 | 7.11 | 7.16 | 7.93 |
| REC114 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| REC8 | 4.14 | 4.01 | 4.23 | 4.03 | 4.21 | 3.95 | 5.28 | 3.85 |
| RECK | 2.76 | 2.06 | 2.32 | 1.94 | 2.50 | 1.63 | 2.23 | 1.68 |
| RECQL | 5.73 | 4.89 | 6.05 | 4.88 | 6.71 | 5.11 | 5.80 | 5.53 |
| RECQL4 | 4.64 | 4.19 | 5.72 | 4.43 | 4.23 | 4.89 | 4.65 | 4.31 |
| RECQL5 | 3.57 | 3.35 | 4.46 | 3.23 | 3.71 | 3.69 | 3.52 | 3.66 |
| REELD1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| REEP1 | 3.61 | 3.35 | 3.33 | 3.68 | 3.25 | 2.81 | 5.48 | 2.76 |
| REEP2 | 0.38 | 0.56 | 0.61 | 0.53 | 1.20 | 0.83 | 0.38 | 0.19 |
| REEP3 | 8.69 | 7.89 | 7.75 | 7.76 | 8.09 | 8.11 | 8.08 | 8.17 |
| REEP4 | 5.68 | 5.37 | 6.45 | 5.31 | 5.92 | 6.23 | 5.45 | 5.96 |
| REEP5 | 7.43 | 8.15 | 8.00 | 8.24 | 8.19 | 7.62 | 7.57 | 7.57 |
| REEP6 | 5.63 | 4.51 | 5.18 | 4.45 | 6.17 | 6.44 | 5.43 | 5.85 |
| REG1A | 1.30 | 1.23 | 1.60 | 1.54 | 1.50 | 1.31 | 4.21 | 3.19 |
| REG1B | -1.54 | -1.54 | -1.53 | -1.55 | -1.54 | -1.52 | -1.37 | -1.56 |
| REG3A | 0.66 | 0.57 | 0.83 | 0.74 | 0.62 | 0.70 | 1.59 | 3.14 |
| REG3G | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| REG4 | 6.91 | 9.65 | 7.08 | 11.15 | 8.00 | 6.86 | 8.24 | 11.03 |
| REL | 4.53 | 4.77 | 4.13 | 4.31 | 4.41 | 4.38 | 4.19 | 4.59 |
| RELA | 5.72 | 4.96 | 5.83 | 4.86 | 6.11 | 5.63 | 5.46 | 6.26 |
| RELA-DT | 4.67 | 3.22 | 3.72 | 3.81 | 4.78 | 3.88 | 3.64 | 4.01 |
| RELB | 5.13 | 4.56 | 4.59 | 4.30 | 4.87 | 4.35 | 3.61 | 4.94 |
| RELCH | 3.50 | 4.23 | 4.22 | 4.16 | 3.98 | 3.81 | 4.84 | 3.74 |
| RELL1 | 4.31 | 6.02 | 4.84 | 6.19 | 5.08 | 5.03 | 5.20 | 4.78 |
| RELL2 | 4.39 | 3.43 | 4.51 | 4.01 | 4.26 | 3.41 | 3.59 | 3.71 |
| RELN | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| RELT | 3.11 | 2.52 | 3.24 | 2.83 | 2.84 | 2.87 | 2.88 | 2.49 |
| REM1 | -1.89 | -1.89 | -1.84 | -1.90 | -1.74 | -1.90 | -1.85 | -1.91 |
| REM2 | 0.77 | 0.91 | 0.52 | 0.75 | 1.02 | 0.76 | 0.62 | 0.76 |
| REN | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.86 | -1.89 | -1.90 |
| RENBP | -0.96 | -1.16 | -1.15 | -1.17 | -1.16 | -1.02 | -1.18 | -1.13 |
| REP15 | -0.67 | -0.52 | -0.66 | -0.46 | -0.59 | -0.68 | -0.49 | -0.69 |
| REPIN1 | 7.60 | 7.20 | 6.11 | 7.87 | 7.79 | 7.89 | 6.99 | 7.47 |
| REPS1 | 4.06 | 4.65 | 4.14 | 4.35 | 3.71 | 3.99 | 4.21 | 3.87 |
| REPS2 | 4.29 | 5.51 | 5.56 | 5.23 | 4.44 | 3.71 | 4.55 | 4.24 |
| RER1 | 7.88 | 7.56 | 7.47 | 7.48 | 7.61 | 7.77 | 7.62 | 7.74 |
| RERE | 5.40 | 5.32 | 5.58 | 5.20 | 5.29 | 5.59 | 5.74 | 5.20 |
| RERE-AS1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.96 | -2.00 | -1.96 | -2.01 |
| RERG | 0.85 | 0.88 | 1.55 | 0.97 | 0.72 | 0.77 | 0.92 | 1.22 |
| RERGL | 0.79 | -0.34 | -0.14 | -0.35 | -0.34 | -0.32 | -0.27 | -0.31 |
| RESF1 | 6.05 | 6.43 | 6.68 | 6.46 | 5.77 | 5.09 | 6.34 | 6.19 |
| REST | 6.37 | 6.37 | 6.69 | 6.45 | 6.16 | 6.70 | 6.68 | 6.87 |
| RET | -1.77 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.90 | -1.91 |
| RETNLB | -2.12 | -2.15 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.13 |
| RETREG1 | 4.06 | 5.30 | 3.67 | 5.04 | 5.29 | 2.66 | 3.78 | 2.92 |
| RETREG2 | 5.27 | 5.33 | 5.74 | 5.37 | 5.38 | 5.76 | 5.40 | 5.43 |
| RETREG3 | 4.55 | 5.28 | 5.70 | 4.97 | 4.88 | 4.94 | 5.05 | 4.79 |
| RETSAT | 5.65 | 6.79 | 6.95 | 6.97 | 6.63 | 5.81 | 7.05 | 6.15 |
| REV1 | 4.83 | 5.18 | 5.60 | 5.16 | 4.83 | 4.92 | 5.60 | 5.16 |
| REV3L | 4.16 | 4.84 | 3.63 | 4.88 | 3.84 | 4.26 | 5.22 | 3.68 |
| REV3L-IT1 | -1.49 | -1.30 | -1.41 | -1.49 | -1.48 | -1.50 | -1.43 | -1.51 |
| REX1BD | 6.96 | 6.59 | 6.12 | 6.33 | 6.70 | 6.14 | 5.71 | 5.99 |
| REXO1 | 3.88 | 3.87 | 4.98 | 4.17 | 4.64 | 4.88 | 4.69 | 4.53 |
| REXO2 | 7.62 | 7.27 | 7.13 | 7.32 | 7.25 | 7.30 | 6.48 | 7.62 |
| REXO4 | 6.08 | 5.98 | 5.73 | 6.05 | 5.34 | 5.97 | 5.61 | 5.46 |
| REXO5 | 2.55 | 2.15 | 2.10 | 2.30 | 1.87 | 1.90 | 1.99 | 2.14 |
| RF00086 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RF00151 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RF00414 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RF00415 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RF00588 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| RF00604 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RF00611 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| RF01948 | 0.46 | 0.17 | 0.26 | 0.31 | 0.45 | 0.24 | 0.37 | 0.25 |
| RF02038 | -1.53 | -1.64 | -1.63 | -1.48 | -1.64 | -1.65 | -1.65 | -1.61 |
| RF02039 | -0.37 | -0.36 | -0.34 | 0.06 | -0.33 | -0.36 | -0.38 | -0.31 |
| RF02176 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 |
| RF02195 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| RF02196 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 | -1.81 | -1.84 | -1.78 |
| RF02272 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RF02277 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RFC1 | 7.99 | 7.96 | 7.83 | 8.24 | 7.90 | 8.55 | 8.36 | 9.12 |
| RFC2 | 6.65 | 5.46 | 5.61 | 5.50 | 5.59 | 5.63 | 5.67 | 5.48 |
| RFC3 | 5.16 | 5.18 | 5.19 | 5.03 | 4.73 | 4.82 | 4.86 | 5.11 |
| RFC4 | 6.40 | 5.11 | 5.91 | 5.57 | 5.62 | 5.71 | 5.43 | 5.81 |
| RFC5 | 4.84 | 4.90 | 5.30 | 4.73 | 4.56 | 5.34 | 4.98 | 4.54 |
| RFESD | 1.39 | 1.29 | 1.34 | 1.50 | 1.72 | 1.69 | 1.37 | 1.66 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| RFFL | 4.12 | 4.07 | 4.74 | 3.76 | 3.98 | 3.91 | 3.92 | 3.79 |
| RFK | 6.35 | 6.57 | 5.60 | 5.94 | 5.27 | 5.44 | 6.12 | 5.86 |
| RFLNA | 1.99 | 1.60 | 2.91 | 2.74 | 2.96 | 1.55 | 2.12 | 3.09 |
| RFLNB | 5.23 | 2.62 | 2.69 | 2.42 | 2.89 | 2.64 | 3.71 | 1.93 |
| RFNG | 5.04 | 4.58 | 4.58 | 4.49 | 5.18 | 5.00 | 4.86 | 5.18 |
| RFPL1S | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| RFPL3S | -1.44 | -1.44 | -1.37 | -1.50 | -1.49 | -1.37 | -1.39 | -1.41 |
| RFPL4B | -2.15 | -2.14 | -2.14 | -2.15 | -2.14 | -2.15 | -2.15 | -2.10 |
| RFT1 | 6.03 | 5.02 | 4.82 | 5.25 | 5.15 | 5.43 | 4.66 | 5.16 |
| RFTN1 | -1.50 | -1.50 | -1.43 | -1.51 | -1.50 | -1.52 | -1.51 | -1.53 |
| RFTN1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RFTN2 | -2.04 | -2.04 | -2.00 | -2.01 | -2.04 | -2.02 | -2.05 | -2.06 |
| RFWD3 | 5.36 | 4.78 | 5.71 | 4.51 | 4.43 | 5.10 | 4.74 | 4.74 |
| RFX1 | 3.62 | 3.96 | 3.96 | 4.09 | 4.16 | 4.05 | 4.21 | 3.72 |
| RFX2 | 2.83 | 2.58 | 2.58 | 2.67 | 2.56 | 2.62 | 2.60 | 2.50 |
| RFX3 | 2.10 | 2.53 | 2.92 | 2.15 | 2.49 | 3.33 | 3.07 | 2.74 |
| RFX3-AS1 | -0.85 | -0.76 | -0.83 | -0.85 | -0.93 | -0.84 | -0.66 | -0.72 |
| RFX5 | 4.35 | 4.47 | 4.61 | 4.47 | 4.96 | 4.84 | 3.92 | 4.25 |
| RFX7 | 3.81 | 4.22 | 3.59 | 4.23 | 3.82 | 3.66 | 4.14 | 3.44 |
| RFX8 | -1.59 | -1.59 | -1.58 | -1.55 | -1.56 | -1.43 | -1.60 | -1.57 |
| RFXANK | 5.68 | 6.19 | 5.70 | 5.81 | 6.13 | 5.99 | 5.44 | 5.98 |
| RFXAP | 2.27 | 2.33 | 1.81 | 2.45 | 2.16 | 1.82 | 1.95 | 1.94 |
| RGCC | 4.72 | 3.42 | 2.81 | 3.48 | 2.77 | 3.88 | 2.62 | 6.06 |
| RGL1 | 1.21 | 1.45 | 1.51 | 1.34 | 1.29 | 1.63 | 1.67 | 1.35 |
| RGL2 | 4.71 | 4.50 | 4.71 | 4.84 | 4.18 | 4.88 | 4.61 | 5.68 |
| RGL3 | 3.43 | 3.35 | 3.81 | 3.70 | 3.31 | 3.47 | 3.49 | 3.57 |
| RGL4 | -1.51 | -1.44 | -1.49 | -1.51 | -1.50 | -1.49 | -1.45 | -1.53 |
| RGMA | -0.75 | -0.82 | -0.48 | -0.61 | -0.63 | -0.63 | -0.83 | -0.47 |
| RGMB | 2.88 | 2.99 | 3.72 | 3.00 | 3.14 | 3.19 | 3.22 | 3.17 |
| RGMB-AS1 | 1.22 | 1.62 | 1.46 | 1.45 | 1.28 | 1.34 | 1.38 | 1.10 |
| RGN | 4.33 | 2.42 | 3.04 | 2.44 | 3.44 | 3.02 | 2.68 | 2.82 |
| RGP1 | 4.57 | 5.02 | 5.34 | 4.92 | 5.25 | 4.79 | 5.19 | 4.56 |
| RGPD2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.18 | -2.21 |
| RGPD3 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RGPD4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| RGPD4-AS1 | -1.84 | -1.79 | -1.78 | -1.80 | -1.82 | -1.85 | -1.85 | -1.86 |
| RGPD8 | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.85 | -1.91 |
| RGS1 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| RGS10 | 6.26 | 6.11 | 5.17 | 6.53 | 6.92 | 6.31 | 4.80 | 4.33 |
| RGS11 | 1.83 | 1.14 | 1.22 | 1.49 | 1.84 | 1.00 | 1.23 | 0.96 |
| RGS12 | 3.19 | 4.43 | 4.21 | 4.45 | 3.20 | 3.93 | 4.08 | 4.00 |
| RGS13 | -2.30 | -2.29 | -2.30 | -2.28 | -2.30 | -2.31 | -2.31 | -2.31 |
| RGS14 | 4.46 | 4.71 | 4.18 | 4.78 | 4.33 | 4.95 | 3.82 | 4.82 |
| RGS16 | 2.80 | 2.61 | 2.59 | 2.71 | 3.37 | 2.06 | 2.58 | 2.33 |
| RGS17 | 0.23 | 0.33 | 0.35 | 0.23 | 0.33 | 0.37 | 0.46 | 1.50 |
| RGS17P1 | 0.09 | 0.18 | 0.39 | 0.56 | 0.10 | 0.11 | 0.61 | 0.24 |
| RGS19 | 4.68 | 3.70 | 4.16 | 4.17 | 4.43 | 3.81 | 3.29 | 4.51 |
| RGS2 | 3.96 | 4.99 | 4.50 | 4.85 | 4.12 | 6.64 | 5.56 | 4.60 |
| RGS20 | 1.57 | 1.11 | 1.14 | 1.14 | 1.41 | 2.53 | 1.06 | 2.38 |
| RGS22 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| RGS3 | 4.99 | 5.30 | 5.50 | 5.22 | 5.94 | 5.44 | 5.53 | 4.91 |
| RGS4 | -1.19 | -1.18 | -1.17 | -1.19 | -1.18 | -1.20 | -1.19 | -0.72 |
| RGS5 | 4.15 | 6.96 | 4.49 | 8.44 | 9.05 | 3.90 | 4.93 | 3.93 |
| RGS6 | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.16 |
| RGS7 | -1.13 | -0.98 | -1.04 | -0.93 | -1.09 | -0.93 | -1.07 | -1.15 |
| RGS9 | 4.88 | 3.70 | 3.99 | 3.62 | 4.65 | 4.60 | 4.29 | 4.47 |
| RGS9BP | -1.55 | -1.43 | -1.53 | -1.55 | -1.49 | -1.56 | -1.55 | -1.57 |
| RHAG | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.13 |
| RHBDD1 | 3.69 | 4.06 | 4.39 | 4.07 | 4.48 | 4.36 | 4.28 | 4.74 |
| RHBDD2 | 6.75 | 7.17 | 6.80 | 7.55 | 7.75 | 7.13 | 6.93 | 7.26 |
| RHBDD3 | 5.91 | 5.00 | 4.75 | 5.05 | 4.44 | 4.42 | 4.94 | 5.43 |
| RHBDF1 | 5.22 | 4.71 | 5.07 | 4.98 | 4.12 | 4.46 | 4.65 | 4.96 |
| RHBDF2 | 4.26 | 4.10 | 5.38 | 3.92 | 4.58 | 5.07 | 3.84 | 4.11 |
| RHBDL1 | 3.59 | 2.50 | 2.89 | 2.72 | 2.48 | 2.82 | 3.00 | 4.44 |
| RHBDL2 | 4.88 | 5.38 | 4.20 | 5.47 | 4.55 | 4.75 | 4.50 | 5.14 |
| RHBDL3 | 0.27 | -0.28 | -0.35 | -0.37 | -0.24 | -0.34 | -0.24 | -0.39 |
| RHBG | -1.14 | -1.20 | -1.19 | -1.03 | -1.23 | -1.25 | -1.28 | -1.29 |
| RHCE | -0.21 | -0.28 | -0.27 | -0.21 | -0.06 | -0.13 | -0.22 | 0.08 |
| RHCG | -0.14 | -0.21 | 0.26 | -0.15 | -0.13 | -0.06 | -0.23 | 0.35 |
| RHD | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RHEB | 6.14 | 6.24 | 6.09 | 6.03 | 6.85 | 6.54 | 5.99 | 7.28 |
| RHEBL1 | 3.09 | 2.18 | 2.40 | 1.82 | 2.39 | 2.74 | 2.02 | 2.27 |
| RHEBP2 | -2.25 | -2.25 | -2.21 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RHEX | -1.69 | -1.58 | -1.68 | -1.59 | -1.69 | -1.70 | -1.49 | -1.71 |
| RHNO1 | 5.83 | 5.49 | 5.31 | 5.47 | 4.99 | 5.08 | 4.89 | 5.84 |
| RHOA | 9.75 | 9.72 | 9.18 | 9.72 | 9.68 | 9.41 | 9.32 | 9.61 |
| RHOA-IT1 | -1.49 | -1.49 | -1.42 | -1.37 | -1.49 | -1.45 | -1.26 | -1.51 |
| RHOB | 5.20 | 5.91 | 5.88 | 5.62 | 4.73 | 5.54 | 5.63 | 5.76 |
| RHOBTB1 | 2.62 | 2.94 | 2.77 | 2.63 | 2.43 | 2.27 | 3.71 | 2.47 |
| RHOBTB2 | 3.75 | 4.16 | 4.94 | 3.52 | 3.22 | 3.94 | 4.03 | 4.86 |
| RHOBTB3 | 5.48 | 6.51 | 7.05 | 5.44 | 4.56 | 7.95 | 6.30 | 7.29 |
| RHOC | 8.76 | 8.88 | 7.77 | 8.88 | 8.53 | 8.93 | 8.55 | 8.47 |
| RHOD | 7.39 | 6.44 | 6.40 | 6.86 | 6.42 | 6.68 | 6.50 | 8.23 |
| RHOF | 6.28 | 5.87 | 7.39 | 5.64 | 6.63 | 6.93 | 6.47 | 7.83 |
| RHOG | 5.86 | 5.75 | 5.50 | 6.03 | 6.32 | 5.65 | 5.77 | 5.63 |
| RHOH | -0.94 | -0.94 | -0.57 | -0.94 | -0.68 | -0.76 | -0.87 | -0.90 |
| RHOJ | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RHOQ | 3.39 | 3.02 | 3.33 | 3.20 | 3.65 | 3.09 | 3.52 | 3.98 |
| RHOQP1 | 0.10 | 0.07 | 0.02 | 0.06 | -0.03 | 0.09 | -0.09 | -0.01 |
| RHOQP2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RHOQP3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RHOT1 | 4.73 | 4.45 | 4.83 | 4.60 | 4.45 | 4.61 | 4.51 | 4.77 |
| RHOT1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RHOT2 | 6.76 | 5.68 | 6.44 | 5.86 | 5.45 | 5.92 | 6.12 | 6.13 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RHOU | 4.09 | 3.72 | 3.78 | 4.26 | 4.04 | 4.43 | 4.72 | 4.11 |
| RHOV | 5.59 | 4.14 | 4.25 | 4.10 | 4.26 | 4.34 | 4.03 | 5.07 |
| RHOXF1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 | -2.15 | -2.13 | -2.13 |
| RHOXF1-AS1 | 1.03 | 0.83 | 0.86 | 0.77 | 0.77 | 0.82 | 0.93 | 1.46 |
| RHOXF1P1 | -1.08 | -1.33 | -1.25 | -1.34 | -1.30 | -1.35 | -1.28 | -1.36 |
| RHOXF1P2 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RHOXF1P3 | -1.69 | -1.63 | -1.68 | -1.69 | -1.64 | -1.67 | -1.69 | -1.71 |
| RHPN1 | 4.62 | 4.54 | 5.50 | 4.88 | 4.46 | 4.87 | 4.65 | 4.28 |
| RHPN1-AS1 | -0.02 | -0.08 | -0.06 | -0.12 | 0.05 | -0.13 | -0.04 | 0.09 |
| RHPN2 | 5.31 | 5.07 | 5.24 | 5.23 | 5.57 | 5.33 | 5.63 | 5.38 |
| RIBC1 | 0.58 | 0.34 | 0.37 | 0.51 | 0.40 | 0.33 | 0.16 | 0.20 |
| RIBC2 | 2.88 | 3.03 | 3.37 | 3.28 | 2.53 | 3.44 | 3.62 | 2.81 |
| RIC1 | 2.82 | 3.34 | 3.56 | 3.04 | 2.84 | 3.34 | 3.81 | 2.69 |
| RIC3 | -0.25 | -0.24 | -0.13 | -0.17 | -0.24 | -0.26 | 0.08 | -0.15 |
| RIC8A | 5.83 | 5.74 | 5.56 | 5.55 | 5.56 | 5.68 | 5.38 | 5.90 |
| RIC8B | 2.60 | 3.51 | 3.75 | 3.28 | 3.19 | 2.95 | 3.51 | 3.09 |
| RICTOR | 4.72 | 4.82 | 5.89 | 4.61 | 4.61 | 4.82 | 5.08 | 5.05 |
| RIDA | 6.93 | 6.38 | 6.66 | 6.67 | 6.57 | 6.77 | 5.73 | 6.84 |
| RIF1 | 6.27 | 6.38 | 6.72 | 6.32 | 5.90 | 6.42 | 6.96 | 6.26 |
| RIIAD1 | -0.82 | -0.80 | -0.72 | -0.81 | -0.77 | -0.47 | -0.82 | -0.90 |
| RILP | 4.74 | 3.89 | 3.63 | 4.39 | 4.73 | 3.90 | 3.82 | 4.83 |
| RILPL1 | 2.56 | 2.38 | 2.32 | 2.43 | 2.62 | 2.86 | 2.55 | 2.95 |
| RILPL2 | 5.38 | 5.16 | 5.27 | 5.44 | 5.87 | 5.28 | 4.60 | 5.27 |
| RIMBP2 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.24 | -2.26 |
| RIMBP3C | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RIMKLA | 3.02 | 3.04 | 3.30 | 3.15 | 4.19 | 2.96 | 3.83 | 2.29 |
| RIMKLB | 3.75 | 2.86 | 3.18 | 2.64 | 2.66 | 2.23 | 2.68 | 3.04 |
| RIMKLBP1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RIMS1 | -2.10 | -2.09 | -2.06 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| RIMS2 | 1.05 | 0.64 | 0.68 | 0.61 | 1.32 | 0.55 | 0.60 | 0.56 |
| RIMS3 | 0.30 | 0.44 | 0.11 | 0.33 | 0.09 | 0.07 | 0.00 | -0.03 |
| RIMS4 | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| RIN1 | 4.14 | 5.22 | 4.76 | 5.25 | 4.55 | 3.50 | 4.35 | 4.29 |
| RIN2 | 4.72 | 5.40 | 5.06 | 5.47 | 4.86 | 5.08 | 5.27 | 5.28 |
| RIN3 | 2.13 | 3.84 | 2.59 | 3.38 | 2.01 | 2.35 | 2.42 | 2.76 |
| RING1 | 4.94 | 4.74 | 4.61 | 4.57 | 4.60 | 5.15 | 5.02 | 5.58 |
| RINL | 5.06 | 4.57 | 4.57 | 4.63 | 5.91 | 4.77 | 3.33 | 4.63 |
| RINT1 | 3.55 | 4.13 | 3.59 | 3.66 | 3.81 | 3.72 | 4.20 | 4.09 |
| RIOK1 | 5.47 | 4.88 | 4.35 | 4.52 | 5.18 | 4.52 | 5.02 | 5.44 |
| RIOK2 | 4.44 | 4.95 | 4.88 | 4.82 | 5.34 | 4.79 | 4.53 | 4.95 |
| RIOK3 | 5.61 | 6.54 | 6.69 | 5.97 | 6.56 | 6.01 | 6.66 | 7.72 |
| RIOX1 | 3.85 | 3.91 | 3.82 | 3.77 | 3.92 | 3.93 | 3.67 | 3.83 |
| RIOX2 | 4.87 | 4.44 | 4.72 | 4.55 | 4.99 | 4.77 | 5.01 | 5.68 |
| RIPK1 | 4.92 | 4.65 | 4.18 | 4.34 | 4.52 | 4.32 | 5.10 | 5.17 |
| RIPK2 | 4.93 | 4.51 | 5.48 | 4.61 | 5.34 | 5.98 | 4.70 | 5.47 |
| RIPK3 | 3.18 | 3.71 | 2.90 | 3.55 | 3.05 | 3.27 | 3.71 | 2.77 |
| RIPK4 | 4.32 | 4.41 | 4.95 | 3.94 | 4.35 | 4.60 | 4.45 | 4.83 |
| RIPOR1 | 4.48 | 4.54 | 5.10 | 4.63 | 4.10 | 4.24 | 4.45 | 4.73 |
| RIPOR2 | -1.23 | -1.15 | -1.21 | -1.16 | -1.19 | -1.24 | -1.23 | -0.98 |
| RIPOR3 | -1.42 | -1.58 | -1.57 | -1.59 | -1.56 | -1.54 | -1.59 | -1.61 |
| RIPPLY1 | -1.94 | -1.94 | -1.93 | -1.91 | -1.90 | -1.95 | -1.94 | -1.96 |
| RIPPLY2 | -1.31 | -1.53 | -1.52 | -1.54 | -1.53 | -1.55 | -1.54 | -1.40 |
| RIPPLY3 | 3.25 | 2.15 | 2.18 | 2.20 | 2.77 | 2.10 | 1.62 | 2.76 |
| RIT1 | 5.44 | 4.92 | 4.55 | 4.57 | 5.29 | 5.43 | 4.99 | 5.97 |
| RITA1 | 5.40 | 5.20 | 4.84 | 5.43 | 5.07 | 4.91 | 4.95 | 5.26 |
| RLBP1 | 3.47 | 3.44 | 4.10 | 3.73 | 9.16 | 3.40 | 3.32 | 3.33 |
| RLF | 4.16 | 4.75 | 4.68 | 4.57 | 4.63 | 4.65 | 5.26 | 4.18 |
| RLIM | 4.74 | 5.29 | 5.76 | 5.17 | 4.97 | 4.91 | 5.28 | 5.11 |
| RLIMP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RLN1 | -1.44 | -1.49 | -1.42 | -1.56 | -1.49 | -1.54 | -1.56 | -1.42 |
| RLN2 | 0.05 | 0.20 | 0.03 | 0.22 | -0.01 | 0.05 | -0.04 | 0.14 |
| RMC1 | 4.43 | 4.53 | 4.63 | 4.57 | 5.21 | 4.64 | 4.23 | 5.61 |
| RMDN1 | 5.97 | 5.65 | 5.93 | 5.53 | 5.94 | 6.12 | 5.57 | 6.07 |
| RMDN2 | 2.93 | 3.18 | 2.57 | 3.38 | 2.59 | 2.70 | 2.74 | 2.66 |
| RMDN3 | 5.79 | 5.51 | 5.62 | 5.49 | 5.25 | 5.55 | 5.17 | 5.59 |
| RMI1 | 4.74 | 3.98 | 4.67 | 4.18 | 3.89 | 4.13 | 4.56 | 4.19 |
| RMI2 | 6.07 | 4.73 | 5.45 | 4.74 | 4.36 | 5.60 | 5.02 | 5.07 |
| RMND1 | 4.80 | 4.10 | 4.44 | 4.45 | 3.89 | 4.65 | 4.61 | 4.24 |
| RMND5A | 5.37 | 5.57 | 5.63 | 5.22 | 5.43 | 5.24 | 5.16 | 5.34 |
| RMND5B | 4.85 | 4.90 | 4.98 | 5.06 | 5.34 | 4.65 | 4.72 | 4.66 |
| RMST | 1.44 | 2.13 | 2.54 | 2.79 | 1.55 | 1.48 | 1.81 | 1.81 |
| RN7SK | 3.86 | 4.25 | 3.68 | 4.75 | 4.25 | 4.09 | 4.45 | 5.23 |
| RN7SKP106 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SKP124 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| RN7SKP150 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RN7SKP16 | -0.05 | 0.10 | -0.03 | -0.05 | 0.00 | 0.05 | 0.26 | -0.09 |
| RN7SKP173 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.03 |
| RN7SKP180 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RN7SKP194 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SKP203 | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 |
| RN7SKP22 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RN7SKP230 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SKP25 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SKP269 | -2.10 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| RN7SKP28 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SKP292 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| RN7SKP299 | -1.99 | -1.99 | -1.98 | -1.99 | -1.96 | -1.98 | -1.93 | -2.01 |
| RN7SKP30 | -0.95 | -0.94 | -0.85 | -0.80 | -0.94 | -0.87 | -0.96 | -0.98 |
| RN7SKP35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SKP36 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| RN7SKP38 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| RN7SKP76 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SKP78 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| RN7SKP80 | -2.10 | -2.10 | -2.09 | -1.98 | -2.10 | -2.09 | -2.10 | -2.12 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| RN7SKP9 | -2.01 | -2.04 | -2.01 | -2.05 | -2.03 | -2.05 | -2.02 | -2.03 |
| RN7SKP90 | -1.45 | -1.44 | -1.55 | -1.45 | -1.50 | -1.57 | -1.51 | -1.44 |
| RN7SKP95 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SKP97 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RN7SL1 | 2.87 | 2.67 | 2.69 | 3.21 | 3.05 | 3.19 | 3.62 | 3.17 |
| RN7SL105P | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.29 | -2.31 |
| RN7SL113P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| RN7SL118P | -1.14 | -1.20 | -1.05 | -1.08 | -1.17 | -1.13 | -1.21 | -1.12 |
| RN7SL12P | -2.15 | -2.15 | -2.14 | -2.10 | -2.13 | -2.15 | -2.15 | -2.16 |
| RN7SL130P | -1.74 | -1.69 | -1.73 | -1.70 | -1.73 | -1.68 | -1.74 | -1.67 |
| RN7SL138P | -2.12 | -2.09 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| RN7SL141P | -1.69 | -1.64 | -1.68 | -1.65 | -1.69 | -1.65 | -1.70 | -1.71 |
| RN7SL144P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RN7SL151P | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| RN7SL154P | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RN7SL160P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL166P | -1.79 | -1.79 | -1.73 | -1.80 | -1.69 | -1.80 | -1.80 | -1.81 |
| RN7SL170P | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL172P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL180P | -0.36 | -0.19 | -0.02 | -0.22 | -0.31 | -0.24 | -0.15 | -0.26 |
| RN7SL181P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| RN7SL19P | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.29 | -2.31 |
| RN7SL200P | -1.35 | -1.41 | -1.34 | -1.36 | -1.41 | -1.37 | -1.30 | -1.43 |
| RN7SL204P | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RN7SL208P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| RN7SL20P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RN7SL217P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RN7SL220P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RN7SL225P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL230P | -1.85 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.81 | -1.87 |
| RN7SL233P | -0.23 | -0.15 | 0.19 | -0.02 | -0.11 | -0.11 | 0.15 | -0.09 |
| RN7SL239P | -1.59 | -1.41 | -1.52 | -1.54 | -1.56 | -1.60 | -1.54 | -1.61 |
| RN7SL23P | -2.24 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 | -2.26 |
| RN7SL242P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RN7SL246P | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| RN7SL25P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| RN7SL263P | -0.53 | -0.47 | -0.67 | -0.69 | -0.56 | -0.70 | -0.48 | -0.29 |
| RN7SL268P | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL274P | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL280P | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RN7SL285P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RN7SL297P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RN7SL3 | -0.11 | -0.03 | -0.02 | 0.03 | 0.18 | 0.01 | 0.26 | 0.14 |
| RN7SL306P | -1.79 | -1.74 | -1.78 | -1.75 | -1.76 | -1.80 | -1.79 | -1.81 |
| RN7SL308P | -2.15 | -2.12 | -2.14 | -2.12 | -2.12 | -2.15 | -2.15 | -2.16 |
| RN7SL30P | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.29 | -2.31 |
| RN7SL313P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL329P | -0.14 | -0.21 | 0.12 | -0.15 | -0.17 | -0.06 | -0.09 | -0.26 |
| RN7SL32P | -2.10 | -2.09 | -2.06 | -2.04 | -2.09 | -2.10 | -2.01 | -2.11 |
| RN7SL336P | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| RN7SL342P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL351P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| RN7SL362P | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| RN7SL364P | -1.10 | -1.09 | -0.92 | -1.02 | -1.06 | -1.11 | -1.11 | -1.12 |
| RN7SL368P | -1.69 | -1.69 | -1.68 | -1.69 | -1.66 | -1.67 | -1.64 | -1.71 |
| RN7SL36P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL375P | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.09 | -2.07 | -2.08 |
| RN7SL377P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RN7SL378P | -1.30 | -1.30 | -1.08 | -1.24 | -1.23 | -1.31 | -0.89 | -1.32 |
| RN7SL37P | -0.57 | -0.55 | -0.47 | -0.29 | -0.64 | -0.61 | -0.37 | -0.66 |
| RN7SL381P | -1.87 | -1.94 | -1.93 | -1.91 | -1.94 | -1.95 | -1.95 | -1.96 |
| RN7SL382P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| RN7SL385P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RN7SL388P | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| RN7SL391P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RN7SL403P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RN7SL414P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RN7SL430P | -1.84 | -1.84 | -1.83 | -1.80 | -1.79 | -1.85 | -1.80 | -1.86 |
| RN7SL442P | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RN7SL443P | -1.98 | -2.01 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| RN7SL448P | -2.25 | -2.21 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| RN7SL449P | -1.99 | -1.95 | -1.98 | -1.92 | -1.95 | -2.00 | -2.00 | -2.01 |
| RN7SL44P | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RN7SL452P | -0.70 | -0.61 | -0.53 | -0.57 | -0.65 | -0.63 | -0.49 | -0.71 |
| RN7SL456P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RN7SL45P | -1.91 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.95 | -1.92 |
| RN7SL472P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| RN7SL473P | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.16 | -2.21 |
| RN7SL481P | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.04 | -2.11 |
| RN7SL49P | -2.04 | -1.98 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| RN7SL4P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| RN7SL505P | -2.15 | -2.15 | -2.12 | -2.10 | -2.15 | -2.15 | -2.15 | -2.13 |
| RN7SL521P | -0.72 | -1.00 | -0.76 | -1.01 | -0.85 | -0.85 | -0.94 | -1.02 |
| RN7SL524P | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL526P | -2.36 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 |
| RN7SL530P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RN7SL531P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RN7SL541P | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RN7SL546P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RN7SL558P | -2.10 | -2.05 | -2.09 | -2.10 | -2.10 | -2.11 | -2.06 | -2.12 |
| RN7SL559P | -0.29 | -0.28 | -0.27 | -0.37 | -0.28 | -0.15 | -0.16 | -0.39 |
| RN7SL55P | -2.04 | -2.01 | -2.04 | -2.05 | -2.03 | -2.00 | -1.99 | -2.06 |
| RN7SL560P | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| RN7SL566P | -1.96 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -2.01 |

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|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| RN7SL574P | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.93 | -1.91 | -1.96 |
| RN7SL577P | -1.99 | -1.96 | -1.95 | -2.00 | -1.99 | -2.00 | -1.96 | -1.97 |
| RN7SL57P | -2.24 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| RN7SL583P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RN7SL587P | -1.79 | -1.79 | -1.78 | -1.75 | -1.79 | -1.78 | -1.80 | -1.81 |
| RN7SL589P | -0.49 | -0.64 | -0.54 | -0.58 | -0.60 | -0.46 | -0.27 | -0.54 |
| RN7SL592P | -2.30 | -2.29 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RN7SL596P | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL5P | -2.25 | -2.25 | -2.20 | -2.25 | -2.25 | -2.26 | -2.25 | -2.24 |
| RN7SL600P | -1.69 | -1.63 | -1.68 | -1.69 | -1.66 | -1.70 | -1.54 | -1.71 |
| RN7SL610P | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.02 | -2.05 | -2.05 |
| RN7SL612P | -1.84 | -1.83 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.82 |
| RN7SL635P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL636P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| RN7SL638P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RN7SL653P | -2.15 | -2.15 | -2.14 | -2.12 | -2.13 | -2.15 | -2.12 | -2.16 |
| RN7SL655P | -2.05 | -2.01 | -2.04 | -2.01 | -2.04 | -2.04 | -2.01 | -2.06 |
| RN7SL65P | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| RN7SL663P | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.02 | -2.05 | -2.05 |
| RN7SL664P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RN7SL672P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.37 |
| RN7SL67P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL681P | -2.25 | -2.25 | -2.25 | -2.23 | -2.24 | -2.26 | -2.25 | -2.26 |
| RN7SL684P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL688P | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.10 | -2.16 |
| RN7SL689P | -0.44 | -0.35 | -0.07 | -0.29 | -0.20 | -0.49 | -0.44 | -0.53 |
| RN7SL698P | -2.15 | -2.15 | -2.05 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| RN7SL715P | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.18 | -2.21 |
| RN7SL716P | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RN7SL724P | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RN7SL735P | -0.51 | -0.36 | -0.42 | -0.37 | -0.50 | -0.28 | -0.26 | -0.60 |
| RN7SL738P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RN7SL743P | -1.59 | -1.58 | -1.63 | -1.64 | -1.64 | -1.60 | -1.49 | -1.66 |
| RN7SL745P | -2.20 | -2.20 | -2.17 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| RN7SL748P | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RN7SL749P | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.21 |
| RN7SL750P | -1.89 | -1.89 | -1.88 | -1.85 | -1.87 | -1.88 | -1.86 | -1.91 |
| RN7SL760P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL767P | -2.15 | -2.14 | -2.14 | -2.10 | -2.15 | -2.14 | -2.11 | -2.16 |
| RN7SL76P | -1.34 | -1.21 | -1.26 | -1.22 | -1.31 | -1.32 | -1.22 | -1.31 |
| RN7SL775P | -1.38 | -1.44 | -1.43 | -1.39 | -1.44 | -1.42 | -1.45 | -1.46 |
| RN7SL778P | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL784P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL78P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL801P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| RN7SL803P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RN7SL804P | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RN7SL809P | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| RN7SL811P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RN7SL812P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RN7SL825P | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 |
| RN7SL827P | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.91 | -1.96 |
| RN7SL832P | 2.26 | 1.41 | 1.55 | 1.67 | 1.61 | 1.76 | 1.70 | 1.42 |
| RN7SL834P | -1.23 | -1.29 | -1.28 | -1.31 | -1.19 | -1.31 | -1.31 | -1.32 |
| RN7SL836P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RN7SL846P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RN7SL849P | -2.18 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.18 | -2.21 |
| RN7SL850P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RN7SL851P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RN7SL8P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RNA5-8SP2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| RNA5-8SP5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 |
| RNA5-8SP6 | -0.23 | -0.14 | -0.03 | -0.24 | 0.49 | 0.02 | 0.27 | -0.13 |
| RNA5SP108 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| RNA5SP122 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| RNA5SP141 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 | -1.95 | -1.94 | -1.95 |
| RNA5SP151 | -1.55 | -1.54 | -1.46 | -1.55 | -1.47 | -1.49 | -1.55 | -1.57 |
| RNA5SP156 | -1.79 | -1.79 | -1.68 | -1.79 | -1.79 | -1.80 | -1.65 | -1.81 |
| RNA5SP166 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| RNA5SP195 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RNA5SP216 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| RNA5SP217 | -1.79 | -1.79 | -1.78 | -1.70 | -1.79 | -1.73 | -1.75 | -1.81 |
| RNA5SP229 | -2.25 | -2.21 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| RNA5SP248 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNA5SP288 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNA5SP289 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| RNA5SP29 | -2.15 | -2.12 | -2.14 | -2.11 | -2.15 | -2.14 | -2.15 | -2.11 |
| RNA5SP304 | -0.06 | -0.20 | -0.19 | 0.08 | 0.28 | 0.01 | -0.13 | -0.23 |
| RNA5SP345 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNA5SP352 | -2.04 | -2.03 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| RNA5SP363 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNA5SP378 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNA5SP383 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RNA5SP437 | -1.79 | -1.78 | -1.78 | -1.75 | -1.76 | -1.73 | -1.79 | -1.72 |
| RNA5SP450 | -1.12 | -1.12 | -1.03 | -1.12 | -1.08 | -1.10 | -0.80 | -1.14 |
| RNA5SP452 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.20 | -2.26 |
| RNA5SP457 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| RNA5SP46 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RNA5SP473 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| RNA5SP492 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNA5SP68 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.07 | -2.11 |
| RNA5SP74 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| RNA5SP82 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| RNASE1 | 7.60 | 9.92 | 7.63 | 9.61 | 7.54 | 8.65 | 7.32 | 5.50 |

| | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RNASE4 | 1.02 | 1.53 | 1.10 | 1.40 | 1.60 | 1.19 | 1.50 | 0.88 |
| RNASE6 | -0.24 | 0.13 | -0.30 | 0.02 | -0.31 | -0.23 | -0.33 | -0.34 |
| RNASE7 | -1.00 | -1.06 | -1.05 | -1.07 | -1.07 | -1.05 | -0.86 | -1.02 |
| RNASEH1 | 6.01 | 5.70 | 5.23 | 6.19 | 5.63 | 5.67 | 5.73 | 6.44 |
| RNASEH1-AS1 | 5.51 | 4.70 | 3.69 | 4.76 | 4.32 | 3.63 | 3.98 | 4.56 |
| RNASEH1P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNASEH2A | 1.87 | 2.18 | 2.66 | 1.92 | 1.89 | 2.21 | 2.31 | 1.86 |
| RNASEH2B | 5.34 | 5.75 | 5.23 | 5.81 | 6.11 | 5.20 | 5.17 | 6.14 |
| RNASEH2B-AS1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.95 | -1.94 | -1.85 |
| RNASEH2C | 7.46 | 6.46 | 6.65 | 6.40 | 7.54 | 6.89 | 6.41 | 6.68 |
| RNASEH2CP1 | -2.10 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| RNASEK | 0.40 | 0.26 | 0.35 | 0.24 | 0.45 | 0.40 | 0.52 | 0.50 |
| RNASEK-C17orf49 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNASEL | 3.13 | 3.71 | 3.46 | 3.52 | 3.27 | 3.33 | 3.80 | 3.61 |
| RNASET2 | 7.85 | 7.76 | 8.83 | 7.35 | 8.03 | 7.99 | 9.60 | 7.29 |
| RND1 | 2.89 | 2.10 | 2.89 | 2.35 | 2.31 | 2.79 | 1.94 | 2.84 |
| RND2 | 1.15 | 0.40 | 0.50 | 0.54 | 1.11 | 0.72 | 0.58 | 0.75 |
| RND3 | 4.98 | 5.58 | 5.53 | 4.89 | 4.69 | 6.17 | 5.73 | 5.07 |
| RNF10 | 5.46 | 6.22 | 6.31 | 5.80 | 5.99 | 6.00 | 6.39 | 6.83 |
| RNF103 | 4.55 | 4.96 | 4.63 | 4.98 | 4.79 | 4.34 | 5.06 | 4.74 |
| RNF103-CHMP3 | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| RNF11 | 4.70 | 5.82 | 5.20 | 5.73 | 5.31 | 5.68 | 6.03 | 5.36 |
| RNF111 | 4.60 | 4.75 | 5.09 | 4.56 | 4.41 | 4.47 | 4.68 | 4.94 |
| RNF112 | -2.07 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| RNF113A | 5.16 | 5.22 | 5.27 | 4.86 | 5.29 | 4.79 | 4.85 | 5.41 |
| RNF114 | 7.79 | 6.12 | 6.70 | 6.28 | 6.99 | 6.95 | 6.31 | 7.02 |
| RNF115 | 5.18 | 5.19 | 4.99 | 5.22 | 5.24 | 5.21 | 4.60 | 5.24 |
| RNF121 | 5.19 | 5.28 | 5.31 | 5.04 | 5.31 | 4.81 | 4.72 | 5.14 |
| RNF122 | 1.03 | 1.11 | 1.39 | 1.09 | 0.97 | 1.48 | 1.14 | 1.10 |
| RNF123 | 3.78 | 3.36 | 4.03 | 3.34 | 4.05 | 3.67 | 3.95 | 3.41 |
| RNF125 | 2.44 | 2.66 | 2.62 | 2.91 | 3.08 | 3.44 | 3.52 | 2.32 |
| RNF126P1 | -1.48 | -1.69 | -1.68 | -1.64 | -1.58 | -1.70 | -1.70 | -1.71 |
| RNF128 | 5.62 | 4.30 | 7.37 | 4.59 | 6.81 | 6.14 | 7.55 | 5.28 |
| RNF13 | 6.27 | 5.11 | 5.68 | 5.61 | 5.71 | 5.49 | 5.65 | 6.68 |
| RNF130 | 4.38 | 5.40 | 5.17 | 5.71 | 5.85 | 5.56 | 4.84 | 3.27 |
| RNF133 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNF135 | 5.17 | 4.98 | 4.21 | 4.97 | 5.11 | 4.82 | 4.50 | 4.96 |
| RNF138 | 3.92 | 3.69 | 3.83 | 3.54 | 3.81 | 4.09 | 3.84 | 3.27 |
| RNF139 | 4.41 | 4.77 | 5.01 | 4.59 | 4.36 | 4.95 | 4.42 | 4.77 |
| RNF139-AS1 | 0.17 | 0.18 | 0.19 | 0.30 | 0.32 | 0.36 | 0.21 | 0.22 |
| RNF14 | 3.83 | 4.67 | 4.36 | 4.56 | 4.42 | 4.38 | 4.54 | 4.43 |
| RNF141 | 5.86 | 6.03 | 6.07 | 5.79 | 5.87 | 5.76 | 5.83 | 5.92 |
| RNF144A | 2.27 | 1.58 | 1.56 | 1.84 | 1.79 | 1.90 | 1.87 | 1.69 |
| RNF144A-AS1 | -0.97 | -0.97 | -0.95 | -0.97 | -0.63 | -0.98 | -0.91 | -0.87 |
| RNF144B | 2.26 | 2.45 | 3.15 | 2.34 | 2.19 | 2.02 | 3.27 | 3.10 |
| RNF145 | 7.32 | 7.91 | 8.36 | 7.75 | 7.97 | 7.37 | 8.18 | 7.31 |
| RNF146 | 4.33 | 3.62 | 3.94 | 3.72 | 3.85 | 4.35 | 4.11 | 4.44 |
| RNF148 | -2.15 | -2.15 | -2.12 | -2.10 | -2.15 | -2.15 | -2.15 | -2.16 |
| RNF149 | 7.27 | 7.15 | 7.19 | 7.10 | 7.03 | 7.01 | 6.64 | 7.27 |
| RNF150 | -0.89 | -0.97 | -0.87 | -0.82 | -0.97 | -0.94 | -0.98 | -0.76 |
| RNF151 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNF152 | 2.49 | 3.54 | 3.00 | 3.69 | 2.86 | 2.38 | 3.90 | 3.28 |
| RNF157 | 2.50 | 3.12 | 2.91 | 3.10 | 3.04 | 2.48 | 3.46 | 2.33 |
| RNF157-AS1 | -0.01 | 0.00 | 0.19 | -0.10 | 0.62 | 0.37 | -0.10 | 0.00 |
| RNF165 | 1.51 | 1.97 | 2.20 | 1.67 | 1.11 | 1.09 | 1.33 | 2.18 |
| RNF166 | 5.00 | 3.44 | 4.36 | 4.22 | 4.64 | 3.93 | 3.90 | 3.98 |
| RNF167 | 5.71 | 5.77 | 5.99 | 5.88 | 5.83 | 6.08 | 6.26 | 6.09 |
| RNF168 | 5.83 | 5.79 | 6.07 | 5.97 | 5.93 | 5.81 | 6.01 | 6.72 |
| RNF169 | 4.76 | 4.71 | 4.98 | 4.66 | 4.56 | 4.50 | 4.50 | 4.85 |
| RNF170 | 4.63 | 4.98 | 5.43 | 5.18 | 4.51 | 4.97 | 4.92 | 5.37 |
| RNF180 | -1.19 | -1.11 | -1.10 | -1.20 | -1.15 | -1.20 | -1.06 | -1.09 |
| RNF181 | 8.49 | 7.59 | 7.72 | 7.44 | 8.68 | 8.25 | 7.60 | 8.51 |
| RNF182 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| RNF183 | 2.70 | 3.71 | 3.27 | 3.69 | 3.64 | 3.45 | 3.16 | 2.26 |
| RNF185 | 2.89 | 3.00 | 2.52 | 3.08 | 2.91 | 2.75 | 3.14 | 2.94 |
| RNF186 | -0.53 | -0.44 | -0.51 | -0.53 | -0.41 | -0.50 | -0.28 | -0.42 |
| RNF187 | 7.21 | 7.10 | 6.81 | 7.31 | 7.21 | 7.20 | 6.60 | 7.05 |
| RNF19A | 5.74 | 4.90 | 6.52 | 4.82 | 5.74 | 5.75 | 5.69 | 5.90 |
| RNF19B | 4.23 | 3.98 | 3.81 | 3.72 | 3.71 | 3.99 | 3.94 | 4.37 |
| RNF2 | 3.82 | 3.72 | 3.63 | 3.58 | 3.99 | 4.07 | 3.66 | 4.60 |
| RNF20 | 5.64 | 5.33 | 5.22 | 5.24 | 5.26 | 5.23 | 5.14 | 4.68 |
| RNF207 | 2.73 | 2.50 | 3.00 | 2.53 | 3.09 | 2.77 | 2.81 | 2.56 |
| RNF208 | 3.24 | 2.38 | 2.57 | 2.38 | 2.58 | 2.42 | 2.88 | 2.43 |
| RNF212 | 0.24 | 0.09 | 0.29 | 0.07 | 0.12 | 0.06 | 0.43 | 0.73 |
| RNF212B | -2.10 | -2.07 | -2.09 | -2.07 | -2.08 | -2.10 | -2.10 | -2.11 |
| RNF214 | 4.32 | 4.01 | 4.39 | 4.29 | 4.63 | 4.07 | 4.29 | 4.60 |
| RNF215 | 3.53 | 3.00 | 2.65 | 3.31 | 2.97 | 3.01 | 2.71 | 3.17 |
| RNF216 | 5.46 | 5.55 | 5.58 | 5.49 | 5.79 | 5.11 | 5.35 | 5.49 |
| RNF216P1 | 4.63 | 3.96 | 4.22 | 3.92 | 4.27 | 3.95 | 4.33 | 4.12 |
| RNF217 | 3.45 | 3.05 | 3.16 | 2.85 | 2.71 | 2.57 | 4.27 | 3.58 |
| RNF217-AS1 | 0.30 | 0.16 | 0.45 | 0.22 | 0.20 | 0.17 | 0.30 | 0.29 |
| RNF219 | 4.35 | 5.16 | 4.75 | 4.62 | 5.03 | 4.56 | 4.58 | 5.51 |
| RNF219-AS1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| RNF220 | 5.59 | 5.64 | 5.66 | 5.59 | 5.85 | 6.03 | 5.96 | 5.45 |
| RNF222 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.07 | -2.10 | -2.11 |
| RNF223 | 3.08 | 2.35 | 2.69 | 2.53 | 2.61 | 2.51 | 2.09 | 2.41 |
| RNF224 | 0.16 | -0.23 | -0.02 | -0.24 | -0.23 | -0.07 | -0.08 | -0.27 |
| RNF225 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNF227 | 1.46 | 1.35 | 1.47 | 1.55 | 1.73 | 1.55 | 1.70 | 1.47 |
| RNF24 | 6.86 | 5.44 | 6.00 | 5.32 | 4.88 | 5.25 | 5.57 | 5.03 |
| RNF25 | 4.84 | 4.32 | 4.44 | 4.75 | 4.53 | 4.99 | 4.05 | 4.71 |
| RNF26 | 5.77 | 5.30 | 5.46 | 5.33 | 4.91 | 5.29 | 5.18 | 5.07 |
| RNF2P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| RNF32 | 2.56 | 2.60 | 2.12 | 2.65 | 2.86 | 2.15 | 2.92 | 2.80 |

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|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RNF34 | 5.20 | 5.63 | 5.60 | 5.73 | 5.65 | 5.42 | 5.30 | 5.37 |
| RNF38 | 5.36 | 3.97 | 4.02 | 3.27 | 4.10 | 3.88 | 4.19 | 3.91 |
| RNF39 | 3.49 | 2.38 | 3.15 | 2.23 | 2.72 | 3.38 | 3.31 | 4.16 |
| RNF4 | 4.69 | 5.21 | 5.57 | 5.92 | 5.23 | 5.15 | 5.56 | 6.15 |
| RNF40 | 5.35 | 5.56 | 5.56 | 5.35 | 5.17 | 5.25 | 5.24 | 5.46 |
| RNF41 | 4.77 | 5.04 | 4.56 | 4.68 | 4.60 | 4.85 | 5.14 | 5.22 |
| RNF43 | 5.80 | 5.25 | 5.56 | 5.10 | 5.71 | 5.80 | 7.25 | 5.95 |
| RNF44 | 3.96 | 4.56 | 5.10 | 4.13 | 4.54 | 4.51 | 4.57 | 4.67 |
| RNF5 | 7.46 | 6.92 | 6.36 | 7.08 | 6.46 | 7.69 | 6.78 | 7.88 |
| RNF5P1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| RNF6 | 4.71 | 5.26 | 5.01 | 5.17 | 5.32 | 4.78 | 4.99 | 5.90 |
| RNF7 | 7.85 | 7.27 | 7.17 | 7.40 | 8.08 | 7.85 | 7.44 | 8.43 |
| RNF8 | 5.94 | 5.61 | 5.37 | 5.58 | 5.66 | 5.74 | 5.62 | 5.82 |
| RNFT1 | 4.63 | 3.61 | 4.21 | 4.11 | 3.58 | 3.86 | 3.36 | 4.08 |
| RNFT1-DT | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RNFT2 | 2.46 | 2.39 | 3.38 | 2.40 | 2.57 | 2.57 | 2.33 | 1.93 |
| RNGTT | 4.08 | 3.73 | 4.03 | 3.15 | 3.68 | 3.99 | 4.20 | 3.67 |
| RNH1 | 8.49 | 7.68 | 7.86 | 8.06 | 8.09 | 7.78 | 7.56 | 8.02 |
| RNLS | 3.16 | 3.52 | 3.71 | 3.80 | 3.33 | 3.42 | 2.93 | 3.48 |
| RNMT | 6.16 | 5.81 | 6.25 | 5.77 | 6.82 | 5.91 | 6.11 | 7.58 |
| RNPC3 | 4.61 | 4.37 | 5.02 | 4.62 | 4.92 | 4.69 | 5.50 | 4.41 |
| RNPEP | 6.86 | 7.15 | 6.76 | 7.08 | 7.22 | 7.41 | 6.88 | 7.34 |
| RNPEPL1 | 5.99 | 6.26 | 6.47 | 5.73 | 6.19 | 6.01 | 6.47 | 6.38 |
| RNPS1 | 8.05 | 7.28 | 7.26 | 7.42 | 7.09 | 7.36 | 7.04 | 7.58 |
| RNPS1P1 | -2.00 | -1.99 | -1.99 | -2.00 | -1.97 | -1.98 | -2.00 | -2.02 |
| RNU1-103P | -1.08 | -0.93 | -0.78 | -1.02 | -1.00 | -0.99 | -1.09 | -1.04 |
| RNU1-109P | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.06 |
| RNU1-120P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU1-124P | -1.89 | -1.89 | -1.88 | -1.82 | -1.87 | -1.88 | -1.78 | -1.91 |
| RNU1-134P | -1.69 | -1.74 | -1.63 | -1.74 | -1.69 | -1.73 | -1.70 | -1.71 |
| RNU1-136P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU1-16P | -1.04 | -1.11 | -1.02 | -1.12 | -1.07 | -1.03 | -0.85 | -1.01 |
| RNU1-30P | -1.65 | -1.69 | -1.68 | -1.69 | -1.64 | -1.70 | -1.70 | -1.62 |
| RNU1-67P | -1.21 | -1.20 | -1.05 | -1.28 | -1.31 | -1.36 | -1.15 | -1.37 |
| RNU1-73P | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| RNU1-83P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| RNU1-85P | -1.51 | -1.50 | -1.44 | -1.51 | -1.48 | -1.47 | -1.52 | -1.38 |
| RNU1-8P | -2.35 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU1-91P | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.03 |
| RNU1-92P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU2-11P | -2.20 | -2.20 | -2.19 | -2.16 | -2.20 | -2.20 | -2.18 | -2.21 |
| RNU2-17P | -2.24 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| RNU2-22P | -1.50 | -1.32 | -1.48 | -1.50 | -1.38 | -1.51 | -1.50 | -1.42 |
| RNU2-27P | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.86 | -1.87 |
| RNU2-33P | -1.69 | -1.68 | -1.68 | -1.64 | -1.68 | -1.65 | -1.60 | -1.71 |
| RNU2-5P | -2.20 | -2.20 | -2.19 | -2.21 | -2.18 | -2.21 | -2.21 | -2.18 |
| RNU2-63P | -0.91 | -0.97 | -0.88 | -0.77 | -0.83 | -0.95 | -0.92 | -0.99 |
| RNU2-68P | -1.33 | -1.32 | -1.31 | -1.20 | -1.29 | -1.28 | -0.97 | -1.35 |
| RNU2-7P | -1.89 | -1.89 | -1.88 | -1.78 | -1.85 | -1.90 | -1.82 | -1.91 |
| RNU4-1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU4-14P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNU4-16P | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU4-2 | -2.04 | -2.04 | -2.01 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 |
| RNU4-23P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RNU4-36P | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.10 | -2.16 |
| RNU4-38P | -2.25 | -2.23 | -2.21 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| RNU4-39P | -1.10 | -1.30 | -1.08 | -1.31 | -1.27 | -1.32 | -1.32 | -1.27 |
| RNU4-40P | -0.50 | -0.65 | -0.40 | -0.51 | -0.65 | -0.53 | -0.45 | -0.56 |
| RNU4-44P | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU4-51P | -2.20 | -2.20 | -2.18 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| RNU4-5P | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU4-62P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| RNU4-78P | -0.20 | 0.23 | -0.26 | -0.01 | -0.12 | -0.06 | -0.07 | -0.18 |
| RNU4-80P | -0.14 | -0.14 | 0.22 | 0.05 | -0.14 | -0.09 | 0.18 | -0.19 |
| RNU4ATAC | 1.83 | 2.03 | 1.49 | 1.94 | 2.13 | 1.64 | 2.07 | 1.65 |
| RNU4ATAC11P | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.16 | -2.21 |
| RNU4ATAC16P | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU4ATAC18P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RNU5A-1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| RNU5A-8P | -1.71 | -1.79 | -1.79 | -1.84 | -1.84 | -1.83 | -1.85 | -1.86 |
| RNU5B-1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU5D-1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU5E-3P | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.04 | -2.11 |
| RNU5F-1 | -0.20 | -0.61 | -0.60 | -0.61 | -0.49 | -0.39 | -0.62 | -0.57 |
| RNU6-1016P | -0.80 | -0.71 | -0.70 | -0.80 | -0.80 | -0.68 | -0.67 | -0.76 |
| RNU6-101P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| RNU6-1038P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNU6-1045P | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| RNU6-1053P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RNU6-1054P | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RNU6-107P | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.16 | -2.21 |
| RNU6-1086P | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-1093P | -1.32 | -1.24 | -1.04 | -1.26 | -1.31 | -1.30 | -1.19 | -1.28 |
| RNU6-1099P | -1.32 | -1.38 | -1.36 | -1.26 | -1.34 | -1.36 | -1.21 | -1.30 |
| RNU6-1111P | -1.10 | -1.02 | -1.01 | -1.11 | -1.17 | -1.15 | -1.04 | -1.13 |
| RNU6-1128P | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-1136P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-1154P | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-1157P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RNU6-1161P | -1.69 | -1.59 | -1.68 | -1.69 | -1.64 | -1.70 | -1.69 | -1.71 |
| RNU6-1175P | 0.01 | 0.25 | 0.47 | 0.08 | 0.06 | 0.02 | 0.13 | 0.08 |
| RNU6-1176P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 |
| RNU6-118P | -1.06 | -1.13 | -1.12 | -1.06 | -0.94 | -1.04 | -0.92 | -0.91 |
| RNU6-1203P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RNU6-1209P | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| RNU6-1214P | -2.30 | -2.30 | -2.28 | -2.31 | -2.29 | -2.30 | -2.31 | -2.31 |
| RNU6-1228P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-1237P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.26 |
| RNU6-123P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-1242P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RNU6-125P | -1.99 | -1.99 | -1.95 | -2.00 | -1.99 | -1.98 | -1.96 | -2.01 |
| RNU6-126P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RNU6-1272P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RNU6-1275P | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| RNU6-1284P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| RNU6-1285P | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| RNU6-130P | 0.41 | 0.35 | 0.21 | 0.25 | 0.41 | 0.31 | 0.46 | 0.21 |
| RNU6-1315P | -2.36 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-1327P | -1.38 | -1.44 | -1.42 | -1.38 | -1.37 | -1.39 | -1.32 | -1.46 |
| RNU6-137P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| RNU6-147P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNU6-151P | -2.01 | -2.04 | -2.00 | -2.01 | -2.04 | -2.05 | -2.05 | -2.06 |
| RNU6-157P | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-16P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-177P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RNU6-181P | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| RNU6-188P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-195P | -1.11 | -1.18 | -1.17 | -1.19 | -1.14 | -1.20 | -0.99 | -1.20 |
| RNU6-2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RNU6-212P | -1.19 | -1.18 | -1.10 | -1.12 | -1.19 | -1.20 | -0.94 | -1.15 |
| RNU6-218P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| RNU6-228P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-234P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-238P | -1.59 | -1.64 | -1.63 | -1.64 | -1.64 | -1.55 | -1.64 | -1.56 |
| RNU6-242P | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| RNU6-249P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| RNU6-251P | -1.99 | -1.96 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| RNU6-267P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| RNU6-268P | -0.63 | -0.62 | -0.52 | -0.49 | -0.70 | -0.58 | -0.57 | -0.72 |
| RNU6-26P | -0.83 | -0.83 | -0.57 | -0.76 | -0.83 | -0.68 | -0.69 | -0.73 |
| RNU6-272P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RNU6-28P | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-298P | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -2.00 | -2.00 | -2.01 |
| RNU6-302P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RNU6-307P | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RNU6-310P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| RNU6-313P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-319P | -1.89 | -1.85 | -1.88 | -1.89 | -1.89 | -1.88 | -1.86 | -1.91 |
| RNU6-322P | -2.10 | -2.06 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| RNU6-323P | -1.94 | -1.94 | -1.90 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |
| RNU6-32P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| RNU6-343P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-353P | -1.42 | -1.42 | -1.41 | -1.36 | -1.39 | -1.43 | -1.31 | -1.28 |
| RNU6-36P | -1.94 | -1.94 | -1.69 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| RNU6-377P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-379P | -1.85 | -1.79 | -1.83 | -1.85 | -1.81 | -1.78 | -1.80 | -1.87 |
| RNU6-37P | -0.61 | -0.74 | -0.49 | -0.75 | -0.75 | -0.72 | -0.36 | -0.77 |
| RNU6-387P | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-39P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RNU6-3P | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-407P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-414P | -1.79 | -1.74 | -1.73 | -1.79 | -1.74 | -1.80 | -1.80 | -1.72 |
| RNU6-418P | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNU6-42P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| RNU6-431P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RNU6-437P | -2.20 | -2.18 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RNU6-450P | -0.13 | 0.19 | 0.07 | -0.05 | 0.17 | -0.08 | -0.14 | -0.04 |
| RNU6-469P | -1.33 | -1.26 | -1.31 | -1.27 | -1.23 | -1.34 | -1.34 | -1.24 |
| RNU6-476P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-482P | -1.06 | -0.90 | -1.04 | -1.00 | -1.06 | -0.98 | -0.74 | -1.08 |
| RNU6-485P | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 | -2.14 | -2.15 | -2.11 |
| RNU6-4P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNU6-50P | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-516P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-519P | -2.36 | -2.36 | -2.33 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-522P | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| RNU6-531P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-540P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| RNU6-548P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| RNU6-549P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| RNU6-570P | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-60P | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| RNU6-611P | -1.31 | -1.30 | -1.22 | -1.24 | -1.17 | -1.32 | -1.25 | -1.27 |
| RNU6-619P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RNU6-621P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| RNU6-625P | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNU6-628P | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-638P | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| RNU6-652P | -1.94 | -1.94 | -1.86 | -1.95 | -1.92 | -1.93 | -1.87 | -1.96 |
| RNU6-653P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RNU6-665P | -1.99 | -1.99 | -1.87 | -2.00 | -1.97 | -1.96 | -1.96 | -2.01 |
| RNU6-668P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-670P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-681P | -0.82 | -0.74 | -0.66 | -0.75 | -0.78 | -0.83 | -0.62 | -0.78 |
| RNU6-694P | -1.69 | -1.68 | -1.68 | -1.69 | -1.69 | -1.60 | -1.50 | -1.66 |
| RNU6-697P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-6P | -0.99 | -1.06 | -1.05 | -0.92 | -0.80 | -1.01 | -0.80 | -1.08 |
| RNU6-701P | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RNU6-703P | -1.94 | -1.94 | -1.90 | -1.94 | -1.92 | -1.91 | -1.95 | -1.96 |
| RNU6-729P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-732P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RNU6-737P | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-748P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNU6-750P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RNU6-757P | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RNU6-762P | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -2.00 | -1.96 | -1.97 |
| RNU6-769P | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 |
| RNU6-786P | -0.89 | -0.80 | -0.71 | -0.89 | -0.89 | -0.77 | -0.75 | -0.91 |
| RNU6-789P | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.22 | -2.26 |
| RNU6-790P | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNU6-79P | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RNU6-8 | -0.02 | 0.15 | -0.14 | 0.11 | 0.07 | 0.03 | -0.16 | -0.01 |
| RNU6-807P | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| RNU6-817P | 0.79 | 0.89 | 0.64 | 0.49 | 0.59 | 0.58 | 0.64 | 0.38 |
| RNU6-826P | -2.01 | -2.01 | -2.01 | -2.05 | -2.04 | -1.99 | -2.05 | -2.06 |
| RNU6-82P | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -1.92 | -2.01 |
| RNU6-831P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-834P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-869P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNU6-879P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-880P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-883P | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| RNU6-890P | 0.25 | 0.19 | 0.48 | 0.16 | 0.14 | 0.33 | 0.48 | 0.29 |
| RNU6-892P | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| RNU6-9 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-905P | -2.20 | -2.20 | -2.17 | -2.20 | -2.19 | -2.20 | -2.16 | -2.21 |
| RNU6-90P | -1.94 | -1.90 | -1.93 | -1.87 | -1.94 | -1.95 | -1.95 | -1.96 |
| RNU6-912P | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| RNU6-920P | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-925P | -0.01 | -0.04 | -0.03 | -0.19 | -0.17 | -0.11 | -0.13 | -0.06 |
| RNU6-928P | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU6-936P | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| RNU6-942P | -1.20 | -1.19 | -1.18 | -1.20 | -1.22 | -1.12 | -1.14 | -1.22 |
| RNU6-945P | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -1.98 | -2.00 | -2.01 |
| RNU6-946P | -1.89 | -1.89 | -1.88 | -1.85 | -1.89 | -1.90 | -1.78 | -1.91 |
| RNU6-957P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| RNU6-977P | -1.55 | -1.48 | -1.22 | -1.55 | -1.48 | -1.53 | -1.43 | -1.57 |
| RNU6-97P | -1.45 | -1.32 | -1.31 | -1.45 | -1.38 | -1.43 | -1.39 | -1.42 |
| RNU6-987P | -2.10 | -2.09 | -2.09 | -2.04 | -2.09 | -2.10 | -2.10 | -2.11 |
| RNU6-98P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU6-998P | -2.20 | -2.20 | -2.18 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| RNU6ATAC | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RNU6ATAC18P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RNU6ATAC24P | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 |
| RNU6ATAC27P | -1.69 | -1.68 | -1.63 | -1.69 | -1.64 | -1.65 | -1.64 | -1.71 |
| RNU6ATAC30P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RNU6ATAC35P | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 | -2.14 | -2.13 | -2.16 |
| RNU6ATAC39P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU7-107P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| RNU7-10P | -2.24 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RNU7-110P | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| RNU7-115P | -1.13 | -1.12 | -1.02 | -1.13 | -1.12 | -1.14 | -0.90 | -1.15 |
| RNU7-124P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| RNU7-125P | -2.20 | -2.20 | -2.18 | -2.18 | -2.20 | -2.19 | -2.20 | -2.21 |
| RNU7-127P | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.22 | -2.26 |
| RNU7-12P | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| RNU7-140P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RNU7-14P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU7-160P | -2.29 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RNU7-174P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNU7-179P | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| RNU7-181P | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.13 | -2.16 |
| RNU7-18P | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| RNU7-195P | -1.18 | -1.10 | -1.08 | -1.18 | -1.03 | -1.19 | -0.92 | -1.20 |
| RNU7-28P | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RNU7-40P | -1.74 | -1.73 | -1.68 | -1.74 | -1.74 | -1.65 | -1.70 | -1.76 |
| RNU7-41P | -0.62 | -0.38 | -0.61 | -0.55 | -0.58 | -0.53 | -0.18 | -0.46 |
| RNU7-45P | 0.34 | 0.66 | 0.69 | 0.62 | 0.47 | 0.46 | 0.68 | 0.36 |
| RNU7-47P | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| RNU7-49P | -2.07 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.11 |
| RNU7-50P | -1.31 | -1.43 | -1.36 | -1.50 | -1.37 | -1.41 | -1.44 | -1.46 |
| RNU7-77P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| RNU7-80P | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| RNU7-90P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNVU1-1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| RNVU1-15 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RNVU1-3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNVU1-4 | -2.15 | -2.12 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| RNY1 | 2.33 | 2.39 | 2.21 | 3.66 | 4.42 | 2.75 | 2.17 | 2.30 |
| RNY1P10 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| RNY1P12 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.85 | -1.72 | -1.82 |
| RNY1P15 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RNY1P16 | -0.96 | -0.95 | -0.79 | -0.83 | -0.99 | -0.97 | -0.66 | -0.98 |
| RNY1P9 | -1.07 | -0.85 | -0.97 | -0.67 | -1.06 | -1.04 | -1.00 | -1.08 |
| RNY3 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| RNY4 | -0.61 | -0.61 | -0.58 | -0.62 | -0.50 | -0.50 | -0.49 | -0.65 |
| RNY4P19 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RNY4P34 | -0.79 | -0.62 | -0.62 | -0.64 | -0.71 | -0.60 | -0.65 | -0.80 |
| RNY4P7 | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.05 | -2.02 | -2.03 |
| RO60 | 6.57 | 6.71 | 6.52 | 6.50 | 6.75 | 7.37 | 6.82 | 6.94 |
| ROBO1 | 1.80 | 2.60 | 1.12 | 2.44 | 1.25 | 1.25 | 1.35 | 1.34 |
| ROBO2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| ROBO3 | 0.45 | 0.89 | 0.53 | 0.31 | 1.14 | 0.40 | 0.31 | 0.33 |
| ROCK1 | 6.45 | 7.13 | 7.47 | 6.83 | 6.97 | 6.87 | 7.13 | 7.39 |
| ROCK1P1 | -0.88 | -0.80 | -0.94 | -0.89 | -0.70 | -0.93 | -0.82 | -0.97 |
| ROCK2 | 7.38 | 7.46 | 6.71 | 7.02 | 6.59 | 7.61 | 7.24 | 7.15 |
| ROCR | -1.65 | -1.79 | -1.78 | -1.79 | -1.76 | -1.78 | -1.80 | -1.81 |
| ROGDI | 5.89 | 5.71 | 5.14 | 5.52 | 4.46 | 5.64 | 5.02 | 5.02 |
| ROM1 | 1.88 | 1.71 | 1.55 | 1.87 | 1.46 | 1.67 | 1.37 | 1.90 |
| ROMO1 | 10.00 | 9.43 | 9.42 | 9.31 | 9.89 | 9.77 | 9.04 | 9.82 |
| ROPN1B | 0.76 | 0.52 | 0.23 | 0.28 | 0.45 | 0.26 | 0.20 | 0.60 |
| ROPN1L | -1.23 | -1.29 | -1.40 | -1.42 | -1.38 | -1.29 | -1.43 | -1.39 |
| ROR1 | 3.26 | 4.24 | 3.68 | 4.24 | 3.59 | 3.92 | 4.55 | 2.89 |
| ROR1-AS1 | -2.10 | -2.06 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| ROR2 | 0.98 | 0.81 | 0.30 | 0.97 | 0.32 | 0.33 | 0.41 | 0.23 |
| RORA | 3.43 | 2.90 | 3.44 | 3.37 | 3.34 | 3.92 | 3.95 | 3.62 |
| RORA-AS1 | -0.70 | -0.69 | -0.46 | -0.70 | -0.53 | -0.64 | -0.55 | -0.48 |
| RORB | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RORC | 2.71 | 2.40 | 2.05 | 2.80 | 2.54 | 2.36 | 2.47 | 1.83 |
| ROS1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.09 | -2.10 | -2.11 |
| RP1 | 0.78 | 0.75 | 0.70 | 0.70 | 0.48 | 0.65 | 0.45 | 0.84 |
| RP1L1 | -1.45 | -1.38 | -1.43 | -1.45 | -1.41 | -1.40 | -1.45 | -1.47 |
| RP2 | 3.45 | 3.92 | 4.07 | 3.50 | 3.63 | 3.36 | 4.00 | 3.64 |
| RP9 | 6.29 | 5.84 | 5.28 | 5.64 | 5.87 | 5.44 | 4.85 | 5.25 |
| RP9P | 4.93 | 4.41 | 4.45 | 4.43 | 4.43 | 4.26 | 4.00 | 4.05 |
| RPA1 | 5.09 | 4.86 | 5.97 | 4.90 | 4.71 | 5.19 | 5.66 | 5.63 |
| RPA2 | 6.18 | 5.44 | 6.08 | 5.74 | 6.23 | 6.00 | 5.61 | 5.87 |
| RPA3 | 8.62 | 7.49 | 7.35 | 7.59 | 8.48 | 7.76 | 7.18 | 7.66 |
| RPA4 | -0.55 | -0.39 | -0.14 | -0.34 | -0.47 | -0.46 | -0.34 | -0.57 |
| RPAIN | 6.38 | 5.68 | 6.02 | 6.03 | 6.34 | 6.25 | 6.08 | 6.30 |
| RPAP1 | 4.49 | 3.86 | 4.04 | 3.96 | 4.40 | 3.90 | 4.15 | 4.00 |
| RPAP2 | 4.80 | 5.02 | 4.78 | 5.11 | 4.56 | 4.53 | 5.08 | 4.43 |
| RPAP2P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPAP3 | 6.44 | 5.92 | 6.05 | 5.93 | 5.79 | 6.70 | 5.68 | 5.96 |
| RPARP-AS1 | 3.89 | 3.49 | 3.49 | 3.48 | 4.20 | 3.33 | 3.33 | 3.19 |
| RPE | 5.95 | 5.58 | 5.49 | 5.86 | 5.60 | 6.05 | 5.56 | 5.64 |
| RPE65 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPEL1 | -2.01 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.02 | -2.06 |
| RPEP3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPF1 | 6.73 | 6.26 | 5.75 | 6.21 | 6.03 | 6.24 | 5.63 | 5.93 |
| RPF2 | 7.22 | 6.82 | 6.38 | 6.61 | 6.34 | 6.69 | 6.49 | 6.53 |
| RPF2P1 | -1.23 | -1.29 | -1.21 | -1.17 | -1.19 | -1.25 | -1.17 | -1.32 |
| RPGR | 2.54 | 2.36 | 3.20 | 3.23 | 2.85 | 2.87 | 2.72 | 2.23 |
| RPGRIP1 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| RPGRIP1L | 4.71 | 4.73 | 4.53 | 4.73 | 4.48 | 4.77 | 4.28 | 3.93 |
| RPH3AL | 4.48 | 4.41 | 4.49 | 4.16 | 4.39 | 3.94 | 4.23 | 3.63 |
| RPIA | 5.95 | 5.58 | 5.63 | 5.59 | 6.18 | 5.49 | 5.13 | 6.21 |
| RPL10 | 11.22 | 9.80 | 9.79 | 10.03 | 10.88 | 11.14 | 10.17 | 10.77 |
| RPL10A | 9.51 | 10.13 | 8.64 | 10.34 | 9.79 | 9.97 | 9.21 | 10.14 |
| RPL10AP1 | -1.76 | -1.67 | -1.75 | -1.67 | -1.73 | -1.70 | -1.76 | -1.62 |
| RPL10AP2 | 1.55 | 1.79 | 1.43 | 1.96 | 1.56 | 1.78 | 1.33 | 2.15 |
| RPL10AP3 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.09 | -2.10 | -2.11 |
| RPL10AP5 | -1.89 | -1.85 | -1.88 | -1.89 | -1.89 | -1.88 | -1.86 | -1.87 |
| RPL10AP6 | 4.17 | 4.74 | 3.88 | 4.98 | 4.37 | 4.44 | 4.37 | 4.57 |
| RPL10L | -2.20 | -2.20 | -2.19 | -2.16 | -2.20 | -2.19 | -2.20 | -2.21 |
| RPL10P1 | -2.12 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| RPL10P12 | -0.32 | -0.49 | -0.64 | -0.45 | -0.50 | -0.39 | -0.59 | -0.50 |
| RPL10P13 | 0.55 | 0.52 | 0.90 | 0.54 | 0.47 | 0.61 | 0.27 | 0.57 |
| RPL10P14 | -0.56 | -0.70 | -0.69 | -0.64 | -0.52 | -0.58 | -0.71 | -0.32 |
| RPL10P15 | 2.83 | 2.89 | 2.30 | 3.49 | 3.90 | 2.63 | 2.42 | 2.57 |
| RPL10P16 | 4.41 | 3.95 | 3.58 | 4.14 | 4.68 | 4.28 | 3.65 | 3.84 |
| RPL10P17 | -2.01 | -2.04 | -2.04 | -2.05 | -2.01 | -2.04 | -2.05 | -2.03 |
| RPL10P18 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.13 |
| RPL10P19 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.03 |
| RPL10P2 | -1.79 | -1.79 | -1.78 | -1.79 | -1.74 | -1.78 | -1.75 | -1.76 |
| RPL10P3 | 4.00 | 3.72 | 3.55 | 3.58 | 4.32 | 3.88 | 3.35 | 3.84 |
| RPL10P4 | -1.38 | -1.37 | -1.42 | -1.38 | -1.34 | -1.39 | -1.38 | -1.46 |
| RPL10P5 | -1.59 | -1.64 | -1.63 | -1.59 | -1.53 | -1.60 | -1.65 | -1.66 |
| RPL10P6 | 3.86 | 3.98 | 3.15 | 3.76 | 4.44 | 3.62 | 3.39 | 3.74 |
| RPL10P7 | -1.27 | -1.44 | -1.43 | -1.45 | -1.41 | -1.40 | -1.39 | -1.41 |
| RPL10P8 | -0.77 | -0.84 | -0.75 | -0.70 | -0.66 | -0.70 | -0.71 | -0.69 |
| RPL10P9 | 3.95 | 8.53 | 4.05 | 8.75 | 9.65 | 4.38 | 4.31 | 4.15 |
| RPL11 | 11.26 | 11.31 | 10.80 | 11.47 | 12.15 | 11.74 | 11.41 | 11.57 |
| RPL11P3 | 2.93 | 3.21 | 3.06 | 3.02 | 3.51 | 3.21 | 3.86 | 2.98 |
| RPL11P4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| RPL11P5 | 0.73 | 1.10 | 1.02 | 0.93 | 1.04 | 1.03 | 0.92 | 1.09 |
| RPL12 | 11.55 | 11.48 | 9.93 | 11.60 | 11.69 | 11.66 | 10.84 | 11.04 |
| RPL12P1 | -0.70 | -0.62 | -0.75 | -0.56 | -0.66 | -0.61 | -0.71 | -0.79 |
| RPL12P10 | -0.68 | -0.81 | -0.71 | -0.68 | -0.66 | -0.76 | -0.74 | -0.83 |
| RPL12P11 | -1.90 | -1.94 | -1.93 | -1.91 | -1.92 | -1.93 | -1.95 | -1.96 |
| RPL12P12 | -0.57 | -0.90 | -0.89 | -0.63 | -0.80 | -0.75 | -0.91 | -0.86 |
| RPL12P13 | 0.95 | 0.71 | 0.49 | 0.65 | 0.63 | 0.66 | 0.36 | 0.67 |
| RPL12P14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 | -2.15 | -2.13 | -2.16 |
| RPL12P15 | -0.94 | -0.93 | -1.00 | -1.02 | -0.87 | -1.02 | -1.02 | -0.97 |
| RPL12P17 | -1.50 | -1.43 | -1.42 | -1.50 | -1.46 | -1.39 | -1.44 | -1.41 |
| RPL12P18 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL12P19 | -0.69 | -0.75 | -0.65 | -0.68 | -0.56 | -0.63 | -0.63 | -0.66 |
| RPL12P2 | -1.96 | -1.99 | -1.95 | -2.00 | -1.97 | -2.00 | -2.00 | -2.01 |
| RPL12P20 | -1.20 | -1.19 | -1.11 | -1.20 | -1.16 | -1.21 | -0.94 | -1.10 |
| RPL12P21 | -1.39 | -1.38 | -1.37 | -1.39 | -1.45 | -1.43 | -1.40 | -1.42 |
| RPL12P23 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPL12P24 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -2.00 | -2.01 |
| RPL12P25 | -0.82 | -0.81 | -1.03 | -1.05 | -0.96 | -0.85 | -0.92 | -1.06 |
| RPL12P26 | -1.94 | -1.90 | -1.93 | -1.94 | -1.90 | -1.95 | -1.95 | -1.89 |
| RPL12P27 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -1.93 | -2.01 |
| RPL12P29 | -1.48 | -1.48 | -1.52 | -1.43 | -1.48 | -1.46 | -1.43 | -1.56 |

| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RPL12P3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL12P30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL12P31 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RPL12P32 | -2.01 | -2.01 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 |
| RPL12P33 | 0.27 | 0.06 | 0.09 | 0.05 | 0.32 | 0.19 | -0.03 | 0.22 |
| RPL12P35 | -1.79 | -1.74 | -1.78 | -1.79 | -1.79 | -1.75 | -1.80 | -1.81 |
| RPL12P37 | 0.17 | 0.27 | 0.20 | 0.29 | 0.29 | 0.25 | 0.30 | 0.23 |
| RPL12P38 | -0.49 | -0.48 | -0.53 | -0.57 | -0.60 | -0.51 | -0.57 | -0.43 |
| RPL12P4 | 1.40 | 1.24 | 1.08 | 1.28 | 1.40 | 1.42 | 1.33 | 1.38 |
| RPL12P41 | -0.94 | -0.93 | -1.06 | -1.02 | -1.00 | -1.06 | -1.09 | -0.93 |
| RPL12P42 | -1.07 | -1.06 | -1.13 | -1.01 | -0.96 | -1.12 | -1.15 | -1.16 |
| RPL12P43 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 |
| RPL12P47 | 1.69 | 1.57 | 1.50 | 1.76 | 1.69 | 1.54 | 1.39 | 1.43 |
| RPL12P50 | -1.19 | -1.25 | -1.24 | -1.01 | -1.25 | -1.17 | -1.26 | -1.27 |
| RPL12P6 | -1.64 | -1.63 | -1.68 | -1.64 | -1.66 | -1.70 | -1.59 | -1.66 |
| RPL12P7 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.21 |
| RPL12P8 | -0.79 | -0.86 | -0.93 | -0.80 | -0.86 | -0.79 | -0.80 | -0.90 |
| RPL13 | 11.24 | 11.67 | 10.48 | 11.75 | 12.04 | 11.34 | 10.82 | 11.28 |
| RPL13A | 11.19 | 11.88 | 10.17 | 12.06 | 12.47 | 11.35 | 10.85 | 11.35 |
| RPL13AP | -2.15 | -2.12 | -2.14 | -2.15 | -2.12 | -2.13 | -2.15 | -2.16 |
| RPL13AP19 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| RPL13AP2 | -0.18 | -0.10 | -0.32 | -0.34 | -0.04 | -0.22 | -0.20 | -0.30 |
| RPL13AP20 | 1.87 | 1.83 | 2.42 | 2.09 | 2.48 | 2.21 | 1.90 | 2.14 |
| RPL13AP23 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| RPL13AP25 | 4.84 | 5.02 | 3.96 | 5.28 | 5.83 | 4.59 | 4.44 | 5.00 |
| RPL13AP3 | 0.04 | 0.06 | 0.01 | 0.29 | 0.06 | 0.04 | 0.17 | 0.05 |
| RPL13AP5 | 4.22 | 4.85 | 3.61 | 4.72 | 5.66 | 4.56 | 3.90 | 4.47 |
| RPL13AP6 | 1.01 | 1.10 | 0.93 | 0.92 | 1.38 | 0.89 | 1.03 | 0.71 |
| RPL13AP7 | 1.95 | 1.86 | 1.48 | 2.04 | 2.33 | 1.86 | 1.72 | 1.68 |
| RPL13P | -2.15 | -2.15 | -2.14 | -2.12 | -2.12 | -2.14 | -2.15 | -2.16 |
| RPL13P12 | 5.96 | 6.36 | 5.30 | 6.46 | 6.82 | 6.21 | 5.86 | 6.22 |
| RPL13P2 | -0.45 | -0.36 | -0.56 | -0.40 | -0.63 | -0.64 | -0.60 | -0.46 |
| RPL13P4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL13P5 | 1.68 | 1.66 | 1.59 | 1.70 | 1.32 | 1.59 | 1.64 | 1.56 |
| RPL13P6 | -1.54 | -1.54 | -1.53 | -1.33 | -1.59 | -1.61 | -1.60 | -1.57 |
| RPL14 | 10.16 | 10.49 | 8.89 | 10.64 | 10.76 | 10.27 | 9.92 | 10.05 |
| RPL14P1 | 2.91 | 3.19 | 2.44 | 3.25 | 3.05 | 3.04 | 2.64 | 2.85 |
| RPL14P3 | -0.93 | -0.77 | -0.99 | -0.80 | -0.96 | -0.88 | -0.94 | -0.75 |
| RPL15 | 11.44 | 11.20 | 10.24 | 11.40 | 11.93 | 11.38 | 10.51 | 10.83 |
| RPL15P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.18 | -2.20 | -2.21 |
| RPL15P13 | -1.86 | -1.90 | -1.89 | -1.95 | -1.92 | -1.91 | -1.95 | -1.96 |
| RPL15P14 | 1.08 | 0.99 | 0.70 | 0.89 | 1.26 | 1.08 | 0.94 | 0.97 |
| RPL15P18 | -0.48 | -0.67 | -0.65 | -0.68 | -0.67 | -0.66 | -0.76 | -0.65 |
| RPL15P2 | -0.83 | -0.90 | -0.88 | -0.62 | -0.74 | -0.69 | -0.83 | -0.80 |
| RPL15P20 | -1.96 | -1.99 | -1.98 | -1.96 | -1.97 | -1.98 | -2.00 | -2.01 |
| RPL15P21 | -2.10 | -2.07 | -2.09 | -2.04 | -2.08 | -2.10 | -2.10 | -2.11 |
| RPL15P3 | 2.37 | 2.22 | 1.92 | 2.30 | 2.55 | 2.36 | 2.17 | 2.06 |
| RPL17 | 2.13 | 1.63 | 1.78 | 1.79 | 1.97 | 1.55 | 1.77 | 1.79 |
| RPL17-C18orf32 | -1.74 | -1.74 | -1.73 | -1.69 | -1.74 | -1.70 | -1.75 | -1.71 |
| RPL17P1 | -2.20 | -2.17 | -2.17 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| RPL17P10 | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.93 | -1.95 | -1.92 |
| RPL17P11 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| RPL17P17 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL17P19 | -2.15 | -2.15 | -2.14 | -2.09 | -2.15 | -2.14 | -2.15 | -2.16 |
| RPL17P20 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RPL17P22 | -0.03 | -0.08 | -0.23 | -0.04 | -0.05 | -0.10 | -0.11 | -0.21 |
| RPL17P25 | -1.38 | -1.37 | -1.30 | -1.38 | -1.37 | -1.39 | -1.39 | -1.41 |
| RPL17P26 | -1.75 | -1.74 | -1.73 | -1.75 | -1.72 | -1.75 | -1.70 | -1.77 |
| RPL17P3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL17P33 | -1.49 | -1.36 | -1.47 | -1.31 | -1.45 | -1.44 | -1.43 | -1.51 |
| RPL17P34 | 0.97 | 0.99 | 0.67 | 0.89 | 1.07 | 0.76 | 0.60 | 0.56 |
| RPL17P36 | 2.23 | 2.40 | 1.95 | 2.32 | 2.77 | 2.26 | 2.35 | 1.92 |
| RPL17P37 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| RPL17P40 | -1.69 | -1.69 | -1.68 | -1.74 | -1.69 | -1.75 | -1.75 | -1.71 |
| RPL17P41 | -1.49 | -1.48 | -1.42 | -1.44 | -1.46 | -1.47 | -1.49 | -1.51 |
| RPL17P43 | -1.85 | -1.89 | -1.88 | -1.85 | -1.85 | -1.88 | -1.90 | -1.91 |
| RPL17P44 | -1.44 | -1.44 | -1.43 | -1.45 | -1.41 | -1.45 | -1.14 | -1.46 |
| RPL17P50 | 1.91 | 2.02 | 2.56 | 2.23 | 2.26 | 2.01 | 2.52 | 1.69 |
| RPL17P51 | -1.59 | -1.59 | -1.63 | -1.65 | -1.61 | -1.63 | -1.65 | -1.67 |
| RPL18 | 11.02 | 11.14 | 10.22 | 11.30 | 11.96 | 10.97 | 10.81 | 10.83 |
| RPL18A | 10.22 | 11.11 | 9.55 | 11.27 | 11.78 | 10.77 | 10.18 | 10.41 |
| RPL18AP15 | 1.20 | 1.32 | 1.12 | 1.76 | 1.97 | 1.45 | 1.13 | 1.43 |
| RPL18AP16 | 0.30 | 0.17 | 0.18 | 0.41 | 0.49 | 0.37 | 0.28 | 0.17 |
| RPL18AP17 | -2.36 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 |
| RPL18AP3 | 4.43 | 5.48 | 4.36 | 5.69 | 6.20 | 5.18 | 4.85 | 5.06 |
| RPL18AP7 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.19 | -2.18 | -2.21 |
| RPL18AP8 | -1.89 | -1.89 | -1.88 | -1.90 | -1.80 | -1.86 | -1.90 | -1.91 |
| RPL18P10 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL18P11 | 2.28 | 1.84 | 1.61 | 2.30 | 2.45 | 2.27 | 2.12 | 1.99 |
| RPL18P13 | 0.99 | 0.99 | 0.64 | 1.11 | 1.10 | 0.96 | 0.92 | 0.85 |
| RPL19 | 11.81 | 11.96 | 11.28 | 12.06 | 12.51 | 12.02 | 11.27 | 11.75 |
| RPL19P11 | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.75 | -1.70 | -1.76 |
| RPL19P13 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| RPL19P14 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPL19P16 | 0.06 | -0.07 | -0.14 | 0.05 | 0.13 | 0.16 | -0.17 | 0.09 |
| RPL19P20 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPL19P21 | -0.99 | -0.90 | -1.04 | -0.98 | -0.90 | -0.97 | -0.99 | -0.90 |
| RPL21 | 9.83 | 10.79 | 9.43 | 10.90 | 11.59 | 10.05 | 9.71 | 11.16 |
| RPL21P1 | 1.48 | 1.63 | 1.48 | 1.99 | 1.93 | 1.50 | 1.49 | 1.82 |
| RPL21P10 | 0.75 | 0.90 | 1.07 | 0.87 | 0.97 | 0.82 | 1.02 | 0.77 |
| RPL21P104 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL21P106 | -1.59 | -1.68 | -1.68 | -1.64 | -1.59 | -1.67 | -1.69 | -1.66 |
| RPL21P107 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -1.97 | -1.99 | -1.92 |
| RPL21P108 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| RPL21P109 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL21P11 | -0.66 | -0.80 | -0.78 | -0.73 | -0.50 | -0.67 | -0.80 | -0.64 |
| RPL21P110 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.17 |
| RPL21P111 | -1.64 | -1.48 | -1.63 | -1.65 | -1.51 | -1.63 | -1.65 | -1.61 |
| RPL21P112 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RPL21P116 | 0.73 | 1.07 | 0.71 | 1.00 | 1.23 | 0.82 | 0.65 | 1.11 |
| RPL21P119 | 2.24 | 2.95 | 2.77 | 3.30 | 3.78 | 2.58 | 2.55 | 3.32 |
| RPL21P12 | -2.04 | -2.04 | -2.01 | -2.05 | -2.01 | -2.04 | -2.02 | -2.00 |
| RPL21P120 | 0.43 | 0.66 | 0.30 | 0.74 | 0.97 | 0.54 | 0.47 | 0.53 |
| RPL21P121 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RPL21P123 | -1.94 | -1.94 | -1.93 | -1.94 | -1.88 | -1.91 | -1.91 | -1.96 |
| RPL21P126 | -2.18 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 | -2.20 | -2.21 |
| RPL21P127 | -2.01 | -2.04 | -2.01 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| RPL21P129 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.06 |
| RPL21P13 | -1.26 | -1.18 | -1.17 | -1.19 | -1.04 | -1.20 | -1.20 | -1.22 |
| RPL21P131 | -0.54 | -0.45 | -0.43 | -0.47 | -0.19 | -0.27 | -0.34 | -0.33 |
| RPL21P132 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| RPL21P133 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 |
| RPL21P134 | -0.61 | -0.31 | -0.59 | -0.46 | -0.45 | -0.48 | -0.34 | -0.09 |
| RPL21P135 | 0.31 | 0.32 | 0.09 | 0.35 | 0.57 | 0.19 | 0.06 | 0.43 |
| RPL21P136 | -2.10 | -2.09 | -2.09 | -2.10 | -2.05 | -2.10 | -2.10 | -2.08 |
| RPL21P16 | 0.09 | 0.23 | 0.03 | 0.33 | 0.44 | 0.16 | 0.15 | 0.26 |
| RPL21P17 | -1.06 | -1.05 | -1.04 | -1.06 | -0.80 | -1.03 | -0.99 | -0.76 |
| RPL21P18 | 2.45 | 2.61 | 2.21 | 2.90 | 3.30 | 2.49 | 2.59 | 3.12 |
| RPL21P2 | -1.65 | -1.59 | -1.63 | -1.65 | -1.54 | -1.60 | -1.60 | -1.57 |
| RPL21P23 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPL21P24 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL21P28 | 0.43 | 0.45 | 0.22 | 0.42 | 0.88 | 0.46 | 0.19 | 0.67 |
| RPL21P3 | -1.55 | -1.55 | -1.54 | -1.55 | -1.52 | -1.56 | -1.39 | -1.48 |
| RPL21P32 | -0.93 | -0.92 | -0.98 | -0.81 | -1.00 | -1.09 | -1.01 | -0.98 |
| RPL21P38 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL21P39 | 0.41 | 0.35 | 0.70 | 0.48 | 0.90 | 0.39 | 0.33 | 0.52 |
| RPL21P4 | 2.46 | 2.49 | 2.34 | 3.07 | 2.99 | 2.21 | 2.22 | 2.98 |
| RPL21P40 | 1.25 | 1.73 | 1.17 | 1.45 | 2.02 | 1.53 | 1.54 | 1.71 |
| RPL21P41 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 |
| RPL21P42 | -1.69 | -1.69 | -1.68 | -1.65 | -1.59 | -1.68 | -1.70 | -1.62 |
| RPL21P43 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RPL21P44 | -0.39 | -0.07 | -0.15 | -0.31 | -0.27 | -0.33 | -0.01 | -0.23 |
| RPL21P5 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.06 |
| RPL21P50 | -2.10 | -2.07 | -2.09 | -2.07 | -2.07 | -2.09 | -2.10 | -2.08 |
| RPL21P65 | -2.20 | -2.18 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| RPL21P67 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| RPL21P7 | -0.73 | -0.42 | -0.71 | -0.33 | -0.58 | -0.55 | -0.66 | -0.69 |
| RPL21P71 | -1.52 | -1.51 | -1.50 | -1.41 | -1.49 | -1.50 | -1.47 | -1.39 |
| RPL21P75 | 1.46 | 1.91 | 1.36 | 1.88 | 2.12 | 1.59 | 1.21 | 2.05 |
| RPL21P8 | -1.89 | -1.89 | -1.84 | -1.89 | -1.85 | -1.88 | -1.86 | -1.80 |
| RPL21P88 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| RPL21P89 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RPL21P90 | -1.31 | -1.30 | -1.29 | -1.18 | -1.24 | -1.26 | -1.06 | -1.33 |
| RPL21P91 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL21P92 | -1.44 | -1.44 | -1.49 | -1.45 | -1.35 | -1.43 | -1.51 | -1.41 |
| RPL21P93 | 0.27 | 0.41 | -0.07 | 0.32 | 0.25 | 0.00 | -0.02 | 0.06 |
| RPL21P99 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL22 | 7.57 | 7.42 | 7.10 | 7.52 | 8.21 | 7.66 | 7.66 | 7.50 |
| RPL22L1 | 7.01 | 9.51 | 7.02 | 9.74 | 7.29 | 6.86 | 6.91 | 7.49 |
| RPL22P1 | 3.32 | 3.32 | 3.25 | 3.29 | 4.04 | 3.91 | 3.48 | 3.83 |
| RPL22P10 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| RPL22P11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL22P13 | -1.56 | -1.39 | -1.55 | -1.45 | -1.53 | -1.54 | -1.57 | -1.58 |
| RPL22P14 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RPL22P16 | -0.36 | -0.35 | -0.50 | -0.31 | -0.22 | -0.33 | -0.52 | -0.53 |
| RPL22P17 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| RPL22P18 | -1.91 | -1.94 | -1.93 | -1.91 | -1.92 | -1.95 | -1.95 | -1.96 |
| RPL22P19 | -2.04 | -2.04 | -2.04 | -1.96 | -2.03 | -2.04 | -2.05 | -2.06 |
| RPL22P2 | 1.48 | 1.45 | 1.43 | 1.46 | 1.66 | 1.61 | 1.62 | 1.62 |
| RPL22P20 | -1.74 | -1.74 | -1.68 | -1.74 | -1.71 | -1.70 | -1.70 | -1.76 |
| RPL22P22 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.03 |
| RPL22P23 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 |
| RPL22P24 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.17 |
| RPL22P3 | -0.90 | -1.03 | -0.94 | -1.04 | -0.82 | -0.95 | -0.97 | -0.99 |
| RPL22P7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RPL22P8 | -1.85 | -1.89 | -1.88 | -1.86 | -1.87 | -1.90 | -1.89 | -1.87 |
| RPL23 | 10.70 | 11.25 | 10.16 | 11.38 | 11.54 | 10.83 | 10.41 | 10.81 |
| RPL23A | 11.18 | 11.26 | 10.22 | 11.53 | 12.17 | 11.38 | 10.20 | 10.58 |
| RPL23AP11 | -1.99 | -1.99 | -1.98 | -1.96 | -1.94 | -1.97 | -1.96 | -2.01 |
| RPL23AP12 | -1.08 | -0.85 | -0.98 | -1.08 | -0.88 | -0.89 | -0.94 | -1.09 |
| RPL23AP14 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RPL23AP15 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.23 |
| RPL23AP16 | -2.10 | -2.09 | -2.06 | -2.10 | -2.05 | -2.10 | -2.10 | -2.08 |
| RPL23AP18 | 2.08 | 2.18 | 1.77 | 2.50 | 2.56 | 2.24 | 2.39 | 2.40 |
| RPL23AP19 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPL23AP2 | 4.14 | 4.32 | 3.41 | 4.29 | 4.70 | 4.10 | 3.51 | 3.10 |
| RPL23AP25 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RPL23AP26 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPL23AP27 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 |
| RPL23AP28 | -2.04 | -2.04 | -2.04 | -2.05 | -2.01 | -2.02 | -2.02 | -2.06 |
| RPL23AP3 | -1.55 | -1.59 | -1.53 | -1.55 | -1.57 | -1.53 | -1.60 | -1.52 |
| RPL23AP31 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.05 |
| RPL23AP32 | -0.43 | -0.50 | -0.16 | -0.36 | -0.23 | -0.15 | -0.51 | -0.47 |
| RPL23AP34 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| RPL23AP35 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -2.01 |
| RPL23AP37 | -0.77 | -0.83 | -0.90 | -0.77 | -0.69 | -0.76 | -0.85 | -0.93 |
| RPL23AP38 | -0.65 | -0.34 | -0.64 | -0.44 | -0.50 | -0.53 | -0.52 | -0.61 |
| RPL23AP41 | -1.59 | -1.54 | -1.63 | -1.65 | -1.59 | -1.60 | -1.65 | -1.52 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| RPL23AP42 | 6.27 | 6.50 | 5.54 | 6.68 | 7.48 | 6.67 | 5.51 | 5.67 |
| RPL23AP43 | 0.03 | -0.04 | -0.11 | 0.15 | 0.26 | 0.28 | -0.06 | -0.10 |
| RPL23AP44 | -1.90 | -1.94 | -1.93 | -1.94 | -1.88 | -1.93 | -1.95 | -1.96 |
| RPL23AP46 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| RPL23AP48 | -2.13 | -2.14 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.16 |
| RPL23AP49 | 0.57 | 0.58 | 0.51 | 0.55 | 0.66 | 0.49 | 0.89 | 0.63 |
| RPL23AP52 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| RPL23AP53 | 2.23 | 2.22 | 2.39 | 2.05 | 2.47 | 2.67 | 2.45 | 2.08 |
| RPL23AP54 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL23AP55 | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.80 | -1.79 | -1.76 |
| RPL23AP57 | 0.18 | 0.25 | 0.04 | 0.17 | 0.42 | 0.31 | 0.21 | 0.17 |
| RPL23AP58 | -1.31 | -1.36 | -1.35 | -1.37 | -1.30 | -1.26 | -1.38 | -1.39 |
| RPL23AP59 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -1.97 |
| RPL23AP6 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPL23AP61 | -1.43 | -1.37 | -1.48 | -1.44 | -1.40 | -1.44 | -1.50 | -1.46 |
| RPL23AP64 | -1.51 | -1.44 | -1.43 | -1.45 | -1.41 | -1.49 | -1.51 | -1.36 |
| RPL23AP65 | 2.74 | 2.52 | 2.29 | 2.75 | 3.26 | 2.72 | 2.51 | 2.28 |
| RPL23AP69 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPL23AP7 | -0.48 | -0.47 | -0.54 | -0.37 | -0.47 | -0.53 | -0.29 | -0.46 |
| RPL23AP71 | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| RPL23AP72 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL23AP73 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL23AP74 | 2.34 | 2.38 | 2.00 | 2.50 | 2.97 | 2.53 | 2.52 | 3.22 |
| RPL23AP75 | -0.48 | -0.60 | -0.74 | -0.69 | -0.57 | -0.60 | -0.69 | -0.60 |
| RPL23AP77 | -1.80 | -1.79 | -1.83 | -1.84 | -1.77 | -1.83 | -1.80 | -1.86 |
| RPL23AP78 | -1.26 | -1.31 | -1.30 | -1.20 | -1.19 | -1.30 | -1.26 | -1.34 |
| RPL23AP8 | -1.84 | -1.84 | -1.79 | -1.84 | -1.82 | -1.77 | -1.84 | -1.82 |
| RPL23AP82 | 3.04 | 3.58 | 2.49 | 3.73 | 2.97 | 2.58 | 3.24 | 2.55 |
| RPL23AP83 | -1.90 | -1.94 | -1.89 | -1.95 | -1.88 | -1.95 | -1.95 | -1.96 |
| RPL23AP87 | -1.38 | -1.38 | -1.37 | -1.27 | -1.38 | -1.31 | -1.39 | -1.20 |
| RPL23AP89 | -1.22 | -1.14 | -1.13 | -1.09 | -1.07 | -1.07 | -1.15 | -1.23 |
| RPL23AP91 | -2.25 | -2.21 | -2.25 | -2.23 | -2.24 | -2.26 | -2.25 | -2.26 |
| RPL23AP93 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL23AP95 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPL23AP96 | -1.75 | -1.79 | -1.78 | -1.79 | -1.72 | -1.80 | -1.79 | -1.81 |
| RPL23AP97 | -1.22 | -1.36 | -1.28 | -1.30 | -1.25 | -1.32 | -1.38 | -1.33 |
| RPL23P10 | -0.67 | -0.58 | -0.56 | -0.60 | -0.58 | -0.62 | -0.67 | -0.70 |
| RPL23P11 | -1.69 | -1.63 | -1.68 | -1.64 | -1.66 | -1.65 | -1.69 | -1.66 |
| RPL23P2 | -0.31 | -0.31 | -0.42 | -0.15 | -0.27 | -0.44 | -0.54 | -0.38 |
| RPL23P4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.17 | -2.18 | -2.20 | -2.21 |
| RPL23P8 | 0.79 | 0.68 | 0.46 | 0.77 | 0.68 | 0.75 | 0.57 | 0.73 |
| RPL24 | 10.57 | 9.89 | 9.43 | 10.17 | 11.30 | 10.78 | 10.44 | 11.55 |
| RPL24P2 | 1.81 | 1.98 | 1.66 | 2.03 | 2.61 | 2.26 | 1.71 | 2.67 |
| RPL24P4 | 2.41 | 2.29 | 2.01 | 2.27 | 3.03 | 2.51 | 2.08 | 2.81 |
| RPL24P7 | -0.52 | -0.49 | -0.64 | -0.58 | -0.50 | -0.57 | -0.46 | -0.39 |
| RPL24P8 | 3.42 | 2.99 | 2.93 | 3.48 | 4.30 | 3.64 | 3.58 | 4.12 |
| RPL26 | 10.60 | 10.76 | 10.03 | 10.97 | 11.40 | 10.95 | 10.86 | 10.93 |
| RPL26L1 | 6.48 | 6.55 | 6.42 | 6.94 | 7.18 | 6.82 | 6.43 | 6.58 |
| RPL26P19 | 1.42 | 1.44 | 1.11 | 1.50 | 1.65 | 1.40 | 1.37 | 1.27 |
| RPL26P27 | -1.38 | -1.49 | -1.48 | -1.38 | -1.43 | -1.47 | -1.38 | -1.46 |
| RPL26P28 | -2.24 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPL26P3 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.91 | -1.88 |
| RPL26P30 | 0.61 | 0.40 | 0.51 | 0.56 | 0.31 | 0.40 | 0.49 | 0.62 |
| RPL26P35 | -1.06 | -1.05 | -1.04 | -0.92 | -1.02 | -1.04 | -0.92 | -0.91 |
| RPL26P37 | -0.27 | -0.33 | -0.48 | -0.35 | -0.26 | -0.33 | -0.29 | -0.29 |
| RPL26P6 | 1.83 | 1.93 | 1.55 | 1.92 | 2.28 | 1.99 | 2.19 | 2.05 |
| RPL26P9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL27 | 10.54 | 11.38 | 10.57 | 11.51 | 11.80 | 11.38 | 10.82 | 11.28 |
| RPL27A | 10.77 | 11.33 | 10.23 | 11.53 | 11.88 | 10.90 | 10.64 | 11.05 |
| RPL27AP | -0.21 | -0.14 | -0.36 | -0.22 | -0.14 | -0.25 | -0.30 | -0.40 |
| RPL27AP5 | 0.00 | 0.00 | -0.04 | -0.01 | 0.22 | -0.01 | -0.03 | -0.01 |
| RPL27AP8 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.16 |
| RPL28 | 10.88 | 11.77 | 10.51 | 11.70 | 12.52 | 11.31 | 10.93 | 11.07 |
| RPL29 | 10.87 | 10.96 | 9.47 | 11.33 | 11.12 | 10.58 | 10.32 | 10.26 |
| RPL29P11 | -0.10 | -0.16 | -0.23 | -0.08 | -0.13 | -0.14 | -0.26 | -0.22 |
| RPL29P12 | -1.40 | -1.45 | -1.50 | -1.46 | -1.48 | -1.38 | -1.52 | -1.43 |
| RPL29P14 | -1.34 | -1.33 | -1.26 | -1.22 | -1.33 | -1.29 | -1.21 | -1.21 |
| RPL29P19 | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| RPL29P2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL29P22 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL29P24 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| RPL29P25 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RPL29P28 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RPL29P3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RPL29P30 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RPL29P33 | -1.84 | -1.75 | -1.79 | -1.84 | -1.82 | -1.85 | -1.85 | -1.86 |
| RPL29P7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL3 | 10.26 | 10.97 | 9.78 | 11.32 | 11.13 | 10.87 | 10.49 | 10.96 |
| RPL30 | 11.29 | 11.38 | 10.83 | 11.55 | 12.23 | 11.85 | 10.69 | 12.12 |
| RPL30P11 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| RPL30P12 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL30P13 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.13 |
| RPL30P14 | 0.36 | 0.70 | 0.16 | 0.40 | 0.50 | 0.41 | 0.20 | 0.57 |
| RPL30P15 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RPL30P3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.17 | -2.20 | -2.21 |
| RPL30P4 | 3.37 | 3.19 | 2.75 | 3.37 | 4.12 | 3.81 | 2.97 | 3.89 |
| RPL30P7 | -1.08 | -1.07 | -1.13 | -1.15 | -1.08 | -1.03 | -1.09 | -1.06 |
| RPL31 | 11.78 | 12.11 | 10.52 | 12.22 | 12.71 | 11.72 | 11.45 | 11.70 |
| RPL31P11 | 0.88 | 0.99 | 0.79 | 0.96 | 1.20 | 1.10 | 0.81 | 0.97 |
| RPL31P12 | -2.04 | -2.04 | -2.04 | -1.98 | -2.03 | -2.05 | -2.05 | -2.03 |
| RPL31P2 | 2.29 | 2.07 | 1.89 | 2.21 | 2.54 | 1.90 | 1.94 | 2.07 |
| RPL31P28 | -1.33 | -1.39 | -1.44 | -1.28 | -1.42 | -1.32 | -1.46 | -1.48 |
| RPL31P3 | -2.10 | -2.09 | -2.09 | -2.10 | -2.05 | -2.07 | -2.10 | -2.11 |
| RPL31P35 | -0.36 | -0.12 | -0.42 | -0.10 | -0.20 | -0.35 | -0.37 | -0.40 |

| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RPL31P44 | -0.89 | -0.97 | -1.03 | -0.98 | -0.89 | -0.99 | -0.98 | -0.89 |
| RPL31P45 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RPL31P49 | 1.12 | 0.88 | 0.91 | 1.10 | 1.25 | 1.07 | 0.84 | 1.20 |
| RPL31P50 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| RPL31P52 | -1.94 | -1.94 | -1.93 | -1.91 | -1.94 | -1.91 | -1.91 | -1.96 |
| RPL31P56 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL31P57 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RPL31P58 | -1.12 | -0.97 | -1.10 | -1.06 | -1.01 | -1.06 | -0.93 | -1.14 |
| RPL31P59 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| RPL31P61 | -1.12 | -0.96 | -0.95 | -0.98 | -1.08 | -1.09 | -1.13 | -1.02 |
| RPL31P63 | 1.74 | 2.15 | 1.43 | 2.10 | 2.15 | 1.64 | 1.85 | 1.71 |
| RPL31P7 | -1.04 | -0.88 | -0.95 | -1.05 | -0.93 | -0.92 | -0.98 | -1.00 |
| RPL31P9 | -1.89 | -1.89 | -1.88 | -1.85 | -1.79 | -1.90 | -1.89 | -1.83 |
| RPL32 | 11.68 | 11.93 | 10.37 | 12.03 | 12.05 | 11.50 | 11.08 | 11.14 |
| RPL32P1 | -2.36 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL32P26 | -1.79 | -1.79 | -1.73 | -1.70 | -1.76 | -1.80 | -1.80 | -1.81 |
| RPL32P28 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPL32P3 | 3.75 | 3.25 | 4.24 | 3.40 | 3.40 | 3.76 | 4.08 | 4.42 |
| RPL32P31 | -1.59 | -1.64 | -1.63 | -1.59 | -1.61 | -1.65 | -1.59 | -1.61 |
| RPL32P33 | -2.04 | -2.01 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.06 |
| RPL32P34 | -2.15 | -2.10 | -2.14 | -2.12 | -2.13 | -2.14 | -2.15 | -2.16 |
| RPL32P9 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| RPL34 | 10.59 | 11.70 | 10.27 | 11.93 | 11.49 | 11.26 | 11.13 | 11.36 |
| RPL34-AS1 | -1.69 | -1.69 | -1.68 | -1.69 | -1.71 | -1.73 | -1.70 | -1.76 |
| RPL34P1 | 0.04 | 0.13 | -0.02 | 0.25 | 0.12 | 0.18 | 0.18 | 0.12 |
| RPL34P17 | -2.04 | -2.01 | -2.04 | -1.99 | -2.04 | -2.05 | -2.05 | -2.03 |
| RPL34P18 | 1.83 | 2.61 | 1.94 | 2.76 | 2.49 | 2.50 | 2.10 | 2.20 |
| RPL34P20 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RPL34P21 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL34P22 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |
| RPL34P23 | -1.79 | -1.74 | -1.78 | -1.75 | -1.76 | -1.80 | -1.79 | -1.72 |
| RPL34P26 | -0.87 | -0.87 | -0.85 | -0.66 | -0.79 | -0.78 | -0.88 | -0.77 |
| RPL34P27 | 3.17 | 4.10 | 3.11 | 4.26 | 3.58 | 3.63 | 3.42 | 3.82 |
| RPL34P29 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RPL34P3 | -1.74 | -1.79 | -1.78 | -1.80 | -1.74 | -1.78 | -1.80 | -1.81 |
| RPL34P31 | 0.07 | 0.08 | 0.01 | 0.26 | 0.26 | 0.32 | 0.18 | 0.09 |
| RPL34P33 | -0.75 | -0.74 | -0.80 | -0.69 | -0.74 | -0.83 | -0.68 | -0.84 |
| RPL34P34 | 1.22 | 1.80 | 1.33 | 1.71 | 1.61 | 1.55 | 1.45 | 1.46 |
| RPL34P6 | 0.91 | 1.25 | 0.90 | 0.90 | 1.07 | 0.89 | 1.13 | 0.93 |
| RPL35 | 12.20 | 12.24 | 11.03 | 12.31 | 11.95 | 12.06 | 11.37 | 11.62 |
| RPL35A | 11.68 | 11.80 | 10.71 | 11.92 | 12.17 | 11.56 | 11.10 | 12.12 |
| RPL35AP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RPL35AP12 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| RPL35AP15 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPL35AP19 | -1.69 | -1.68 | -1.68 | -1.64 | -1.66 | -1.67 | -1.64 | -1.71 |
| RPL35AP21 | 2.05 | 2.35 | 1.99 | 2.13 | 2.44 | 1.97 | 1.83 | 2.61 |
| RPL35AP25 | -1.64 | -1.58 | -1.63 | -1.59 | -1.61 | -1.60 | -1.65 | -1.61 |
| RPL35AP26 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| RPL35AP28 | -1.54 | -1.54 | -1.47 | -1.55 | -1.46 | -1.50 | -1.55 | -1.46 |
| RPL35AP3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.18 | -2.20 | -2.19 |
| RPL35AP30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPL35AP31 | -0.07 | 0.08 | -0.13 | 0.20 | -0.06 | 0.04 | -0.16 | 0.21 |
| RPL35AP32 | 0.58 | 0.59 | 0.55 | 0.62 | 0.72 | 0.59 | 0.68 | 0.82 |
| RPL35AP33 | -2.01 | -2.04 | -2.04 | -1.99 | -2.00 | -2.05 | -2.05 | -2.03 |
| RPL35AP35 | 1.89 | 1.96 | 1.68 | 2.21 | 2.00 | 1.86 | 1.58 | 2.19 |
| RPL35AP4 | -1.41 | -1.34 | -1.39 | -1.16 | -1.31 | -1.33 | -1.35 | -1.43 |
| RPL35P1 | 0.00 | -0.19 | -0.24 | -0.14 | -0.16 | -0.29 | -0.35 | -0.31 |
| RPL35P2 | 2.56 | 2.78 | 2.13 | 2.65 | 2.44 | 2.55 | 2.13 | 2.53 |
| RPL35P3 | -1.59 | -1.58 | -1.63 | -1.64 | -1.63 | -1.60 | -1.59 | -1.66 |
| RPL35P4 | -0.66 | -0.50 | -0.64 | -0.58 | -0.54 | -0.47 | -0.59 | -0.45 |
| RPL35P5 | 3.73 | 3.59 | 3.05 | 3.92 | 3.41 | 3.68 | 3.28 | 3.18 |
| RPL35P6 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| RPL35P8 | -1.43 | -1.48 | -1.53 | -1.49 | -1.51 | -1.39 | -1.55 | -1.56 |
| RPL35P9 | -1.25 | -1.31 | -1.30 | -1.32 | -1.25 | -1.27 | -1.33 | -1.34 |
| RPL36 | 10.45 | 11.62 | 10.16 | 11.68 | 11.69 | 11.23 | 10.79 | 10.66 |
| RPL36A | 9.84 | 10.28 | 9.32 | 10.30 | 10.74 | 9.90 | 9.49 | 9.41 |
| RPL36A-HNRNPH2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL36AL | 8.96 | 9.99 | 8.99 | 9.99 | 10.32 | 9.89 | 9.52 | 9.25 |
| RPL36AP10 | -1.89 | -1.89 | -1.88 | -1.85 | -1.87 | -1.86 | -1.86 | -1.91 |
| RPL36AP13 | 1.28 | 1.61 | 1.11 | 1.59 | 1.37 | 1.31 | 1.05 | 1.20 |
| RPL36AP15 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 |
| RPL36AP21 | -0.46 | -0.61 | -0.60 | -0.47 | -0.49 | -0.49 | -0.55 | -0.64 |
| RPL36AP26 | 0.69 | 0.63 | 0.67 | 0.54 | 0.77 | 0.67 | 0.67 | 0.48 |
| RPL36AP33 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -1.98 | -1.90 | -2.01 |
| RPL36AP36 | -1.79 | -1.79 | -1.78 | -1.79 | -1.72 | -1.78 | -1.75 | -1.81 |
| RPL36AP39 | -0.91 | -0.98 | -0.89 | -0.84 | -0.84 | -0.83 | -0.99 | -0.88 |
| RPL36AP40 | -1.69 | -1.68 | -1.68 | -1.64 | -1.66 | -1.67 | -1.64 | -1.66 |
| RPL36AP41 | -1.79 | -1.78 | -1.78 | -1.79 | -1.74 | -1.75 | -1.75 | -1.81 |
| RPL36AP43 | -1.74 | -1.79 | -1.78 | -1.70 | -1.76 | -1.78 | -1.75 | -1.76 |
| RPL36AP45 | -1.69 | -1.69 | -1.68 | -1.70 | -1.66 | -1.68 | -1.70 | -1.71 |
| RPL36AP48 | -1.29 | -1.35 | -1.34 | -1.24 | -1.29 | -1.28 | -1.30 | -1.27 |
| RPL36AP51 | -1.64 | -1.58 | -1.58 | -1.54 | -1.56 | -1.60 | -1.65 | -1.66 |
| RPL36AP53 | -1.74 | -1.73 | -1.73 | -1.65 | -1.69 | -1.72 | -1.65 | -1.71 |
| RPL36AP55 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL36AP6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RPL36P16 | -0.35 | -0.05 | -0.33 | -0.27 | -0.07 | -0.08 | -0.13 | -0.25 |
| RPL36P18 | -2.18 | -2.17 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| RPL36P2 | -1.91 | -1.94 | -1.93 | -1.87 | -1.92 | -1.95 | -1.91 | -1.96 |
| RPL36P20 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPL36P4 | 0.80 | 1.51 | 0.94 | 1.07 | 1.32 | 1.21 | 1.11 | 0.93 |
| RPL37 | 11.17 | 11.45 | 10.35 | 11.59 | 12.03 | 11.09 | 10.71 | 11.49 |
| RPL37A | 11.69 | 11.90 | 10.78 | 12.03 | 12.24 | 11.99 | 11.16 | 11.75 |
| RPL37AP1 | 2.17 | 2.42 | 1.88 | 2.24 | 2.61 | 2.48 | 2.28 | 2.26 |
| RPL37AP8 | 0.63 | 0.36 | 0.47 | 0.80 | 0.82 | 0.57 | 0.47 | 0.35 |

| | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| RPL37P1 | -0.34 | -0.49 | -0.40 | -0.15 | -0.22 | -0.43 | -0.35 | -0.34 |
| RPL37P10 | -2.12 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| RPL37P15 | -1.36 | -1.30 | -1.35 | -1.25 | -1.30 | -1.32 | -1.37 | -1.33 |
| RPL37P18 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPL37P2 | 2.42 | 2.65 | 2.15 | 2.60 | 2.64 | 2.19 | 2.19 | 2.34 |
| RPL37P23 | 0.97 | 1.20 | 0.94 | 1.21 | 1.29 | 1.14 | 1.01 | 1.32 |
| RPL37P25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RPL37P3 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.06 |
| RPL37P4 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPL37P6 | 1.14 | 1.30 | 1.13 | 1.32 | 1.54 | 1.14 | 1.44 | 1.41 |
| RPL38 | 11.25 | 11.30 | 10.66 | 11.35 | 11.66 | 11.36 | 10.79 | 11.25 |
| RPL38P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RPL38P3 | 2.19 | 2.24 | 2.14 | 2.39 | 2.37 | 2.18 | 1.85 | 2.03 |
| RPL38P4 | -0.01 | 0.09 | -0.03 | -0.15 | 0.08 | 0.04 | -0.15 | -0.11 |
| RPL39 | 9.73 | 10.07 | 9.48 | 10.19 | 10.87 | 9.72 | 9.48 | 10.29 |
| RPL39L | 6.94 | 5.33 | 5.75 | 5.43 | 5.13 | 5.75 | 5.21 | 6.50 |
| RPL39P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPL39P18 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| RPL39P25 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 |
| RPL39P29 | -2.10 | -2.09 | -2.09 | -2.04 | -2.07 | -2.10 | -2.10 | -2.08 |
| RPL39P3 | 2.32 | 2.80 | 2.47 | 2.91 | 3.36 | 2.60 | 2.71 | 3.25 |
| RPL39P31 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL39P33 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| RPL39P36 | -1.96 | -1.99 | -1.98 | -1.96 | -1.96 | -1.98 | -2.00 | -1.97 |
| RPL39P38 | -0.99 | -0.91 | -0.97 | -0.78 | -0.84 | -0.93 | -0.92 | -1.00 |
| RPL39P39 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL39P40 | -1.79 | -1.78 | -1.78 | -1.79 | -1.76 | -1.78 | -1.79 | -1.80 |
| RPL39P5 | -0.61 | -0.87 | -0.93 | -0.81 | -0.83 | -0.92 | -0.95 | -0.85 |
| RPL39P6 | -1.89 | -1.85 | -1.84 | -1.85 | -1.87 | -1.88 | -1.90 | -1.87 |
| RPL3L | -1.96 | -1.99 | -1.95 | -2.00 | -1.97 | -1.98 | -2.00 | -2.01 |
| RPL3P1 | -1.69 | -1.58 | -1.68 | -1.69 | -1.66 | -1.70 | -1.69 | -1.71 |
| RPL3P10 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL3P12 | -1.84 | -1.89 | -1.88 | -1.85 | -1.89 | -1.85 | -1.90 | -1.87 |
| RPL3P13 | -1.99 | -1.96 | -1.98 | -2.00 | -1.94 | -1.98 | -2.00 | -2.01 |
| RPL3P2 | 1.66 | 1.94 | 1.83 | 2.13 | 1.86 | 1.95 | 1.80 | 2.02 |
| RPL3P3 | -0.59 | -0.58 | -0.65 | -0.34 | -0.48 | -0.51 | -0.46 | -0.56 |
| RPL3P4 | 6.09 | 6.93 | 5.69 | 7.32 | 6.97 | 6.75 | 6.46 | 6.88 |
| RPL3P6 | -0.67 | -0.74 | -0.81 | -0.62 | -0.67 | -0.70 | -0.83 | -0.72 |
| RPL3P7 | -0.05 | -0.10 | -0.04 | -0.13 | -0.11 | -0.06 | -0.09 | -0.01 |
| RPL3P8 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 | -2.14 | -2.15 | -2.13 |
| RPL3P9 | -1.24 | -1.23 | -1.22 | -1.31 | -1.24 | -1.29 | -1.31 | -1.13 |
| RPL4 | 10.08 | 10.53 | 9.54 | 10.61 | 11.05 | 10.33 | 9.78 | 10.64 |
| RPL41 | 9.19 | 9.49 | 8.03 | 9.56 | 9.75 | 9.52 | 8.74 | 9.14 |
| RPL41P1 | -1.79 | -1.79 | -1.78 | -1.75 | -1.72 | -1.78 | -1.79 | -1.76 |
| RPL41P2 | 4.62 | 5.12 | 3.83 | 5.05 | 5.08 | 4.79 | 4.03 | 4.55 |
| RPL41P5 | -0.19 | -0.06 | -0.33 | -0.20 | -0.01 | -0.23 | -0.35 | -0.25 |
| RPL4P1 | -0.97 | -0.96 | -1.09 | -0.97 | -1.07 | -1.12 | -0.98 | -1.07 |
| RPL4P2 | -1.26 | -0.98 | -1.24 | -1.13 | -1.15 | -1.24 | -1.27 | -1.17 |
| RPL4P3 | -0.43 | -0.35 | -0.42 | -0.36 | -0.31 | -0.39 | -0.37 | -0.30 |
| RPL4P4 | 1.88 | 1.74 | 1.65 | 1.90 | 2.32 | 1.88 | 1.80 | 2.02 |
| RPL4P5 | 0.75 | 1.00 | 0.79 | 0.87 | 1.12 | 1.05 | 0.87 | 0.94 |
| RPL4P6 | -1.10 | -1.16 | -1.21 | -1.10 | -1.23 | -1.21 | -1.24 | -1.25 |
| RPL5 | 10.35 | 10.85 | 9.80 | 11.06 | 10.95 | 10.51 | 10.18 | 10.51 |
| RPL5P1 | 1.12 | 1.47 | 1.02 | 1.30 | 1.18 | 1.31 | 1.21 | 1.41 |
| RPL5P11 | -1.69 | -1.64 | -1.63 | -1.60 | -1.64 | -1.65 | -1.69 | -1.66 |
| RPL5P12 | 0.27 | 0.28 | 0.06 | 0.44 | 0.09 | 0.22 | 0.11 | 0.18 |
| RPL5P13 | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| RPL5P16 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL5P17 | 1.35 | 1.43 | 1.62 | 1.84 | 1.82 | 1.61 | 1.33 | 1.45 |
| RPL5P18 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RPL5P20 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL5P22 | -1.29 | -1.22 | -1.27 | -1.29 | -1.15 | -1.24 | -1.23 | -1.10 |
| RPL5P23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| RPL5P24 | -2.10 | -2.09 | -2.09 | -2.07 | -2.07 | -2.10 | -2.10 | -2.11 |
| RPL5P25 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL5P28 | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.13 | -2.13 |
| RPL5P29 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL5P3 | -1.94 | -1.94 | -1.90 | -1.91 | -1.94 | -1.91 | -1.95 | -1.96 |
| RPL5P30 | -1.59 | -1.63 | -1.63 | -1.54 | -1.61 | -1.62 | -1.64 | -1.66 |
| RPL5P32 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RPL5P33 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPL5P34 | 1.25 | 1.52 | 1.19 | 1.41 | 1.37 | 1.23 | 1.39 | 1.27 |
| RPL5P35 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPL5P4 | 1.78 | 1.52 | 1.47 | 1.72 | 1.70 | 1.46 | 1.48 | 1.42 |
| RPL5P5 | -0.74 | -0.73 | -0.79 | -0.89 | -0.73 | -0.83 | -0.89 | -0.85 |
| RPL5P6 | -1.40 | -1.56 | -1.55 | -1.57 | -1.56 | -1.52 | -1.57 | -1.48 |
| RPL5P8 | -1.53 | -1.58 | -1.52 | -1.48 | -1.53 | -1.49 | -1.59 | -1.61 |
| RPL5P9 | -0.68 | -0.82 | -0.81 | -0.90 | -0.82 | -0.84 | -0.91 | -0.81 |
| RPL6P12 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| RPL6P2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPL6P21 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| RPL6P24 | -1.46 | -1.39 | -1.44 | -1.40 | -1.42 | -1.47 | -1.46 | -1.48 |
| RPL6P25 | -1.41 | -1.34 | -1.39 | -1.35 | -1.37 | -1.30 | -1.35 | -1.32 |
| RPL6P27 | 2.69 | 3.63 | 2.68 | 3.38 | 3.57 | 3.23 | 3.01 | 3.37 |
| RPL6P29 | -2.04 | -2.01 | -2.04 | -2.02 | -2.01 | -2.05 | -2.05 | -2.06 |
| RPL6P30 | -1.35 | -1.41 | -1.40 | -1.36 | -1.32 | -1.43 | -1.42 | -1.38 |
| RPL6P5 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPL6P8 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| RPL6P9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RPL7 | 10.50 | 10.53 | 9.96 | 10.71 | 10.96 | 11.23 | 9.83 | 10.68 |
| RPL7A | 10.86 | 11.08 | 9.63 | 11.17 | 10.70 | 10.89 | 10.32 | 10.26 |
| RPL7AP10 | -1.74 | -1.74 | -1.73 | -1.70 | -1.74 | -1.70 | -1.65 | -1.76 |
| RPL7AP11 | 0.65 | 0.88 | 0.53 | 0.70 | 0.70 | 0.92 | 0.63 | 0.73 |
| RPL7AP14 | -1.49 | -1.48 | -1.41 | -1.49 | -1.39 | -1.47 | -1.50 | -1.51 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| RPL7AP15 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -2.00 | -1.96 | -1.97 |
| RPL7AP2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RPL7AP26 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL7AP28 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL7AP3 | -1.69 | -1.74 | -1.73 | -1.69 | -1.71 | -1.73 | -1.75 | -1.76 |
| RPL7AP30 | 3.09 | 3.31 | 2.44 | 3.70 | 3.07 | 3.19 | 2.66 | 2.96 |
| RPL7AP31 | -1.84 | -1.79 | -1.78 | -1.80 | -1.84 | -1.83 | -1.85 | -1.86 |
| RPL7AP34 | -1.96 | -1.95 | -1.98 | -2.00 | -1.99 | -1.95 | -2.00 | -2.01 |
| RPL7AP38 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.19 |
| RPL7AP4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| RPL7AP50 | -1.15 | -1.32 | -1.25 | -1.20 | -1.32 | -1.22 | -1.21 | -1.35 |
| RPL7AP52 | -1.64 | -1.64 | -1.57 | -1.64 | -1.64 | -1.65 | -1.59 | -1.66 |
| RPL7AP53 | -0.21 | -0.11 | -0.34 | -0.21 | -0.23 | -0.19 | -0.21 | -0.14 |
| RPL7AP57 | -2.10 | -2.09 | -2.06 | -2.05 | -2.09 | -2.07 | -2.10 | -2.11 |
| RPL7AP6 | 4.03 | 4.50 | 3.41 | 4.33 | 4.18 | 4.16 | 3.68 | 3.74 |
| RPL7AP60 | 0.80 | 1.09 | 0.89 | 0.98 | 0.89 | 1.05 | 0.90 | 0.78 |
| RPL7AP64 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RPL7AP65 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| RPL7AP66 | 2.64 | 2.78 | 2.25 | 2.52 | 2.58 | 2.61 | 2.63 | 2.32 |
| RPL7AP69 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPL7AP7 | -2.05 | -2.04 | -1.97 | -2.05 | -2.03 | -2.05 | -1.98 | -2.06 |
| RPL7AP73 | -1.99 | -1.92 | -1.98 | -2.00 | -1.97 | -1.98 | -1.96 | -2.01 |
| RPL7AP8 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.94 | -1.92 |
| RPL7AP9 | -2.23 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RPL7L1 | 7.07 | 7.15 | 6.76 | 6.98 | 6.55 | 7.06 | 6.84 | 7.13 |
| RPL7L1P12 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPL7L1P3 | -1.99 | -1.96 | -1.98 | -1.99 | -1.99 | -1.98 | -1.96 | -2.01 |
| RPL7P1 | 0.84 | 0.86 | 0.89 | 1.16 | 0.85 | 1.06 | 0.92 | 1.00 |
| RPL7P10 | -1.56 | -1.51 | -1.55 | -1.41 | -1.56 | -1.55 | -1.57 | -1.49 |
| RPL7P11 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL7P12 | -1.21 | -1.13 | -1.19 | -1.09 | -1.13 | -1.09 | -1.21 | -1.17 |
| RPL7P13 | -0.43 | -0.33 | -0.49 | -0.43 | -0.27 | -0.21 | -0.43 | -0.36 |
| RPL7P14 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| RPL7P15 | -0.09 | -0.12 | -0.27 | -0.08 | -0.16 | -0.01 | -0.02 | -0.20 |
| RPL7P16 | -1.13 | -1.06 | -1.18 | -1.14 | -1.13 | -1.09 | -1.21 | -1.16 |
| RPL7P18 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| RPL7P19 | 0.60 | 0.51 | 0.44 | 0.48 | 0.50 | 0.77 | 0.40 | 0.56 |
| RPL7P2 | -0.94 | -1.01 | -0.92 | -0.87 | -0.89 | -0.89 | -0.94 | -0.97 |
| RPL7P20 | -1.44 | -1.43 | -1.42 | -1.44 | -1.35 | -1.34 | -1.33 | -1.26 |
| RPL7P22 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPL7P23 | 1.13 | 1.16 | 1.02 | 1.05 | 1.24 | 1.27 | 1.20 | 1.26 |
| RPL7P24 | -0.37 | -0.44 | -0.36 | -0.46 | -0.33 | -0.40 | -0.53 | -0.38 |
| RPL7P25 | -1.31 | -1.48 | -1.42 | -1.43 | -1.37 | -1.38 | -1.44 | -1.46 |
| RPL7P26 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| RPL7P27 | -1.31 | -1.10 | -1.29 | -1.24 | -1.20 | -1.22 | -1.31 | -1.11 |
| RPL7P29 | -1.55 | -1.43 | -1.53 | -1.55 | -1.49 | -1.50 | -1.55 | -1.57 |
| RPL7P31 | -2.23 | -2.25 | -2.19 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| RPL7P32 | -0.49 | -0.34 | -0.56 | -0.44 | -0.42 | -0.36 | -0.51 | -0.59 |
| RPL7P33 | -2.20 | -2.18 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.19 |
| RPL7P35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| RPL7P36 | -1.96 | -1.99 | -1.98 | -1.93 | -1.99 | -1.97 | -2.00 | -1.94 |
| RPL7P37 | -1.99 | -1.99 | -1.95 | -2.00 | -1.99 | -1.95 | -2.00 | -2.01 |
| RPL7P38 | -0.15 | -0.06 | -0.20 | -0.17 | -0.06 | 0.13 | -0.23 | -0.16 |
| RPL7P39 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPL7P4 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.07 | -2.10 | -2.11 |
| RPL7P41 | -1.93 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -2.00 | -1.97 |
| RPL7P42 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPL7P44 | 0.18 | 0.29 | 0.10 | 0.20 | 0.21 | 0.25 | 0.05 | 0.23 |
| RPL7P45 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPL7P46 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| RPL7P47 | 1.26 | 1.06 | 1.57 | 1.34 | 1.55 | 1.50 | 1.28 | 1.39 |
| RPL7P48 | -1.65 | -1.64 | -1.68 | -1.70 | -1.67 | -1.66 | -1.70 | -1.58 |
| RPL7P49 | -1.59 | -1.53 | -1.58 | -1.54 | -1.53 | -1.55 | -1.54 | -1.56 |
| RPL7P5 | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.15 | -2.15 | -2.11 |
| RPL7P50 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| RPL7P51 | -2.07 | -2.07 | -2.09 | -2.04 | -2.08 | -2.10 | -2.10 | -2.11 |
| RPL7P52 | -1.50 | -1.49 | -1.49 | -1.34 | -1.47 | -1.40 | -1.50 | -1.47 |
| RPL7P54 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPL7P56 | -0.97 | -0.97 | -1.03 | -0.98 | -0.93 | -0.99 | -0.98 | -1.01 |
| RPL7P58 | -1.74 | -1.64 | -1.68 | -1.74 | -1.71 | -1.73 | -1.75 | -1.76 |
| RPL7P59 | -2.15 | -2.12 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| RPL7P6 | 1.65 | 1.45 | 1.28 | 1.35 | 1.73 | 1.95 | 1.50 | 1.72 |
| RPL7P60 | -1.55 | -1.54 | -1.59 | -1.61 | -1.57 | -1.51 | -1.61 | -1.62 |
| RPL7P61 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.13 |
| RPL7P7 | -1.64 | -1.68 | -1.68 | -1.69 | -1.66 | -1.67 | -1.64 | -1.66 |
| RPL7P8 | 0.62 | 0.23 | 0.43 | 0.21 | 0.35 | 0.60 | 0.35 | 0.32 |
| RPL7P9 | 1.69 | 1.96 | 1.49 | 1.96 | 2.16 | 2.14 | 1.93 | 2.11 |
| RPL8 | 11.22 | 11.77 | 11.39 | 11.77 | 12.27 | 11.88 | 11.00 | 11.74 |
| RPL8P2 | -1.84 | -1.79 | -1.83 | -1.80 | -1.84 | -1.81 | -1.84 | -1.82 |
| RPL9 | 8.63 | 9.92 | 9.17 | 9.96 | 10.21 | 10.18 | 9.89 | 10.50 |
| RPL9P16 | -1.64 | -1.69 | -1.68 | -1.69 | -1.54 | -1.70 | -1.69 | -1.61 |
| RPL9P18 | -0.98 | -1.12 | -1.18 | -1.13 | -1.19 | -1.08 | -1.20 | -1.10 |
| RPL9P2 | -1.64 | -1.63 | -1.63 | -1.54 | -1.61 | -1.49 | -1.54 | -1.61 |
| RPL9P21 | -0.16 | -0.38 | -0.37 | -0.16 | -0.26 | -0.22 | -0.15 | -0.29 |
| RPL9P28 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPL9P29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPL9P3 | -0.44 | -0.29 | -0.43 | -0.32 | -0.33 | -0.33 | -0.24 | -0.14 |
| RPL9P32 | -0.52 | -0.30 | -0.42 | -0.31 | -0.36 | -0.39 | -0.38 | -0.31 |
| RPL9P7 | -1.74 | -1.73 | -1.73 | -1.70 | -1.71 | -1.72 | -1.70 | -1.71 |
| RPLP0 | 10.35 | 11.36 | 10.17 | 11.54 | 12.16 | 11.22 | 10.64 | 11.19 |
| RPLP0P11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPLP0P2 | 1.93 | 2.03 | 1.56 | 1.81 | 1.97 | 2.02 | 1.59 | 1.77 |
| RPLP0P6 | 3.20 | 3.74 | 2.94 | 4.20 | 4.52 | 3.86 | 3.43 | 4.02 |
| RPLP1 | 13.07 | 13.29 | 12.26 | 13.29 | 13.85 | 12.88 | 12.28 | 12.84 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RPLP1P10 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.05 | -2.05 |
| RPLP1P13 | -1.85 | -1.85 | -1.88 | -1.86 | -1.87 | -1.88 | -1.89 | -1.91 |
| RPLP1P6 | 5.12 | 5.39 | 4.70 | 5.33 | 6.12 | 4.86 | 4.73 | 5.18 |
| RPLP2 | 11.72 | 11.86 | 10.95 | 12.01 | 12.73 | 11.52 | 11.29 | 11.99 |
| RPN1 | 8.63 | 7.59 | 8.77 | 7.83 | 8.84 | 7.77 | 8.35 | 8.95 |
| RPN2 | 9.27 | 9.12 | 9.41 | 9.33 | 9.68 | 9.02 | 8.93 | 9.47 |
| RPP14 | 3.31 | 4.35 | 3.63 | 4.33 | 4.05 | 3.63 | 4.06 | 3.20 |
| RPP21 | 0.93 | 0.76 | 0.79 | 0.64 | 0.57 | 1.00 | 0.59 | 0.75 |
| RPP25 | 5.62 | 6.47 | 6.24 | 6.75 | 6.39 | 5.97 | 4.84 | 4.71 |
| RPP25L | 6.25 | 5.93 | 5.49 | 5.73 | 6.49 | 6.13 | 5.09 | 5.08 |
| RPP30 | 6.49 | 5.82 | 5.65 | 5.77 | 6.15 | 6.20 | 5.51 | 5.59 |
| RPP38 | 5.51 | 6.06 | 5.37 | 6.07 | 6.46 | 5.93 | 5.55 | 5.84 |
| RPP38-DT | -1.89 | -1.89 | -1.88 | -1.85 | -1.87 | -1.90 | -1.89 | -1.91 |
| RPP40 | 4.56 | 4.13 | 3.69 | 3.83 | 4.04 | 3.60 | 3.48 | 4.67 |
| RPRD1A | 4.71 | 5.01 | 5.25 | 4.67 | 4.74 | 5.38 | 5.37 | 4.64 |
| RPRD1B | 5.57 | 5.26 | 5.29 | 5.14 | 4.85 | 5.05 | 5.18 | 5.43 |
| RPRD2 | 4.82 | 5.41 | 5.53 | 5.09 | 4.65 | 5.40 | 5.15 | 5.54 |
| RPRM | -0.73 | -1.01 | -0.83 | -1.01 | -1.01 | -0.95 | -0.94 | -1.03 |
| RPRML | -1.75 | -1.84 | -1.83 | -1.84 | -1.75 | -1.85 | -1.85 | -1.86 |
| RPS10 | 9.92 | 10.13 | 8.61 | 10.40 | 9.44 | 9.85 | 9.24 | 10.45 |
| RPS10-NUDT3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 |
| RPS10P14 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.24 |
| RPS10P16 | -0.48 | -0.46 | -0.60 | -0.47 | -0.58 | -0.53 | -0.55 | -0.33 |
| RPS10P18 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPS10P2 | -0.64 | -0.63 | -0.61 | -0.53 | -0.71 | -0.61 | -0.53 | -0.53 |
| RPS10P27 | -0.52 | -0.36 | -0.40 | -0.47 | -0.56 | -0.39 | -0.60 | -0.45 |
| RPS10P28 | -1.94 | -1.94 | -1.89 | -1.95 | -1.94 | -1.95 | -1.95 | -1.96 |
| RPS10P3 | 0.31 | 0.32 | 0.20 | 0.48 | 0.28 | 0.45 | 0.29 | 0.32 |
| RPS10P5 | -0.46 | -0.58 | -0.57 | -0.40 | -0.56 | -0.51 | -0.60 | -0.51 |
| RPS10P7 | 2.17 | 2.28 | 2.81 | 2.44 | 2.29 | 2.19 | 2.02 | 1.78 |
| RPS11 | 10.91 | 11.12 | 9.87 | 11.35 | 11.98 | 10.66 | 10.55 | 11.09 |
| RPS11P5 | 2.85 | 2.76 | 2.07 | 3.16 | 3.23 | 2.55 | 2.59 | 3.13 |
| RPS11P7 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.30 |
| RPS12 | 12.34 | 11.69 | 10.36 | 11.88 | 12.18 | 11.82 | 11.34 | 11.99 |
| RPS12P16 | 0.63 | 0.80 | 0.91 | 0.68 | 0.73 | 0.80 | 1.39 | 0.63 |
| RPS12P17 | -1.01 | -1.08 | -1.07 | -0.96 | -1.08 | -1.10 | -1.09 | -1.17 |
| RPS12P18 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RPS12P2 | -1.20 | -1.26 | -1.25 | -1.27 | -1.23 | -1.22 | -1.28 | -1.13 |
| RPS12P23 | 1.33 | 0.93 | 0.86 | 1.29 | 1.02 | 0.98 | 0.88 | 1.01 |
| RPS12P24 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| RPS12P26 | 3.70 | 3.66 | 4.02 | 4.05 | 4.00 | 3.37 | 4.04 | 4.36 |
| RPS12P27 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| RPS12P28 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RPS12P5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RPS13 | 11.35 | 11.32 | 10.30 | 11.60 | 12.41 | 11.29 | 10.77 | 11.43 |
| RPS13P2 | 5.15 | 5.32 | 4.51 | 5.35 | 6.10 | 4.95 | 4.60 | 5.15 |
| RPS14 | 11.52 | 12.30 | 11.45 | 12.47 | 12.97 | 12.01 | 11.56 | 11.69 |
| RPS14P4 | -0.24 | -0.01 | -0.09 | -0.24 | -0.19 | -0.01 | -0.25 | -0.28 |
| RPS14P8 | -0.43 | -0.26 | -0.26 | -0.15 | -0.20 | -0.27 | -0.43 | -0.39 |
| RPS15 | 10.70 | 10.73 | 10.26 | 10.85 | 11.76 | 11.51 | 10.54 | 10.71 |
| RPS15A | 10.30 | 10.17 | 9.45 | 10.38 | 10.33 | 9.99 | 9.59 | 10.26 |
| RPS15AP1 | 3.26 | 3.25 | 3.24 | 3.63 | 3.44 | 3.21 | 3.32 | 3.69 |
| RPS15AP10 | 0.58 | 0.83 | 0.88 | 0.79 | 0.79 | 1.01 | 0.89 | 0.77 |
| RPS15AP11 | 3.55 | 3.30 | 2.66 | 3.44 | 3.23 | 3.38 | 3.00 | 3.47 |
| RPS15AP12 | 0.12 | 0.07 | 0.18 | 0.53 | 0.07 | 0.16 | 0.05 | 0.28 |
| RPS15AP16 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPS15AP17 | 3.54 | 3.37 | 3.47 | 3.81 | 3.78 | 3.33 | 3.26 | 3.50 |
| RPS15AP18 | -1.28 | -1.20 | -1.26 | -1.28 | -1.24 | -1.22 | -1.22 | -1.30 |
| RPS15AP24 | 0.00 | 0.01 | -0.06 | 0.12 | 0.04 | 0.14 | -0.08 | -0.06 |
| RPS15AP25 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.84 | -1.90 | -1.91 |
| RPS15AP28 | -1.40 | -1.39 | -1.44 | -1.34 | -1.36 | -1.44 | -1.40 | -1.38 |
| RPS15AP29 | -0.05 | -0.17 | -0.24 | -0.26 | -0.13 | -0.14 | 0.15 | -0.04 |
| RPS15AP30 | 1.23 | 1.40 | 1.60 | 1.80 | 1.58 | 1.36 | 1.71 | 1.23 |
| RPS15AP32 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RPS15AP34 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| RPS15AP36 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| RPS15AP38 | 2.17 | 1.81 | 1.48 | 2.01 | 1.86 | 1.88 | 1.89 | 1.76 |
| RPS15AP40 | 2.06 | 2.18 | 1.88 | 2.44 | 2.38 | 1.89 | 2.08 | 2.39 |
| RPS15AP5 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| RPS15AP6 | -1.50 | -1.49 | -1.48 | -1.50 | -1.49 | -1.45 | -1.16 | -1.46 |
| RPS15AP9 | -2.07 | -2.09 | -2.06 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| RPS15P5 | 0.67 | 0.58 | 0.36 | 0.40 | 0.86 | 0.74 | 0.46 | 0.59 |
| RPS16 | 11.63 | 11.69 | 10.29 | 11.83 | 12.56 | 11.24 | 10.88 | 11.01 |
| RPS16P5 | -2.15 | -2.15 | -2.09 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| RPS16P9 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPS17 | 6.29 | 6.64 | 5.58 | 6.58 | 7.16 | 6.19 | 6.21 | 6.70 |
| RPS17P1 | -1.96 | -1.99 | -1.98 | -1.96 | -1.97 | -2.00 | -2.00 | -1.97 |
| RPS17P13 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.24 |
| RPS17P15 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPS17P2 | -1.47 | -1.35 | -1.45 | -1.41 | -1.43 | -1.42 | -1.41 | -1.49 |
| RPS17P5 | -1.26 | -1.25 | -1.31 | -1.26 | -1.28 | -1.30 | -1.20 | -1.13 |
| RPS18 | 11.93 | 12.20 | 10.68 | 12.26 | 12.03 | 12.29 | 11.18 | 12.31 |
| RPS18P12 | 2.03 | 1.95 | 1.90 | 2.17 | 2.25 | 2.41 | 1.83 | 2.43 |
| RPS18P13 | -0.96 | -1.02 | -1.09 | -0.97 | -0.88 | -1.02 | -1.11 | -1.01 |
| RPS18P6 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 | -2.25 | -2.24 |
| RPS18P9 | 2.17 | 1.76 | 2.24 | 2.36 | 1.84 | 2.14 | 2.02 | 2.10 |
| RPS19 | 12.75 | 13.01 | 11.68 | 13.08 | 13.44 | 12.25 | 11.96 | 12.06 |
| RPS19BP1 | 8.11 | 7.72 | 7.17 | 7.97 | 7.21 | 7.52 | 7.22 | 8.36 |
| RPS19P1 | 6.56 | 6.70 | 5.59 | 6.94 | 7.26 | 6.10 | 5.63 | 5.87 |
| RPS19P3 | 4.32 | 4.69 | 3.69 | 4.69 | 5.04 | 3.97 | 3.88 | 4.01 |
| RPS19P7 | 3.47 | 3.30 | 2.58 | 3.72 | 3.96 | 3.01 | 2.70 | 2.75 |
| RPS2 | 11.97 | 12.23 | 10.72 | 12.38 | 12.37 | 12.08 | 11.22 | 11.64 |
| RPS20 | 10.61 | 10.57 | 10.05 | 10.79 | 11.19 | 10.51 | 9.96 | 10.92 |
| RPS20P1 | -1.96 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| RPS20P10 | 0.43 | 0.09 | 0.35 | 0.08 | 0.37 | 0.27 | 0.22 | 0.33 |
| RPS20P14 | 2.62 | 2.67 | 2.57 | 2.54 | 3.32 | 2.87 | 2.46 | 3.27 |
| RPS20P2 | 0.91 | 1.04 | 1.09 | 1.00 | 1.12 | 1.04 | 0.86 | 1.12 |
| RPS20P22 | -1.21 | -1.12 | -1.04 | -1.13 | -1.12 | -1.22 | -1.21 | -1.22 |
| RPS20P23 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RPS20P24 | 0.24 | 0.35 | 0.31 | 0.19 | 0.35 | 0.26 | 0.04 | 0.51 |
| RPS20P32 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPS20P33 | -1.99 | -1.99 | -1.95 | -1.96 | -1.96 | -1.98 | -2.00 | -2.01 |
| RPS20P4 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -2.00 |
| RPS20P5 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RPS21 | 11.84 | 11.78 | 10.89 | 11.55 | 12.43 | 11.73 | 11.07 | 11.52 |
| RPS21P4 | 3.50 | 3.35 | 3.36 | 3.56 | 4.20 | 3.66 | 3.25 | 3.43 |
| RPS23 | 11.02 | 11.46 | 10.78 | 11.62 | 12.23 | 11.40 | 11.10 | 10.97 |
| RPS23P1 | 1.41 | 1.34 | 1.30 | 1.61 | 1.74 | 1.26 | 1.33 | 1.32 |
| RPS23P10 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPS23P2 | -0.74 | -0.64 | -0.86 | -0.88 | -0.72 | -0.82 | -0.81 | -0.77 |
| RPS23P4 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPS23P5 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPS23P6 | -1.54 | -1.48 | -1.53 | -1.43 | -1.48 | -1.55 | -1.55 | -1.56 |
| RPS23P7 | 0.19 | 0.49 | 0.22 | 0.65 | 0.52 | 0.29 | 0.19 | 0.33 |
| RPS23P8 | 4.73 | 5.41 | 4.69 | 5.34 | 5.67 | 5.19 | 4.71 | 4.81 |
| RPS23P9 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPS24 | 11.13 | 11.62 | 10.38 | 11.75 | 11.84 | 11.23 | 10.99 | 11.22 |
| RPS24P13 | -0.96 | -0.81 | -1.02 | -1.04 | -0.99 | -1.05 | -0.97 | -0.99 |
| RPS24P16 | -2.05 | -2.01 | -2.04 | -2.01 | -2.03 | -2.05 | -2.05 | -2.06 |
| RPS24P17 | -1.89 | -1.81 | -1.88 | -1.85 | -1.85 | -1.90 | -1.90 | -1.91 |
| RPS24P18 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| RPS24P6 | -1.69 | -1.59 | -1.68 | -1.69 | -1.69 | -1.62 | -1.69 | -1.71 |
| RPS24P7 | -1.49 | -1.49 | -1.54 | -1.55 | -1.55 | -1.53 | -1.44 | -1.47 |
| RPS24P8 | -0.26 | -0.09 | -0.22 | -0.13 | -0.04 | -0.31 | -0.34 | -0.13 |
| RPS25 | 9.95 | 9.80 | 8.85 | 10.01 | 10.91 | 9.78 | 9.37 | 9.66 |
| RPS26 | 9.81 | 10.84 | 9.39 | 10.51 | 9.15 | 10.89 | 8.59 | 10.19 |
| RPS26P11 | -1.13 | -1.06 | -1.18 | -1.07 | -1.20 | -1.00 | -1.21 | -1.01 |
| RPS26P13 | 0.96 | 1.32 | 0.63 | 1.20 | 0.68 | 0.99 | 0.73 | 1.00 |
| RPS26P15 | 1.01 | 0.99 | 0.88 | 1.09 | 0.78 | 1.07 | 0.74 | 1.11 |
| RPS26P2 | -0.56 | -0.33 | -0.38 | -0.43 | -0.56 | -0.19 | -0.57 | -0.42 |
| RPS26P28 | -0.06 | 0.18 | 0.03 | 0.02 | 0.00 | 0.01 | -0.06 | 0.01 |
| RPS26P3 | 0.75 | 1.27 | 0.81 | 1.26 | 0.88 | 1.08 | 0.74 | 0.68 |
| RPS26P30 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPS26P31 | 2.23 | 2.57 | 2.21 | 2.59 | 1.96 | 2.52 | 1.63 | 2.23 |
| RPS26P34 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| RPS26P35 | -1.96 | -1.99 | -1.98 | -1.96 | -1.99 | -1.97 | -2.00 | -1.94 |
| RPS26P38 | -0.55 | -0.40 | -0.54 | -0.56 | -0.59 | -0.33 | -0.63 | -0.41 |
| RPS26P39 | 0.32 | 0.42 | 0.21 | 0.04 | 0.17 | 0.43 | 0.03 | 0.34 |
| RPS26P4 | -2.20 | -2.18 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| RPS26P40 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RPS26P42 | -1.95 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| RPS26P43 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.77 | -1.84 | -1.82 |
| RPS26P45 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 | -2.31 | -2.31 |
| RPS26P47 | 0.13 | 0.12 | 0.08 | 0.07 | -0.08 | 0.41 | 0.01 | 0.28 |
| RPS26P52 | -2.04 | -2.04 | -2.04 | -2.02 | -2.04 | -2.04 | -2.05 | -2.06 |
| RPS26P54 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| RPS26P55 | 0.22 | 0.18 | -0.11 | 0.06 | -0.04 | 0.14 | 0.00 | 0.02 |
| RPS26P56 | -1.49 | -1.43 | -1.47 | -1.32 | -1.49 | -1.35 | -1.50 | -1.46 |
| RPS26P6 | -2.05 | -2.04 | -2.04 | -2.05 | -2.01 | -2.04 | -2.05 | -2.06 |
| RPS26P8 | 0.59 | 1.09 | 0.79 | 0.92 | 0.57 | 1.15 | 0.50 | 0.81 |
| RPS27 | 12.02 | 11.79 | 10.36 | 12.06 | 12.80 | 11.67 | 10.85 | 11.84 |
| RPS27A | 11.41 | 11.34 | 9.94 | 11.46 | 12.35 | 11.20 | 10.55 | 11.27 |
| RPS27AP1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.87 | -1.93 | -1.95 | -1.92 |
| RPS27AP11 | 3.87 | 3.57 | 2.70 | 3.76 | 4.50 | 3.65 | 3.19 | 3.70 |
| RPS27AP12 | 2.22 | 2.64 | 2.82 | 2.66 | 2.47 | 2.31 | 2.85 | 2.33 |
| RPS27AP15 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPS27AP16 | 4.50 | 4.49 | 3.87 | 4.92 | 5.59 | 4.47 | 3.81 | 4.59 |
| RPS27AP19 | -1.54 | -1.43 | -1.53 | -1.49 | -1.46 | -1.53 | -1.49 | -1.51 |
| RPS27AP2 | -1.00 | -1.12 | -1.11 | -1.06 | -0.98 | -1.01 | -1.14 | -1.04 |
| RPS27AP3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| RPS27AP6 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| RPS27AP7 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| RPS27AP8 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPS27AP9 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| RPS27L | 9.30 | 10.61 | 8.81 | 10.71 | 9.54 | 8.81 | 10.21 | 9.18 |
| RPS27P14 | -1.65 | -1.64 | -1.53 | -1.54 | -1.59 | -1.55 | -1.65 | -1.67 |
| RPS27P15 | -1.59 | -1.63 | -1.63 | -1.64 | -1.61 | -1.62 | -1.44 | -1.66 |
| RPS27P20 | -2.18 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| RPS27P21 | 0.37 | 0.54 | 0.31 | 0.63 | 0.88 | 0.65 | 0.28 | 0.32 |
| RPS27P22 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPS27P23 | -1.50 | -1.50 | -1.49 | -1.45 | -1.42 | -1.46 | -1.45 | -1.47 |
| RPS27P25 | -1.94 | -1.94 | -1.93 | -1.91 | -1.88 | -1.95 | -1.95 | -1.96 |
| RPS27P26 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPS27P27 | 0.32 | 0.47 | 0.51 | 0.59 | 0.41 | 0.39 | 0.67 | 0.39 |
| RPS27P29 | -0.63 | -0.48 | -0.70 | -0.57 | -0.53 | -0.59 | -0.72 | -0.51 |
| RPS27P5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| RPS28 | 10.45 | 11.74 | 9.62 | 11.81 | 11.90 | 10.59 | 10.19 | 10.73 |
| RPS28P7 | 4.15 | 4.61 | 3.70 | 4.65 | 4.93 | 4.17 | 3.79 | 4.01 |
| RPS29 | 11.29 | 11.93 | 10.66 | 12.05 | 12.84 | 11.79 | 11.21 | 11.54 |
| RPS29P10 | -2.10 | -2.07 | -2.09 | -2.07 | -2.08 | -2.10 | -2.07 | -2.11 |
| RPS29P11 | -0.40 | -0.48 | -0.47 | -0.34 | -0.19 | -0.42 | -0.22 | -0.27 |
| RPS29P12 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPS29P14 | -1.10 | -1.23 | -1.08 | -1.17 | -1.20 | -1.15 | -1.17 | -1.20 |
| RPS29P15 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPS29P16 | 3.33 | 3.89 | 2.99 | 4.12 | 4.91 | 3.82 | 3.03 | 3.72 |
| RPS29P17 | -0.90 | -0.74 | -0.88 | -0.75 | -0.74 | -0.77 | -0.90 | -0.74 |
| RPS29P19 | -0.89 | -0.86 | -0.86 | -0.95 | -0.94 | -1.00 | -0.83 | -1.04 |
| RPS29P20 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |

| | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| RPS29P21 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPS29P22 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPS29P23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| RPS29P3 | -0.89 | -0.65 | -0.87 | -0.89 | -0.60 | -0.76 | -0.82 | -0.79 |
| RPS29P31 | -1.64 | -1.69 | -1.68 | -1.64 | -1.58 | -1.65 | -1.64 | -1.66 |
| RPS29P5 | 3.44 | 4.43 | 3.21 | 4.25 | 5.06 | 4.05 | 3.34 | 3.79 |
| RPS29P7 | -2.02 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| RPS29P8 | -0.14 | -0.14 | -0.25 | -0.29 | -0.10 | -0.21 | -0.37 | -0.01 |
| RPS29P9 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.91 | -1.92 |
| RPS2P1 | -1.12 | -1.18 | -1.17 | -0.98 | -1.04 | -1.17 | -1.20 | -1.10 |
| RPS2P2 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| RPS2P24 | -1.89 | -1.85 | -1.88 | -1.82 | -1.89 | -1.86 | -1.89 | -1.83 |
| RPS2P28 | -1.37 | -1.36 | -1.35 | -1.25 | -1.24 | -1.29 | -1.37 | -1.33 |
| RPS2P32 | 2.03 | 1.20 | 1.41 | 1.16 | 1.68 | 1.10 | 1.16 | 1.58 |
| RPS2P35 | 4.22 | 4.41 | 3.69 | 4.66 | 4.75 | 4.48 | 4.11 | 4.34 |
| RPS2P36 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.14 | -2.21 |
| RPS2P4 | -0.39 | -0.52 | -0.42 | -0.54 | -0.56 | -0.43 | -0.41 | -0.40 |
| RPS2P44 | -0.11 | -0.09 | 0.09 | -0.05 | -0.22 | -0.21 | 0.07 | -0.23 |
| RPS2P45 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| RPS2P46 | 4.79 | 5.10 | 4.25 | 5.12 | 5.01 | 4.78 | 4.61 | 4.70 |
| RPS2P48 | -1.11 | -1.10 | -1.23 | -1.11 | -1.14 | -1.16 | -1.18 | -1.15 |
| RPS2P5 | 3.08 | 2.98 | 2.65 | 3.16 | 2.89 | 2.94 | 2.60 | 2.90 |
| RPS2P52 | -1.99 | -1.96 | -1.98 | -2.00 | -1.97 | -1.98 | -2.00 | -1.97 |
| RPS2P55 | 1.02 | 0.98 | 0.62 | 1.30 | 1.01 | 0.95 | 0.73 | 0.79 |
| RPS2P6 | -0.36 | -0.36 | -0.57 | -0.30 | -0.46 | -0.52 | -0.52 | -0.60 |
| RPS2P7 | 5.01 | 5.14 | 3.97 | 5.22 | 5.29 | 5.18 | 4.34 | 4.81 |
| RPS3 | 11.31 | 11.84 | 11.03 | 12.02 | 12.45 | 11.54 | 11.10 | 11.64 |
| RPS3A | 9.21 | 10.15 | 8.61 | 10.36 | 9.93 | 9.94 | 9.39 | 10.17 |
| RPS3AP1 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 | -2.14 | -2.15 | -2.16 |
| RPS3AP12 | -0.81 | -0.94 | -0.85 | -0.96 | -0.98 | -0.88 | -0.83 | -0.92 |
| RPS3AP14 | -2.05 | -2.04 | -1.97 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| RPS3AP22 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.07 | -2.07 | -2.08 |
| RPS3AP23 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.11 | -2.15 | -2.16 |
| RPS3AP25 | 0.02 | 0.10 | -0.09 | 0.07 | -0.05 | -0.15 | -0.08 | -0.06 |
| RPS3AP26 | 0.76 | 1.00 | 1.04 | 1.12 | 0.89 | 1.05 | 1.00 | 1.04 |
| RPS3AP29 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| RPS3AP3 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.06 |
| RPS3AP30 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RPS3AP34 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| RPS3AP35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPS3AP36 | -1.14 | -0.84 | -1.12 | -1.00 | -1.13 | -1.05 | -1.14 | -1.04 |
| RPS3AP37 | -1.60 | -1.53 | -1.52 | -1.47 | -1.59 | -1.55 | -1.61 | -1.56 |
| RPS3AP38 | -1.84 | -1.84 | -1.83 | -1.76 | -1.84 | -1.81 | -1.85 | -1.86 |
| RPS3AP39 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.24 |
| RPS3AP4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| RPS3AP40 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RPS3AP42 | -1.91 | -1.94 | -1.93 | -1.88 | -1.94 | -1.93 | -1.94 | -1.96 |
| RPS3AP43 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.13 |
| RPS3AP44 | 1.53 | 1.76 | 1.69 | 1.89 | 1.84 | 1.76 | 1.63 | 1.69 |
| RPS3AP46 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| RPS3AP47 | 1.07 | 1.38 | 1.15 | 1.49 | 1.10 | 1.35 | 1.10 | 1.28 |
| RPS3AP49 | 2.30 | 2.82 | 2.23 | 2.99 | 2.57 | 2.78 | 2.46 | 2.46 |
| RPS3AP5 | 1.60 | 2.31 | 1.51 | 2.12 | 1.86 | 2.07 | 1.85 | 1.76 |
| RPS3AP50 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RPS3AP54 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -1.99 | -2.03 |
| RPS3AP6 | -1.13 | -0.98 | -1.11 | -0.93 | -1.05 | -1.04 | -1.14 | -1.04 |
| RPS3P1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.02 | -2.06 |
| RPS3P2 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.09 | -2.10 | -2.11 |
| RPS3P6 | 1.47 | 1.65 | 1.78 | 1.90 | 1.96 | 1.64 | 1.39 | 1.81 |
| RPS3P7 | 0.12 | 0.35 | 0.14 | 0.34 | 0.56 | 0.39 | 0.26 | 0.51 |
| RPS4X | 11.79 | 11.64 | 11.26 | 11.75 | 12.19 | 11.22 | 11.23 | 10.60 |
| RPS4XP1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.92 | -1.91 | -1.91 | -1.96 |
| RPS4XP11 | 2.34 | 2.08 | 1.56 | 2.10 | 2.10 | 1.78 | 1.86 | 1.65 |
| RPS4XP13 | 0.09 | 0.11 | 0.26 | 0.40 | 0.37 | 0.24 | 0.21 | 0.22 |
| RPS4XP14 | -1.69 | -1.68 | -1.68 | -1.60 | -1.66 | -1.63 | -1.65 | -1.66 |
| RPS4XP15 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| RPS4XP16 | 1.76 | 1.76 | 1.85 | 1.85 | 1.86 | 1.61 | 1.82 | 1.76 |
| RPS4XP17 | 0.68 | 0.37 | 0.32 | 0.42 | 0.67 | 0.48 | 0.33 | 0.23 |
| RPS4XP19 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| RPS4XP2 | -1.19 | -1.40 | -1.31 | -1.41 | -1.36 | -1.38 | -1.26 | -1.36 |
| RPS4XP20 | -0.46 | -0.51 | -0.50 | -0.53 | -0.34 | -0.42 | -0.60 | -0.61 |
| RPS4XP21 | -1.69 | -1.63 | -1.68 | -1.69 | -1.69 | -1.65 | -1.64 | -1.71 |
| RPS4XP22 | 0.77 | 0.85 | 0.75 | 0.62 | 0.68 | 0.83 | 0.73 | 0.56 |
| RPS4XP23 | -1.96 | -1.96 | -1.95 | -1.93 | -1.99 | -2.00 | -2.00 | -2.01 |
| RPS4XP3 | -1.28 | -1.27 | -1.26 | -1.28 | -1.31 | -1.30 | -1.35 | -1.31 |
| RPS4XP4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPS4XP5 | -2.23 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| RPS4XP6 | -0.07 | 0.01 | -0.18 | 0.04 | -0.05 | -0.20 | -0.16 | -0.25 |
| RPS4XP7 | -0.26 | -0.24 | -0.37 | -0.27 | -0.28 | -0.33 | -0.41 | -0.44 |
| RPS4XP8 | 1.24 | 1.28 | 1.01 | 1.35 | 1.32 | 1.28 | 0.86 | 0.86 |
| RPS4XP9 | -1.74 | -1.69 | -1.73 | -1.69 | -1.71 | -1.70 | -1.74 | -1.76 |
| RPS4Y1 | 4.32 | 3.61 | 4.15 | 4.06 | 3.95 | 3.65 | 4.32 | 3.81 |
| RPS4Y2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPS5 | 11.68 | 11.05 | 10.20 | 11.41 | 12.32 | 10.96 | 10.42 | 10.95 |
| RPS5P2 | 0.62 | 0.46 | 0.54 | 0.51 | 0.85 | 0.45 | 0.43 | 0.62 |
| RPS5P3 | -2.18 | -2.20 | -2.17 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| RPS6 | 13.14 | 12.67 | 11.13 | 12.73 | 12.37 | 12.48 | 11.84 | 11.84 |
| RPS6KA1 | 5.19 | 5.46 | 5.78 | 5.23 | 5.13 | 5.24 | 6.45 | 4.49 |
| RPS6KA2 | 4.02 | 4.20 | 4.45 | 3.79 | 3.88 | 4.32 | 5.09 | 4.91 |
| RPS6KA3 | 4.90 | 5.64 | 6.15 | 5.08 | 5.34 | 5.29 | 6.20 | 5.08 |
| RPS6KA4 | 5.32 | 5.14 | 5.66 | 5.10 | 4.75 | 4.61 | 5.38 | 5.57 |
| RPS6KA5 | 2.91 | 2.97 | 3.56 | 2.51 | 3.25 | 3.99 | 3.73 | 2.87 |
| RPS6KA6 | 1.40 | 1.27 | 1.31 | 1.15 | 1.56 | 1.20 | 1.82 | 1.09 |
| RPS6KB1 | 5.01 | 4.73 | 5.50 | 4.92 | 5.10 | 5.22 | 5.29 | 5.30 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RPS6KB2 | 6.59 | 6.11 | 5.88 | 6.30 | 6.22 | 6.04 | 5.75 | 6.45 |
| RPS6KB2-AS1 | -0.51 | -0.50 | -0.40 | -0.37 | -0.50 | -0.47 | -0.33 | -0.28 |
| RPS6KC1 | 3.05 | 3.32 | 3.32 | 3.36 | 3.44 | 3.61 | 3.29 | 3.12 |
| RPS6KL1 | 1.76 | 1.47 | 1.60 | 1.67 | 1.90 | 1.50 | 2.00 | 1.25 |
| RPS6P12 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| RPS6P15 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RPS6P16 | -1.19 | -1.11 | -1.24 | -1.06 | -1.18 | -1.24 | -1.20 | -1.27 |
| RPS6P22 | -0.94 | -1.06 | -1.12 | -1.08 | -1.03 | -1.08 | -1.07 | -1.10 |
| RPS6P25 | 5.19 | 4.69 | 3.82 | 5.08 | 4.72 | 4.84 | 4.29 | 4.25 |
| RPS6P4 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPS6P8 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.18 | -2.20 | -2.21 |
| RPS7 | 10.67 | 10.65 | 9.36 | 10.96 | 10.30 | 10.40 | 9.79 | 10.62 |
| RPS7P1 | 4.41 | 4.64 | 3.72 | 4.95 | 4.46 | 4.42 | 4.03 | 4.66 |
| RPS7P10 | 1.95 | 1.93 | 1.31 | 1.97 | 1.73 | 1.83 | 1.38 | 2.14 |
| RPS7P11 | 0.17 | 0.17 | 0.11 | 0.40 | 0.25 | 0.31 | 0.08 | 0.16 |
| RPS7P12 | -1.70 | -1.69 | -1.68 | -1.75 | -1.69 | -1.75 | -1.75 | -1.62 |
| RPS7P13 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| RPS7P14 | -0.80 | -0.71 | -0.78 | -0.54 | -0.76 | -0.84 | -0.81 | -0.67 |
| RPS7P15 | -1.69 | -1.64 | -1.63 | -1.70 | -1.61 | -1.68 | -1.70 | -1.71 |
| RPS7P3 | 0.88 | 0.87 | 0.80 | 1.17 | 0.90 | 0.86 | 1.17 | 0.74 |
| RPS7P4 | 0.56 | 0.57 | 0.57 | 0.98 | 0.51 | 0.47 | 0.59 | 0.36 |
| RPS7P5 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 | -2.31 | -2.31 |
| RPS7P6 | -1.59 | -1.58 | -1.57 | -1.54 | -1.56 | -1.57 | -1.59 | -1.61 |
| RPS7P7 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| RPS7P8 | 0.21 | 0.15 | 0.08 | 0.38 | 0.34 | 0.11 | 0.19 | 0.19 |
| RPS8 | 10.79 | 11.21 | 10.32 | 11.39 | 12.21 | 11.59 | 11.44 | 11.21 |
| RPS8P3 | 0.26 | 0.27 | 0.39 | 0.47 | 0.67 | 0.59 | 0.52 | 0.27 |
| RPS8P4 | -0.33 | -0.24 | -0.40 | -0.27 | -0.21 | -0.32 | -0.27 | -0.44 |
| RPS8P6 | -0.94 | -0.86 | -1.00 | -0.95 | -0.97 | -0.92 | -0.95 | -0.86 |
| RPS9 | 10.77 | 10.97 | 9.73 | 11.30 | 11.39 | 10.65 | 10.07 | 10.21 |
| RPS9P1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPSA | 9.01 | 9.67 | 8.22 | 9.72 | 9.76 | 9.14 | 8.63 | 8.78 |
| RPSAP1 | -1.64 | -1.58 | -1.63 | -1.64 | -1.56 | -1.65 | -1.59 | -1.66 |
| RPSAP11 | -2.15 | -2.15 | -2.14 | -2.13 | -2.15 | -2.14 | -2.13 | -2.16 |
| RPSAP12 | 0.36 | 0.38 | 0.42 | 0.54 | 0.45 | 0.46 | 0.36 | 0.42 |
| RPSAP13 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| RPSAP15 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.00 |
| RPSAP16 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.07 | -2.10 | -2.11 |
| RPSAP17 | -1.05 | -1.04 | -1.10 | -0.91 | -0.93 | -1.06 | -1.13 | -1.14 |
| RPSAP18 | -0.75 | -0.81 | -0.87 | -0.75 | -0.73 | -0.80 | -0.89 | -0.84 |
| RPSAP19 | -0.49 | -0.47 | -0.44 | -0.36 | -0.39 | -0.53 | -0.64 | -0.53 |
| RPSAP2 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.03 |
| RPSAP20 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPSAP21 | 0.57 | 0.41 | 0.57 | 0.38 | 0.47 | 0.38 | 0.37 | 0.47 |
| RPSAP24 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPSAP25 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RPSAP28 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPSAP29 | 0.27 | 0.56 | 0.31 | 0.70 | 0.53 | 0.31 | 0.46 | 0.44 |
| RPSAP3 | -0.54 | -0.60 | -0.58 | -0.69 | -0.50 | -0.56 | -0.49 | -0.53 |
| RPSAP31 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| RPSAP36 | -0.21 | -0.20 | -0.19 | 0.08 | -0.09 | -0.12 | 0.29 | -0.05 |
| RPSAP39 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| RPSAP4 | -1.79 | -1.74 | -1.78 | -1.79 | -1.76 | -1.78 | -1.71 | -1.76 |
| RPSAP40 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPSAP43 | -1.75 | -1.62 | -1.67 | -1.75 | -1.71 | -1.73 | -1.69 | -1.77 |
| RPSAP44 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPSAP46 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| RPSAP47 | -1.69 | -1.63 | -1.68 | -1.69 | -1.66 | -1.67 | -1.64 | -1.66 |
| RPSAP49 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| RPSAP5 | -2.05 | -2.04 | -2.04 | -2.01 | -2.03 | -2.05 | -2.05 | -2.06 |
| RPSAP52 | 0.22 | 0.15 | 0.44 | 0.04 | 0.14 | 1.63 | 0.03 | 0.15 |
| RPSAP53 | -1.43 | -1.37 | -1.42 | -1.44 | -1.40 | -1.45 | -1.50 | -1.52 |
| RPSAP54 | 0.38 | 0.49 | 0.28 | 0.73 | 0.62 | 0.39 | 0.17 | 0.38 |
| RPSAP55 | -2.25 | -2.23 | -2.25 | -2.25 | -2.23 | -2.26 | -2.25 | -2.26 |
| RPSAP58 | 1.15 | 1.22 | 0.90 | 1.23 | 1.29 | 1.20 | 0.83 | 1.01 |
| RPSAP6 | -1.84 | -1.84 | -1.83 | -1.76 | -1.82 | -1.85 | -1.84 | -1.86 |
| RPSAP61 | -0.73 | -0.81 | -0.79 | -0.74 | -0.58 | -0.73 | -0.82 | -0.65 |
| RPSAP63 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| RPSAP69 | -0.01 | 0.09 | -0.05 | -0.01 | 0.08 | -0.03 | -0.03 | 0.16 |
| RPSAP7 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| RPSAP70 | -0.82 | -0.73 | -0.62 | -0.82 | -0.81 | -0.83 | -0.74 | -0.65 |
| RPSAP71 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| RPSAP73 | -1.94 | -1.90 | -1.93 | -1.91 | -1.92 | -1.93 | -1.95 | -1.96 |
| RPSAP74 | -2.20 | -2.13 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| RPSAP75 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| RPSAP76 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RPSAP8 | -1.94 | -1.90 | -1.93 | -1.91 | -1.90 | -1.95 | -1.95 | -1.92 |
| RPSAP9 | -1.60 | -1.59 | -1.58 | -1.55 | -1.57 | -1.55 | -1.60 | -1.57 |
| RPTN | -1.18 | -1.24 | -1.23 | -1.25 | -1.24 | -1.19 | -1.26 | -0.91 |
| RPTOR | 3.51 | 3.74 | 3.96 | 3.69 | 3.51 | 3.62 | 3.45 | 3.92 |
| RPUSD1 | 5.84 | 5.44 | 5.76 | 5.64 | 4.67 | 5.00 | 4.73 | 5.56 |
| RPUSD2 | 4.95 | 4.15 | 3.82 | 4.21 | 4.56 | 4.28 | 3.93 | 4.15 |
| RPUSD3 | 7.29 | 5.85 | 5.44 | 6.27 | 6.53 | 6.12 | 5.98 | 5.71 |
| RPUSD4 | 4.60 | 4.58 | 4.27 | 4.53 | 4.48 | 4.16 | 3.96 | 4.33 |
| RRAD | 3.03 | 2.66 | 3.10 | 3.06 | 3.13 | 2.85 | 3.46 | 3.02 |
| RRAGA | 7.94 | 6.82 | 6.03 | 7.06 | 6.39 | 7.01 | 6.12 | 6.44 |
| RRAGB | 3.24 | 3.21 | 3.04 | 3.36 | 4.11 | 3.19 | 3.19 | 3.03 |
| RRAGC | 3.44 | 3.65 | 3.88 | 3.14 | 3.55 | 3.54 | 3.68 | 3.16 |
| RRAGD | 3.44 | 2.53 | 2.75 | 2.23 | 3.74 | 2.37 | 3.23 | 2.41 |
| RRAS | 7.81 | 7.25 | 7.08 | 7.18 | 7.63 | 6.92 | 6.99 | 7.74 |
| RRAS2 | 5.22 | 4.71 | 4.36 | 4.58 | 5.11 | 4.88 | 4.72 | 4.91 |
| RRBP1 | 9.02 | 8.71 | 9.20 | 9.06 | 9.62 | 9.05 | 9.12 | 9.28 |
| RREB1 | 4.63 | 4.97 | 5.55 | 4.73 | 5.11 | 4.73 | 5.58 | 5.64 |
| RRH | -2.10 | -2.09 | -2.06 | -2.10 | -2.07 | -2.10 | -2.10 | -2.08 |

| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RRM1 | 6.69 | 6.84 | 7.88 | 6.59 | 6.25 | 6.88 | 7.15 | 5.61 |
| RRM2 | 6.98 | 6.54 | 7.24 | 6.32 | 5.96 | 6.69 | 6.92 | 6.59 |
| RRM2B | 4.86 | 6.52 | 5.22 | 6.43 | 4.93 | 5.10 | 6.22 | 4.87 |
| RRN3 | 4.72 | 5.00 | 5.35 | 4.51 | 4.26 | 5.00 | 4.49 | 4.84 |
| RRN3P1 | 2.00 | 1.06 | 1.53 | 1.43 | 1.35 | 1.64 | 1.29 | 1.14 |
| RRN3P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RRN3P3 | 1.55 | 2.17 | 1.78 | 1.65 | 1.75 | 1.55 | 2.16 | 1.99 |
| RRNAD1 | 5.41 | 5.24 | 5.77 | 5.04 | 5.54 | 5.57 | 5.20 | 5.53 |
| RRP1 | 6.45 | 5.65 | 5.78 | 5.63 | 5.55 | 5.93 | 5.10 | 5.96 |
| RRP12 | 4.27 | 4.29 | 4.55 | 4.14 | 4.32 | 4.35 | 4.10 | 4.02 |
| RRP15 | 6.35 | 6.62 | 5.75 | 6.50 | 6.04 | 6.43 | 5.64 | 6.07 |
| RRP1B | 6.24 | 6.45 | 5.96 | 6.24 | 6.07 | 6.50 | 6.04 | 6.38 |
| RRP36 | 6.67 | 6.44 | 5.64 | 6.39 | 6.20 | 6.66 | 5.99 | 7.06 |
| RRP7A | 7.08 | 6.87 | 6.63 | 6.83 | 6.47 | 6.35 | 6.35 | 7.42 |
| RRP7BP | 3.26 | 2.83 | 2.98 | 3.44 | 2.65 | 3.08 | 3.08 | 2.55 |
| RRP8 | 4.86 | 4.78 | 4.36 | 4.60 | 4.81 | 4.58 | 4.51 | 4.51 |
| RRP9 | 6.06 | 5.68 | 5.25 | 5.80 | 5.80 | 5.71 | 4.60 | 5.13 |
| RRS1 | 5.94 | 6.17 | 5.75 | 6.28 | 6.05 | 6.26 | 5.23 | 5.96 |
| RRS1-AS1 | -1.64 | -1.63 | -1.63 | -1.64 | -1.64 | -1.62 | -1.54 | -1.66 |
| RSAD1 | 4.47 | 3.78 | 4.01 | 4.15 | 4.31 | 4.13 | 3.83 | 3.77 |
| RSAD2 | 4.14 | 2.95 | 3.98 | 3.00 | 3.51 | 3.32 | 3.09 | 2.80 |
| RSBN1 | 5.85 | 6.04 | 6.17 | 5.64 | 5.67 | 5.63 | 6.00 | 5.59 |
| RSBN1L | 5.87 | 6.69 | 6.98 | 6.56 | 6.94 | 6.66 | 6.69 | 7.12 |
| RSF1 | 6.60 | 7.04 | 7.19 | 6.62 | 6.74 | 6.72 | 6.81 | 6.79 |
| RSF1-IT1 | -1.69 | -1.68 | -1.63 | -1.69 | -1.68 | -1.65 | -1.65 | -1.66 |
| RSF1-IT2 | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.06 |
| RSKR | 2.46 | 1.93 | 2.45 | 1.98 | 1.91 | 2.27 | 2.18 | 2.25 |
| RSL1D1 | 8.78 | 8.30 | 7.77 | 8.46 | 8.13 | 8.20 | 7.70 | 8.45 |
| RSL24D1 | 7.80 | 7.62 | 6.72 | 7.74 | 8.32 | 7.48 | 7.29 | 8.39 |
| RSL24D1P1 | -1.33 | -1.26 | -1.32 | -1.40 | -1.39 | -1.38 | -1.40 | -1.36 |
| RSPH1 | 5.78 | 4.52 | 4.12 | 5.31 | 4.34 | 4.16 | 4.53 | 4.57 |
| RSPH10B | -1.70 | -1.79 | -1.73 | -1.75 | -1.72 | -1.80 | -1.75 | -1.76 |
| RSPH10B2 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -1.98 | -2.00 | -2.00 |
| RSPH14 | 2.61 | 1.87 | 1.93 | 2.04 | 2.31 | 1.79 | 2.32 | 1.61 |
| RSPH3 | 4.87 | 5.11 | 5.38 | 4.69 | 4.53 | 6.32 | 5.87 | 4.93 |
| RSPH4A | -1.52 | -1.35 | -1.51 | -1.47 | -1.52 | -1.27 | -1.53 | -1.54 |
| RSPH9 | 1.10 | 0.56 | 0.49 | 0.46 | 0.63 | 0.74 | 0.45 | 0.81 |
| RSPO2 | -1.32 | -1.31 | -1.30 | -0.11 | -1.23 | -1.33 | -1.33 | -1.34 |
| RSPO3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| RSPO4 | -2.20 | -2.20 | -2.09 | -2.20 | -2.20 | -2.21 | -2.18 | -2.21 |
| RSPRY1 | 5.41 | 5.65 | 5.58 | 5.49 | 5.09 | 5.66 | 5.50 | 5.75 |
| RSRC1 | 7.26 | 5.81 | 6.94 | 6.08 | 6.95 | 6.74 | 6.69 | 7.33 |
| RSRC2 | 7.02 | 7.50 | 7.51 | 7.06 | 7.31 | 7.75 | 7.37 | 7.56 |
| RSRP1 | 4.80 | 4.67 | 5.78 | 4.84 | 5.56 | 5.61 | 5.81 | 5.09 |
| RSU1 | 5.41 | 6.40 | 6.19 | 6.58 | 6.51 | 6.26 | 6.16 | 6.22 |
| RSU1P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RTBDN | -0.57 | -0.79 | -0.60 | -0.80 | -0.39 | -0.74 | -0.80 | -0.75 |
| RTCA | 5.13 | 5.20 | 4.80 | 5.25 | 5.38 | 5.40 | 5.04 | 5.32 |
| RTCA-AS1 | 1.63 | 1.45 | 1.76 | 1.72 | 1.52 | 1.78 | 1.64 | 1.56 |
| RTCB | 7.06 | 6.65 | 5.78 | 6.98 | 6.59 | 6.94 | 6.47 | 6.98 |
| RTCL1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.02 | -2.03 |
| RTCL1-TNFRSF6B | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| RTCL1P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 |
| RTF1 | 8.09 | 7.94 | 7.83 | 7.89 | 7.79 | 7.80 | 7.93 | 8.14 |
| RTF2 | 7.79 | 6.75 | 6.73 | 6.96 | 7.51 | 7.20 | 6.44 | 7.46 |
| RTKN | 5.62 | 5.41 | 5.30 | 5.69 | 5.54 | 5.65 | 5.52 | 4.79 |
| RTKN2 | 4.32 | 4.38 | 4.36 | 4.06 | 4.27 | 5.45 | 4.05 | 3.91 |
| RTL10 | 4.74 | 4.49 | 4.27 | 4.88 | 3.92 | 4.83 | 4.71 | 4.23 |
| RTL5 | -1.79 | -1.79 | -1.78 | -1.57 | -1.74 | -1.78 | -1.75 | -1.81 |
| RTL6 | 3.32 | 4.19 | 3.20 | 3.59 | 3.37 | 3.14 | 3.47 | 3.65 |
| RTL8A | 7.25 | 7.02 | 7.11 | 7.16 | 7.65 | 7.96 | 6.87 | 7.16 |
| RTL8B | 4.03 | 4.29 | 3.03 | 4.40 | 3.39 | 3.41 | 3.57 | 2.89 |
| RTL8C | 6.96 | 6.96 | 6.72 | 7.25 | 7.07 | 7.83 | 6.56 | 6.76 |
| RTL9 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| RTN1 | -0.72 | -0.63 | -0.61 | -0.72 | -0.63 | -0.73 | -0.72 | -0.74 |
| RTN2 | 3.12 | 2.99 | 3.32 | 2.67 | 3.69 | 2.49 | 2.87 | 4.49 |
| RTN3 | 7.94 | 6.80 | 7.98 | 6.70 | 8.02 | 7.68 | 7.92 | 8.14 |
| RTN3P1 | -0.80 | -0.87 | -0.77 | -0.88 | -0.75 | -0.85 | -0.81 | -0.78 |
| RTN4 | 7.92 | 8.25 | 8.56 | 8.10 | 8.35 | 8.45 | 8.56 | 8.65 |
| RTN4IP1 | 3.74 | 3.27 | 3.73 | 3.03 | 3.36 | 3.24 | 3.49 | 2.94 |
| RTN4R | 5.22 | 4.66 | 4.31 | 4.38 | 4.69 | 5.02 | 4.59 | 4.86 |
| RTN4RL1 | 1.71 | 0.46 | 0.40 | 0.26 | 0.36 | 0.43 | 0.25 | 0.29 |
| RTN4RL2 | 2.47 | 1.74 | 1.94 | 1.55 | 2.02 | 1.56 | 1.32 | 2.15 |
| RTP4 | 4.33 | 4.30 | 4.34 | 4.33 | 4.45 | 3.99 | 3.63 | 4.15 |
| RTRAF | 7.52 | 8.02 | 7.36 | 8.21 | 8.60 | 8.32 | 7.77 | 8.04 |
| RTTN | 2.84 | 2.52 | 3.44 | 3.01 | 2.36 | 2.65 | 3.39 | 2.13 |
| RUBCN | 3.72 | 3.86 | 4.15 | 3.66 | 3.55 | 3.41 | 3.43 | 3.81 |
| RUBCNL | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| RUFY1 | 4.55 | 5.59 | 5.49 | 6.06 | 5.51 | 5.09 | 5.42 | 5.15 |
| RUFY2 | 4.91 | 5.10 | 4.81 | 4.69 | 4.78 | 5.04 | 4.93 | 4.83 |
| RUFY3 | 3.28 | 4.15 | 4.12 | 4.14 | 3.46 | 4.37 | 4.63 | 4.22 |
| RUFY4 | -2.10 | -2.09 | -2.09 | -2.07 | -2.07 | -2.10 | -2.10 | -2.11 |
| RUNDC1 | 4.62 | 5.22 | 5.34 | 5.15 | 4.96 | 5.39 | 5.02 | 4.98 |
| RUNDC3A | 0.25 | 0.06 | -0.10 | -0.04 | -0.07 | -0.13 | -0.05 | -0.02 |
| RUNDC3A-AS1 | 0.48 | 1.21 | 0.69 | 0.83 | 0.96 | 0.60 | 0.47 | 0.81 |
| RUNDC3B | -0.10 | -0.32 | -0.31 | -0.33 | -0.28 | -0.34 | -0.26 | -0.29 |
| RUNX1 | 5.02 | 6.14 | 5.88 | 5.77 | 5.16 | 6.29 | 4.84 | 5.29 |
| RUNX2 | 2.50 | 2.41 | 2.82 | 2.31 | 2.89 | 3.27 | 3.14 | 2.45 |
| RUNX3 | 2.76 | 1.34 | 1.47 | 1.46 | 1.62 | 2.08 | 1.45 | 1.20 |
| RUSC1 | 5.93 | 5.84 | 5.38 | 6.11 | 5.64 | 6.04 | 5.71 | 5.52 |
| RUSC1-AS1 | 2.53 | 2.32 | 2.14 | 2.58 | 2.69 | 2.57 | 2.79 | 2.65 |
| RUSC2 | 1.94 | 2.04 | 2.41 | 2.39 | 2.23 | 1.94 | 2.16 | 2.13 |
| RUVBL1 | 7.36 | 5.78 | 6.80 | 5.93 | 6.25 | 6.79 | 6.13 | 6.50 |
| RUVBL2 | 7.64 | 7.09 | 6.94 | 7.17 | 7.45 | 7.62 | 6.61 | 7.19 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RWDD1 | 7.80 | 7.09 | 6.98 | 7.11 | 7.36 | 7.29 | 7.41 | 7.20 |
| RWDD2A | 3.48 | 2.81 | 3.13 | 3.00 | 3.18 | 3.02 | 3.51 | 3.43 |
| RWDD2B | 5.14 | 5.09 | 4.37 | 5.45 | 4.62 | 4.04 | 4.31 | 3.75 |
| RWDD3 | 0.46 | 0.40 | 0.36 | 0.30 | 0.36 | 0.50 | 0.36 | 0.59 |
| RWDD4 | 4.08 | 4.17 | 4.02 | 4.50 | 3.89 | 4.19 | 4.06 | 4.62 |
| RWDD4P2 | -1.11 | -1.10 | -1.01 | -1.04 | -1.07 | -0.95 | -1.04 | -1.06 |
| RXFP4 | 1.57 | 1.36 | 0.66 | 1.45 | 1.38 | 0.78 | 0.77 | 0.82 |
| RXRA | 5.28 | 5.39 | 5.79 | 5.24 | 4.91 | 5.47 | 5.57 | 5.54 |
| RXRB | 4.57 | 4.47 | 4.93 | 4.77 | 4.36 | 4.89 | 4.76 | 5.22 |
| RXRG | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| RXYLT1 | 4.76 | 5.33 | 5.19 | 5.57 | 5.22 | 5.60 | 5.13 | 5.30 |
| RXYLT1-AS1 | -1.54 | -1.42 | -1.53 | -1.55 | -1.54 | -1.50 | -1.49 | -1.51 |
| RYBP | 4.93 | 6.10 | 5.75 | 5.60 | 5.31 | 5.56 | 5.71 | 5.31 |
| RYK | 5.29 | 5.03 | 6.32 | 4.74 | 5.67 | 5.70 | 5.51 | 6.04 |
| RYKP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 |
| RYR1 | 1.96 | 2.08 | 1.59 | 2.00 | 1.02 | 1.20 | 0.97 | 0.98 |
| RYR2 | 1.68 | 3.26 | 2.72 | 3.93 | 1.00 | 1.10 | 1.04 | 1.25 |
| RYR3 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| S100A1 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.89 | -1.83 |
| S100A10 | 11.43 | 11.69 | 10.61 | 11.51 | 11.28 | 11.75 | 10.89 | 12.20 |
| S100A11 | 11.23 | 11.47 | 10.77 | 11.48 | 11.66 | 11.75 | 10.90 | 12.09 |
| S100A11P2 | -1.42 | -1.35 | -1.41 | -1.36 | -1.39 | -1.40 | -1.37 | -1.24 |
| S100A13 | 7.57 | 8.04 | 7.18 | 8.20 | 7.96 | 7.92 | 7.39 | 8.07 |
| S100A14 | 10.36 | 9.31 | 8.87 | 9.65 | 10.37 | 9.07 | 10.30 | 9.67 |
| S100A16 | 9.82 | 9.68 | 8.79 | 9.84 | 9.78 | 9.85 | 9.94 | 10.74 |
| S100A2 | 5.23 | 5.45 | 5.69 | 4.71 | 7.08 | 5.64 | 4.35 | 7.35 |
| S100A3 | 2.79 | 1.79 | 1.84 | 1.58 | 2.99 | 2.22 | 1.91 | 1.98 |
| S100A4 | 10.96 | 8.42 | 8.96 | 10.45 | 12.46 | 10.45 | 7.96 | 10.69 |
| S100A5 | 2.55 | 1.73 | 2.44 | 1.44 | 2.60 | 2.44 | 1.73 | 2.92 |
| S100A6 | 14.24 | 13.18 | 13.00 | 13.27 | 14.09 | 13.65 | 13.38 | 14.02 |
| S100A7 | -1.94 | -1.94 | -1.86 | -1.94 | -1.88 | -1.93 | -1.95 | -1.88 |
| S100A8 | -0.95 | -1.16 | -1.00 | -1.04 | -1.13 | -1.18 | -1.10 | -0.92 |
| S100A9 | 3.96 | 2.02 | 2.22 | 2.25 | 2.18 | 2.02 | 2.69 | 3.28 |
| S100B | -2.22 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| S100G | -1.65 | -1.64 | -1.63 | -1.65 | -1.35 | -1.66 | -1.65 | -1.67 |
| S100P | 9.99 | 8.91 | 9.54 | 8.81 | 9.63 | 10.16 | 9.62 | 11.38 |
| S100PBP | 4.10 | 3.34 | 3.73 | 2.81 | 3.53 | 3.52 | 4.04 | 3.13 |
| S1PR1 | 0.27 | 0.53 | 0.66 | 0.57 | 0.32 | 0.25 | 0.26 | 0.36 |
| S1PR2 | 1.49 | 1.46 | 1.56 | 1.48 | 1.47 | 1.48 | 1.34 | 1.60 |
| S1PR3 | 0.29 | -0.02 | 0.29 | -0.05 | -0.15 | 0.02 | -0.12 | -0.16 |
| S1PR4 | -1.22 | -1.14 | -0.98 | -1.23 | -1.18 | -1.17 | -1.16 | -1.13 |
| S1PR5 | -0.64 | -0.83 | -0.73 | -0.92 | -0.87 | -0.75 | -0.77 | -0.93 |
| SAA1 | 8.23 | 5.21 | 6.42 | 5.35 | 5.56 | 6.28 | 6.51 | 5.26 |
| SAA2 | 6.20 | 4.11 | 5.12 | 3.65 | 4.04 | 4.54 | 4.58 | 4.22 |
| SAA2-SAA4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SAA3P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SAA4 | -1.34 | -1.46 | -1.45 | -1.47 | -1.46 | -1.44 | -1.47 | -1.48 |
| SAAL1 | 4.96 | 4.66 | 4.70 | 4.53 | 5.14 | 4.54 | 4.16 | 4.12 |
| SAC3D1 | 6.40 | 4.85 | 5.66 | 5.15 | 5.62 | 5.52 | 5.31 | 5.37 |
| SACM1L | 4.66 | 4.90 | 4.93 | 5.02 | 4.44 | 4.52 | 5.34 | 4.95 |
| SACS | 2.82 | 3.86 | 3.92 | 3.71 | 3.22 | 3.27 | 3.19 | 2.91 |
| SAE1 | 7.42 | 6.59 | 6.72 | 6.66 | 7.17 | 7.19 | 6.39 | 6.66 |
| SAFB | 5.68 | 6.04 | 6.60 | 5.76 | 6.14 | 6.41 | 6.26 | 5.68 |
| SAFB2 | 5.93 | 6.11 | 6.39 | 6.24 | 6.73 | 6.20 | 6.13 | 5.91 |
| SAG | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.24 | -2.25 | -2.24 |
| SALL1 | -0.87 | -0.86 | -0.93 | -0.96 | -0.95 | -0.96 | -0.88 | -0.97 |
| SALL2 | 0.55 | 0.04 | 0.22 | -0.06 | 0.52 | 0.04 | -0.06 | 0.16 |
| SALL4 | 1.76 | 1.09 | 1.51 | 0.98 | 1.08 | 1.57 | 0.97 | 1.26 |
| SAMD1 | 5.00 | 5.67 | 5.67 | 5.55 | 5.08 | 5.11 | 6.39 | 4.99 |
| SAMD10 | 4.81 | 3.86 | 4.08 | 4.29 | 3.61 | 3.63 | 3.87 | 4.04 |
| SAMD11 | 1.69 | 0.92 | 1.08 | 1.11 | 1.11 | 1.10 | 1.10 | 1.16 |
| SAMD12 | 4.96 | 5.55 | 5.87 | 5.18 | 5.39 | 5.27 | 5.00 | 5.24 |
| SAMD12-AS1 | -0.29 | -0.13 | -0.18 | -0.37 | -0.28 | -0.21 | -0.23 | -0.39 |
| SAMD13 | 1.26 | 0.96 | 1.00 | 1.24 | 1.30 | 1.21 | 0.98 | 1.24 |
| SAMD14 | -0.16 | -0.19 | -0.34 | -0.37 | -0.31 | -0.23 | -0.37 | -0.45 |
| SAMD15 | -0.70 | -0.70 | -0.69 | -0.71 | -0.78 | -0.69 | -0.71 | -0.80 |
| SAMD3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| SAMD4A | 2.53 | 2.79 | 3.47 | 3.23 | 3.11 | 3.33 | 3.14 | 2.51 |
| SAMD4B | 6.47 | 6.07 | 6.65 | 5.60 | 5.91 | 6.13 | 6.12 | 5.90 |
| SAMD5 | 3.53 | 3.83 | 2.51 | 3.60 | 3.48 | 2.08 | 3.35 | 2.41 |
| SAMD8 | 4.89 | 5.03 | 5.36 | 5.09 | 4.83 | 5.09 | 5.23 | 4.73 |
| SAMD9 | 5.43 | 5.34 | 5.58 | 4.82 | 4.83 | 5.14 | 4.08 | 4.92 |
| SAMD9L | 3.37 | 3.40 | 3.54 | 2.80 | 3.22 | 3.37 | 2.65 | 3.09 |
| SAMHD1 | 5.44 | 4.71 | 5.44 | 4.71 | 4.32 | 4.61 | 4.35 | 3.56 |
| SAMM50 | 7.52 | 7.11 | 6.42 | 7.58 | 6.69 | 7.16 | 6.82 | 7.36 |
| SAMMSON | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| SAMSN1 | -1.69 | -1.68 | -1.63 | -1.69 | -1.64 | -1.67 | -1.69 | -1.61 |
| SAP130 | 3.81 | 3.84 | 3.84 | 3.71 | 3.55 | 3.69 | 3.85 | 4.14 |
| SAP18 | 8.47 | 8.82 | 8.19 | 8.85 | 9.32 | 8.53 | 8.37 | 9.70 |
| SAP18P2 | -1.60 | -1.59 | -1.58 | -1.55 | -1.51 | -1.58 | -1.50 | -1.52 |
| SAP30 | 4.70 | 5.28 | 5.12 | 5.37 | 4.80 | 5.91 | 5.13 | 4.69 |
| SAP30BP | 6.75 | 6.32 | 6.56 | 6.36 | 6.74 | 6.77 | 6.26 | 6.27 |
| SAP30L | 5.15 | 5.22 | 5.62 | 5.06 | 5.64 | 5.39 | 5.12 | 5.11 |
| SAP30L-AS1 | -0.85 | -0.76 | -0.83 | -0.66 | -0.62 | -0.75 | -0.64 | -0.69 |
| SAPCD1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| SAPCD1-AS1 | -0.60 | -0.59 | -0.49 | -0.68 | -0.64 | -0.62 | -0.61 | -0.58 |
| SAPCD2 | 5.91 | 6.09 | 5.77 | 5.93 | 4.45 | 5.41 | 5.29 | 4.46 |
| SAR1A | 7.27 | 7.00 | 6.80 | 6.90 | 7.62 | 7.08 | 6.59 | 6.65 |
| SAR1AP3 | -1.64 | -1.69 | -1.73 | -1.74 | -1.66 | -1.65 | -1.74 | -1.76 |
| SAR1B | 7.33 | 7.16 | 6.85 | 7.32 | 7.71 | 7.21 | 7.09 | 7.37 |
| SARAF | 7.70 | 8.03 | 8.43 | 8.26 | 7.63 | 8.19 | 7.90 | 7.89 |
| SARDH | -1.10 | -1.22 | -1.21 | -1.30 | -1.12 | -1.16 | -1.30 | -1.31 |
| SARM1 | 2.20 | 2.30 | 2.38 | 2.63 | 2.24 | 2.14 | 1.81 | 2.21 |
| SARNP | 4.37 | 3.61 | 3.47 | 3.85 | 4.17 | 4.36 | 3.51 | 4.20 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SARS | 7.55 | 7.45 | 6.97 | 7.64 | 7.63 | 7.28 | 7.43 | 6.82 |
| SARS2 | 3.70 | 3.63 | 3.38 | 3.72 | 3.74 | 3.62 | 3.53 | 3.03 |
| SART1 | 6.43 | 5.78 | 6.61 | 5.55 | 6.30 | 6.09 | 5.66 | 6.46 |
| SART3 | 5.24 | 5.85 | 6.02 | 5.69 | 5.65 | 5.80 | 5.48 | 5.62 |
| SASH1 | 4.70 | 3.77 | 4.24 | 4.42 | 4.18 | 3.99 | 4.73 | 3.98 |
| SASS6 | 4.67 | 4.43 | 4.22 | 4.48 | 4.23 | 4.61 | 4.42 | 4.10 |
| SAT1 | 10.65 | 9.70 | 10.01 | 9.95 | 11.70 | 9.84 | 10.18 | 10.19 |
| SAT2 | 5.34 | 5.66 | 5.42 | 5.75 | 5.71 | 5.48 | 5.76 | 5.65 |
| SATB1 | 3.57 | 3.20 | 3.98 | 2.83 | 2.66 | 3.06 | 4.14 | 4.02 |
| SATB1-AS1 | 0.24 | -0.33 | -0.22 | -0.34 | -0.29 | -0.34 | -0.34 | -0.29 |
| SATB2 | 2.12 | 2.53 | 2.47 | 2.09 | 2.72 | 2.31 | 2.23 | 2.15 |
| SATB2-AS1 | 1.59 | 1.09 | 1.31 | 1.30 | 1.77 | 1.11 | 0.90 | 1.83 |
| SATL1 | -1.96 | -1.96 | -1.98 | -1.96 | -1.99 | -1.97 | -1.96 | -2.01 |
| SAV1 | 5.41 | 5.17 | 5.44 | 5.29 | 5.68 | 5.32 | 5.75 | 5.12 |
| SAXO1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| SAXO2 | 0.61 | 0.39 | 0.34 | 0.37 | 0.66 | 0.44 | 0.46 | 0.31 |
| SAYSD1 | 5.13 | 4.60 | 4.30 | 5.01 | 4.80 | 5.06 | 4.66 | 4.82 |
| SBDS | 7.21 | 6.71 | 6.10 | 6.64 | 6.59 | 6.71 | 6.53 | 7.04 |
| SBDSP1 | 2.30 | 2.36 | 2.14 | 2.12 | 2.30 | 2.16 | 2.24 | 2.44 |
| SBF1 | 4.67 | 5.33 | 4.51 | 5.22 | 4.24 | 4.77 | 4.84 | 5.37 |
| SBF2 | 4.31 | 4.19 | 4.82 | 4.56 | 4.71 | 4.12 | 5.09 | 4.67 |
| SBF2-AS1 | 4.24 | 3.60 | 3.87 | 3.63 | 3.90 | 2.84 | 2.93 | 2.98 |
| SBK1 | 1.79 | 1.53 | 1.48 | 1.29 | 1.72 | 1.36 | 1.71 | 1.42 |
| SBK3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SBNO1 | 6.21 | 6.86 | 7.23 | 6.53 | 6.57 | 6.58 | 6.87 | 6.83 |
| SBNO2 | 4.84 | 4.51 | 5.38 | 3.96 | 4.78 | 4.66 | 5.52 | 5.27 |
| SBSN | -1.65 | -1.65 | -1.52 | -1.66 | -1.62 | -1.38 | -1.66 | -1.68 |
| SBSPON | 1.49 | 1.34 | 1.50 | 1.47 | 1.48 | 1.46 | 2.34 | 1.17 |
| SC5D | 6.77 | 6.51 | 6.04 | 6.71 | 7.12 | 6.32 | 7.14 | 7.59 |
| SCAANT1 | -1.79 | -1.74 | -1.78 | -1.80 | -1.76 | -1.78 | -1.80 | -1.81 |
| SCAF1 | 4.76 | 4.69 | 5.01 | 4.15 | 4.44 | 4.41 | 5.03 | 4.54 |
| SCAF11 | 7.49 | 7.81 | 7.77 | 7.46 | 7.06 | 7.87 | 7.88 | 7.69 |
| SCAF4 | 4.95 | 5.06 | 5.29 | 4.62 | 4.48 | 5.00 | 5.14 | 5.34 |
| SCAF8 | 5.08 | 4.63 | 4.85 | 4.57 | 4.16 | 4.62 | 5.02 | 4.86 |
| SCAI | 2.47 | 2.30 | 2.45 | 2.52 | 2.45 | 2.68 | 2.94 | 2.44 |
| SCAMP1 | 4.60 | 5.42 | 5.94 | 5.33 | 5.81 | 5.50 | 5.90 | 5.50 |
| SCAMP1-AS1 | 3.75 | 4.05 | 3.48 | 4.23 | 4.24 | 3.48 | 3.38 | 3.83 |
| SCAMP2 | 7.68 | 7.53 | 7.37 | 7.88 | 7.45 | 7.16 | 7.12 | 7.29 |
| SCAMP3 | 7.23 | 6.75 | 6.42 | 6.99 | 7.33 | 7.22 | 6.58 | 7.50 |
| SCAMP4 | 4.87 | 4.70 | 5.26 | 4.55 | 4.72 | 5.11 | 4.93 | 4.66 |
| SCAMP5 | 2.35 | 2.27 | 3.68 | 1.98 | 3.60 | 2.08 | 2.35 | 2.02 |
| SCAND1 | 8.02 | 7.78 | 7.51 | 7.97 | 7.85 | 7.89 | 7.37 | 7.18 |
| SCAND2P | 2.04 | 2.27 | 2.47 | 2.24 | 2.35 | 2.05 | 2.34 | 2.29 |
| SCAND3P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SCAP | 5.63 | 5.81 | 5.79 | 5.57 | 5.24 | 5.29 | 5.62 | 4.80 |
| SCAPER | 5.76 | 5.74 | 6.25 | 5.83 | 5.94 | 5.54 | 6.43 | 5.86 |
| SCARA3 | 4.61 | 2.93 | 4.62 | 2.94 | 2.83 | 3.49 | 4.38 | 2.40 |
| SCARA5 | 0.31 | -0.55 | -0.53 | -0.55 | -0.50 | -0.56 | -0.56 | -0.57 |
| SCARB1 | 6.08 | 6.38 | 7.55 | 6.64 | 5.93 | 6.07 | 6.56 | 6.43 |
| SCARB2 | 6.61 | 7.75 | 7.44 | 7.56 | 6.78 | 7.54 | 8.06 | 7.72 |
| SCARF1 | -1.56 | -1.56 | -1.55 | -1.57 | -1.45 | -1.55 | -1.57 | -1.39 |
| SCARF2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| SCARNA1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -1.96 | -2.01 |
| SCARNA18 | -2.05 | -2.04 | -2.04 | -2.05 | -2.02 | -2.03 | -1.96 | -2.07 |
| SCARNA18B | -1.94 | -1.94 | -1.93 | -1.94 | -1.90 | -1.93 | -1.95 | -1.96 |
| SCARNA20 | -1.54 | -1.54 | -1.53 | -1.43 | -1.39 | -1.44 | -1.49 | -1.56 |
| SCARNA21 | 0.66 | 0.76 | 0.62 | 0.78 | 1.17 | 1.09 | 0.57 | 1.26 |
| SCARNA21B | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| SCARNA22 | 5.72 | 5.05 | 5.17 | 5.62 | 6.17 | 5.54 | 5.75 | 4.80 |
| SCARNA23 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| SCARNA3 | -2.20 | -2.20 | -2.19 | -2.16 | -2.20 | -2.18 | -2.20 | -2.19 |
| SCARNA5 | 0.94 | 1.03 | 0.92 | 1.24 | 1.76 | 1.09 | 0.99 | 1.06 |
| SCARNA6 | -1.79 | -1.79 | -1.78 | -1.66 | -1.74 | -1.80 | -1.80 | -1.68 |
| SCARNA7 | 1.06 | 0.96 | 0.74 | 0.98 | 0.88 | 0.96 | 0.98 | 1.35 |
| SCARNA8 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SCARNA9 | 3.00 | 3.57 | 3.72 | 4.35 | 4.18 | 3.23 | 3.80 | 3.67 |
| SCART1 | 0.29 | 0.30 | 0.59 | 0.57 | 0.58 | 0.41 | 0.97 | 0.38 |
| SCAT1 | 0.01 | 0.18 | 0.03 | 0.06 | -0.02 | 0.47 | -0.07 | 0.56 |
| SCAT2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| SCAT8 | -1.45 | -1.45 | -1.44 | -1.46 | -1.42 | -1.46 | -1.46 | -1.32 |
| SCCPDH | 5.76 | 6.32 | 5.96 | 6.61 | 6.77 | 6.54 | 5.73 | 5.42 |
| SCD | 9.22 | 10.17 | 10.59 | 10.00 | 10.01 | 9.53 | 11.37 | 9.61 |
| SCD5 | 3.03 | 4.12 | 4.31 | 3.95 | 3.76 | 3.37 | 3.89 | 3.55 |
| SCDP1 | -1.64 | -1.64 | -1.57 | -1.64 | -1.56 | -1.65 | -1.54 | -1.66 |
| SCEL | 3.69 | 5.41 | 4.43 | 4.99 | 3.93 | 4.48 | 5.82 | 5.73 |
| SCFD1 | 5.24 | 5.95 | 5.59 | 6.00 | 6.60 | 6.09 | 5.86 | 6.49 |
| SCFD2 | 2.45 | 2.98 | 2.68 | 3.48 | 2.81 | 2.56 | 3.29 | 3.08 |
| SCG2 | -1.24 | -1.10 | -1.22 | -1.12 | -1.16 | -1.07 | -1.18 | -1.14 |
| SCG3 | -0.58 | -0.77 | -0.76 | -0.78 | -0.74 | -0.72 | -0.78 | -0.62 |
| SCG5 | 3.65 | 2.49 | 2.87 | 2.52 | 4.59 | 4.70 | 3.05 | 2.79 |
| SCGB1B2P | -0.37 | -0.36 | -0.35 | -0.37 | -0.13 | -0.16 | -0.37 | -0.10 |
| SCGB1D2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| SCGB2A1 | 0.32 | 0.64 | 0.45 | 0.95 | 0.40 | 0.33 | 0.59 | 0.53 |
| SCGB2B2 | -1.99 | -1.95 | -1.95 | -1.96 | -1.97 | -1.98 | -2.00 | -2.01 |
| SCGB3A1 | 4.67 | 4.64 | 4.87 | 4.53 | 4.59 | 4.30 | 6.49 | 4.33 |
| SCGN | -2.20 | -2.20 | -2.19 | -2.16 | -2.20 | -2.20 | -2.20 | -2.21 |
| SCHIP1 | -1.64 | -1.58 | -1.63 | -1.59 | -1.64 | -1.57 | -1.54 | -1.61 |
| SCIMP | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| SCIN | 4.45 | 3.86 | 3.49 | 4.35 | 2.99 | 3.92 | 4.55 | 3.20 |
| SCLT1 | 3.63 | 4.56 | 4.34 | 4.15 | 3.95 | 4.56 | 4.41 | 4.38 |
| SCLY | 2.76 | 2.42 | 2.43 | 2.79 | 2.83 | 2.62 | 2.21 | 2.08 |
| SCMH1 | 2.93 | 3.38 | 2.69 | 2.95 | 2.84 | 2.87 | 2.98 | 2.67 |
| SCML1 | 5.75 | 4.57 | 5.45 | 3.89 | 4.78 | 4.63 | 5.32 | 4.52 |
| SCML2 | -0.09 | -0.08 | -0.07 | -0.17 | 0.47 | -0.18 | -0.02 | -0.13 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SCML4 | 0.50 | 0.92 | -0.04 | 1.32 | -0.03 | -0.15 | -0.18 | -0.21 |
| SCN11A | -2.12 | -2.15 | -2.12 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| SCN1A-AS1 | -1.09 | -1.08 | -0.99 | -1.09 | -1.08 | -0.76 | -0.95 | -0.74 |
| SCN1B | 3.33 | 2.09 | 1.80 | 1.93 | 2.53 | 1.90 | 2.01 | 2.25 |
| SCN2A | 1.79 | 0.73 | 0.77 | 0.77 | 0.54 | 0.58 | 0.60 | 1.40 |
| SCN3A | -1.53 | -1.64 | -1.57 | -1.59 | -1.61 | -1.65 | -1.65 | -1.61 |
| SCN3B | -1.79 | -1.60 | -1.78 | -1.70 | -1.74 | -1.80 | -1.79 | -1.81 |
| SCN4A | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| SCN4B | -1.85 | -1.89 | -1.88 | -1.89 | -1.85 | -1.86 | -1.82 | -1.91 |
| SCN5A | -1.89 | -1.89 | -1.88 | -1.90 | -1.85 | -1.86 | -1.90 | -1.91 |
| SCN8A | -0.45 | -0.44 | -0.36 | -0.53 | -0.22 | -0.50 | -0.32 | -0.21 |
| SCN9A | 0.60 | 1.70 | 2.39 | 1.98 | 0.61 | 0.72 | 1.02 | 0.81 |
| SCNM1 | 6.50 | 5.97 | 5.56 | 5.79 | 5.94 | 6.00 | 5.38 | 6.27 |
| SCNN1A | 8.34 | 7.58 | 7.88 | 7.40 | 6.75 | 6.97 | 7.30 | 8.48 |
| SCNN1B | 1.81 | 4.44 | 1.58 | 4.25 | 1.81 | 1.49 | 1.55 | 2.91 |
| SCNN1D | 0.51 | 0.38 | 0.53 | 0.50 | 0.66 | 0.31 | 0.87 | 0.44 |
| SCNN1G | 0.49 | 1.46 | 0.95 | 1.73 | 0.46 | 0.45 | 0.39 | 1.24 |
| SCO1 | 5.11 | 4.49 | 5.41 | 4.91 | 4.92 | 4.84 | 5.49 | 5.14 |
| SCO2 | 6.82 | 6.32 | 5.25 | 6.76 | 5.93 | 5.78 | 5.74 | 6.36 |
| SCOC | 6.65 | 7.47 | 6.69 | 7.39 | 6.84 | 6.77 | 7.12 | 7.31 |
| SCOC-AS1 | 1.78 | 1.15 | 1.40 | 1.12 | 1.37 | 1.13 | 1.41 | 2.06 |
| SCOCP1 | -2.15 | -2.15 | -2.14 | -2.13 | -2.15 | -2.14 | -2.13 | -2.16 |
| SCP2 | 7.35 | 8.67 | 7.55 | 9.19 | 8.24 | 8.15 | 8.44 | 8.26 |
| SCPEP1 | 6.40 | 5.43 | 5.92 | 5.87 | 6.09 | 5.27 | 4.61 | 4.67 |
| SCRG1 | -0.32 | -0.24 | -0.16 | -0.18 | -0.10 | -0.20 | -0.18 | -0.12 |
| SCRIB | 6.00 | 6.27 | 6.93 | 6.09 | 5.62 | 6.09 | 6.17 | 5.79 |
| SCRN1 | 5.25 | 4.64 | 5.08 | 4.61 | 5.08 | 5.34 | 4.42 | 4.88 |
| SCRN2 | 6.03 | 5.28 | 5.86 | 5.29 | 5.56 | 5.69 | 5.04 | 6.21 |
| SCRN3 | 3.61 | 3.54 | 3.22 | 3.78 | 3.87 | 3.74 | 3.88 | 3.37 |
| SCT | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| SCTR | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.16 | -2.19 |
| SCUBE1 | -0.71 | -0.71 | -0.69 | -0.64 | -0.66 | -0.72 | -0.72 | -0.73 |
| SCUBE2 | -1.94 | -1.94 | -1.93 | -1.95 | -1.90 | -1.93 | -1.87 | -1.96 |
| SCUBE3 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.85 | -1.80 | -1.86 |
| SCX | 1.46 | 1.17 | 1.56 | 1.19 | 1.19 | 1.31 | 1.25 | 1.40 |
| SCYL1 | 6.27 | 5.42 | 6.00 | 5.44 | 5.98 | 5.79 | 5.66 | 6.52 |
| SCYL2 | 4.27 | 5.68 | 5.77 | 5.55 | 4.75 | 5.34 | 5.73 | 5.70 |
| SCYL3 | 3.66 | 3.99 | 3.53 | 3.89 | 3.73 | 3.80 | 4.02 | 3.65 |
| SDAD1 | 5.82 | 6.28 | 5.76 | 6.34 | 5.52 | 6.15 | 6.08 | 6.65 |
| SDAD1P1 | 2.43 | 2.14 | 3.48 | 1.95 | 2.23 | 2.27 | 2.35 | 1.96 |
| SDAD1P2 | -1.85 | -1.79 | -1.83 | -1.85 | -1.81 | -1.86 | -1.85 | -1.81 |
| SDC1 | 7.53 | 8.39 | 8.33 | 8.39 | 7.38 | 7.44 | 9.19 | 8.59 |
| SDC2 | 1.16 | 2.12 | 1.23 | 2.60 | 1.13 | 1.11 | 1.99 | 0.99 |
| SDC3 | 3.66 | 3.63 | 4.25 | 3.35 | 4.83 | 3.76 | 3.74 | 3.43 |
| SDC4 | 8.29 | 7.75 | 8.73 | 7.30 | 7.95 | 7.77 | 7.33 | 8.79 |
| SDCBP | 8.19 | 8.24 | 8.25 | 8.08 | 8.10 | 8.47 | 7.71 | 8.72 |
| SDCBP2 | 8.10 | 6.90 | 7.04 | 7.10 | 7.11 | 6.33 | 7.48 | 8.88 |
| SDCBP2-AS1 | 3.01 | 2.31 | 2.29 | 2.23 | 2.64 | 2.36 | 2.09 | 2.05 |
| SDCBPP2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.24 |
| SDCCAG8 | 5.32 | 5.79 | 5.66 | 6.03 | 5.48 | 6.26 | 5.62 | 5.35 |
| SDE2 | 4.96 | 4.41 | 4.59 | 4.66 | 5.11 | 5.26 | 4.52 | 5.48 |
| SDF2 | 7.28 | 6.76 | 6.35 | 6.82 | 7.28 | 7.02 | 5.95 | 6.97 |
| SDF2L1 | 7.99 | 7.43 | 6.59 | 7.71 | 7.42 | 6.94 | 7.11 | 7.82 |
| SDF4 | 8.54 | 8.18 | 7.84 | 8.58 | 8.35 | 7.91 | 7.87 | 8.25 |
| SDHA | 6.13 | 6.00 | 6.27 | 6.12 | 6.55 | 5.60 | 5.83 | 5.76 |
| SDHAF1 | 6.69 | 5.98 | 5.53 | 6.04 | 6.56 | 5.68 | 5.71 | 5.73 |
| SDHAF2 | 6.96 | 6.46 | 6.36 | 6.60 | 6.92 | 6.45 | 6.03 | 6.99 |
| SDHAF3 | 6.68 | 6.31 | 5.70 | 6.71 | 6.95 | 6.18 | 6.33 | 6.19 |
| SDHAF4 | 5.62 | 4.67 | 4.52 | 4.67 | 5.56 | 5.98 | 5.31 | 5.55 |
| SDHAP1 | 1.51 | 1.61 | 1.81 | 1.61 | 1.63 | 1.75 | 1.69 | 1.76 |
| SDHAP3 | 0.19 | 0.20 | 0.22 | 0.11 | 0.52 | 0.30 | 0.44 | 0.32 |
| SDHB | 8.08 | 7.98 | 7.57 | 8.13 | 8.46 | 8.06 | 7.70 | 7.99 |
| SDHC | 7.53 | 6.93 | 6.44 | 7.22 | 7.22 | 7.16 | 6.66 | 7.65 |
| SDHD | 8.02 | 6.90 | 6.89 | 7.16 | 7.87 | 6.95 | 6.83 | 7.82 |
| SDK1 | -0.03 | 0.13 | -0.17 | 0.03 | -0.14 | -0.03 | 0.15 | -0.21 |
| SDK2 | 1.80 | 3.15 | 1.90 | 3.14 | 1.79 | 1.58 | 2.42 | 1.50 |
| SDR16C5 | 6.96 | 6.53 | 6.36 | 7.27 | 7.43 | 6.61 | 5.43 | 6.21 |
| SDR39U1 | 5.68 | 5.64 | 5.51 | 5.96 | 6.83 | 6.33 | 5.90 | 6.04 |
| SDR42E1 | 3.75 | 3.27 | 3.54 | 3.26 | 3.19 | 3.15 | 3.30 | 3.07 |
| SDR42E2 | -0.74 | -0.81 | -0.72 | -0.75 | -0.62 | -0.72 | -0.82 | -0.72 |
| SDS | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| SDSL | 5.01 | 4.54 | 4.77 | 4.34 | 4.38 | 4.52 | 4.30 | 4.32 |
| SEC11A | 8.34 | 8.09 | 7.90 | 8.37 | 9.04 | 8.19 | 7.90 | 8.78 |
| SEC11B | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| SEC11C | 7.29 | 7.44 | 7.32 | 7.85 | 8.01 | 6.75 | 7.70 | 7.06 |
| SEC13 | 8.03 | 7.84 | 7.18 | 8.07 | 8.27 | 8.00 | 7.32 | 8.14 |
| SEC14L1 | 4.82 | 5.22 | 6.24 | 4.96 | 5.73 | 6.21 | 5.30 | 5.06 |
| SEC14L1P1 | -0.35 | -0.48 | -0.15 | -0.16 | -0.56 | -0.54 | -0.42 | -0.59 |
| SEC14L2 | 4.16 | 4.88 | 4.90 | 4.37 | 4.39 | 4.85 | 4.76 | 4.54 |
| SEC14L4 | 1.69 | 1.52 | 1.01 | 1.73 | 0.99 | 1.06 | 0.94 | 0.75 |
| SEC14L5 | -1.80 | -1.84 | -1.79 | -1.84 | -1.82 | -1.83 | -1.76 | -1.82 |
| SEC14L6 | 0.63 | 0.41 | 0.43 | 0.40 | 0.54 | 0.46 | 0.97 | 0.36 |
| SEC16A | 5.43 | 5.86 | 5.67 | 5.96 | 5.19 | 5.65 | 6.05 | 5.81 |
| SEC16B | -1.64 | -1.59 | -1.63 | -1.64 | -1.59 | -1.62 | -1.64 | -1.56 |
| SEC1P | -0.94 | -0.93 | -0.92 | -1.02 | -0.90 | -0.89 | -0.95 | -0.97 |
| SEC22A | 5.20 | 3.98 | 4.75 | 4.13 | 4.66 | 4.72 | 4.47 | 5.28 |
| SEC22B | 4.86 | 4.53 | 4.01 | 5.19 | 5.03 | 4.97 | 4.88 | 7.18 |
| SEC22B4P | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.23 |
| SEC22C | 5.90 | 5.90 | 5.57 | 6.01 | 5.95 | 5.67 | 5.48 | 4.96 |
| SEC23A | 4.74 | 5.43 | 5.02 | 4.95 | 5.07 | 5.20 | 5.65 | 5.15 |
| SEC23A-AS1 | -1.26 | -1.25 | -1.30 | -1.26 | -1.25 | -1.30 | -1.33 | -1.28 |
| SEC23B | 6.29 | 5.64 | 6.37 | 5.31 | 6.48 | 5.93 | 6.07 | 6.49 |
| SEC23IP | 5.50 | 5.31 | 4.93 | 5.15 | 5.49 | 4.91 | 5.57 | 5.56 |
| SEC24A | 3.90 | 5.01 | 5.04 | 4.67 | 4.94 | 4.73 | 5.14 | 5.10 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SEC24B | 3.78 | 4.37 | 4.66 | 4.47 | 3.83 | 4.23 | 4.94 | 4.23 |
| SEC24B-AS1 | 0.45 | 0.60 | 0.61 | 0.50 | 0.72 | 0.55 | 0.45 | 0.74 |
| SEC24C | 5.42 | 5.86 | 6.05 | 5.80 | 5.88 | 5.66 | 5.99 | 5.66 |
| SEC24D | 4.16 | 5.46 | 4.91 | 5.56 | 4.88 | 5.11 | 5.45 | 6.27 |
| SEC31A | 5.70 | 6.96 | 6.32 | 7.12 | 6.26 | 6.54 | 6.88 | 7.43 |
| SEC31B | 0.52 | 0.43 | 0.75 | 0.66 | 0.54 | 0.45 | 0.94 | 0.36 |
| SEC61A1 | 6.69 | 7.03 | 7.76 | 6.77 | 7.08 | 6.83 | 7.46 | 8.07 |
| SEC61A2 | 1.87 | 2.17 | 2.18 | 2.17 | 2.20 | 2.09 | 2.21 | 1.77 |
| SEC61B | 9.50 | 8.93 | 8.28 | 9.13 | 8.96 | 8.98 | 8.80 | 9.43 |
| SEC61G | 9.64 | 9.39 | 8.63 | 9.36 | 10.16 | 9.33 | 9.03 | 9.81 |
| SEC62 | 9.63 | 9.38 | 9.66 | 9.37 | 9.13 | 8.83 | 8.90 | 10.00 |
| SEC63 | 6.94 | 6.07 | 6.89 | 6.26 | 6.64 | 6.94 | 7.23 | 7.27 |
| SEC63P1 | -0.14 | 0.02 | -0.12 | 0.01 | -0.06 | -0.05 | 0.00 | 0.01 |
| SECISBP2 | 5.60 | 5.79 | 5.90 | 5.76 | 5.40 | 5.50 | 6.22 | 5.32 |
| SECISBP2L | 5.36 | 5.55 | 5.46 | 5.50 | 5.31 | 5.49 | 5.79 | 5.83 |
| SECTM1 | 7.15 | 4.78 | 4.53 | 4.59 | 5.97 | 5.27 | 4.39 | 4.25 |
| SEH1L | 5.82 | 5.42 | 5.54 | 5.54 | 5.88 | 5.37 | 5.15 | 6.60 |
| SEL1L | 5.71 | 6.72 | 6.50 | 6.82 | 6.79 | 6.31 | 6.72 | 6.53 |
| SEL1L3 | 5.91 | 6.79 | 6.05 | 7.03 | 6.31 | 5.55 | 7.17 | 6.34 |
| SELENBP1 | 6.30 | 5.72 | 5.28 | 6.33 | 5.72 | 5.56 | 7.07 | 5.28 |
| SELENOF | 8.15 | 8.55 | 7.72 | 8.94 | 8.85 | 8.54 | 7.91 | 9.08 |
| SELENOH | 6.74 | 6.44 | 6.41 | 6.32 | 6.78 | 6.61 | 6.17 | 7.19 |
| SELENOI | 5.24 | 5.75 | 5.92 | 5.42 | 4.86 | 5.19 | 5.88 | 5.28 |
| SELENOK | 8.65 | 7.67 | 7.40 | 7.92 | 8.25 | 8.07 | 7.42 | 7.80 |
| SELENOKP1 | -1.44 | -1.55 | -1.54 | -1.55 | -1.55 | -1.56 | -1.45 | -1.52 |
| SELENOKP2 | -2.15 | -2.15 | -2.14 | -2.12 | -2.13 | -2.15 | -2.13 | -2.16 |
| SELENOM | 9.04 | 5.13 | 6.37 | 5.45 | 7.77 | 6.73 | 5.90 | 8.10 |
| SELENON | 4.55 | 5.14 | 6.03 | 4.50 | 5.42 | 4.86 | 5.25 | 4.60 |
| SELENOO | 6.75 | 5.46 | 4.91 | 5.98 | 5.26 | 5.35 | 5.89 | 5.62 |
| SELENOOLP | 0.21 | -0.52 | -0.41 | -0.53 | -0.53 | -0.50 | -0.54 | -0.03 |
| SELENOP | 2.76 | 3.11 | 2.88 | 3.25 | 4.31 | 2.38 | 3.11 | 3.46 |
| SELENOS | 8.52 | 8.41 | 8.07 | 8.56 | 9.13 | 7.80 | 7.94 | 8.74 |
| SELENOT | 6.85 | 6.25 | 6.33 | 6.34 | 6.61 | 6.72 | 6.19 | 7.43 |
| SELENOV | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SELENOW | 8.21 | 9.19 | 8.61 | 8.42 | 9.34 | 9.12 | 7.92 | 9.18 |
| SELENOWP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SELL | 0.43 | 0.45 | 0.70 | 0.49 | 0.44 | 0.90 | 0.27 | 0.24 |
| SELP | -0.28 | -0.37 | -0.35 | -0.29 | -0.26 | -0.40 | -0.39 | -0.42 |
| SELPLG | 0.01 | 0.17 | 0.29 | 0.45 | 0.06 | 0.25 | 0.01 | 0.67 |
| SEM1 | 9.06 | 9.07 | 8.79 | 8.90 | 9.54 | 9.01 | 8.44 | 9.41 |
| SEM1P1 | -1.37 | -1.29 | -1.35 | -1.31 | -1.26 | -1.29 | -1.31 | -1.27 |
| SEMA3A | 1.93 | 1.83 | 2.49 | 1.37 | 1.45 | 3.58 | 1.64 | 3.05 |
| SEMA3B | 5.52 | 5.34 | 6.44 | 5.08 | 5.78 | 4.94 | 6.56 | 4.88 |
| SEMA3B-AS1 | 2.03 | 1.19 | 1.24 | 1.07 | 1.23 | 1.27 | 1.64 | 1.33 |
| SEMA3C | 3.65 | 5.57 | 4.74 | 5.48 | 3.92 | 5.35 | 5.11 | 6.08 |
| SEMA3D | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| SEMA3E | 0.83 | 0.85 | 1.05 | 0.97 | 1.00 | 1.37 | 1.03 | 1.18 |
| SEMA3F | 3.12 | 2.59 | 3.03 | 2.44 | 2.75 | 2.82 | 4.17 | 3.14 |
| SEMA3F-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.37 |
| SEMA3G | -1.02 | -1.01 | -0.93 | -1.10 | -1.02 | -1.04 | -1.03 | -0.91 |
| SEMA4A | 0.78 | 0.64 | 0.73 | 0.83 | 0.68 | 1.09 | 0.81 | 0.92 |
| SEMA4B | 6.68 | 7.06 | 8.30 | 6.74 | 7.24 | 6.28 | 6.99 | 7.36 |
| SEMA4C | 3.50 | 2.78 | 2.98 | 3.18 | 3.40 | 3.35 | 3.23 | 4.28 |
| SEMA4D | 4.25 | 4.84 | 5.03 | 4.64 | 4.18 | 4.12 | 4.28 | 3.83 |
| SEMA4F | 2.75 | 2.31 | 2.95 | 2.40 | 2.56 | 2.42 | 2.44 | 1.89 |
| SEMA4G | 5.01 | 5.59 | 4.59 | 5.09 | 4.97 | 4.37 | 5.70 | 4.72 |
| SEMA5A | 1.82 | 1.86 | 2.12 | 1.96 | 2.00 | 1.88 | 2.53 | 1.55 |
| SEMA6A | 0.13 | 0.06 | 0.25 | 0.05 | 0.13 | 0.04 | 0.44 | 0.19 |
| SEMA6A-AS1 | -1.50 | -1.50 | -1.43 | -1.50 | -1.41 | -1.48 | -1.34 | -1.47 |
| SEMA6B | -1.08 | -1.15 | -1.06 | -1.02 | -1.00 | -1.01 | -1.09 | -1.17 |
| SEMA6C | 0.77 | 0.47 | 0.58 | 0.45 | 0.63 | 0.68 | 0.76 | 0.47 |
| SEMA6D | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.24 | -2.26 |
| SEMA7A | 2.14 | 2.20 | 3.81 | 1.78 | 2.58 | 2.49 | 2.21 | 2.35 |
| SEMG1 | 0.90 | 1.16 | 0.42 | 1.49 | 0.40 | 0.41 | 0.91 | 0.35 |
| SEMG2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| SENCR | -1.05 | -0.96 | -1.04 | -1.05 | -1.04 | -1.05 | -0.97 | -1.06 |
| SENP1 | 4.22 | 4.09 | 4.56 | 3.94 | 3.55 | 4.26 | 4.06 | 4.20 |
| SENP2 | 4.88 | 4.99 | 5.38 | 4.79 | 4.52 | 4.93 | 5.11 | 5.11 |
| SENP3 | 1.92 | 2.03 | 2.38 | 2.17 | 1.85 | 2.08 | 2.00 | 1.96 |
| SENP5 | 5.39 | 5.44 | 5.74 | 5.20 | 5.11 | 5.14 | 5.54 | 5.57 |
| SENP6 | 6.26 | 5.72 | 6.19 | 5.93 | 5.58 | 6.02 | 6.44 | 5.94 |
| SENP7 | 2.50 | 2.75 | 3.11 | 2.57 | 3.09 | 2.96 | 3.62 | 3.16 |
| SENP8 | 2.73 | 2.23 | 2.70 | 2.70 | 2.50 | 2.85 | 2.36 | 2.67 |
| SEPHS1 | 5.18 | 5.65 | 5.75 | 5.68 | 5.75 | 5.82 | 5.42 | 5.53 |
| SEPHS1P4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SEPHS2 | 6.97 | 7.67 | 6.97 | 8.21 | 6.99 | 6.74 | 6.55 | 6.56 |
| SEPSECS | 2.58 | 3.14 | 2.79 | 3.23 | 2.54 | 2.99 | 3.48 | 2.79 |
| SEPSECS-AS1 | 2.22 | 1.98 | 1.97 | 2.38 | 1.89 | 2.46 | 1.73 | 1.79 |
| 37135.00 | 3.94 | 3.90 | 3.64 | 4.27 | 3.50 | 3.56 | 3.86 | 2.86 |
| 40422.00 | 5.33 | 4.97 | 5.20 | 4.77 | 6.87 | 5.20 | 6.01 | 5.52 |
| SEPT10P1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.94 | -2.00 | -2.00 | -1.97 |
| 40787.00 | 5.74 | 6.92 | 6.76 | 7.01 | 5.92 | 7.15 | 6.76 | 6.60 |
| 41153.00 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.26 |
| SEPT14P12 | -2.07 | -2.07 | -2.03 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| 37500.00 | 7.90 | 7.99 | 7.67 | 7.79 | 7.76 | 8.49 | 7.95 | 8.17 |
| SEPT2P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| 37865.00 | 0.35 | 0.31 | 0.44 | 0.27 | -0.06 | 0.03 | -0.07 | -0.03 |
| 38231.00 | 0.60 | 0.11 | 0.26 | 0.17 | 0.30 | 0.27 | 0.09 | 0.23 |
| SEPT4-AS1 | -1.47 | -1.40 | -1.45 | -1.41 | -1.37 | -1.42 | -1.47 | -1.49 |
| 38961.00 | 3.56 | 2.95 | 3.41 | 2.83 | 3.70 | 3.32 | 2.83 | 3.81 |
| 39326.00 | 7.84 | 7.45 | 7.27 | 7.19 | 7.45 | 7.50 | 7.31 | 7.32 |
| SEPT7-AS1 | -1.79 | -1.78 | -1.78 | -1.79 | -1.74 | -1.78 | -1.79 | -1.81 |
| SEPT7P2 | 3.63 | 3.11 | 3.11 | 3.48 | 3.73 | 3.23 | 3.28 | 3.28 |
| SEPT7P3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SEPT7P6 | -0.45 | -0.22 | -0.44 | -0.45 | -0.30 | -0.21 | -0.46 | -0.30 |
| SEPT7P7 | -0.76 | -0.74 | -0.88 | -0.77 | -0.78 | -0.88 | -0.84 | -0.80 |
| SEPT7P8 | -1.99 | -1.96 | -1.98 | -1.99 | -1.99 | -2.00 | -2.00 | -1.97 |
| SEPT7P9 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| 39692.00 | 4.23 | 5.06 | 5.31 | 5.02 | 4.85 | 4.91 | 5.14 | 3.83 |
| 40057.00 | 7.47 | 8.09 | 8.29 | 7.98 | 7.53 | 7.97 | 7.85 | 7.57 |
| SERAC1 | 3.47 | 3.27 | 3.41 | 3.46 | 3.47 | 3.67 | 4.28 | 3.31 |
| SERBP1 | 7.64 | 8.68 | 7.81 | 8.49 | 7.99 | 8.42 | 8.30 | 8.05 |
| SERBP1P1 | -0.11 | -0.26 | -0.25 | 0.02 | -0.10 | -0.08 | -0.19 | -0.17 |
| SERBP1P3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| SERBP1P5 | -0.08 | -0.08 | -0.05 | -0.17 | -0.19 | -0.15 | 0.19 | 0.02 |
| SERBP1P6 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| SERF2 | 11.76 | 11.39 | 10.23 | 11.52 | 11.84 | 11.14 | 10.80 | 11.85 |
| SERGEF | 5.35 | 4.71 | 5.08 | 4.88 | 5.78 | 4.62 | 5.13 | 4.98 |
| SERHL | -1.16 | -1.22 | -1.28 | -1.17 | -1.29 | -1.18 | -1.23 | -1.10 |
| SERHL2 | -0.87 | -0.93 | -0.92 | -0.87 | -0.83 | -0.85 | -0.94 | -0.78 |
| SERINC1 | 6.00 | 5.78 | 6.73 | 5.39 | 6.10 | 6.15 | 6.56 | 6.36 |
| SERINC2 | 7.65 | 7.89 | 7.15 | 7.63 | 7.93 | 7.87 | 8.11 | 8.18 |
| SERINC3 | 8.07 | 7.85 | 8.10 | 7.90 | 7.93 | 7.79 | 7.65 | 8.46 |
| SERINC4 | -1.00 | -0.98 | -1.11 | -0.95 | -0.98 | -1.11 | -1.14 | -0.98 |
| SERINC5 | 5.42 | 6.49 | 6.33 | 6.72 | 5.17 | 5.95 | 5.67 | 5.70 |
| SERP1 | 8.55 | 7.31 | 7.82 | 7.61 | 8.85 | 7.96 | 8.03 | 9.32 |
| SERP2 | 1.72 | 1.50 | 1.48 | 1.46 | 2.17 | 1.60 | 1.51 | 2.17 |
| SERPINA1 | 8.75 | 10.08 | 9.98 | 10.14 | 13.38 | 10.46 | 11.36 | 8.73 |
| SERPINA2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| SERPINA3 | 0.20 | 0.21 | 0.51 | 0.37 | 1.47 | 0.35 | 0.19 | 0.36 |
| SERPINA4 | 2.71 | 4.72 | 5.19 | 5.04 | 4.54 | 2.88 | 4.68 | 2.66 |
| SERPINA5 | 7.62 | 6.60 | 7.23 | 7.03 | 4.59 | 4.75 | 6.64 | 5.46 |
| SERPINA6 | -1.79 | -1.79 | -1.68 | -1.79 | -1.72 | -1.80 | -1.80 | -1.81 |
| SERPINB1 | 8.85 | 8.51 | 8.18 | 8.42 | 9.67 | 7.70 | 9.22 | 9.97 |
| SERPINB11 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| SERPINB13 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SERPINB2 | 1.94 | 2.05 | 2.96 | 2.01 | 1.92 | 1.63 | 2.45 | 2.06 |
| SERPINB3 | 0.91 | 1.01 | 0.85 | 0.67 | 0.58 | 1.01 | 0.60 | 1.57 |
| SERPINB4 | 0.00 | -0.08 | -0.06 | -0.01 | -0.08 | -0.07 | -0.01 | 0.01 |
| SERPINB5 | 6.09 | 6.80 | 6.24 | 6.87 | 5.34 | 5.63 | 6.17 | 6.64 |
| SERPINB6 | 7.71 | 7.35 | 7.18 | 7.13 | 7.54 | 7.07 | 7.66 | 7.88 |
| SERPINB7 | 3.59 | 2.95 | 3.42 | 3.30 | 3.17 | 3.02 | 3.59 | 2.99 |
| SERPINB8 | 3.01 | 3.50 | 3.31 | 3.42 | 3.24 | 2.98 | 4.41 | 3.44 |
| SERPINB9 | 4.47 | 3.16 | 4.19 | 3.24 | 3.97 | 3.61 | 3.38 | 4.40 |
| SERPINB9P1 | 0.27 | 0.36 | 0.21 | 0.41 | 0.32 | 0.17 | 0.40 | 0.45 |
| SERPINC1 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SERPIND1 | -1.59 | -1.59 | -1.63 | -1.59 | -1.61 | -1.55 | -1.65 | -1.61 |
| SERPINE1 | 2.16 | 1.63 | 2.29 | 1.71 | 2.65 | 2.06 | 2.95 | 2.59 |
| SERPINE2 | 4.81 | 3.26 | 3.64 | 3.53 | 2.94 | 5.58 | 3.58 | 4.20 |
| SERPINE3 | -0.56 | -0.56 | -0.55 | -0.57 | -0.52 | -0.54 | -0.57 | -0.52 |
| SERPINF1 | -1.15 | -1.14 | -1.13 | -1.15 | -0.58 | -1.12 | -1.08 | -1.10 |
| SERPINF2 | 2.22 | 2.43 | 1.74 | 2.76 | 1.84 | 1.92 | 1.47 | 2.09 |
| SERPING1 | 3.18 | 2.31 | 3.04 | 2.70 | 3.32 | 2.62 | 4.14 | 3.30 |
| SERPINH1 | 5.96 | 6.52 | 5.85 | 6.57 | 6.12 | 6.26 | 5.21 | 7.43 |
| SERPINI1 | 1.32 | 1.50 | 1.46 | 1.36 | 1.61 | 1.62 | 1.07 | 1.73 |
| SERTAD1 | 5.96 | 5.99 | 5.57 | 6.19 | 6.63 | 6.15 | 6.10 | 5.53 |
| SERTAD2 | 5.11 | 5.45 | 5.55 | 4.70 | 5.55 | 5.32 | 5.55 | 4.95 |
| SERTAD3 | 4.90 | 4.89 | 4.37 | 4.94 | 4.90 | 5.07 | 4.70 | 4.75 |
| SERTAD4 | 4.76 | 5.07 | 4.34 | 4.90 | 4.27 | 4.78 | 4.72 | 4.86 |
| SERTAD4-AS1 | 5.42 | 4.47 | 4.16 | 4.67 | 4.87 | 4.20 | 4.50 | 4.83 |
| SESN1 | 2.96 | 3.41 | 3.27 | 3.09 | 2.58 | 2.76 | 3.44 | 2.81 |
| SESN2 | 3.57 | 4.02 | 4.22 | 3.84 | 4.24 | 3.95 | 5.11 | 4.29 |
| SESN3 | 2.74 | 3.55 | 3.74 | 3.28 | 3.67 | 2.40 | 2.64 | 2.39 |
| SESTD1 | 5.20 | 5.24 | 5.30 | 5.15 | 4.37 | 4.69 | 5.72 | 5.33 |
| SET | 8.53 | 8.47 | 8.00 | 8.32 | 7.98 | 8.71 | 8.10 | 8.10 |
| SETBP1 | -0.36 | -0.10 | -0.34 | -0.13 | -0.35 | -0.29 | 0.24 | -0.38 |
| SETD1A | 4.12 | 4.19 | 4.34 | 4.39 | 3.96 | 4.05 | 4.27 | 4.24 |
| SETD1B | 3.47 | 3.84 | 4.65 | 3.43 | 3.52 | 3.66 | 3.80 | 4.04 |
| SETD2 | 5.88 | 6.21 | 6.52 | 6.18 | 5.61 | 6.10 | 6.74 | 5.83 |
| SETD3 | 5.22 | 6.20 | 5.60 | 6.12 | 5.96 | 5.65 | 6.28 | 5.70 |
| SETD4 | 3.84 | 3.89 | 3.68 | 4.04 | 3.73 | 3.19 | 4.04 | 3.94 |
| SETD5 | 6.07 | 6.39 | 6.62 | 6.60 | 6.16 | 6.42 | 6.81 | 6.21 |
| SETD6 | 4.73 | 4.16 | 3.91 | 4.06 | 3.62 | 3.97 | 3.58 | 4.29 |
| SETD6P1 | -2.15 | -2.10 | -2.14 | -2.10 | -2.15 | -2.15 | -2.15 | -2.16 |
| SETD7 | 4.83 | 5.82 | 5.59 | 5.89 | 4.64 | 5.39 | 6.25 | 5.81 |
| SETD9 | 3.26 | 2.98 | 3.88 | 3.34 | 4.72 | 4.00 | 3.96 | 4.26 |
| SETDB1 | 4.07 | 4.11 | 4.09 | 4.07 | 4.02 | 4.15 | 3.97 | 4.16 |
| SETDB2 | 2.32 | 2.68 | 2.75 | 2.77 | 2.83 | 2.46 | 2.65 | 2.71 |
| SETMAR | 2.69 | 2.62 | 2.48 | 2.46 | 2.51 | 2.42 | 2.39 | 2.08 |
| SETP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SETP12 | -1.99 | -1.92 | -1.98 | -1.99 | -1.99 | -2.00 | -1.93 | -2.01 |
| SETP14 | -0.25 | -0.46 | -0.38 | -0.33 | -0.27 | -0.29 | -0.40 | -0.38 |
| SETP17 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| SETP20 | -1.79 | -1.74 | -1.78 | -1.79 | -1.74 | -1.73 | -1.75 | -1.81 |
| SETP21 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| SETP22 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SETP6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| SETP7 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| SETP8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SETSIP | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| SETX | 5.61 | 6.10 | 6.13 | 5.95 | 5.35 | 6.12 | 6.44 | 5.52 |
| SEZ6 | -0.45 | -0.36 | -0.27 | -0.46 | -0.33 | -0.40 | -0.53 | -0.43 |
| SEZ6L2 | 7.34 | 7.27 | 7.43 | 7.11 | 7.80 | 6.69 | 7.37 | 7.06 |
| SF1 | 6.76 | 6.36 | 7.08 | 6.52 | 7.05 | 6.70 | 6.65 | 6.86 |
| SF3A1 | 5.70 | 6.09 | 5.64 | 5.78 | 5.37 | 5.60 | 5.84 | 5.71 |
| SF3A2 | 4.40 | 3.77 | 4.50 | 4.17 | 4.61 | 4.46 | 4.23 | 4.49 |
| SF3A3 | 5.91 | 6.14 | 6.08 | 6.25 | 6.07 | 5.98 | 5.99 | 5.78 |
| SF3A3P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SF3A3P2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SF3B1 | 8.15 | 8.11 | 7.94 | 8.28 | 8.23 | 8.10 | 8.03 | 8.31 |
| SF3B2 | 8.03 | 7.78 | 8.52 | 7.86 | 8.05 | 7.94 | 7.99 | 8.48 |
| SF3B3 | 6.27 | 6.06 | 6.71 | 6.09 | 5.61 | 6.15 | 6.11 | 5.93 |
| SF3B4 | 7.19 | 6.68 | 6.16 | 6.71 | 6.56 | 7.11 | 6.12 | 7.30 |
| SF3B5 | 7.90 | 8.03 | 6.74 | 8.03 | 7.49 | 7.82 | 7.55 | 7.45 |
| SF3B6 | 9.27 | 8.62 | 8.00 | 8.58 | 8.16 | 8.78 | 8.26 | 9.21 |
| SF11 | 3.73 | 3.65 | 3.87 | 3.81 | 3.21 | 3.63 | 4.35 | 3.49 |
| SFMBT1 | 5.13 | 5.12 | 4.12 | 5.13 | 4.70 | 4.93 | 4.93 | 4.43 |
| SFMBT2 | 1.55 | 2.79 | 1.78 | 2.38 | 2.41 | 1.90 | 2.59 | 1.57 |
| SFN | 5.98 | 6.54 | 6.22 | 6.42 | 6.84 | 6.24 | 6.58 | 5.60 |
| SFPQ | 7.80 | 7.95 | 8.44 | 7.76 | 8.30 | 8.56 | 8.09 | 8.15 |
| SFR1 | 6.58 | 5.32 | 5.38 | 5.33 | 5.84 | 5.28 | 5.27 | 5.53 |
| SFR1P1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| SFRP1 | -0.39 | -0.38 | -0.24 | -0.40 | -0.27 | -0.41 | -0.40 | -0.44 |
| SFRP5 | 0.96 | 0.15 | 0.17 | 0.37 | 0.32 | 0.16 | 0.13 | 0.24 |
| SFSWAP | 5.81 | 5.89 | 6.06 | 6.31 | 6.70 | 6.34 | 6.46 | 6.85 |
| SFT2D1 | 8.32 | 7.42 | 7.40 | 7.13 | 7.77 | 7.76 | 7.15 | 7.90 |
| SFT2D2 | 5.80 | 6.07 | 6.17 | 5.92 | 5.49 | 6.05 | 6.39 | 5.57 |
| SFT2D3 | 4.36 | 4.42 | 3.81 | 4.36 | 4.48 | 4.31 | 3.95 | 4.23 |
| SFTA1P | -0.19 | -0.18 | 0.02 | -0.11 | -0.18 | 0.03 | -0.11 | 0.54 |
| SFTA2 | 6.85 | 9.47 | 8.16 | 9.55 | 7.45 | 6.31 | 8.27 | 8.45 |
| SFTPA2 | -0.05 | 0.34 | 0.54 | 0.81 | 0.24 | -0.02 | -0.05 | 0.05 |
| SFTPD | -1.34 | -1.40 | -1.44 | -1.12 | -1.45 | -1.47 | -1.46 | -1.16 |
| SFTPD-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SFXN1 | 6.16 | 6.52 | 6.60 | 6.32 | 6.90 | 6.28 | 6.47 | 5.95 |
| SFXN2 | 2.69 | 2.60 | 2.70 | 2.83 | 2.39 | 2.10 | 2.24 | 2.42 |
| SFXN3 | 4.51 | 5.26 | 4.91 | 4.98 | 4.75 | 5.01 | 5.54 | 4.36 |
| SFXN4 | 6.26 | 5.38 | 5.19 | 5.70 | 6.06 | 5.23 | 4.86 | 4.98 |
| SFXN5 | 3.74 | 3.32 | 3.87 | 3.43 | 3.37 | 3.33 | 3.72 | 3.48 |
| SGCA | -1.25 | -1.24 | -1.30 | -1.19 | -1.28 | -1.33 | -1.32 | -1.33 |
| SGCB | 5.49 | 5.40 | 5.70 | 5.72 | 4.79 | 5.56 | 5.58 | 5.31 |
| SGCD | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SGCE | 4.88 | 3.29 | 4.27 | 3.58 | 3.04 | 5.03 | 4.18 | 3.87 |
| SGF29 | 5.20 | 4.24 | 4.39 | 4.57 | 5.00 | 4.17 | 4.49 | 3.89 |
| SGIP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SGK1 | 5.80 | 5.09 | 4.76 | 4.97 | 4.51 | 5.18 | 7.50 | 5.61 |
| SGK2 | 4.20 | 3.10 | 3.85 | 3.85 | 4.90 | 3.23 | 3.69 | 3.82 |
| SGK3 | 4.77 | 4.29 | 4.64 | 4.17 | 4.25 | 4.36 | 4.16 | 4.45 |
| SGMS1 | 4.17 | 4.48 | 3.94 | 4.21 | 4.55 | 4.08 | 4.92 | 4.15 |
| SGMS1-AS1 | 1.96 | 1.59 | 1.57 | 2.05 | 1.72 | 1.31 | 1.54 | 1.43 |
| SGMS2 | 3.99 | 4.86 | 4.88 | 4.35 | 4.40 | 4.46 | 5.06 | 4.60 |
| SGO1 | 6.63 | 5.67 | 6.47 | 5.77 | 5.56 | 6.03 | 5.45 | 5.68 |
| SGO1-AS1 | -0.52 | -0.59 | -0.66 | -0.68 | -0.55 | -0.65 | -0.61 | -0.46 |
| SGO2 | 5.41 | 5.42 | 5.04 | 5.21 | 5.20 | 5.90 | 5.26 | 5.57 |
| SGPL1 | 5.63 | 5.62 | 5.70 | 5.14 | 5.41 | 5.38 | 5.53 | 5.33 |
| SGPP1 | 3.59 | 3.88 | 3.93 | 3.69 | 3.94 | 3.86 | 4.32 | 3.34 |
| SGPP2 | 7.38 | 6.84 | 6.99 | 6.89 | 7.03 | 6.27 | 6.84 | 6.42 |
| SGSH | 3.38 | 2.92 | 2.61 | 3.06 | 3.46 | 3.13 | 3.74 | 2.73 |
| SGSM1 | 1.17 | 0.69 | 0.40 | 0.76 | 0.61 | 0.42 | 0.43 | 0.32 |
| SGSM2 | 3.11 | 3.66 | 3.86 | 3.63 | 4.18 | 4.38 | 4.03 | 4.43 |
| SGSM3 | 3.68 | 3.90 | 3.59 | 4.26 | 3.48 | 3.41 | 4.04 | 4.14 |
| SGTA | 6.15 | 5.63 | 6.39 | 5.84 | 6.58 | 6.37 | 5.93 | 6.16 |
| SGTB | 2.79 | 2.16 | 2.44 | 1.79 | 2.46 | 2.41 | 1.97 | 1.94 |
| SH2B1 | 5.95 | 5.65 | 5.67 | 6.21 | 6.33 | 5.83 | 6.15 | 5.71 |
| SH2B2 | 2.67 | 2.30 | 2.03 | 2.22 | 2.67 | 2.23 | 2.40 | 1.89 |
| SH2B3 | 2.35 | 2.86 | 3.17 | 2.24 | 2.70 | 3.21 | 2.68 | 2.62 |
| SH2D1B | 1.07 | 0.62 | 1.33 | 0.60 | 0.65 | 0.68 | 0.59 | 0.66 |
| SH2D2A | 2.04 | 2.38 | 1.79 | 1.78 | 2.20 | 2.12 | 1.39 | 2.22 |
| SH2D3A | 5.48 | 5.90 | 5.19 | 5.70 | 5.59 | 5.69 | 5.53 | 5.64 |
| SH2D3C | -0.96 | -1.03 | -0.94 | -1.04 | -1.03 | -0.94 | -0.80 | -1.05 |
| SH2D4A | 5.65 | 6.97 | 7.24 | 6.69 | 5.39 | 6.44 | 6.18 | 6.37 |
| SH2D5 | -2.00 | -1.99 | -1.99 | -1.95 | -1.99 | -1.98 | -2.00 | -2.02 |
| SH2D6 | -1.02 | -0.86 | -1.07 | -0.95 | -0.94 | -1.06 | -0.95 | -0.88 |
| SH2D7 | -2.04 | -2.01 | -2.04 | -1.98 | -1.98 | -2.05 | -2.05 | -2.06 |
| SH3BGR | -1.94 | -1.90 | -1.93 | -1.94 | -1.92 | -1.95 | -1.94 | -1.96 |
| SH3BGRL | 5.03 | 6.80 | 5.92 | 7.32 | 6.57 | 6.50 | 5.17 | 6.46 |
| SH3BGRL2 | 5.98 | 6.46 | 5.72 | 6.56 | 5.33 | 5.63 | 5.83 | 5.33 |
| SH3BGRL3 | 9.59 | 9.49 | 9.54 | 9.47 | 10.27 | 10.23 | 10.56 | 10.23 |
| SH3BP1 | 4.78 | 4.25 | 3.69 | 3.97 | 3.54 | 4.31 | 3.61 | 3.91 |
| SH3BP2 | 4.41 | 5.22 | 5.97 | 5.40 | 4.42 | 4.90 | 5.86 | 5.11 |
| SH3BP4 | 6.09 | 5.72 | 5.68 | 5.42 | 5.41 | 5.18 | 5.57 | 5.43 |
| SH3BP5 | 3.32 | 3.81 | 4.37 | 3.79 | 3.66 | 4.22 | 3.90 | 3.52 |
| SH3BP5-AS1 | 0.70 | 0.79 | 0.97 | 1.14 | 0.90 | 0.64 | 1.27 | 0.97 |
| SH3BP5L | 4.28 | 4.18 | 4.21 | 4.56 | 4.44 | 4.11 | 4.91 | 4.73 |
| SH3D19 | 5.09 | 6.30 | 5.46 | 5.98 | 4.93 | 5.27 | 6.77 | 6.97 |
| SH3D21 | 1.97 | 2.34 | 2.08 | 2.69 | 2.44 | 2.62 | 2.77 | 2.50 |
| SH3GL1 | 5.88 | 6.63 | 6.36 | 6.68 | 6.05 | 6.22 | 6.67 | 6.45 |
| SH3GL1P1 | -1.69 | -1.68 | -1.63 | -1.64 | -1.69 | -1.65 | -1.59 | -1.66 |
| SH3GL1P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SH3GL2 | -1.60 | -1.69 | -1.73 | -1.74 | -1.74 | -1.75 | -1.74 | -1.71 |
| SH3GL3 | -1.95 | -1.95 | -1.99 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| SH3GLB1 | 7.79 | 7.71 | 6.78 | 7.54 | 7.35 | 7.68 | 7.46 | 7.51 |
| SH3GLB2 | 7.14 | 6.21 | 6.54 | 6.40 | 6.06 | 6.65 | 6.08 | 5.81 |
| SH3KBP1 | 7.46 | 6.54 | 7.32 | 6.86 | 6.79 | 6.84 | 6.00 | 6.00 |
| SH3PXD2A | 4.58 | 5.42 | 4.59 | 5.16 | 4.76 | 5.66 | 5.31 | 4.72 |
| SH3PXD2A-AS1 | 1.04 | 1.55 | 1.09 | 2.53 | 1.74 | 1.19 | 1.08 | 1.02 |
| SH3PXD2B | 3.03 | 4.43 | 4.61 | 4.00 | 3.33 | 4.12 | 3.70 | 3.34 |
| SH3RF1 | 4.86 | 6.69 | 5.90 | 6.79 | 5.02 | 6.01 | 6.60 | 6.39 |
| SH3RF2 | 3.73 | 4.71 | 4.79 | 4.39 | 4.50 | 4.28 | 5.45 | 3.74 |
| SH3RF3 | 0.02 | -0.22 | -0.21 | -0.14 | 0.77 | -0.20 | -0.23 | -0.26 |
| SH3RF3-AS1 | -1.84 | -1.79 | -1.78 | -1.84 | -1.68 | -1.85 | -1.85 | -1.86 |
| SH3TC1 | 3.37 | 3.34 | 3.72 | 3.08 | 3.76 | 3.14 | 3.56 | 4.51 |
| SH3TC2 | 2.64 | 2.56 | 3.02 | 2.46 | 2.37 | 2.68 | 2.58 | 2.47 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SH3TC2-DT | 0.48 | 0.57 | 1.32 | 0.47 | 0.53 | 0.69 | 0.61 | 0.85 |
| SH3YL1 | 6.37 | 6.76 | 6.25 | 6.96 | 7.75 | 5.58 | 7.59 | 7.98 |
| SHANK2 | 2.76 | 3.05 | 3.01 | 3.40 | 3.06 | 2.92 | 3.29 | 3.23 |
| SHANK2-AS1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| SHANK3 | -0.90 | -0.82 | -1.02 | -0.89 | -0.95 | -1.04 | -1.04 | -1.05 |
| SHARPIN | 6.95 | 6.29 | 6.43 | 6.58 | 6.48 | 6.76 | 6.06 | 7.03 |
| SHB | 6.38 | 6.93 | 5.83 | 7.37 | 7.49 | 6.94 | 6.58 | 6.81 |
| SHBG | -1.09 | -1.15 | -1.14 | -1.04 | -1.02 | -1.11 | -1.17 | -1.01 |
| SHC1 | 5.68 | 5.67 | 5.80 | 5.43 | 5.84 | 6.34 | 6.76 | 7.30 |
| SHC2 | 1.57 | 1.82 | 1.86 | 1.69 | 2.48 | 1.78 | 2.12 | 1.73 |
| SHC3 | -0.92 | -0.55 | -0.90 | -0.71 | -0.88 | -0.59 | -0.93 | -0.94 |
| SHC4 | 0.38 | 0.32 | 0.39 | 0.28 | 0.14 | 0.91 | 0.20 | 0.17 |
| SHCBP1 | 4.66 | 4.59 | 5.25 | 4.36 | 4.20 | 4.85 | 4.50 | 4.38 |
| SHCBP1L | -0.99 | -1.07 | -1.05 | -1.08 | -1.02 | -1.08 | -1.08 | -1.09 |
| SHD | 0.27 | -0.11 | -0.16 | 0.38 | -0.23 | -0.25 | -0.28 | -0.18 |
| SHF | 3.73 | 3.41 | 2.34 | 3.66 | 3.55 | 3.30 | 3.15 | 2.92 |
| SHH | 3.05 | 3.52 | 3.41 | 3.37 | 3.64 | 3.26 | 3.34 | 2.48 |
| SHISA2 | 3.19 | 3.07 | 2.98 | 3.60 | 5.10 | 2.29 | 2.57 | 2.17 |
| SHISA3 | -1.66 | -1.60 | -1.60 | -1.66 | -1.65 | -1.67 | -1.66 | -1.45 |
| SHISA4 | 4.43 | 3.57 | 3.67 | 3.74 | 5.11 | 3.94 | 3.67 | 5.17 |
| SHISA5 | 8.84 | 7.63 | 7.65 | 7.83 | 8.20 | 7.60 | 7.13 | 7.16 |
| SHISA6 | -1.56 | -1.50 | -1.54 | -1.45 | -1.55 | -1.57 | -1.57 | -1.58 |
| SHISA7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SHISA8 | 2.95 | 1.10 | 1.32 | 1.36 | 1.23 | 1.26 | 1.62 | 1.43 |
| SHISAL1 | -2.28 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SHISAL2A | -2.36 | -2.36 | -2.35 | -2.36 | -2.34 | -2.36 | -2.36 | -2.37 |
| SHISAL2B | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| SHKBP1 | 6.48 | 5.88 | 6.29 | 5.86 | 6.48 | 5.99 | 5.31 | 5.87 |
| SHLD1 | 3.54 | 2.91 | 2.96 | 3.07 | 3.09 | 3.25 | 2.79 | 3.10 |
| SHLD2 | 4.16 | 4.30 | 4.21 | 4.14 | 4.05 | 3.91 | 4.49 | 4.06 |
| SHLD2P2 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| SHLD3 | 2.26 | 2.08 | 1.83 | 2.08 | 2.21 | 1.91 | 2.25 | 2.53 |
| SHMT1 | 6.71 | 5.32 | 6.23 | 5.33 | 5.61 | 5.46 | 5.99 | 5.28 |
| SHMT1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SHMT2 | 7.11 | 6.95 | 7.31 | 7.08 | 6.83 | 7.70 | 6.91 | 7.38 |
| SHOC1 | -0.13 | -0.33 | -0.32 | -0.34 | -0.33 | -0.35 | -0.34 | -0.23 |
| SHOC2 | 6.93 | 7.42 | 6.63 | 7.01 | 6.84 | 6.77 | 7.20 | 6.70 |
| SHOX2 | 2.15 | 1.29 | 1.81 | 1.25 | 2.79 | 1.60 | 1.61 | 2.08 |
| SHPK | 2.22 | 2.55 | 3.16 | 2.28 | 2.42 | 2.38 | 2.85 | 2.70 |
| SHPRH | 5.03 | 3.95 | 5.16 | 4.56 | 4.18 | 4.94 | 5.73 | 4.48 |
| SHQ1 | 2.81 | 3.54 | 3.21 | 3.38 | 3.23 | 3.00 | 3.83 | 2.85 |
| SHROOM1 | 3.37 | 3.54 | 3.96 | 3.49 | 4.07 | 3.94 | 3.80 | 3.27 |
| SHROOM2 | 3.07 | 3.48 | 3.61 | 3.40 | 2.98 | 3.27 | 3.41 | 2.38 |
| SHROOM3 | 6.16 | 6.87 | 6.62 | 7.01 | 6.25 | 6.07 | 7.59 | 6.08 |
| SHROOM4 | -1.60 | -1.59 | -1.58 | -1.61 | -1.60 | -1.62 | -1.61 | -1.63 |
| SHTN1 | 5.33 | 5.36 | 4.58 | 5.42 | 5.40 | 5.22 | 5.03 | 4.85 |
| SI | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| SIAE | 5.22 | 5.68 | 5.66 | 5.71 | 5.57 | 4.08 | 5.53 | 4.60 |
| SIAH1 | 5.13 | 4.82 | 4.76 | 4.88 | 4.98 | 4.87 | 4.40 | 5.34 |
| SIAH2 | 5.45 | 4.33 | 5.27 | 4.50 | 5.29 | 5.00 | 5.12 | 5.81 |
| SIAH2-AS1 | -1.65 | -1.65 | -1.64 | -1.60 | -1.62 | -1.61 | -1.65 | -1.49 |
| SIAH3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| SIDT1 | 2.08 | 2.27 | 2.12 | 2.34 | 2.00 | 2.97 | 2.90 | 2.46 |
| SIDT1-AS1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.18 | -2.21 |
| SIDT2 | 3.01 | 3.74 | 3.57 | 3.30 | 3.65 | 3.25 | 3.73 | 3.60 |
| SIGIRR | 6.82 | 6.36 | 6.48 | 6.34 | 6.74 | 6.51 | 6.09 | 6.09 |
| SIGLEC1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| SIGLEC10 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SIGLEC12 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| SIGLEC15 | 0.72 | 1.15 | 0.67 | 0.97 | 0.87 | 0.68 | 0.99 | 1.02 |
| SIGLECL1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| SIGMAR1 | 7.21 | 7.47 | 7.13 | 7.78 | 7.55 | 7.39 | 7.09 | 6.81 |
| SIK1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.91 | -1.80 |
| SIK1B | -1.74 | -1.69 | -1.73 | -1.74 | -1.73 | -1.70 | -1.74 | -1.67 |
| SIK2 | 4.27 | 4.50 | 4.64 | 4.51 | 3.96 | 4.02 | 4.56 | 4.45 |
| SIK3 | 3.18 | 3.56 | 3.70 | 3.39 | 3.81 | 3.27 | 3.72 | 3.82 |
| SIKE1 | 6.57 | 5.89 | 5.92 | 5.72 | 6.37 | 6.09 | 5.74 | 5.64 |
| SIL1 | 5.74 | 6.79 | 6.56 | 7.41 | 7.21 | 6.22 | 6.57 | 6.51 |
| SILC1 | -2.12 | -2.15 | -2.14 | -2.12 | -2.13 | -2.15 | -2.15 | -2.16 |
| SIM1 | -0.59 | -0.58 | -0.57 | -0.60 | -0.58 | -0.56 | -0.60 | -0.63 |
| SIM2 | 3.63 | 4.22 | 3.05 | 4.52 | 3.75 | 2.61 | 2.05 | 3.21 |
| SIMC1 | 2.76 | 3.10 | 3.06 | 2.96 | 2.99 | 3.01 | 2.26 | 2.81 |
| SIN3A | 4.63 | 4.91 | 5.60 | 4.64 | 4.75 | 4.80 | 5.14 | 4.90 |
| SIN3B | 4.26 | 4.08 | 4.03 | 4.51 | 4.31 | 4.33 | 4.32 | 4.41 |
| SINHCAF | 6.16 | 5.65 | 5.45 | 5.41 | 6.24 | 5.37 | 5.44 | 6.28 |
| SINHCAFP1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| SINHCAFP2 | -0.50 | -0.41 | -0.39 | -0.42 | -0.31 | -0.47 | -0.43 | -0.34 |
| SINHCAFP3 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| SIPA1 | 6.61 | 5.14 | 5.71 | 4.85 | 5.74 | 6.00 | 5.21 | 6.42 |
| SIPA1L1 | 4.06 | 5.59 | 5.33 | 5.52 | 5.28 | 5.89 | 5.22 | 5.23 |
| SIPA1L2 | 3.71 | 5.18 | 3.28 | 5.28 | 4.50 | 4.52 | 5.11 | 3.91 |
| SIPA1L3 | 4.33 | 4.86 | 4.74 | 4.61 | 4.36 | 4.16 | 4.35 | 3.65 |
| SIRPA | 3.69 | 2.73 | 3.08 | 2.61 | 3.13 | 2.59 | 4.11 | 3.00 |
| SIRPB1 | -1.99 | -1.99 | -1.87 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| SIRPB2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SIRPG | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| SIRT1 | 4.67 | 4.50 | 4.45 | 4.64 | 4.56 | 4.64 | 4.32 | 4.52 |
| SIRT2 | 6.18 | 5.11 | 5.34 | 5.67 | 6.27 | 5.36 | 5.70 | 5.59 |
| SIRT3 | 4.61 | 3.94 | 4.09 | 4.31 | 4.44 | 3.71 | 3.97 | 4.31 |
| SIRT4 | 0.46 | 0.48 | 0.19 | 0.16 | 0.48 | 0.29 | 0.43 | 0.13 |
| SIRT5 | 4.62 | 3.91 | 4.24 | 3.87 | 4.15 | 3.64 | 4.09 | 3.64 |
| SIRT7 | 6.85 | 6.46 | 6.56 | 6.98 | 7.19 | 6.83 | 6.32 | 7.09 |
| SIT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| SIVA1 | 7.73 | 7.92 | 7.77 | 8.14 | 8.03 | 8.24 | 7.19 | 7.43 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SIX1 | 4.46 | 4.14 | 3.36 | 3.67 | 4.48 | 4.82 | 2.47 | 2.80 |
| SIX2 | 3.72 | 3.45 | 1.86 | 3.90 | 2.94 | 2.28 | 1.95 | 1.98 |
| SIX3 | 1.47 | 0.72 | 1.02 | 0.84 | 1.61 | 0.98 | 0.85 | 1.46 |
| SIX3-AS1 | -0.53 | -0.82 | -0.80 | -0.82 | -0.51 | -0.70 | -0.68 | -0.61 |
| SIX4 | 2.73 | 3.13 | 3.11 | 2.70 | 3.23 | 3.55 | 2.71 | 3.32 |
| SIX5 | 3.43 | 3.67 | 3.13 | 3.27 | 3.51 | 3.37 | 3.26 | 3.82 |
| SKA1 | 3.34 | 3.09 | 3.58 | 3.11 | 3.19 | 3.05 | 3.76 | 2.88 |
| SKA2 | 6.12 | 6.16 | 5.37 | 5.99 | 6.14 | 6.79 | 5.87 | 5.46 |
| SKA2P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 | -2.25 | -2.26 |
| SKA3 | 4.14 | 4.67 | 4.26 | 4.01 | 4.45 | 4.44 | 3.84 | 4.64 |
| SKAP1 | 3.47 | 3.34 | 3.75 | 3.35 | 3.82 | 4.35 | 2.34 | 2.74 |
| SKAP2 | 5.93 | 6.90 | 6.74 | 6.10 | 6.47 | 6.61 | 5.63 | 7.50 |
| SKI | 3.63 | 4.01 | 4.00 | 3.92 | 3.56 | 3.90 | 4.41 | 3.28 |
| SKIDA1 | -1.94 | -1.90 | -1.93 | -1.94 | -1.94 | -1.91 | -1.94 | -1.95 |
| SKIL | 5.40 | 6.07 | 6.51 | 6.16 | 4.39 | 6.19 | 5.61 | 7.01 |
| SKIV2L | 4.76 | 4.36 | 5.10 | 4.28 | 4.02 | 4.66 | 4.72 | 4.95 |
| SKOR1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| SKOR2 | -1.95 | -1.94 | -1.88 | -1.95 | -1.92 | -1.96 | -1.95 | -1.92 |
| SKP1 | 9.51 | 9.34 | 9.17 | 9.55 | 9.86 | 9.42 | 8.57 | 8.42 |
| SKP2 | 4.34 | 4.48 | 4.53 | 4.18 | 4.30 | 3.76 | 4.43 | 3.95 |
| SLA2 | 1.36 | 0.99 | 1.24 | 1.40 | 1.14 | 1.15 | 1.16 | 1.37 |
| SLAIN1 | 2.81 | 3.24 | 2.83 | 3.13 | 2.79 | 2.48 | 3.17 | 2.64 |
| SLAIN2 | 5.52 | 6.17 | 5.65 | 6.03 | 4.94 | 5.61 | 6.09 | 6.32 |
| SLAMF6 | -2.10 | -2.09 | -2.09 | -1.97 | -2.09 | -2.10 | -2.10 | -2.08 |
| SLAMF7 | -0.94 | -0.53 | -0.74 | -0.63 | -0.94 | -0.58 | -0.95 | -0.96 |
| SLAMF9 | -0.12 | -0.02 | -0.10 | -0.20 | -0.12 | 0.26 | -0.13 | -0.01 |
| SLBP | 8.33 | 7.25 | 7.38 | 7.37 | 6.80 | 7.22 | 6.89 | 7.37 |
| SLC10A1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| SLC10A2 | 1.02 | 0.96 | 0.91 | 0.92 | 0.95 | 0.84 | 1.69 | 0.81 |
| SLC10A3 | 6.15 | 5.24 | 5.26 | 5.45 | 4.85 | 5.55 | 4.34 | 5.93 |
| SLC10A4 | -1.68 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.86 |
| SLC10A5 | 0.84 | 1.08 | 0.88 | 0.85 | 0.73 | 0.77 | 1.17 | 0.83 |
| SLC10A6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SLC10A7 | 2.28 | 2.76 | 2.37 | 3.16 | 2.52 | 2.57 | 2.77 | 2.78 |
| SLC11A1 | 2.08 | 1.79 | 1.87 | 1.72 | 1.73 | 1.95 | 1.87 | 1.72 |
| SLC11A2 | 5.58 | 5.37 | 5.35 | 5.17 | 4.74 | 5.24 | 5.43 | 5.05 |
| SLC12A2 | 7.57 | 9.48 | 8.34 | 9.64 | 7.62 | 7.93 | 8.04 | 6.28 |
| SLC12A3 | -1.99 | -1.99 | -1.91 | -2.00 | -1.92 | -2.00 | -2.00 | -2.01 |
| SLC12A4 | 4.35 | 5.07 | 4.23 | 4.84 | 4.30 | 4.00 | 4.57 | 4.33 |
| SLC12A5 | 1.07 | 0.24 | 0.26 | 0.38 | 0.24 | 0.28 | 0.30 | 0.19 |
| SLC12A5-AS1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| SLC12A6 | 2.87 | 3.39 | 3.52 | 3.42 | 3.47 | 3.42 | 3.25 | 4.26 |
| SLC12A7 | 6.72 | 6.64 | 7.70 | 6.69 | 7.24 | 7.13 | 7.11 | 7.60 |
| SLC12A8 | 3.23 | 3.36 | 3.23 | 3.32 | 3.51 | 3.04 | 3.60 | 3.91 |
| SLC12A9 | 3.84 | 5.14 | 4.57 | 5.39 | 4.56 | 4.36 | 4.75 | 4.11 |
| SLC12A9-AS1 | 0.91 | 0.61 | 0.61 | 0.82 | 0.86 | 0.54 | 0.57 | 0.62 |
| SLC13A2 | -1.16 | -0.85 | -1.14 | -1.09 | -1.08 | -1.17 | -0.84 | -1.18 |
| SLC13A3 | 2.60 | 1.42 | 1.56 | 1.37 | 2.10 | 1.79 | 1.43 | 1.40 |
| SLC13A4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| SLC13A5 | -0.11 | 0.91 | 0.20 | 1.09 | 0.15 | -0.09 | -0.04 | -0.14 |
| SLC14A1 | 1.86 | 2.05 | 1.99 | 1.75 | 1.85 | 3.81 | 2.01 | 1.74 |
| SLC14A2 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| SLC15A1 | 3.65 | 4.65 | 4.38 | 3.93 | 4.11 | 4.68 | 5.34 | 3.87 |
| SLC15A2 | 1.75 | 1.18 | 1.48 | 1.37 | 1.22 | 1.35 | 1.53 | 1.76 |
| SLC15A3 | 4.36 | 3.38 | 3.81 | 3.03 | 3.51 | 2.85 | 2.63 | 2.58 |
| SLC15A4 | 4.31 | 4.59 | 4.86 | 4.63 | 4.68 | 4.26 | 5.27 | 4.51 |
| SLC16A1 | 6.37 | 6.80 | 6.60 | 7.11 | 7.51 | 5.27 | 7.80 | 5.88 |
| SLC16A1-AS1 | 2.53 | 1.67 | 2.92 | 2.09 | 2.80 | 2.32 | 2.77 | 2.19 |
| SLC16A10 | 1.39 | 1.29 | 1.06 | 1.15 | 1.15 | 0.80 | 1.00 | 0.87 |
| SLC16A11 | -0.28 | -0.27 | 0.01 | -0.06 | -0.27 | -0.18 | 0.18 | -0.30 |
| SLC16A12 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -1.94 | -1.99 | -2.00 |
| SLC16A12-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SLC16A13 | 0.56 | 0.52 | 0.63 | 0.62 | 0.54 | 0.53 | 0.87 | 0.54 |
| SLC16A14 | 2.99 | 2.48 | 1.97 | 2.22 | 2.03 | 1.76 | 1.88 | 2.17 |
| SLC16A2 | 0.89 | 1.19 | 0.94 | 0.88 | 1.17 | 1.53 | 1.26 | 0.74 |
| SLC16A3 | 8.30 | 8.29 | 9.11 | 7.93 | 7.43 | 8.28 | 8.20 | 8.23 |
| SLC16A4 | 4.30 | 5.52 | 4.13 | 5.21 | 3.37 | 4.75 | 4.79 | 6.06 |
| SLC16A5 | 6.42 | 5.74 | 6.66 | 5.36 | 6.91 | 5.45 | 5.67 | 6.22 |
| SLC16A6 | 0.36 | 0.13 | 0.15 | 0.35 | 0.22 | 0.22 | 0.11 | 0.09 |
| SLC16A7 | 2.82 | 4.30 | 3.94 | 4.63 | 2.85 | 3.50 | 5.03 | 3.26 |
| SLC16A8 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| SLC16A9 | 1.22 | 0.79 | 1.00 | 0.92 | 0.87 | 0.97 | 0.99 | 0.79 |
| SLC17A4 | 1.66 | 1.52 | 1.58 | 1.56 | 1.61 | 1.51 | 2.84 | 1.43 |
| SLC17A5 | 4.29 | 5.08 | 4.16 | 4.84 | 4.65 | 4.81 | 5.41 | 4.93 |
| SLC17A7 | -1.79 | -1.74 | -1.78 | -1.75 | -1.76 | -1.78 | -1.80 | -1.81 |
| SLC17A8 | -2.13 | -2.14 | -2.14 | -2.15 | -2.15 | -2.13 | -2.15 | -2.16 |
| SLC17A9 | 4.00 | 4.32 | 4.26 | 4.92 | 4.23 | 4.29 | 3.29 | 3.32 |
| SLC18A2 | -0.86 | -0.70 | -0.76 | -0.86 | -0.81 | -0.77 | -0.79 | -0.81 |
| SLC18A3 | -1.95 | -1.94 | -1.93 | -1.95 | -1.94 | -1.96 | -1.90 | -1.97 |
| SLC18B1 | 4.54 | 4.10 | 3.93 | 3.97 | 3.58 | 3.88 | 4.12 | 3.75 |
| SLC19A1 | 4.24 | 3.91 | 4.07 | 4.16 | 3.90 | 4.31 | 3.59 | 3.95 |
| SLC19A2 | 2.37 | 2.96 | 2.96 | 2.83 | 2.51 | 2.99 | 2.75 | 2.63 |
| SLC19A3 | 2.09 | 1.72 | 2.75 | 1.94 | 2.52 | 1.65 | 2.57 | 1.55 |
| SLC1A1 | 3.70 | 4.93 | 4.51 | 5.14 | 5.10 | 5.03 | 5.24 | 4.40 |
| SLC1A2 | -0.09 | -0.31 | -0.12 | -0.25 | -0.01 | -0.05 | -0.25 | -0.22 |
| SLC1A3 | 1.46 | 2.30 | 1.69 | 2.34 | 1.13 | 1.13 | 1.34 | 1.33 |
| SLC1A4 | 3.57 | 3.39 | 3.29 | 3.64 | 4.82 | 3.34 | 4.50 | 3.88 |
| SLC1A5 | 6.71 | 7.08 | 6.33 | 7.13 | 7.35 | 7.07 | 7.36 | 7.80 |
| SLC1A7 | -0.13 | -0.27 | -0.34 | -0.21 | -0.31 | -0.03 | -0.29 | -0.32 |
| SLC20A1 | 6.29 | 6.23 | 6.46 | 6.13 | 6.64 | 6.99 | 6.13 | 6.94 |
| SLC20A2 | 5.17 | 5.32 | 6.18 | 5.35 | 4.79 | 5.67 | 5.72 | 5.74 |
| SLC22A1 | -1.95 | -1.94 | -1.93 | -1.95 | -1.92 | -1.93 | -1.95 | -1.97 |
| SLC22A13 | -1.91 | -1.94 | -1.90 | -1.94 | -1.92 | -1.93 | -1.91 | -1.96 |
| SLC22A14 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.18 | -2.21 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SLC22A15 | 1.68 | 2.11 | 1.57 | 2.30 | 1.60 | 1.70 | 1.37 | 1.57 |
| SLC22A17 | 0.99 | 0.76 | 1.14 | 0.74 | 1.11 | 0.80 | 1.58 | 0.82 |
| SLC22A18 | 7.27 | 7.12 | 6.90 | 7.66 | 7.87 | 6.52 | 8.34 | 6.72 |
| SLC22A18AS | 5.29 | 4.72 | 4.30 | 4.76 | 4.09 | 4.29 | 4.54 | 5.43 |
| SLC22A2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| SLC22A20P | -0.90 | -0.74 | -0.71 | -0.90 | -0.82 | -0.84 | -0.83 | -0.85 |
| SLC22A23 | 4.00 | 3.77 | 3.20 | 3.94 | 3.54 | 3.04 | 4.19 | 3.72 |
| SLC22A3 | 2.75 | 2.82 | 3.07 | 2.75 | 2.41 | 2.71 | 4.08 | 2.52 |
| SLC22A31 | 2.27 | 0.90 | 0.92 | 0.86 | 1.62 | 0.92 | 1.00 | 0.80 |
| SLC22A4 | -0.76 | -0.48 | -0.88 | -0.83 | -0.78 | -0.77 | -0.90 | -0.91 |
| SLC22A5 | 3.43 | 3.91 | 4.07 | 4.08 | 3.57 | 3.43 | 4.13 | 2.90 |
| SLC22A8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SLC22A9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| SLC23A1 | -1.09 | -1.22 | -1.07 | -1.23 | -1.08 | -1.20 | -1.23 | -1.19 |
| SLC23A2 | 3.59 | 3.92 | 4.07 | 3.72 | 3.04 | 3.20 | 3.76 | 3.65 |
| SLC23A3 | -1.43 | -1.42 | -1.41 | -1.43 | -1.49 | -1.38 | -1.51 | -1.52 |
| SLC24A1 | 2.29 | 2.30 | 2.61 | 2.14 | 2.43 | 2.45 | 2.54 | 2.64 |
| SLC24A2 | -1.87 | -1.94 | -1.93 | -1.95 | -1.92 | -1.95 | -1.95 | -1.96 |
| SLC24A3 | -1.80 | -1.75 | -1.79 | -1.76 | -1.84 | -1.85 | -1.84 | -1.86 |
| SLC24A5 | -1.89 | -1.89 | -1.88 | -1.90 | -1.89 | -1.90 | -1.90 | -1.91 |
| SLC25A1 | 9.20 | 8.42 | 8.01 | 8.48 | 7.75 | 8.46 | 8.17 | 8.23 |
| SLC25A10 | 6.76 | 6.15 | 6.10 | 6.41 | 5.34 | 6.48 | 6.18 | 6.21 |
| SLC25A11 | 6.26 | 5.76 | 6.15 | 6.10 | 6.01 | 6.04 | 6.21 | 6.12 |
| SLC25A12 | 3.80 | 3.56 | 3.50 | 3.73 | 3.47 | 3.07 | 3.25 | 3.14 |
| SLC25A13 | 4.69 | 5.35 | 4.88 | 5.41 | 5.34 | 4.57 | 5.91 | 5.14 |
| SLC25A14 | 3.23 | 2.81 | 3.11 | 3.08 | 3.18 | 3.04 | 3.38 | 3.20 |
| SLC25A15 | 3.74 | 3.91 | 3.96 | 3.90 | 3.99 | 3.27 | 3.37 | 3.86 |
| SLC25A16 | 3.20 | 3.86 | 3.92 | 3.68 | 3.65 | 3.63 | 4.22 | 3.54 |
| SLC25A17 | 5.48 | 4.99 | 4.94 | 5.01 | 4.61 | 5.20 | 4.67 | 5.04 |
| SLC25A18 | -1.57 | -1.51 | -1.56 | -1.57 | -1.57 | -1.50 | -1.57 | -1.35 |
| SLC25A19 | 5.81 | 4.73 | 5.01 | 5.01 | 5.06 | 4.92 | 4.69 | 4.23 |
| SLC25A1P5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| SLC25A20 | 5.47 | 5.01 | 3.97 | 5.12 | 4.69 | 3.74 | 4.10 | 4.30 |
| SLC25A21 | -0.29 | -0.12 | -0.28 | -0.22 | -0.29 | -0.02 | -0.04 | -0.19 |
| SLC25A21-AS1 | 2.07 | 1.69 | 1.49 | 2.18 | 1.57 | 2.28 | 1.74 | 2.11 |
| SLC25A22 | 5.06 | 5.09 | 5.20 | 4.97 | 4.34 | 4.90 | 4.77 | 5.08 |
| SLC25A23 | 4.56 | 5.14 | 4.31 | 5.21 | 4.45 | 4.26 | 5.18 | 4.33 |
| SLC25A24 | 6.07 | 6.53 | 5.90 | 6.17 | 5.73 | 6.41 | 6.69 | 5.81 |
| SLC25A24P1 | -0.86 | -1.14 | -1.13 | -1.08 | -1.14 | -1.16 | -1.15 | -1.17 |
| SLC25A25 | 4.54 | 4.64 | 5.07 | 4.34 | 4.21 | 4.74 | 4.82 | 4.41 |
| SLC25A25-AS1 | 3.69 | 3.96 | 3.74 | 4.36 | 3.31 | 3.16 | 3.08 | 2.63 |
| SLC25A26 | 4.54 | 4.82 | 4.11 | 4.95 | 5.09 | 4.74 | 4.48 | 4.71 |
| SLC25A27 | 1.74 | 1.31 | 1.52 | 1.19 | 1.46 | 1.69 | 2.37 | 1.30 |
| SLC25A28 | 5.15 | 4.75 | 4.69 | 4.76 | 4.89 | 4.90 | 4.67 | 4.52 |
| SLC25A29 | 4.50 | 4.35 | 4.38 | 4.15 | 4.58 | 5.08 | 4.76 | 3.71 |
| SLC25A3 | 8.43 | 9.40 | 8.80 | 9.56 | 9.69 | 9.04 | 9.15 | 9.27 |
| SLC25A30 | 1.83 | 2.33 | 2.52 | 2.36 | 2.20 | 2.13 | 2.25 | 1.91 |
| SLC25A30-AS1 | -0.94 | -0.78 | -1.00 | -0.78 | -1.02 | -0.89 | -1.02 | -0.82 |
| SLC25A32 | 0.30 | 0.24 | 0.17 | 0.22 | 0.20 | 0.16 | 0.14 | 0.43 |
| SLC25A33 | 5.97 | 4.67 | 4.31 | 5.04 | 5.22 | 4.95 | 4.18 | 5.42 |
| SLC25A34 | 0.20 | 0.21 | 0.24 | 0.11 | 0.25 | 0.09 | 0.26 | 0.20 |
| SLC25A35 | 3.00 | 3.03 | 2.79 | 2.71 | 3.03 | 2.57 | 2.77 | 2.96 |
| SLC25A36 | 5.23 | 4.74 | 6.15 | 4.60 | 5.96 | 5.34 | 6.21 | 6.01 |
| SLC25A37 | 6.03 | 6.31 | 7.56 | 5.93 | 5.73 | 7.35 | 6.68 | 6.03 |
| SLC25A38 | 5.11 | 5.20 | 4.76 | 5.67 | 5.12 | 4.77 | 4.44 | 4.57 |
| SLC25A39 | 7.81 | 8.27 | 8.32 | 8.35 | 8.44 | 8.28 | 7.84 | 8.12 |
| SLC25A3P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 | -2.26 | -2.25 | -2.26 |
| SLC25A3P2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.16 |
| SLC25A4 | 7.51 | 7.30 | 6.96 | 7.67 | 7.13 | 7.34 | 7.21 | 7.26 |
| SLC25A40 | 2.99 | 3.53 | 3.80 | 3.32 | 3.89 | 3.54 | 4.14 | 3.82 |
| SLC25A41 | -1.03 | -1.02 | -0.94 | -1.03 | -1.02 | -1.05 | -0.90 | -1.12 |
| SLC25A42 | 2.64 | 2.45 | 3.00 | 2.69 | 2.53 | 2.71 | 2.40 | 2.51 |
| SLC25A43 | 3.59 | 4.46 | 3.73 | 4.32 | 3.69 | 3.20 | 3.04 | 3.94 |
| SLC25A44 | 4.08 | 4.46 | 3.97 | 4.32 | 4.11 | 4.15 | 4.16 | 4.21 |
| SLC25A45 | 2.09 | 1.65 | 1.74 | 1.64 | 1.95 | 1.58 | 1.86 | 2.18 |
| SLC25A46 | 4.56 | 5.39 | 5.54 | 5.72 | 4.72 | 4.71 | 5.47 | 4.55 |
| SLC25A47 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SLC25A48 | -1.38 | -1.31 | -1.36 | -1.32 | -1.31 | -1.39 | -1.26 | -1.34 |
| SLC25A5 | 10.06 | 9.99 | 9.75 | 10.14 | 10.32 | 9.49 | 9.46 | 10.05 |
| SLC25A5-AS1 | 1.45 | 0.97 | 1.10 | 1.08 | 1.27 | 1.10 | 0.98 | 1.23 |
| SLC25A51 | 2.97 | 3.36 | 2.95 | 3.49 | 3.50 | 3.52 | 2.95 | 2.96 |
| SLC25A52 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| SLC25A53 | 3.23 | 2.98 | 2.83 | 2.47 | 3.51 | 2.88 | 2.65 | 2.46 |
| SLC25A5P1 | -1.70 | -1.79 | -1.73 | -1.79 | -1.76 | -1.80 | -1.75 | -1.81 |
| SLC25A5P2 | -2.12 | -2.15 | -2.14 | -2.12 | -2.13 | -2.14 | -2.15 | -2.16 |
| SLC25A5P3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SLC25A5P4 | -2.36 | -2.36 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| SLC25A5P5 | -1.42 | -1.47 | -1.46 | -1.54 | -1.50 | -1.55 | -1.55 | -1.56 |
| SLC25A5P6 | -1.79 | -1.78 | -1.74 | -1.66 | -1.79 | -1.73 | -1.79 | -1.76 |
| SLC25A5P8 | -1.43 | -1.43 | -1.48 | -1.50 | -1.40 | -1.45 | -1.50 | -1.46 |
| SLC25A5P9 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SLC25A6P2 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| SLC26A1 | -1.07 | -1.18 | -1.24 | -1.12 | -1.22 | -1.21 | -1.20 | -1.16 |
| SLC26A11 | 2.05 | 1.38 | 1.51 | 1.50 | 1.75 | 1.76 | 1.96 | 1.68 |
| SLC26A2 | 3.00 | 4.41 | 3.46 | 4.37 | 3.62 | 2.81 | 2.66 | 2.59 |
| SLC26A3 | -1.52 | -1.39 | -1.50 | -1.52 | -1.48 | -1.53 | -1.52 | -1.48 |
| SLC26A4 | -1.74 | -1.73 | -1.73 | -1.74 | -1.71 | -1.66 | -1.70 | -1.67 |
| SLC26A5 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| SLC26A6 | 4.84 | 4.70 | 4.48 | 5.02 | 4.46 | 4.21 | 4.88 | 4.15 |
| SLC26A7 | -1.43 | -1.43 | -1.42 | -1.43 | -1.43 | -1.33 | -1.32 | -1.25 |
| SLC26A8 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| SLC26A9 | 4.42 | 5.52 | 4.71 | 5.64 | 5.76 | 5.33 | 3.94 | 4.46 |
| SLC27A1 | 4.49 | 4.71 | 4.53 | 4.48 | 4.59 | 3.99 | 4.22 | 3.41 |
| SLC27A2 | 3.68 | 5.02 | 4.19 | 4.51 | 5.13 | 4.26 | 4.33 | 3.51 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SLC27A3 | 4.07 | 3.94 | 3.02 | 4.15 | 3.43 | 3.66 | 3.92 | 3.32 |
| SLC27A4 | 5.53 | 4.81 | 4.33 | 5.06 | 4.06 | 3.97 | 4.80 | 4.52 |
| SLC27A5 | 4.39 | 3.15 | 3.86 | 3.15 | 5.10 | 3.60 | 4.63 | 2.84 |
| SLC28A1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| SLC28A2 | -0.50 | -0.48 | -0.56 | -0.58 | -0.49 | -0.51 | -0.50 | -0.60 |
| SLC28A3 | 4.51 | 4.89 | 4.82 | 5.07 | 4.79 | 3.98 | 6.02 | 4.11 |
| SLC29A1 | 6.13 | 4.70 | 5.22 | 5.18 | 5.31 | 5.05 | 3.86 | 4.92 |
| SLC29A2 | 5.42 | 5.01 | 5.00 | 5.27 | 5.07 | 4.54 | 4.87 | 5.19 |
| SLC29A3 | 4.43 | 4.64 | 3.94 | 4.40 | 4.06 | 4.19 | 4.06 | 3.75 |
| SLC29A4 | 1.83 | 1.22 | 1.15 | 1.17 | 1.70 | 1.18 | 1.09 | 1.01 |
| SLC2A1 | 7.11 | 7.97 | 8.71 | 7.37 | 7.48 | 8.53 | 7.70 | 7.46 |
| SLC2A1-AS1 | 1.77 | 2.19 | 2.52 | 1.92 | 2.65 | 2.04 | 2.48 | 2.20 |
| SLC2A10 | 4.30 | 4.97 | 3.79 | 4.45 | 4.21 | 4.15 | 4.39 | 3.43 |
| SLC2A11 | 4.01 | 4.23 | 3.48 | 4.65 | 4.70 | 3.77 | 4.29 | 3.48 |
| SLC2A12 | 1.74 | 1.46 | 1.73 | 1.41 | 1.64 | 2.41 | 1.76 | 1.48 |
| SLC2A13 | 3.21 | 4.10 | 3.75 | 3.54 | 3.71 | 3.96 | 4.17 | 2.61 |
| SLC2A14 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| SLC2A2 | -0.70 | -0.70 | -0.69 | -0.57 | -0.70 | -0.71 | -0.49 | -0.72 |
| SLC2A3 | 2.94 | 3.14 | 3.60 | 3.00 | 4.19 | 3.38 | 4.72 | 3.07 |
| SLC2A4 | -0.83 | -0.91 | -0.90 | -0.85 | -0.83 | -0.82 | -0.77 | -0.93 |
| SLC2A4RG | 7.70 | 7.08 | 6.35 | 6.88 | 5.88 | 6.23 | 5.94 | 6.58 |
| SLC2A5 | -2.07 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.08 |
| SLC2A6 | 5.79 | 4.03 | 4.39 | 4.81 | 4.15 | 4.75 | 4.57 | 4.06 |
| SLC2A8 | 5.44 | 4.87 | 4.42 | 4.91 | 4.58 | 4.35 | 4.86 | 3.75 |
| SLC2A9 | -0.42 | -0.49 | -0.40 | -0.28 | -0.40 | -0.37 | -0.43 | -0.51 |
| SLC30A1 | 5.03 | 5.62 | 5.37 | 5.30 | 5.21 | 5.81 | 5.44 | 5.74 |
| SLC30A10 | -1.50 | -1.55 | -1.54 | -1.56 | -1.55 | -1.51 | -1.56 | -1.58 |
| SLC30A2 | 0.80 | 0.49 | 0.51 | 0.64 | 0.54 | 0.45 | 0.62 | 0.57 |
| SLC30A3 | -0.92 | -1.23 | -1.29 | -1.24 | -1.30 | -1.28 | -1.12 | -1.32 |
| SLC30A4 | 1.11 | 1.40 | 1.34 | 1.59 | 1.30 | 0.90 | 1.21 | 1.31 |
| SLC30A5 | 5.14 | 5.84 | 5.65 | 5.79 | 6.18 | 5.35 | 5.59 | 5.92 |
| SLC30A6 | 4.32 | 4.28 | 4.12 | 4.47 | 3.65 | 3.92 | 4.47 | 4.59 |
| SLC30A7 | 5.53 | 5.74 | 5.54 | 5.68 | 4.94 | 5.54 | 5.84 | 5.44 |
| SLC30A8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| SLC30A9 | 5.55 | 6.49 | 6.25 | 6.42 | 5.63 | 6.02 | 6.53 | 6.50 |
| SLC31A1 | 6.69 | 6.09 | 6.07 | 6.63 | 5.90 | 6.16 | 6.74 | 6.18 |
| SLC31A2 | 4.01 | 3.53 | 3.35 | 3.59 | 2.96 | 4.02 | 3.23 | 2.99 |
| SLC33A1 | 4.30 | 4.53 | 4.88 | 4.51 | 4.34 | 4.54 | 4.85 | 5.24 |
| SLC34A2 | 5.77 | 3.62 | 3.96 | 3.43 | 3.62 | 3.26 | 7.03 | 5.89 |
| SLC34A3 | -1.28 | -1.46 | -1.45 | -1.47 | -1.46 | -1.22 | -1.47 | -1.48 |
| SLC35A1 | 5.26 | 5.01 | 5.07 | 5.23 | 4.55 | 5.60 | 4.76 | 4.17 |
| SLC35A2 | 5.64 | 5.75 | 6.44 | 5.80 | 6.46 | 5.50 | 5.33 | 6.06 |
| SLC35A3 | 5.87 | 6.17 | 5.63 | 5.99 | 5.21 | 5.67 | 6.47 | 5.46 |
| SLC35A4 | 5.57 | 6.27 | 5.83 | 6.39 | 5.80 | 5.68 | 5.84 | 5.31 |
| SLC35A5 | 4.12 | 3.79 | 4.45 | 3.87 | 3.88 | 3.98 | 4.61 | 4.35 |
| SLC35B1 | 6.87 | 6.53 | 6.53 | 6.87 | 7.35 | 6.83 | 6.46 | 7.20 |
| SLC35B2 | 6.15 | 5.90 | 5.67 | 5.90 | 6.03 | 6.47 | 5.47 | 6.56 |
| SLC35B3 | 5.28 | 4.85 | 4.18 | 4.93 | 4.75 | 4.30 | 5.03 | 5.72 |
| SLC35B4 | 4.18 | 4.08 | 4.12 | 4.05 | 4.24 | 3.60 | 4.11 | 3.19 |
| SLC35C1 | 5.39 | 6.09 | 5.70 | 5.99 | 5.48 | 4.84 | 5.21 | 5.46 |
| SLC35C2 | 6.31 | 5.59 | 6.07 | 5.62 | 5.87 | 6.00 | 5.88 | 6.22 |
| SLC35D1 | 3.64 | 5.21 | 4.15 | 5.14 | 3.55 | 4.56 | 4.80 | 3.32 |
| SLC35D2 | 5.78 | 5.37 | 5.35 | 5.58 | 6.16 | 5.58 | 5.82 | 5.18 |
| SLC35D3 | -1.37 | -1.17 | -1.35 | -1.24 | -1.36 | -1.35 | -1.38 | -1.28 |
| SLC35E1 | 5.30 | 6.09 | 6.30 | 6.03 | 5.77 | 5.85 | 6.44 | 5.37 |
| SLC35E1P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 |
| SLC35E2A | 3.04 | 2.93 | 2.97 | 2.64 | 2.89 | 2.91 | 2.96 | 2.68 |
| SLC35E2B | 3.08 | 2.52 | 3.28 | 2.81 | 2.62 | 2.91 | 3.51 | 2.75 |
| SLC35E3 | 5.02 | 4.41 | 4.87 | 4.78 | 4.07 | 4.54 | 4.74 | 4.18 |
| SLC35E4 | 4.92 | 4.60 | 4.73 | 4.71 | 3.84 | 3.89 | 4.07 | 3.27 |
| SLC35F2 | 4.63 | 4.40 | 4.90 | 4.61 | 4.90 | 4.82 | 4.43 | 4.98 |
| SLC35F3 | 1.47 | 1.03 | 1.13 | 1.13 | 1.35 | 0.98 | 1.37 | 1.72 |
| SLC35F5 | 5.52 | 5.95 | 5.57 | 5.91 | 5.78 | 5.37 | 6.40 | 5.68 |
| SLC35F6 | 5.54 | 5.50 | 5.30 | 5.49 | 5.09 | 5.22 | 5.41 | 5.28 |
| SLC35G1 | 3.20 | 3.35 | 3.05 | 3.06 | 3.41 | 2.71 | 2.95 | 3.00 |
| SLC35G2 | 3.49 | 3.22 | 3.19 | 3.06 | 3.75 | 3.02 | 2.62 | 4.27 |
| SLC35G5 | -1.74 | -1.64 | -1.63 | -1.74 | -1.74 | -1.68 | -1.75 | -1.76 |
| SLC36A1 | 2.18 | 2.70 | 2.54 | 2.70 | 1.78 | 2.05 | 1.97 | 1.62 |
| SLC36A4 | 4.52 | 4.46 | 4.48 | 4.53 | 4.68 | 4.52 | 4.61 | 4.19 |
| SLC37A1 | 6.53 | 5.62 | 5.20 | 5.29 | 4.92 | 5.15 | 5.34 | 5.87 |
| SLC37A2 | 0.66 | 0.59 | 0.61 | 0.56 | 1.22 | 1.17 | 0.65 | 1.65 |
| SLC37A3 | 3.84 | 4.53 | 4.44 | 4.56 | 4.60 | 4.24 | 4.89 | 4.41 |
| SLC37A4 | 5.31 | 4.66 | 5.53 | 5.18 | 6.02 | 4.99 | 5.57 | 4.89 |
| SLC38A1 | 6.40 | 7.04 | 7.00 | 6.95 | 6.56 | 7.40 | 7.33 | 7.46 |
| SLC38A10 | 6.31 | 6.28 | 6.42 | 6.39 | 6.26 | 6.01 | 6.20 | 6.15 |
| SLC38A11 | 1.18 | 2.09 | 1.88 | 1.90 | 1.33 | 1.17 | 2.88 | 1.15 |
| SLC38A2 | 7.31 | 7.07 | 7.53 | 7.10 | 6.95 | 7.54 | 8.16 | 8.03 |
| SLC38A3 | -0.48 | -0.71 | -0.60 | -0.72 | -0.71 | -0.61 | 0.01 | -0.67 |
| SLC38A4 | -1.53 | -1.53 | -1.40 | -1.54 | -1.53 | -1.51 | -1.54 | -1.55 |
| SLC38A5 | 3.40 | 5.93 | 5.43 | 6.25 | 4.83 | 4.01 | 3.54 | 4.85 |
| SLC38A6 | 3.21 | 3.30 | 3.62 | 3.50 | 3.53 | 3.74 | 2.93 | 3.24 |
| SLC38A7 | 3.61 | 4.00 | 3.82 | 3.72 | 3.19 | 3.12 | 3.66 | 3.72 |
| SLC38A8 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| SLC38A9 | 3.20 | 3.21 | 3.48 | 3.71 | 3.30 | 3.54 | 3.21 | 3.20 |
| SLC39A1 | 3.00 | 3.73 | 2.71 | 3.44 | 3.24 | 3.39 | 3.16 | 3.29 |
| SLC39A10 | 5.51 | 5.33 | 5.53 | 5.31 | 5.36 | 5.14 | 6.00 | 5.59 |
| SLC39A11 | 5.10 | 5.74 | 6.92 | 5.55 | 5.62 | 6.29 | 5.36 | 5.72 |
| SLC39A13 | 5.00 | 5.10 | 5.09 | 4.80 | 5.25 | 4.23 | 4.18 | 4.67 |
| SLC39A14 | 5.39 | 5.91 | 6.19 | 5.82 | 5.45 | 5.35 | 6.11 | 5.37 |
| SLC39A2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SLC39A3 | 6.06 | 5.53 | 6.30 | 5.64 | 6.90 | 6.24 | 5.97 | 5.93 |
| SLC39A4 | 7.12 | 7.42 | 6.16 | 7.45 | 6.95 | 7.22 | 6.14 | 7.29 |
| SLC39A5 | 0.40 | 0.51 | 0.53 | 0.64 | 0.46 | 0.42 | 1.12 | 0.48 |
| SLC39A6 | 4.81 | 4.91 | 5.78 | 5.08 | 4.84 | 5.47 | 5.12 | 4.00 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SLC39A7 | 7.74 | 7.56 | 7.28 | 7.85 | 7.00 | 7.30 | 7.20 | 8.31 |
| SLC39A8 | 3.34 | 4.95 | 3.47 | 4.99 | 2.86 | 4.33 | 3.82 | 3.93 |
| SLC39A9 | 5.44 | 5.23 | 5.94 | 5.02 | 5.96 | 5.66 | 6.02 | 5.80 |
| SLC3A1 | 1.39 | 1.86 | 1.30 | 3.16 | 1.60 | 1.29 | 2.01 | 1.59 |
| SLC3A2 | 8.41 | 7.24 | 7.68 | 7.40 | 8.11 | 8.12 | 7.60 | 9.08 |
| SLC40A1 | 7.46 | 8.70 | 6.58 | 8.42 | 7.12 | 6.22 | 7.31 | 6.85 |
| SLC41A1 | 4.71 | 4.45 | 4.71 | 4.46 | 4.67 | 4.97 | 4.71 | 4.73 |
| SLC41A2 | 3.89 | 4.23 | 4.16 | 4.12 | 3.82 | 3.65 | 4.16 | 3.23 |
| SLC41A3 | 5.71 | 4.84 | 5.78 | 4.65 | 5.66 | 4.66 | 5.15 | 5.30 |
| SLC43A1 | 2.90 | 2.92 | 3.14 | 3.09 | 4.32 | 2.94 | 4.12 | 3.35 |
| SLC43A2 | 3.82 | 3.54 | 3.52 | 3.71 | 3.67 | 3.33 | 3.28 | 3.24 |
| SLC43A3 | 3.67 | 2.64 | 5.72 | 2.47 | 4.88 | 3.90 | 3.14 | 4.98 |
| SLC44A1 | 6.96 | 7.37 | 7.11 | 6.74 | 6.12 | 7.44 | 7.46 | 6.45 |
| SLC44A2 | 6.25 | 6.80 | 6.58 | 6.74 | 5.62 | 6.07 | 6.54 | 5.69 |
| SLC44A3 | 4.72 | 4.98 | 4.27 | 5.56 | 4.10 | 5.26 | 5.13 | 4.68 |
| SLC44A3-AS1 | 2.02 | 3.16 | 2.39 | 2.78 | 2.02 | 2.50 | 2.53 | 2.45 |
| SLC44A4 | 7.03 | 7.52 | 6.99 | 7.61 | 6.28 | 6.85 | 7.78 | 6.92 |
| SLC44A5 | 0.38 | 0.24 | 0.42 | 0.22 | 0.32 | 0.59 | 0.37 | 0.44 |
| SLC45A1 | 0.82 | 0.68 | 1.08 | 0.74 | 0.93 | 1.05 | 0.98 | 0.67 |
| SLC45A3 | 3.24 | 3.84 | 3.18 | 3.83 | 3.49 | 3.79 | 3.13 | 4.30 |
| SLC45A4 | 4.80 | 4.63 | 5.01 | 4.42 | 4.38 | 4.66 | 4.94 | 5.42 |
| SLC46A1 | 3.70 | 3.37 | 3.39 | 3.53 | 3.60 | 2.74 | 2.88 | 3.39 |
| SLC46A2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SLC46A3 | 3.49 | 3.83 | 3.51 | 3.81 | 3.71 | 2.30 | 4.09 | 3.38 |
| SLC47A1 | 1.48 | 0.64 | 0.48 | 0.59 | 0.59 | 0.43 | 0.86 | 0.63 |
| SLC47A2 | -1.89 | -1.89 | -1.88 | -1.90 | -1.85 | -1.90 | -1.85 | -1.82 |
| SLC48A1 | 6.14 | 5.44 | 5.27 | 5.09 | 4.84 | 4.95 | 5.09 | 4.80 |
| SLC49A3 | 1.16 | 2.11 | 1.30 | 2.00 | 1.62 | 1.21 | 1.27 | 2.06 |
| SLC49A4 | 4.78 | 4.28 | 4.64 | 4.46 | 3.96 | 4.00 | 3.83 | 4.53 |
| SLC4A11 | 4.35 | 4.45 | 3.49 | 4.65 | 3.56 | 4.02 | 4.15 | 3.45 |
| SLC4A1AP | 5.43 | 5.13 | 4.66 | 5.20 | 4.67 | 5.14 | 5.08 | 5.45 |
| SLC4A1APP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SLC4A2 | 5.00 | 5.99 | 5.55 | 5.81 | 4.82 | 4.66 | 5.47 | 4.94 |
| SLC4A3 | 1.02 | 1.18 | 1.07 | 0.88 | 1.20 | 1.22 | 0.78 | 0.67 |
| SLC4A4 | 2.86 | 3.45 | 3.49 | 3.18 | 4.81 | 3.05 | 6.49 | 3.48 |
| SLC4A5 | -0.90 | -0.95 | -1.02 | -0.82 | -1.03 | -0.98 | -0.97 | -0.83 |
| SLC4A7 | 4.38 | 5.02 | 5.39 | 4.77 | 4.93 | 5.35 | 5.57 | 4.52 |
| SLC4A8 | -0.39 | -0.38 | -0.37 | -0.02 | -0.17 | 0.41 | -0.39 | -0.35 |
| SLC4A9 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| SLC50A1 | 7.70 | 6.80 | 6.72 | 7.00 | 8.00 | 7.09 | 7.22 | 8.05 |
| SLC51A | 0.55 | 0.15 | 0.17 | 0.13 | 0.39 | 0.31 | 0.13 | 0.15 |
| SLC51B | -0.63 | -0.78 | -0.77 | -0.79 | -0.78 | -0.73 | -0.79 | -0.74 |
| SLC52A1 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.05 | -1.95 |
| SLC52A2 | 7.31 | 6.96 | 7.55 | 7.35 | 6.96 | 7.30 | 6.26 | 7.67 |
| SLC52A3 | 5.44 | 4.50 | 5.14 | 4.25 | 5.51 | 5.03 | 4.03 | 4.37 |
| SLC5A1 | 4.72 | 5.30 | 4.61 | 5.35 | 5.29 | 3.45 | 5.28 | 3.90 |
| SLC5A10 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| SLC5A11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SLC5A2 | 0.51 | 0.32 | 0.62 | 0.37 | 0.58 | 0.34 | 0.43 | 0.42 |
| SLC5A3 | 5.30 | 5.19 | 6.09 | 5.01 | 4.85 | 5.67 | 5.92 | 5.13 |
| SLC5A4-AS1 | -1.41 | -1.28 | -1.21 | -1.23 | -1.38 | -1.40 | -1.36 | -1.43 |
| SLC5A5 | 0.15 | 0.26 | 0.36 | 0.23 | 0.25 | 0.17 | 0.58 | 0.18 |
| SLC5A6 | 3.95 | 3.71 | 3.88 | 3.70 | 3.55 | 3.34 | 3.73 | 3.70 |
| SLC5A7 | -1.90 | -1.89 | -1.89 | -1.87 | -1.89 | -1.90 | -1.90 | -1.64 |
| SLC5A8 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| SLC5A9 | -0.63 | -0.71 | -0.69 | -0.56 | -0.71 | -0.65 | -0.37 | -0.67 |
| SLC6A11 | -1.24 | -1.16 | -1.22 | -1.25 | -1.20 | -1.25 | -1.05 | -1.26 |
| SLC6A12 | 1.57 | 1.29 | 1.51 | 1.45 | 1.22 | 1.12 | 1.51 | 1.51 |
| SLC6A13 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| SLC6A14 | 7.95 | 7.25 | 6.66 | 7.40 | 5.90 | 4.88 | 6.57 | 7.50 |
| SLC6A15 | -1.02 | -1.09 | -1.08 | -1.10 | -1.09 | -1.08 | -1.10 | -0.63 |
| SLC6A16 | -1.18 | -1.24 | -1.09 | -1.18 | -1.14 | -1.14 | -1.25 | -1.15 |
| SLC6A18 | -2.20 | -2.20 | -2.17 | -2.20 | -2.18 | -2.20 | -2.20 | -2.19 |
| SLC6A19 | 1.46 | 1.97 | 1.66 | 2.09 | 4.53 | 1.44 | 1.43 | 1.59 |
| SLC6A20 | 5.88 | 4.14 | 3.69 | 4.56 | 4.43 | 3.34 | 4.75 | 4.74 |
| SLC6A3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.20 | -2.20 | -2.21 |
| SLC6A4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| SLC6A6 | 6.20 | 5.26 | 5.33 | 5.45 | 4.93 | 5.12 | 5.56 | 5.10 |
| SLC6A7 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 | -1.85 | -1.84 | -1.86 |
| SLC6A8 | 5.23 | 5.50 | 6.79 | 5.34 | 6.15 | 5.42 | 6.38 | 4.91 |
| SLC6A9 | 2.36 | 2.50 | 2.15 | 2.44 | 2.49 | 2.72 | 3.03 | 2.90 |
| SLC7A1 | 4.52 | 6.13 | 6.06 | 5.93 | 6.02 | 5.54 | 6.53 | 6.62 |
| SLC7A10 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| SLC7A11 | 4.76 | 4.69 | 5.05 | 5.09 | 4.66 | 4.93 | 6.33 | 5.49 |
| SLC7A11-AS1 | -1.46 | -1.46 | -1.45 | -1.47 | -1.40 | -1.17 | -1.47 | -1.48 |
| SLC7A2 | 1.05 | 0.93 | 1.05 | 0.98 | 0.93 | 0.88 | 1.41 | 1.75 |
| SLC7A4 | 2.99 | 1.64 | 1.50 | 2.02 | 1.82 | 1.43 | 1.36 | 1.38 |
| SLC7A5 | 4.96 | 4.02 | 6.34 | 3.92 | 4.93 | 6.33 | 6.30 | 7.31 |
| SLC7A5P1 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.25 | -2.24 |
| SLC7A6 | 3.46 | 3.77 | 3.59 | 3.79 | 3.38 | 3.57 | 3.44 | 3.57 |
| SLC7A6OS | 4.87 | 4.50 | 4.51 | 4.42 | 4.74 | 4.62 | 4.42 | 4.67 |
| SLC7A7 | 4.62 | 5.61 | 4.48 | 6.58 | 5.21 | 4.55 | 5.81 | 3.68 |
| SLC7A8 | 1.38 | 2.55 | 1.66 | 2.25 | 1.72 | 1.48 | 1.41 | 1.98 |
| SLC7A9 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| SLC8A1 | -1.65 | -1.59 | -1.63 | -1.60 | -1.64 | -1.66 | -1.65 | -1.62 |
| SLC8A1-AS1 | -2.01 | -2.04 | -2.01 | -2.02 | -2.04 | -2.00 | -2.05 | -2.06 |
| SLC8A2 | -1.27 | -1.33 | -1.32 | -1.28 | -1.30 | -1.29 | -1.21 | -1.36 |
| SLC8A3 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| SLC8B1 | 4.04 | 4.34 | 4.57 | 4.48 | 4.13 | 4.21 | 4.67 | 4.27 |
| SLC9A1 | 3.80 | 4.85 | 5.76 | 4.74 | 5.20 | 4.73 | 5.97 | 3.91 |
| SLC9A2 | 3.18 | 5.56 | 4.73 | 5.11 | 4.66 | 3.95 | 5.56 | 4.17 |
| SLC9A3 | -0.11 | -0.11 | 0.00 | 0.02 | 0.21 | -0.17 | 0.01 | -0.16 |
| SLC9A3-AS1 | 4.43 | 3.45 | 3.72 | 4.07 | 4.25 | 3.49 | 5.05 | 2.92 |
| SLC9A3R1 | 8.43 | 8.64 | 8.31 | 8.74 | 8.58 | 8.37 | 8.87 | 7.47 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SLC9A3R2 | 5.92 | 6.12 | 6.14 | 6.08 | 5.41 | 6.97 | 5.35 | 7.63 |
| SLC9A4 | 1.27 | 1.86 | 1.34 | 2.12 | 1.94 | 1.41 | 2.43 | 1.73 |
| SLC9A5 | 0.72 | 0.35 | 0.43 | 0.41 | 0.57 | 0.42 | 0.33 | 0.34 |
| SLC9A6 | 3.53 | 3.96 | 4.25 | 3.62 | 3.64 | 3.81 | 4.08 | 4.00 |
| SLC9A7 | 4.23 | 4.00 | 6.20 | 3.92 | 4.68 | 4.86 | 3.83 | 4.54 |
| SLC9A7P1 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.08 |
| SLC9A8 | 3.18 | 3.38 | 3.65 | 2.98 | 3.47 | 3.02 | 3.25 | 3.09 |
| SLC9A9 | -1.54 | -1.48 | -1.41 | -1.54 | -1.54 | -1.55 | -1.49 | -1.56 |
| SLC9B1 | -0.82 | -0.59 | -0.80 | -0.75 | -0.74 | -0.70 | -0.83 | -0.73 |
| SLC9B2 | 4.69 | 3.67 | 3.46 | 3.84 | 3.19 | 3.17 | 5.07 | 3.56 |
| SLC9C1 | -1.99 | -1.99 | -1.95 | -1.96 | -1.99 | -1.98 | -2.00 | -2.01 |
| SLC9C2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| SLCO1A2 | -1.79 | -1.79 | -1.78 | -1.79 | -1.77 | -1.78 | -1.79 | -1.65 |
| SLCO1B1 | -1.28 | -1.33 | -1.32 | -1.16 | -1.34 | -1.35 | -1.35 | -1.30 |
| SLCO1B3 | 5.61 | 3.78 | 5.43 | 3.38 | 3.04 | 3.48 | 4.41 | 4.13 |
| SLCO1B7 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| SLCO2A1 | -0.11 | -0.03 | -0.10 | -0.12 | 0.40 | -0.09 | 0.16 | -0.02 |
| SLCO2B1 | 2.80 | 4.29 | 3.36 | 4.27 | 4.89 | 2.84 | 4.04 | 3.50 |
| SLCO3A1 | 6.47 | 4.86 | 6.85 | 5.28 | 5.68 | 5.70 | 4.93 | 5.45 |
| SLCO4A1 | 7.73 | 5.98 | 6.43 | 6.24 | 7.23 | 6.25 | 6.01 | 6.10 |
| SLCO4A1-AS1 | 4.01 | 3.51 | 2.59 | 3.93 | 4.91 | 3.21 | 2.63 | 4.76 |
| SLCO4C1 | -0.37 | 0.01 | -0.25 | -0.22 | -0.36 | -0.38 | 0.08 | -0.20 |
| SLCO5A1 | -0.91 | -0.91 | -0.89 | -0.91 | -0.80 | -0.88 | -0.91 | -0.86 |
| SLED1 | -1.79 | -1.79 | -1.68 | -1.79 | -1.74 | -1.78 | -1.80 | -1.81 |
| SLF1 | 4.41 | 4.76 | 5.21 | 4.79 | 4.63 | 4.87 | 4.85 | 3.71 |
| SLF2 | 5.44 | 4.90 | 5.38 | 4.91 | 5.44 | 5.62 | 5.58 | 4.72 |
| SLFN11 | 2.50 | 3.34 | 3.01 | 3.83 | 1.76 | 3.89 | 2.40 | 2.76 |
| SLFN12 | 2.48 | 3.29 | 2.15 | 3.07 | 2.20 | 3.22 | 2.38 | 2.78 |
| SLFN12L | -1.49 | -1.37 | -1.53 | -1.27 | -1.51 | -1.47 | -1.55 | -1.46 |
| SLFN13 | 4.84 | 5.30 | 5.29 | 5.26 | 3.23 | 5.38 | 5.13 | 4.14 |
| SLFN5 | 6.20 | 6.13 | 6.44 | 5.73 | 5.58 | 6.53 | 5.74 | 5.89 |
| SLFNL1-AS1 | -1.84 | -1.84 | -1.83 | -1.80 | -1.82 | -1.81 | -1.84 | -1.86 |
| SLIRP | 9.47 | 9.36 | 8.94 | 9.28 | 9.85 | 9.61 | 8.78 | 8.83 |
| SLIT2 | -0.61 | -0.45 | -0.42 | -0.46 | -0.61 | -0.59 | -0.40 | -0.51 |
| SLIT3 | 0.89 | 1.01 | 0.94 | 1.04 | 1.04 | 0.93 | 1.54 | 0.79 |
| SLITRK4 | -2.10 | -2.07 | -2.06 | -2.10 | -2.09 | -2.10 | -2.07 | -2.08 |
| SLITRK5 | -1.74 | -1.59 | -1.73 | -1.65 | -1.71 | -1.65 | -1.74 | -1.76 |
| SLITRK6 | 1.38 | 1.76 | 1.55 | 1.83 | 1.26 | 1.03 | 1.36 | 3.12 |
| SLK | 6.78 | 7.99 | 7.33 | 7.85 | 7.69 | 7.42 | 7.96 | 8.01 |
| SLMAP | 5.94 | 6.63 | 6.32 | 6.30 | 6.20 | 6.24 | 6.55 | 6.49 |
| SLN | -2.05 | -2.04 | -2.04 | -2.01 | -2.02 | -2.05 | -2.05 | -2.06 |
| SLPI | 10.13 | 8.88 | 8.76 | 8.90 | 9.05 | 7.91 | 9.16 | 9.26 |
| SLTM | 7.67 | 7.51 | 7.35 | 7.61 | 7.19 | 7.48 | 7.06 | 7.58 |
| SLU7 | 6.43 | 6.51 | 6.84 | 6.43 | 6.86 | 6.52 | 6.16 | 6.60 |
| SLURP1 | -1.89 | -1.81 | -1.88 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 |
| SLURP2 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.03 |
| SLX4 | 2.31 | 2.13 | 3.07 | 2.23 | 2.06 | 2.31 | 2.51 | 2.15 |
| SLX4IP | 3.34 | 3.42 | 3.82 | 3.73 | 3.70 | 3.56 | 3.73 | 3.41 |
| SMAD1 | 4.02 | 4.70 | 4.70 | 4.04 | 4.26 | 3.79 | 4.49 | 4.97 |
| SMAD1-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| SMAD2 | 5.29 | 5.41 | 5.73 | 5.21 | 5.36 | 5.14 | 6.19 | 5.10 |
| SMAD3 | 6.06 | 6.64 | 7.09 | 5.84 | 6.31 | 6.42 | 6.26 | 6.64 |
| SMAD4 | 4.50 | 3.98 | 3.49 | 4.17 | 4.64 | 2.96 | 5.91 | 2.98 |
| SMAD5 | 5.29 | 6.06 | 6.32 | 5.87 | 5.97 | 5.92 | 6.68 | 5.53 |
| SMAD5-AS1 | -1.45 | -1.39 | -1.44 | -1.34 | -1.45 | -1.40 | -1.40 | -1.42 |
| SMAD6 | 5.08 | 4.88 | 4.46 | 5.14 | 3.87 | 4.54 | 4.77 | 4.76 |
| SMAD7 | 2.71 | 2.77 | 2.53 | 2.87 | 2.39 | 2.67 | 3.25 | 2.13 |
| SMAD9 | 2.61 | 4.06 | 4.24 | 3.84 | 2.58 | 2.27 | 4.68 | 5.24 |
| SMAD9-IT1 | -1.79 | -1.69 | -1.78 | -1.70 | -1.79 | -1.80 | -1.66 | -1.72 |
| SMAGP | 5.98 | 7.54 | 5.98 | 7.83 | 6.78 | 7.64 | 6.28 | 6.27 |
| SMAP1 | 7.12 | 6.46 | 6.81 | 6.43 | 6.26 | 6.56 | 7.24 | 6.68 |
| SMAP2 | 4.68 | 4.48 | 4.59 | 4.59 | 4.91 | 4.74 | 5.16 | 4.34 |
| SMARCA1 | 4.36 | 3.84 | 4.19 | 3.67 | 4.40 | 4.34 | 3.75 | 6.54 |
| SMARCA2 | 4.66 | 5.94 | 5.97 | 5.95 | 5.09 | 5.67 | 6.45 | 5.73 |
| SMARCA4 | 8.09 | 7.97 | 7.94 | 8.09 | 8.68 | 8.67 | 8.13 | 8.28 |
| SMARCA5 | 6.38 | 7.30 | 7.23 | 6.96 | 6.45 | 7.10 | 7.41 | 7.23 |
| SMARCA5-AS1 | -0.79 | -0.87 | -0.85 | -0.87 | -0.87 | -0.74 | -0.88 | -0.83 |
| SMARCAD1 | 4.22 | 4.73 | 4.76 | 4.68 | 4.52 | 4.79 | 5.39 | 5.04 |
| SMARCAL1 | 3.33 | 3.67 | 3.99 | 3.65 | 3.74 | 3.73 | 3.68 | 3.68 |
| SMARCB1 | 7.11 | 6.50 | 5.95 | 6.65 | 6.07 | 6.74 | 6.53 | 6.56 |
| SMARCC1 | 6.69 | 6.82 | 7.03 | 6.72 | 6.67 | 6.91 | 7.06 | 6.25 |
| SMARCC2 | 6.39 | 6.13 | 6.60 | 6.32 | 5.77 | 6.68 | 6.11 | 6.45 |
| SMARCD1 | 4.66 | 5.22 | 5.19 | 4.99 | 4.78 | 5.44 | 4.95 | 4.96 |
| SMARCD2 | 6.50 | 6.44 | 6.71 | 6.45 | 6.20 | 6.55 | 5.94 | 6.75 |
| SMARCD3 | 2.95 | 3.23 | 2.42 | 3.23 | 3.38 | 2.73 | 2.58 | 1.92 |
| SMARCE1 | 3.79 | 4.22 | 4.02 | 4.26 | 3.89 | 4.15 | 3.80 | 3.89 |
| SMARCE1P1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| SMARCE1P2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.08 |
| SMARCE1P3 | -1.91 | -1.90 | -1.93 | -1.94 | -1.92 | -1.91 | -1.95 | -1.96 |
| SMARCE1P5 | -1.51 | -1.45 | -1.50 | -1.52 | -1.51 | -1.47 | -1.46 | -1.54 |
| SMARCE1P6 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| SMC1A | 7.62 | 6.84 | 8.20 | 6.82 | 6.61 | 6.96 | 7.71 | 6.14 |
| SMC1B | 2.66 | 3.92 | 2.08 | 3.78 | 1.70 | 1.67 | 1.97 | 1.43 |
| SMC2 | 6.97 | 6.90 | 7.10 | 6.84 | 5.74 | 7.15 | 6.91 | 5.75 |
| SMC2-AS1 | -0.82 | -1.02 | -0.93 | -0.70 | -0.88 | -0.97 | -1.03 | -0.92 |
| SMC3 | 7.59 | 6.92 | 7.29 | 6.82 | 7.22 | 7.01 | 6.96 | 6.54 |
| SMC4 | 7.88 | 6.98 | 8.55 | 6.80 | 7.82 | 8.43 | 8.14 | 7.53 |
| SMC5 | 6.58 | 6.72 | 7.09 | 6.73 | 6.24 | 7.26 | 7.35 | 6.31 |
| SMC5-AS1 | 0.69 | 0.46 | 0.34 | 0.50 | 0.58 | 0.39 | 0.51 | 0.48 |
| SMC6 | 5.98 | 6.24 | 6.45 | 6.28 | 5.68 | 6.27 | 6.42 | 5.80 |
| SMCHD1 | 5.75 | 6.23 | 6.37 | 6.08 | 6.50 | 5.93 | 6.46 | 6.48 |
| SMCO2 | -0.73 | -0.81 | -0.72 | -0.74 | -0.69 | -0.75 | -0.82 | -0.77 |
| SMCO4 | 5.83 | 6.10 | 5.56 | 6.46 | 5.99 | 5.96 | 5.35 | 6.09 |
| SMCR2 | -1.57 | -1.69 | -1.62 | -1.70 | -1.57 | -1.68 | -1.64 | -1.66 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SMCR5 | -0.32 | -0.31 | -0.46 | -0.41 | -0.39 | -0.45 | -0.41 | -0.38 |
| SMCR8 | 4.33 | 3.77 | 4.39 | 3.33 | 3.35 | 3.80 | 4.01 | 4.04 |
| SMDT1 | 8.40 | 7.61 | 6.77 | 7.73 | 7.11 | 7.42 | 7.37 | 7.67 |
| SMG1 | 5.11 | 5.65 | 5.79 | 5.57 | 4.95 | 5.41 | 5.88 | 5.20 |
| SMG1P1 | -1.48 | -1.42 | -1.47 | -1.43 | -1.45 | -1.46 | -1.37 | -1.40 |
| SMG1P2 | -0.27 | -0.48 | -0.46 | -0.49 | -0.39 | -0.33 | -0.29 | -0.38 |
| SMG1P3 | 0.07 | 0.24 | 0.23 | 0.21 | 0.08 | 0.05 | 0.18 | 0.34 |
| SMG1P4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| SMG1P5 | -1.35 | -1.35 | -1.34 | -1.30 | -1.38 | -1.31 | -1.42 | -1.43 |
| SMG1P6 | -1.35 | -1.40 | -1.27 | -1.41 | -1.34 | -1.42 | -1.30 | -1.32 |
| SMG1P7 | 0.72 | 1.03 | 0.99 | 0.86 | 0.84 | 0.82 | 1.24 | 0.93 |
| SMG5 | 5.24 | 5.46 | 5.73 | 5.51 | 5.29 | 5.18 | 5.24 | 5.63 |
| SMG6 | 4.18 | 4.76 | 4.59 | 4.69 | 4.12 | 4.69 | 4.98 | 4.40 |
| SMG7 | 5.22 | 5.59 | 5.51 | 5.42 | 5.43 | 5.68 | 5.46 | 5.77 |
| SMG7-AS1 | -0.32 | -0.58 | -0.57 | -0.67 | -0.54 | -0.54 | -0.60 | -0.41 |
| SMG8 | 0.70 | 0.80 | 0.51 | 0.75 | 0.89 | 0.75 | 0.84 | 0.81 |
| SMG9 | 4.79 | 4.50 | 4.81 | 4.82 | 4.75 | 4.67 | 4.82 | 4.54 |
| SMILR | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| SMIM1 | 4.17 | 2.59 | 2.68 | 2.74 | 3.64 | 3.52 | 2.81 | 4.12 |
| SMIM10 | 1.80 | 1.60 | 1.24 | 1.40 | 1.81 | 2.26 | 1.25 | 1.63 |
| SMIM10L1 | 7.11 | 6.81 | 6.07 | 6.94 | 6.01 | 6.12 | 6.47 | 6.52 |
| SMIM10L2A | 0.08 | 0.32 | 0.21 | 0.22 | 0.14 | 0.20 | 0.35 | 0.16 |
| SMIM10L2B | 1.29 | 1.05 | 0.94 | 0.94 | 1.02 | 1.23 | 1.31 | 1.18 |
| SMIM11A | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| SMIM12 | 6.35 | 5.48 | 5.83 | 5.76 | 6.33 | 6.13 | 5.76 | 5.71 |
| SMIM13 | 4.79 | 4.36 | 4.20 | 3.77 | 4.06 | 3.88 | 4.24 | 4.51 |
| SMIM14 | 6.61 | 7.28 | 7.19 | 7.17 | 6.72 | 7.65 | 7.35 | 8.72 |
| SMIM15 | 6.28 | 6.67 | 6.07 | 6.89 | 6.73 | 6.40 | 6.30 | 6.59 |
| SMIM15-AS1 | -2.10 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| SMIM17 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.16 |
| SMIM18 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SMIM19 | 6.40 | 6.29 | 6.06 | 6.51 | 6.11 | 6.05 | 5.48 | 6.53 |
| SMIM2-AS1 | 2.43 | 2.94 | 2.92 | 3.37 | 2.73 | 2.58 | 3.49 | 2.24 |
| SMIM20 | 6.82 | 6.84 | 6.27 | 6.98 | 6.80 | 6.60 | 6.44 | 7.32 |
| SMIM22 | 7.13 | 8.91 | 8.00 | 8.67 | 8.04 | 7.97 | 8.20 | 8.35 |
| SMIM24 | 5.07 | 7.33 | 5.52 | 7.95 | 5.53 | 5.63 | 6.75 | 4.22 |
| SMIM25 | 0.33 | 0.18 | 0.61 | 0.01 | 0.03 | 0.39 | 0.01 | 0.17 |
| SMIM26 | 8.29 | 8.06 | 7.72 | 8.08 | 8.70 | 8.23 | 7.61 | 8.15 |
| SMIM27 | 5.34 | 5.12 | 5.00 | 5.33 | 5.15 | 5.58 | 4.84 | 5.00 |
| SMIM29 | 6.34 | 5.87 | 5.72 | 5.14 | 5.64 | 6.38 | 5.44 | 6.44 |
| SMIM3 | 3.73 | 4.06 | 3.67 | 4.12 | 4.77 | 4.69 | 3.77 | 2.75 |
| SMIM30 | 5.95 | 6.26 | 5.49 | 6.32 | 6.57 | 6.11 | 6.07 | 6.59 |
| SMIM31 | 0.34 | 0.45 | 0.37 | 0.42 | 0.57 | 0.51 | 0.55 | 0.56 |
| SMIM32 | 0.87 | 0.98 | 0.92 | 0.87 | 0.97 | 0.80 | 1.55 | 0.79 |
| SMIM33 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 | -2.18 | -2.21 |
| SMIM4 | 7.68 | 6.34 | 5.60 | 6.25 | 6.38 | 6.18 | 5.81 | 5.59 |
| SMIM5 | 2.86 | 2.61 | 3.06 | 3.15 | 3.32 | 3.07 | 3.96 | 2.72 |
| SMIM6 | 4.09 | 3.33 | 4.11 | 3.28 | 5.12 | 3.86 | 4.63 | 3.32 |
| SMIM7 | 6.74 | 7.40 | 6.66 | 7.57 | 7.52 | 7.32 | 6.84 | 6.91 |
| SMIM8 | 5.54 | 4.26 | 4.13 | 4.56 | 4.59 | 4.93 | 4.40 | 4.32 |
| SMKR1 | 2.47 | 2.26 | 2.43 | 2.59 | 3.58 | 2.12 | 1.94 | 1.68 |
| SMLR1 | -1.80 | -1.79 | -1.83 | -1.76 | -1.84 | -1.85 | -1.80 | -1.86 |
| SMN1 | 1.21 | 1.16 | 1.31 | 1.06 | 1.37 | 1.37 | 1.18 | 1.39 |
| SMN2 | -0.04 | 0.06 | -0.02 | -0.04 | 0.05 | -0.02 | -0.06 | 0.02 |
| SMNDC1 | 6.08 | 5.61 | 5.42 | 5.47 | 6.18 | 6.12 | 5.76 | 5.84 |
| SMO | 1.28 | 1.20 | 0.93 | 0.78 | 1.43 | 0.80 | 1.00 | 0.73 |
| SMOC1 | 5.20 | 3.48 | 5.72 | 3.54 | 6.58 | 3.45 | 5.33 | 3.26 |
| SMOC2 | -0.97 | -0.96 | -0.94 | -0.97 | -0.96 | -0.93 | -0.88 | -0.99 |
| SMOX | 4.75 | 4.25 | 4.27 | 4.32 | 4.98 | 4.15 | 4.45 | 4.69 |
| SMPD1 | 3.53 | 3.16 | 3.79 | 3.35 | 3.38 | 3.16 | 3.78 | 2.95 |
| SMPD2 | 5.46 | 3.86 | 4.33 | 3.97 | 4.41 | 4.33 | 4.40 | 4.05 |
| SMPD3 | 3.67 | 4.38 | 4.36 | 4.94 | 4.28 | 3.78 | 5.37 | 3.85 |
| SMPD4 | 2.64 | 2.75 | 2.59 | 3.07 | 2.89 | 2.66 | 2.44 | 2.64 |
| SMPD4P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| SMPD5 | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.82 | -1.83 |
| SMPDL3A | 5.63 | 4.01 | 4.11 | 4.96 | 4.34 | 4.43 | 5.03 | 4.26 |
| SMPDL3B | 3.47 | 4.75 | 3.81 | 5.00 | 4.53 | 4.51 | 4.14 | 4.11 |
| SMPX | 1.39 | 1.69 | 1.66 | 1.38 | 4.02 | 1.45 | 1.61 | 1.53 |
| SMS | 7.13 | 6.65 | 7.80 | 6.41 | 8.13 | 7.45 | 7.04 | 6.48 |
| SMTN | 3.90 | 4.44 | 3.63 | 4.35 | 3.56 | 4.48 | 3.82 | 4.13 |
| SMTNL1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.17 |
| SMTNL2 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.85 | -1.84 | -1.78 |
| SMU1 | 5.41 | 5.47 | 5.47 | 5.47 | 5.92 | 5.74 | 5.46 | 5.57 |
| SMUG1 | 6.75 | 6.17 | 6.06 | 6.20 | 6.45 | 6.42 | 5.55 | 6.33 |
| SMURF1 | 4.04 | 4.34 | 5.23 | 4.65 | 4.78 | 4.81 | 4.69 | 5.28 |
| SMURF2 | 3.92 | 4.55 | 4.84 | 4.30 | 4.01 | 5.01 | 4.57 | 4.01 |
| SMYD2 | 4.21 | 4.01 | 4.41 | 4.07 | 4.62 | 4.29 | 4.33 | 4.51 |
| SMYD3 | 5.02 | 4.83 | 4.68 | 4.83 | 5.31 | 5.35 | 5.23 | 5.27 |
| SMYD3-IT1 | -1.94 | -1.94 | -1.89 | -1.95 | -1.94 | -1.93 | -1.87 | -1.96 |
| SMYD4 | 3.03 | 2.32 | 2.80 | 2.74 | 2.59 | 2.81 | 3.41 | 2.79 |
| SMYD5 | 3.79 | 3.57 | 3.73 | 3.15 | 3.98 | 3.28 | 3.12 | 3.69 |
| SNAI1 | 1.02 | 0.55 | 0.84 | 0.69 | 0.99 | 0.74 | 0.53 | 0.73 |
| SNAI2 | 2.58 | 4.60 | 4.50 | 3.82 | 3.18 | 4.49 | 3.48 | 5.17 |
| SNAI3 | 0.74 | 0.27 | 0.31 | 0.38 | 0.81 | 0.23 | 0.17 | 0.26 |
| SNAI3-AS1 | 2.05 | 1.71 | 1.73 | 1.81 | 2.12 | 1.69 | 2.23 | 2.15 |
| SNAP23 | 5.74 | 5.63 | 5.61 | 5.82 | 6.03 | 5.62 | 5.77 | 6.48 |
| SNAP23P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| SNAP25 | -1.54 | -1.53 | -1.58 | -1.54 | -1.53 | -1.57 | -1.60 | -1.51 |
| SNAP25-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNAP29 | 6.79 | 5.89 | 5.74 | 5.91 | 5.31 | 6.17 | 6.10 | 6.52 |
| SNAP47 | 5.97 | 4.97 | 5.12 | 5.15 | 5.53 | 5.72 | 4.78 | 5.94 |
| SNAP91 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNAPC1 | 5.28 | 5.09 | 5.48 | 4.41 | 5.78 | 6.28 | 5.21 | 5.15 |
| SNAPC2 | 4.82 | 5.44 | 4.49 | 5.29 | 4.90 | 5.01 | 4.56 | 4.67 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SNAPC3 | 4.36 | 5.49 | 5.20 | 5.17 | 4.93 | 5.88 | 5.93 | 4.92 |
| SNAPC4 | 3.28 | 2.71 | 3.49 | 3.20 | 2.81 | 3.05 | 3.03 | 2.92 |
| SNAPC5 | 6.79 | 5.39 | 5.18 | 5.63 | 5.73 | 5.77 | 4.66 | 6.44 |
| SNAPIN | 7.45 | 6.54 | 6.08 | 6.73 | 6.73 | 7.06 | 5.89 | 6.99 |
| SNCA | 4.29 | 5.35 | 2.97 | 6.21 | 2.68 | 4.42 | 2.72 | 3.16 |
| SNCA-AS1 | -2.23 | -2.23 | -2.25 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| SNCAIP | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| SNCB | -1.75 | -1.79 | -1.78 | -1.79 | -1.76 | -1.80 | -1.75 | -1.81 |
| SNCG | 8.43 | 4.72 | 5.41 | 4.55 | 6.77 | 6.48 | 5.44 | 7.48 |
| SND1 | 5.87 | 6.66 | 6.83 | 6.80 | 7.03 | 6.19 | 7.14 | 7.07 |
| SND1-IT1 | 1.59 | 2.31 | 2.88 | 2.35 | 2.11 | 1.88 | 2.51 | 2.00 |
| SNED1 | 1.34 | 1.56 | 1.27 | 1.51 | 1.62 | 1.32 | 2.03 | 1.47 |
| SNF8 | 8.74 | 8.13 | 7.54 | 8.35 | 8.32 | 8.43 | 7.04 | 8.06 |
| SNHG1 | 5.00 | 4.62 | 4.99 | 5.01 | 5.97 | 4.94 | 5.04 | 5.03 |
| SNHG10 | 4.25 | 3.93 | 4.01 | 4.39 | 4.49 | 4.74 | 3.85 | 3.65 |
| SNHG11 | 4.54 | 3.97 | 3.75 | 3.93 | 3.96 | 3.72 | 3.78 | 3.95 |
| SNHG12 | 4.10 | 3.96 | 4.97 | 4.67 | 5.21 | 4.72 | 4.83 | 4.28 |
| SNHG14 | 3.66 | 3.53 | 3.55 | 3.77 | 5.44 | 3.59 | 7.49 | 4.60 |
| SNHG15 | 5.32 | 5.71 | 5.21 | 5.69 | 5.54 | 5.69 | 4.79 | 5.13 |
| SNHG16 | 7.07 | 7.47 | 6.42 | 7.43 | 7.12 | 7.13 | 6.40 | 6.28 |
| SNHG17 | 6.55 | 6.23 | 5.21 | 6.36 | 5.43 | 5.12 | 4.92 | 5.12 |
| SNHG18 | 3.72 | 2.93 | 3.71 | 2.82 | 2.95 | 3.76 | 4.20 | 2.88 |
| SNHG19 | 5.70 | 5.32 | 4.11 | 5.76 | 5.51 | 4.96 | 3.98 | 3.97 |
| SNHG20 | 2.80 | 2.49 | 2.50 | 3.06 | 2.78 | 2.57 | 2.14 | 2.24 |
| SNHG21 | -1.39 | -1.38 | -1.43 | -1.39 | -1.41 | -1.40 | -1.33 | -1.41 |
| SNHG22 | 1.34 | 1.53 | 1.84 | 1.98 | 2.01 | 1.41 | 2.03 | 1.51 |
| SNHG25 | 8.26 | 6.55 | 6.39 | 6.76 | 7.88 | 7.42 | 6.08 | 5.83 |
| SNHG26 | 0.09 | -0.02 | -0.01 | 0.29 | 0.46 | -0.02 | 0.03 | 0.10 |
| SNHG29 | 10.27 | 9.94 | 8.65 | 10.17 | 10.81 | 10.40 | 10.06 | 10.35 |
| SNHG3 | 5.53 | 5.28 | 4.96 | 5.66 | 6.24 | 5.97 | 5.43 | 5.13 |
| SNHG30 | 6.27 | 4.25 | 4.70 | 4.71 | 4.34 | 4.92 | 4.11 | 4.19 |
| SNHG31 | -0.14 | -0.36 | -0.14 | -0.22 | -0.28 | -0.01 | -0.30 | -0.11 |
| SNHG32 | 3.88 | 4.19 | 3.42 | 4.71 | 4.42 | 4.35 | 3.96 | 4.52 |
| SNHG4 | 2.59 | 2.82 | 3.21 | 3.09 | 2.84 | 2.69 | 2.94 | 2.07 |
| SNHG5 | 8.15 | 8.90 | 7.08 | 9.30 | 7.60 | 9.07 | 8.08 | 6.81 |
| SNHG6 | 8.89 | 8.91 | 8.10 | 9.21 | 9.46 | 9.39 | 8.50 | 9.68 |
| SNHG7 | 7.08 | 7.63 | 5.73 | 8.21 | 7.42 | 7.33 | 7.03 | 6.71 |
| SNHG8 | 7.85 | 8.52 | 7.51 | 8.89 | 8.84 | 8.50 | 7.59 | 8.06 |
| SNHG9 | 7.16 | 5.33 | 5.07 | 5.84 | 5.03 | 5.49 | 4.83 | 5.00 |
| SNIP1 | 3.24 | 3.54 | 3.81 | 3.73 | 3.89 | 3.70 | 3.78 | 3.32 |
| SNN | 3.83 | 3.01 | 4.24 | 3.37 | 3.22 | 3.55 | 3.58 | 3.41 |
| SNORA11 | -1.87 | -1.94 | -1.93 | -1.91 | -1.90 | -1.91 | -1.95 | -1.92 |
| SNORA11B | -2.15 | -2.12 | -2.14 | -2.10 | -2.15 | -2.14 | -2.15 | -2.16 |
| SNORA11F | 1.98 | 1.88 | 1.70 | 2.06 | 2.82 | 2.61 | 2.57 | 1.69 |
| SNORA12 | 1.72 | 2.34 | 1.98 | 3.15 | 3.46 | 2.30 | 2.62 | 1.95 |
| SNORA13 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| SNORA14A | -1.89 | -1.89 | -1.88 | -1.82 | -1.87 | -1.88 | -1.82 | -1.91 |
| SNORA19 | -1.85 | -1.89 | -1.88 | -1.90 | -1.87 | -1.86 | -1.90 | -1.91 |
| SNORA20 | -1.64 | -1.58 | -1.57 | -1.59 | -1.58 | -1.65 | -1.53 | -1.67 |
| SNORA23 | 0.75 | 0.36 | 0.23 | 0.39 | 0.56 | 0.21 | 0.35 | 0.13 |
| SNORA26 | -1.03 | -1.10 | -1.01 | -0.84 | -1.06 | -1.04 | -1.04 | -1.06 |
| SNORA28 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| SNORA2A | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| SNORA2B | -1.69 | -1.68 | -1.68 | -1.64 | -1.69 | -1.62 | -1.69 | -1.66 |
| SNORA2C | -1.31 | -1.31 | -1.29 | -1.32 | -1.17 | -1.29 | -1.25 | -1.27 |
| SNORA30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| SNORA31 | -2.10 | -2.06 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| SNORA33 | 0.19 | 0.07 | 0.08 | 0.18 | 0.00 | 0.12 | 0.05 | -0.11 |
| SNORA37 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -2.01 |
| SNORA38 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SNORA3B | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| SNORA40B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| SNORA46 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SNORA53 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| SNORA54 | -1.89 | -1.89 | -1.88 | -1.86 | -1.87 | -1.88 | -1.89 | -1.87 |
| SNORA55 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| SNORA58 | -0.50 | -0.57 | -0.38 | -0.43 | -0.49 | -0.52 | -0.39 | -0.59 |
| SNORA59B | -0.17 | -1.07 | -1.06 | -1.01 | -1.08 | -1.09 | -1.09 | -1.03 |
| SNORA5A | -2.10 | -2.04 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| SNORA65 | -1.91 | -1.94 | -1.93 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| SNORA66 | -1.54 | -1.48 | -1.53 | -1.49 | -1.54 | -1.49 | -1.49 | -1.56 |
| SNORA68B | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.07 | -2.11 |
| SNORA72 | -1.99 | -2.04 | -2.04 | -2.05 | -2.03 | -2.02 | -2.05 | -2.06 |
| SNORA73B | 1.60 | 1.95 | 1.61 | 1.86 | 1.87 | 1.66 | 2.95 | 1.80 |
| SNORA74A | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNORA74B | -2.04 | -2.04 | -2.00 | -2.05 | -2.04 | -2.05 | -2.05 | -1.99 |
| SNORA74C-1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNORA74D | -0.60 | -0.29 | -0.51 | -0.53 | -0.44 | -0.37 | -0.46 | -0.40 |
| SNORA75 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| SNORA79 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 |
| SNORA79B | -1.74 | -1.69 | -1.68 | -1.69 | -1.74 | -1.70 | -1.65 | -1.76 |
| SNORA7B | -1.94 | -1.94 | -1.90 | -1.94 | -1.92 | -1.95 | -1.95 | -1.96 |
| SNORA80A | -1.37 | -1.36 | -1.29 | -1.37 | -1.26 | -1.32 | -1.38 | -1.27 |
| SNORA80B | -1.39 | -1.39 | -1.31 | -1.33 | -1.33 | -1.31 | -1.28 | -1.41 |
| SNORA80C | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| SNORA80D | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| SNORA80E | -1.64 | -1.58 | -1.51 | -1.65 | -1.64 | -1.60 | -1.59 | -1.67 |
| SNORA84 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNORA9B | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |
| SNORC | 3.46 | 4.35 | 2.62 | 4.00 | 4.03 | 3.84 | 2.88 | 2.81 |
| SNORD100 | -1.94 | -1.94 | -1.93 | -1.91 | -1.90 | -1.93 | -1.95 | -1.96 |
| SNORD101 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| SNORD104 | 2.31 | 2.63 | 2.24 | 3.10 | 3.12 | 2.77 | 2.32 | 2.49 |
| SNORD105B | -1.79 | -1.78 | -1.78 | -1.71 | -1.74 | -1.78 | -1.71 | -1.76 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SNORD11 | 0.45 | 0.58 | 0.50 | 0.54 | 0.53 | 0.44 | 0.51 | 0.69 |
| SNORD111B | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| SNORD113-2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNORD113-3 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| SNORD114-20 | -1.99 | -1.95 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| SNORD114-3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNORD116-11 | -2.30 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.29 | -2.31 |
| SNORD117 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| SNORD11B | -1.54 | -1.59 | -1.41 | -1.54 | -1.54 | -1.58 | -1.60 | -1.62 |
| SNORD123 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNORD126 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SNORD12C | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| SNORD13 | 4.11 | 5.72 | 5.11 | 6.54 | 5.03 | 4.51 | 5.56 | 5.51 |
| SNORD13E | -0.25 | -0.08 | -0.23 | -0.33 | -0.20 | -0.23 | -0.12 | -0.22 |
| SNORD13P3 | -1.42 | -1.15 | -1.27 | -0.95 | -1.41 | -1.43 | -0.96 | -1.44 |
| SNORD14A | -1.14 | -1.13 | -1.12 | -1.00 | -1.10 | -1.11 | -0.94 | -1.16 |
| SNORD14E | -1.69 | -1.63 | -1.63 | -1.64 | -1.66 | -1.62 | -1.64 | -1.66 |
| SNORD15B | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.15 | -2.13 | -2.13 |
| SNORD17 | -1.44 | -1.37 | -1.42 | -1.44 | -1.31 | -1.42 | -1.33 | -1.46 |
| SNORD19 | -1.74 | -1.69 | -1.73 | -1.69 | -1.66 | -1.75 | -1.74 | -1.71 |
| SNORD19C | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SNORD1B | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| SNORD20 | -2.04 | -2.01 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| SNORD38A | -1.49 | -1.48 | -1.42 | -1.55 | -1.51 | -1.53 | -1.55 | -1.46 |
| SNORD38C | -2.07 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| SNORD3A | -1.80 | -1.74 | -1.78 | -1.80 | -1.82 | -1.85 | -1.80 | -1.82 |
| SNORD3B-2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SNORD41 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| SNORD46 | -1.84 | -1.84 | -1.83 | -1.80 | -1.77 | -1.81 | -1.84 | -1.86 |
| SNORD4A | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.26 |
| SNORD6 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| SNORD63 | -1.01 | -0.92 | -0.51 | -0.94 | -0.81 | -1.02 | -0.80 | -1.02 |
| SNORD67 | -2.20 | -2.18 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| SNORD70 | -2.07 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.05 | -2.11 |
| SNORD71 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNORD72 | -2.10 | -2.06 | -2.09 | -2.07 | -2.09 | -2.10 | -2.10 | -2.11 |
| SNORD82 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNORD89 | 0.23 | 0.31 | 0.26 | 0.16 | 0.13 | 0.35 | 0.35 | 0.34 |
| SNORD90 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| SNORD91A | -1.59 | -1.68 | -1.63 | -1.69 | -1.66 | -1.67 | -1.69 | -1.66 |
| SNORD91B | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| SNORD99 | -0.85 | -0.85 | -0.74 | -0.69 | -0.63 | -0.78 | -0.77 | -0.80 |
| SNPH | 3.27 | 3.92 | 3.33 | 3.70 | 3.77 | 3.46 | 3.44 | 3.28 |
| SNRK | 3.91 | 3.94 | 4.25 | 3.74 | 3.93 | 3.59 | 4.33 | 3.90 |
| SNRK-AS1 | -1.16 | -1.35 | -1.27 | -1.36 | -1.32 | -1.30 | -1.36 | -1.32 |
| SNRNP200 | 6.86 | 6.57 | 7.04 | 6.51 | 6.60 | 6.83 | 6.78 | 6.60 |
| SNRNP25 | 7.23 | 6.53 | 6.66 | 6.67 | 5.56 | 6.19 | 5.90 | 5.88 |
| SNRNP27 | 7.65 | 6.52 | 6.39 | 6.54 | 7.69 | 6.82 | 6.96 | 7.31 |
| SNRNP35 | 5.29 | 5.78 | 5.30 | 5.98 | 5.51 | 5.63 | 5.40 | 5.79 |
| SNRNP40 | 6.60 | 5.50 | 5.89 | 5.50 | 6.43 | 6.47 | 5.55 | 5.96 |
| SNRNP48 | 5.57 | 5.56 | 4.50 | 5.17 | 5.08 | 5.47 | 6.07 | 6.30 |
| SNRNP70 | 7.71 | 7.27 | 7.81 | 7.59 | 8.05 | 7.96 | 7.81 | 7.71 |
| SNRPA | 6.95 | 6.83 | 6.47 | 6.89 | 7.45 | 7.24 | 6.30 | 6.72 |
| SNRPA1 | 8.21 | 6.81 | 6.95 | 7.38 | 8.03 | 7.58 | 6.68 | 7.81 |
| SNRPB | 9.81 | 8.92 | 9.38 | 9.01 | 9.16 | 9.09 | 8.62 | 8.72 |
| SNRPB2 | 8.60 | 7.97 | 8.28 | 7.90 | 8.27 | 8.42 | 7.46 | 8.13 |
| SNRPBP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 | -2.25 | -2.26 |
| SNRPC | 8.84 | 7.89 | 7.68 | 8.04 | 7.66 | 8.63 | 7.52 | 8.56 |
| SNRPCP19 | -2.15 | -2.12 | -2.14 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| SNRPCP2 | -2.15 | -2.15 | -2.14 | -2.12 | -2.13 | -2.14 | -2.15 | -2.16 |
| SNRPD1 | 9.34 | 8.69 | 8.60 | 8.67 | 9.04 | 8.78 | 7.85 | 9.39 |
| SNRPD2 | 10.89 | 10.07 | 9.50 | 10.08 | 10.80 | 10.25 | 9.45 | 9.86 |
| SNRPD2P1 | -1.64 | -1.64 | -1.68 | -1.69 | -1.66 | -1.67 | -1.64 | -1.66 |
| SNRPD2P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SNRPD3 | 8.78 | 8.31 | 7.94 | 8.42 | 7.79 | 8.34 | 8.10 | 8.30 |
| SNRPE | 8.69 | 8.05 | 7.60 | 8.09 | 8.54 | 8.81 | 7.55 | 8.45 |
| SNRPEP10 | -2.25 | -2.23 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| SNRPEP2 | 0.14 | -0.20 | -0.18 | -0.05 | 0.08 | -0.04 | -0.06 | 0.16 |
| SNRPEP3 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -1.94 |
| SNRPEP4 | 2.03 | 1.86 | 1.71 | 1.79 | 2.07 | 2.06 | 1.67 | 1.90 |
| SNRPEP5 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 | -2.20 | -2.21 |
| SNRPEP6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| SNRPF | 8.26 | 8.58 | 8.34 | 8.64 | 8.73 | 8.72 | 8.05 | 8.54 |
| SNRPF1 | 1.05 | 1.14 | 0.90 | 1.22 | 0.89 | 1.05 | 0.95 | 0.98 |
| SNRPG | 8.74 | 7.91 | 7.59 | 8.14 | 9.11 | 8.34 | 7.64 | 8.18 |
| SNRPGP10 | 2.63 | 2.24 | 2.12 | 2.33 | 2.99 | 2.46 | 2.08 | 2.41 |
| SNRPGP14 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.06 |
| SNRPGP15 | 1.10 | 0.92 | 0.96 | 1.19 | 1.13 | 1.03 | 0.80 | 1.07 |
| SNRPGP19 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNRPGP2 | 1.28 | 0.86 | 0.72 | 0.83 | 1.27 | 1.07 | 0.81 | 0.93 |
| SNRPGP3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SNRPGP5 | -1.99 | -1.96 | -1.98 | -2.00 | -1.96 | -2.00 | -2.00 | -2.01 |
| SNRPGP8 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.13 | -2.13 |
| SNRPGP9 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SNRPN | 4.61 | 4.35 | 4.93 | 4.86 | 7.08 | 4.22 | 7.21 | 6.48 |
| SNTA1 | 4.66 | 3.82 | 2.82 | 3.62 | 4.18 | 3.07 | 2.76 | 3.32 |
| SNTB1 | 4.69 | 4.56 | 5.47 | 4.11 | 5.30 | 5.18 | 4.07 | 4.18 |
| SNTB2 | 5.83 | 5.84 | 5.74 | 5.68 | 5.25 | 5.55 | 5.73 | 5.01 |
| SNTG1 | -2.12 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| SNTN | -1.44 | -1.20 | -1.48 | -1.44 | -1.43 | -1.45 | -1.50 | -1.46 |
| SNU13 | 9.29 | 8.36 | 8.22 | 8.69 | 8.19 | 8.56 | 8.14 | 8.98 |
| SNUPN | 5.61 | 4.87 | 5.71 | 4.76 | 6.04 | 5.45 | 4.71 | 5.86 |
| SNURF | 0.97 | 1.07 | 1.28 | 1.12 | 1.83 | 1.05 | 1.52 | 1.41 |
| SNW1 | 6.62 | 6.89 | 6.81 | 7.05 | 7.42 | 7.33 | 6.76 | 6.98 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| SNX1 | 6.80 | 6.37 | 6.89 | 6.73 | 6.95 | 6.55 | 6.64 | 6.42 |
| SNX10 | 3.22 | 2.70 | 2.60 | 2.61 | 3.85 | 2.71 | 2.64 | 2.97 |
| SNX11 | 4.41 | 4.35 | 4.15 | 4.18 | 4.53 | 4.40 | 4.06 | 4.65 |
| SNX12 | 4.60 | 5.28 | 5.75 | 5.20 | 5.20 | 4.77 | 4.97 | 4.44 |
| SNX13 | 4.65 | 5.05 | 4.86 | 5.23 | 4.85 | 5.18 | 5.47 | 5.25 |
| SNX14 | 5.24 | 5.15 | 5.83 | 5.24 | 5.10 | 5.58 | 6.09 | 5.20 |
| SNX15 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SNX16 | 3.21 | 2.98 | 3.32 | 2.63 | 3.12 | 3.52 | 3.19 | 2.89 |
| SNX17 | 6.72 | 6.81 | 6.24 | 6.93 | 6.21 | 6.49 | 6.40 | 6.67 |
| SNX18 | 3.50 | 4.58 | 4.35 | 4.23 | 3.93 | 3.62 | 3.90 | 3.25 |
| SNX18P3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| SNX19 | 4.44 | 5.06 | 5.15 | 4.79 | 4.56 | 4.32 | 4.49 | 4.65 |
| SNX19P2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| SNX19P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SNX2 | 6.25 | 6.63 | 6.41 | 6.62 | 6.94 | 6.42 | 6.20 | 6.55 |
| SNX21 | 4.07 | 3.31 | 3.17 | 3.37 | 2.96 | 3.51 | 3.22 | 3.20 |
| SNX22 | 3.11 | 2.58 | 3.04 | 2.87 | 2.98 | 2.53 | 2.67 | 2.52 |
| SNX24 | 3.53 | 4.56 | 4.24 | 4.14 | 4.40 | 4.05 | 4.08 | 4.04 |
| SNX25 | 3.57 | 3.29 | 3.74 | 3.09 | 3.30 | 3.30 | 3.69 | 2.78 |
| SNX25P1 | -0.28 | -0.24 | -0.37 | -0.08 | -0.29 | -0.37 | -0.49 | -0.33 |
| SNX27 | 5.99 | 5.92 | 5.80 | 5.73 | 5.92 | 6.34 | 5.83 | 6.46 |
| SNX29 | 3.10 | 3.57 | 2.84 | 3.29 | 2.59 | 2.96 | 2.98 | 3.04 |
| SNX29P2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| SNX3 | 8.39 | 8.13 | 7.40 | 8.26 | 7.88 | 8.19 | 7.95 | 7.78 |
| SNX30 | 2.92 | 3.07 | 3.21 | 2.52 | 2.49 | 3.10 | 2.52 | 2.65 |
| SNX31 | -1.89 | -1.89 | -1.84 | -1.90 | -1.87 | -1.86 | -1.85 | -1.91 |
| SNX32 | 1.15 | 0.93 | 0.97 | 0.67 | 1.24 | 0.89 | 1.17 | 0.81 |
| SNX33 | 4.01 | 3.82 | 4.57 | 3.80 | 3.83 | 3.70 | 4.28 | 3.88 |
| SNX4 | 5.48 | 4.43 | 4.97 | 4.81 | 5.24 | 4.81 | 5.78 | 5.76 |
| SNX5 | 6.26 | 6.44 | 6.76 | 6.57 | 7.26 | 7.02 | 6.67 | 7.07 |
| SNX5P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| SNX6 | 6.52 | 7.19 | 5.98 | 7.11 | 7.08 | 7.26 | 6.61 | 6.70 |
| SNX6P1 | -1.55 | -1.54 | -1.53 | -1.55 | -1.52 | -1.48 | -1.55 | -1.47 |
| SNX7 | 5.70 | 6.25 | 5.36 | 6.48 | 6.01 | 6.07 | 5.83 | 5.52 |
| SNX8 | 5.17 | 4.85 | 4.75 | 4.81 | 4.61 | 4.91 | 3.89 | 4.72 |
| SNX9 | 6.44 | 5.70 | 6.82 | 5.64 | 6.50 | 6.54 | 7.37 | 6.78 |
| SOAT1 | 3.56 | 4.08 | 4.45 | 3.80 | 4.46 | 4.40 | 4.88 | 3.49 |
| SOBP | 1.52 | 1.97 | 1.42 | 2.41 | 2.01 | 1.52 | 1.64 | 0.95 |
| SOCS1 | 3.21 | 2.41 | 2.43 | 2.12 | 2.89 | 2.63 | 1.85 | 2.41 |
| SOCS2 | 0.35 | 0.52 | 0.47 | 0.85 | 0.66 | 0.40 | 0.49 | 0.74 |
| SOCS2-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| SOCS3 | 3.64 | 2.46 | 3.47 | 2.70 | 4.19 | 3.89 | 3.54 | 3.16 |
| SOCS4 | 4.86 | 5.76 | 5.36 | 5.96 | 5.64 | 5.64 | 5.67 | 5.34 |
| SOCS5 | 3.63 | 3.61 | 3.26 | 3.42 | 4.34 | 3.40 | 3.86 | 3.61 |
| SOCS5P4 | -2.20 | -2.18 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| SOCS6 | 4.87 | 5.80 | 5.45 | 5.67 | 4.93 | 4.82 | 5.93 | 4.77 |
| SOCS7 | 4.52 | 4.77 | 4.80 | 4.42 | 4.66 | 4.87 | 4.78 | 4.70 |
| SOD1 | 10.65 | 9.67 | 9.64 | 9.92 | 10.12 | 9.57 | 9.75 | 10.12 |
| SOD1P3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| SOD2-OT1 | 1.07 | 0.82 | 0.86 | 0.78 | 0.81 | 0.76 | 1.15 | 0.94 |
| SOD3 | 5.28 | 5.13 | 5.14 | 5.08 | 9.54 | 6.01 | 5.02 | 4.71 |
| SOGA1 | 2.98 | 2.76 | 2.72 | 2.76 | 2.79 | 3.18 | 2.87 | 2.08 |
| SOHLH1 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SOHLH2 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SON | 9.82 | 9.66 | 9.64 | 9.59 | 9.17 | 9.61 | 9.53 | 10.15 |
| SORBS1 | 2.01 | 1.94 | 2.78 | 1.74 | 3.00 | 2.70 | 1.66 | 1.92 |
| SORBS2 | 3.32 | 4.87 | 3.97 | 4.99 | 3.89 | 4.88 | 5.36 | 4.95 |
| SORBS3 | 5.25 | 4.60 | 4.94 | 4.20 | 4.39 | 5.09 | 3.89 | 4.14 |
| SORCS2 | -1.68 | -1.67 | -1.61 | -1.68 | -1.65 | -1.69 | -1.68 | -1.70 |
| SORD | 2.79 | 3.01 | 2.69 | 2.87 | 2.73 | 2.58 | 2.28 | 2.53 |
| SORD2P | -1.64 | -1.63 | -1.68 | -1.64 | -1.69 | -1.70 | -1.70 | -1.71 |
| SORL1 | 5.15 | 7.41 | 6.10 | 7.47 | 5.28 | 6.33 | 6.09 | 6.99 |
| SORT1 | 6.37 | 6.28 | 6.57 | 6.49 | 6.04 | 5.89 | 6.06 | 5.46 |
| SOS1 | 4.18 | 4.92 | 5.17 | 4.79 | 5.31 | 4.72 | 5.50 | 5.13 |
| SOS1-IT1 | -0.55 | -0.61 | -0.29 | -0.55 | -0.61 | -0.61 | -0.63 | -0.66 |
| SOS2 | 3.35 | 4.00 | 4.16 | 4.20 | 4.52 | 4.67 | 4.91 | 4.34 |
| SOSTDC1 | 1.69 | 1.94 | 0.92 | 1.69 | 0.98 | 1.94 | 0.86 | 1.21 |
| SOWAHA | 0.71 | 0.81 | 1.14 | 0.98 | 0.94 | 1.24 | 0.77 | 0.58 |
| SOWAHB | 0.18 | 0.49 | 0.20 | 0.33 | 0.23 | 0.42 | 0.43 | 0.26 |
| SOWAHC | 4.41 | 3.89 | 4.61 | 4.03 | 5.59 | 4.51 | 4.86 | 3.88 |
| SOWAHD | 0.48 | 0.43 | 0.46 | 0.74 | 0.65 | 0.63 | 0.97 | 0.30 |
| SOX11 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SOX12 | 3.20 | 2.61 | 3.03 | 2.62 | 3.05 | 2.62 | 3.06 | 2.98 |
| SOX13 | 4.18 | 4.22 | 4.38 | 3.99 | 4.98 | 4.67 | 4.90 | 4.15 |
| SOX14 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SOX15 | -1.74 | -1.73 | -1.68 | -1.74 | -1.71 | -1.75 | -1.74 | -1.71 |
| SOX17 | 2.21 | 2.09 | 2.53 | 2.39 | 2.52 | 2.27 | 3.77 | 2.17 |
| SOX18 | -0.82 | -1.01 | -1.08 | -0.96 | -1.02 | -1.07 | -1.03 | -1.00 |
| SOX2 | 0.96 | 2.78 | 1.25 | 3.06 | 1.13 | 4.40 | 1.13 | 0.92 |
| SOX2-OT | -0.47 | -0.46 | -0.38 | -0.41 | -0.46 | -0.18 | -0.48 | -0.51 |
| SOX21 | 1.88 | 2.65 | 1.83 | 2.41 | 2.22 | 2.22 | 2.13 | 2.33 |
| SOX21-AS1 | 1.14 | 1.76 | 1.20 | 1.62 | 1.29 | 1.51 | 1.19 | 1.49 |
| SOX30 | -1.02 | -1.16 | -1.07 | -1.17 | -1.16 | -0.96 | -1.17 | -1.02 |
| SOX4 | 7.74 | 8.35 | 9.18 | 7.54 | 7.66 | 10.09 | 8.49 | 8.55 |
| SOX5 | 0.40 | 0.64 | 1.29 | 0.86 | 0.29 | 0.41 | 0.15 | 0.12 |
| SOX6 | 1.94 | 2.04 | 1.52 | 2.25 | 1.60 | 1.97 | 2.15 | 1.41 |
| SOX7 | 2.38 | 3.99 | 4.62 | 3.81 | 3.04 | 3.33 | 3.94 | 3.60 |
| SOX8 | 2.96 | 2.62 | 2.21 | 2.72 | 2.62 | 1.95 | 2.45 | 1.68 |
| SOX9 | 7.79 | 8.02 | 8.01 | 7.74 | 8.29 | 7.85 | 7.54 | 6.97 |
| SOX9-AS1 | 2.41 | 2.17 | 2.06 | 2.10 | 2.62 | 2.75 | 2.19 | 2.34 |
| SP1 | 5.15 | 5.63 | 5.76 | 5.33 | 5.19 | 5.51 | 6.00 | 5.29 |
| SP100 | 7.32 | 6.17 | 6.14 | 6.22 | 6.73 | 6.58 | 6.29 | 6.89 |
| SP110 | 5.81 | 4.47 | 4.56 | 4.36 | 4.92 | 4.98 | 4.28 | 4.58 |
| SP140 | -0.32 | -0.48 | -0.47 | -0.49 | -0.39 | -0.36 | -0.41 | -0.51 |

| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SP140L | 4.96 | 5.14 | 4.41 | 4.87 | 5.03 | 5.03 | 4.43 | 4.47 |
| SP2 | 3.30 | 3.88 | 3.55 | 3.62 | 3.11 | 3.38 | 2.92 | 3.43 |
| SP2-AS1 | 0.75 | 1.28 | 1.35 | 1.40 | 0.95 | 0.68 | 0.73 | 0.73 |
| SP3 | 5.62 | 6.01 | 5.69 | 5.87 | 5.46 | 5.61 | 5.73 | 5.74 |
| SP4 | 2.61 | 1.97 | 2.54 | 1.99 | 2.19 | 2.33 | 2.29 | 2.25 |
| SP5 | 3.34 | 3.24 | 2.78 | 3.13 | 2.44 | 2.61 | 3.28 | 2.52 |
| SP6 | 1.79 | 2.27 | 2.08 | 1.51 | 1.60 | 1.79 | 1.36 | 1.28 |
| SP8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| SPA17 | 5.21 | 4.78 | 4.73 | 4.83 | 4.80 | 4.93 | 4.95 | 4.95 |
| SPA17P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SPAAR | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 | -2.00 | -2.00 | -1.97 |
| SPACA3 | -1.07 | -1.07 | -1.05 | -1.00 | -1.07 | -0.95 | -0.93 | -0.15 |
| SPACA4 | -1.80 | -1.84 | -1.79 | -1.84 | -1.84 | -1.74 | -1.85 | -1.86 |
| SPACA6 | 3.31 | 2.13 | 3.33 | 2.40 | 3.25 | 3.32 | 2.87 | 2.90 |
| SPACA6P-AS | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| SPACA9 | 2.54 | 2.00 | 2.67 | 2.23 | 2.43 | 2.49 | 1.90 | 1.91 |
| SPAG1 | 6.35 | 5.25 | 5.90 | 5.19 | 5.76 | 6.44 | 5.58 | 6.00 |
| SPAG16 | 6.04 | 5.86 | 5.49 | 6.03 | 5.83 | 6.26 | 6.02 | 6.19 |
| SPAG17 | -0.45 | -0.37 | -0.37 | -0.33 | -0.60 | -0.41 | -0.61 | -0.51 |
| SPAG4 | 4.89 | 3.67 | 5.16 | 3.77 | 5.60 | 4.65 | 5.10 | 5.35 |
| SPAG5 | 5.02 | 4.33 | 5.39 | 4.50 | 4.19 | 5.17 | 4.52 | 4.94 |
| SPAG5-AS1 | -0.74 | -0.96 | -0.94 | -0.82 | -0.80 | -0.87 | -0.89 | -0.81 |
| SPAG7 | 5.97 | 5.93 | 5.92 | 5.86 | 6.40 | 6.49 | 6.29 | 6.93 |
| SPAG8 | -1.03 | -1.02 | -0.93 | -1.03 | -0.83 | -0.90 | -0.89 | -0.98 |
| SPAG9 | 6.67 | 6.54 | 7.31 | 6.53 | 7.15 | 7.25 | 6.79 | 6.92 |
| SPARC | -1.17 | -1.16 | -1.00 | -1.17 | -1.08 | -1.14 | -1.17 | -1.06 |
| SPARCL1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.16 | -2.21 |
| SPART | 6.03 | 3.79 | 3.93 | 3.63 | 4.52 | 3.20 | 4.56 | 6.12 |
| SPAST | 4.20 | 4.31 | 3.72 | 4.39 | 3.36 | 4.04 | 4.28 | 4.45 |
| SPATA1 | 1.13 | 1.02 | 1.03 | 1.06 | 1.35 | 0.98 | 1.11 | 1.12 |
| SPATA12 | -0.17 | -0.22 | 0.02 | -0.12 | -0.12 | -0.18 | -0.04 | -0.15 |
| SPATA13 | 3.67 | 4.06 | 4.55 | 3.93 | 4.70 | 4.26 | 4.51 | 4.04 |
| SPATA17 | 0.79 | 0.89 | 1.16 | 0.85 | 1.15 | 1.36 | 0.90 | 1.54 |
| SPATA18 | 1.90 | 3.10 | 1.95 | 2.81 | 1.92 | 1.78 | 2.90 | 2.38 |
| SPATA2 | 4.09 | 3.50 | 3.73 | 3.69 | 3.87 | 3.99 | 3.78 | 3.79 |
| SPATA20 | 5.13 | 4.90 | 5.09 | 5.01 | 5.19 | 4.61 | 4.63 | 4.64 |
| SPATA21 | 0.32 | 0.13 | 0.24 | 0.31 | 0.17 | 0.11 | 0.04 | 0.18 |
| SPATA24 | 1.55 | 1.72 | 1.73 | 1.76 | 2.13 | 1.49 | 1.53 | 1.49 |
| SPATA25 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 |
| SPATA2L | 3.90 | 3.50 | 3.58 | 3.57 | 3.46 | 3.20 | 3.43 | 3.38 |
| SPATA3-AS1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.08 |
| SPATA32 | -0.76 | -1.14 | -1.12 | -1.08 | -1.14 | -1.09 | -1.15 | -1.16 |
| SPATA33 | 5.15 | 4.59 | 4.86 | 4.80 | 4.15 | 4.19 | 4.64 | 4.13 |
| SPATA41 | -0.97 | -0.88 | -1.02 | -0.77 | -0.92 | -0.88 | -0.97 | -0.99 |
| SPATA45 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.07 | -2.10 | -2.11 |
| SPATA5 | 3.13 | 4.18 | 3.26 | 4.26 | 2.91 | 3.70 | 3.88 | 3.23 |
| SPATA5L1 | 3.38 | 3.56 | 3.44 | 3.34 | 3.47 | 3.31 | 3.34 | 3.53 |
| SPATA6 | 2.67 | 3.29 | 2.78 | 3.28 | 3.27 | 2.66 | 3.60 | 2.53 |
| SPATA6L | 1.81 | 2.36 | 1.96 | 2.45 | 2.26 | 2.02 | 2.26 | 2.05 |
| SPATA9 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| SPATC1L | 4.13 | 2.80 | 3.54 | 2.49 | 4.45 | 3.62 | 3.31 | 2.50 |
| SPATS2 | 6.19 | 6.12 | 6.34 | 6.02 | 5.90 | 6.32 | 6.05 | 5.87 |
| SPATS2L | 9.39 | 8.62 | 8.64 | 8.88 | 9.28 | 9.10 | 8.35 | 9.05 |
| SPC24 | 4.46 | 4.25 | 4.96 | 4.12 | 4.34 | 4.87 | 4.70 | 3.95 |
| SPC25 | 5.66 | 4.75 | 5.27 | 4.35 | 5.09 | 4.96 | 4.83 | 4.81 |
| SPCS1 | 9.66 | 8.92 | 8.41 | 9.14 | 9.69 | 8.86 | 8.63 | 9.36 |
| SPCS2 | 7.46 | 7.02 | 6.84 | 7.17 | 7.61 | 6.53 | 6.60 | 7.74 |
| SPCS2P4 | 0.83 | 0.53 | 0.41 | 0.42 | 0.54 | 0.29 | 0.34 | 0.46 |
| SPCS3 | 6.84 | 7.37 | 7.01 | 7.71 | 7.63 | 7.60 | 7.53 | 8.51 |
| SPDEF | 3.40 | 5.86 | 4.34 | 5.97 | 4.55 | 5.38 | 5.59 | 4.24 |
| SPDL1 | 4.80 | 4.46 | 5.12 | 4.28 | 4.73 | 5.21 | 5.22 | 4.48 |
| SPDYA | 0.49 | 0.25 | 0.29 | 0.21 | 0.25 | 0.28 | 0.15 | 0.11 |
| SPDYC | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.24 |
| SPDYE1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| SPDYE3 | -2.18 | -2.20 | -2.18 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| SPECC1 | 5.63 | 5.09 | 5.20 | 5.26 | 4.70 | 5.07 | 5.75 | 5.28 |
| SPECC1L | 3.73 | 3.63 | 4.02 | 3.46 | 3.54 | 3.37 | 3.98 | 3.54 |
| SPECC1L-ADORA: | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| SPEF1 | 0.30 | -0.33 | -0.13 | -0.42 | -0.33 | 0.00 | -0.42 | -0.38 |
| SPEF2 | 2.49 | 2.00 | 2.78 | 1.92 | 2.67 | 2.52 | 2.16 | 1.89 |
| SPEG | 0.69 | 0.44 | 0.64 | 0.49 | 0.88 | 0.65 | 0.67 | 0.60 |
| SPEGNB | -1.22 | -1.14 | -1.20 | -1.15 | -1.07 | -1.13 | -1.22 | -1.18 |
| SPEN | 5.55 | 5.96 | 6.20 | 5.88 | 5.80 | 5.90 | 6.43 | 5.56 |
| SPERT | -1.85 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.91 |
| SPESP1 | 1.03 | 0.95 | 1.19 | 0.92 | 1.09 | 0.93 | 1.24 | 1.33 |
| SPG11 | 4.57 | 5.12 | 5.04 | 5.14 | 4.88 | 4.93 | 5.53 | 5.12 |
| SPG21 | 6.91 | 7.23 | 6.57 | 7.11 | 7.16 | 7.18 | 6.52 | 7.02 |
| SPG7 | 6.32 | 6.06 | 6.67 | 6.27 | 6.13 | 5.88 | 6.55 | 6.18 |
| SPHK1 | 4.77 | 4.33 | 3.75 | 4.35 | 3.89 | 4.62 | 3.65 | 3.50 |
| SPHK2 | 4.36 | 4.51 | 3.96 | 4.87 | 4.47 | 4.10 | 4.28 | 4.72 |
| SPI1 | -2.13 | -2.14 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.16 |
| SPIB | -1.94 | -1.90 | -1.93 | -1.91 | -1.90 | -1.95 | -1.91 | -1.92 |
| SPICE1 | 2.71 | 2.85 | 3.86 | 2.78 | 3.00 | 3.02 | 3.51 | 3.06 |
| SPIDR | 4.32 | 4.56 | 5.11 | 4.73 | 4.59 | 4.54 | 4.74 | 4.54 |
| SPIN1 | 4.94 | 5.27 | 5.47 | 5.06 | 4.68 | 5.22 | 5.26 | 4.49 |
| SPIN2A | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| SPIN2B | 2.40 | 1.65 | 2.36 | 2.07 | 1.82 | 1.87 | 1.99 | 1.81 |
| SPIN3 | 2.78 | 2.75 | 2.98 | 2.64 | 2.71 | 2.55 | 2.91 | 2.42 |
| SPIN4 | 3.75 | 2.74 | 4.53 | 2.62 | 3.23 | 3.95 | 3.75 | 3.95 |
| SPINDOC | 4.76 | 3.37 | 4.70 | 3.55 | 4.45 | 4.14 | 3.79 | 3.93 |
| SPINK1 | 5.02 | 5.39 | 8.56 | 5.48 | 5.59 | 4.85 | 7.99 | 5.27 |
| SPINK13 | -0.70 | -0.85 | -0.63 | -0.71 | -0.85 | -0.76 | -0.73 | -0.70 |
| SPINK2 | -1.18 | -1.23 | -1.22 | -1.24 | -1.23 | -1.32 | -1.31 | -1.27 |
| SPINK4 | 6.58 | 9.22 | 6.46 | 10.10 | 7.05 | 5.66 | 6.85 | 9.32 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SPINK5 | 3.60 | 4.54 | 3.88 | 5.42 | 3.72 | 4.22 | 6.40 | 4.64 |
| SPINK6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.23 |
| SPINK7 | -1.16 | -1.22 | -1.20 | -1.23 | -1.22 | -1.17 | -1.23 | -1.13 |
| SPINK8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SPINT1 | 8.22 | 8.13 | 7.87 | 8.15 | 8.14 | 8.09 | 7.76 | 8.99 |
| SPINT1-AS1 | 7.22 | 6.52 | 5.38 | 6.64 | 6.77 | 6.38 | 6.08 | 6.78 |
| SPINT2 | 10.58 | 10.46 | 10.18 | 10.63 | 10.98 | 10.49 | 10.26 | 10.89 |
| SPINT3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SPIRE1 | 5.65 | 4.78 | 5.49 | 4.80 | 5.43 | 5.63 | 5.12 | 6.45 |
| SPIRE2 | 4.72 | 4.07 | 4.19 | 4.28 | 4.74 | 4.02 | 4.16 | 3.62 |
| SPN | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| SPNS1 | -0.64 | -0.55 | -0.38 | -0.49 | -0.52 | -0.57 | -0.44 | -0.65 |
| SPNS3 | 1.70 | 1.51 | 2.25 | 1.73 | 2.34 | 2.02 | 1.66 | 2.82 |
| SPOCD1 | -0.01 | -0.09 | 0.12 | -0.10 | 0.04 | 1.04 | -0.03 | 0.01 |
| SPOCK1 | -1.55 | -1.54 | -1.53 | -1.55 | -1.54 | -1.49 | -1.42 | -1.51 |
| SPOCK2 | 3.83 | 3.03 | 3.29 | 3.22 | 3.11 | 3.08 | 3.73 | 2.96 |
| SPOCK3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| SPON1 | 1.59 | 0.86 | 1.09 | 1.07 | 0.90 | 0.96 | 1.14 | 1.38 |
| SPON2 | 4.88 | 5.97 | 3.33 | 6.83 | 3.31 | 4.41 | 3.75 | 4.45 |
| SPOP | 6.25 | 6.06 | 6.77 | 5.83 | 6.35 | 6.57 | 6.20 | 5.94 |
| SPOPL | 4.43 | 4.80 | 4.60 | 4.92 | 4.34 | 5.07 | 5.15 | 5.10 |
| SPP1 | 3.11 | 3.07 | 3.44 | 3.17 | 3.15 | 3.08 | 3.41 | 5.06 |
| SPPL2A | 7.44 | 6.67 | 6.59 | 6.59 | 6.62 | 6.35 | 6.81 | 7.04 |
| SPPL2B | 4.19 | 4.30 | 5.24 | 4.72 | 5.08 | 4.56 | 5.52 | 4.66 |
| SPPL3 | 5.08 | 5.77 | 6.30 | 5.65 | 5.43 | 5.56 | 5.55 | 5.65 |
| SPR | 7.35 | 6.90 | 6.29 | 7.39 | 8.28 | 6.32 | 6.27 | 6.70 |
| SPRED1 | 5.44 | 6.53 | 5.60 | 6.05 | 4.99 | 5.90 | 6.10 | 4.83 |
| SPRED2 | 5.07 | 4.45 | 4.47 | 4.60 | 6.04 | 4.91 | 4.91 | 5.38 |
| SPRED3 | 0.02 | -0.04 | 0.07 | -0.06 | 0.14 | 0.18 | 0.02 | 0.13 |
| SPRN | -2.15 | -2.15 | -2.14 | -2.15 | -2.12 | -2.15 | -2.15 | -2.13 |
| SPRR1A | 0.92 | 1.12 | 1.05 | 1.22 | 1.02 | 0.88 | 1.07 | 1.38 |
| SPRR1B | 4.51 | 6.04 | 5.09 | 5.69 | 4.67 | 5.95 | 5.53 | 4.83 |
| SPRR2A | -0.53 | -0.52 | -0.40 | -0.44 | -0.43 | -0.13 | -0.53 | -0.55 |
| SPRR2D | -0.75 | -0.66 | -0.74 | -0.76 | -0.71 | -0.39 | -0.76 | -0.71 |
| SPRR2E | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| SPRR2F | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SPRR3 | 4.92 | 6.60 | 5.31 | 5.81 | 5.37 | 5.49 | 6.07 | 4.76 |
| SPRR5 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 | -2.31 | -2.31 |
| SPRTN | 4.29 | 4.12 | 3.73 | 4.15 | 4.20 | 4.43 | 3.87 | 4.16 |
| SPRY1 | 6.14 | 6.60 | 5.09 | 6.45 | 5.38 | 6.43 | 5.06 | 5.44 |
| SPRY2 | 3.05 | 4.41 | 3.19 | 4.28 | 5.01 | 3.87 | 3.76 | 4.52 |
| SPRY4 | 3.04 | 3.53 | 3.62 | 4.04 | 4.00 | 3.34 | 3.44 | 3.10 |
| SPRY4-AS1 | -0.49 | -0.40 | -0.38 | -0.34 | -0.36 | -0.33 | -0.35 | -0.51 |
| SPRYD3 | 5.69 | 5.79 | 5.75 | 5.70 | 5.32 | 5.70 | 5.30 | 6.01 |
| SPRYD4 | 5.33 | 4.89 | 4.24 | 4.83 | 4.82 | 4.87 | 4.29 | 4.75 |
| SPRYD7 | 5.27 | 5.70 | 4.61 | 5.87 | 5.82 | 4.95 | 5.38 | 6.06 |
| SPSB1 | 3.89 | 3.33 | 3.32 | 3.11 | 3.37 | 3.91 | 3.30 | 3.74 |
| SPSB2 | 4.38 | 4.56 | 4.21 | 4.87 | 3.90 | 4.18 | 3.97 | 4.79 |
| SPSB3 | 6.18 | 5.32 | 5.69 | 5.71 | 5.33 | 5.96 | 5.60 | 6.27 |
| SPTA1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| SPTAN1 | 5.73 | 6.26 | 6.59 | 6.40 | 6.13 | 6.48 | 6.41 | 6.12 |
| SPTB | 0.56 | 0.50 | 0.61 | 0.76 | 0.73 | 0.72 | 0.61 | 0.36 |
| SPTBN1 | 7.49 | 8.09 | 8.44 | 8.10 | 9.18 | 8.21 | 8.48 | 8.23 |
| SPTBN2 | 3.05 | 3.63 | 3.20 | 3.55 | 3.10 | 3.06 | 3.03 | 3.23 |
| SPTBN4 | -0.81 | -1.10 | -0.93 | -1.04 | -0.79 | -1.12 | -1.11 | -1.06 |
| SPTBN5 | -0.78 | -0.83 | -0.89 | -0.91 | -0.83 | -0.82 | -0.84 | -0.93 |
| SPTLC1 | 5.96 | 6.21 | 5.85 | 6.26 | 5.51 | 5.98 | 6.25 | 5.95 |
| SPTLC1P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SPTLC2 | 4.96 | 6.58 | 6.34 | 6.63 | 6.29 | 6.75 | 6.28 | 5.78 |
| SPTLC3 | 1.58 | 3.03 | 2.54 | 2.64 | 1.72 | 2.14 | 2.51 | 2.68 |
| SPTSSA | 8.33 | 7.85 | 7.09 | 7.64 | 7.72 | 7.97 | 7.46 | 7.61 |
| SPTSSB | 5.12 | 2.81 | 5.13 | 3.01 | 4.57 | 4.77 | 4.80 | 5.11 |
| SPTY2D1 | 5.74 | 5.68 | 5.68 | 5.33 | 5.84 | 5.55 | 5.90 | 6.39 |
| SPTY2D1OS | 3.49 | 2.84 | 2.28 | 2.66 | 3.44 | 2.90 | 2.58 | 2.62 |
| SPX | -0.64 | -0.71 | -0.52 | -0.64 | -0.67 | -0.69 | -0.58 | -0.55 |
| SQLE | 8.88 | 8.30 | 8.95 | 8.53 | 8.89 | 8.97 | 9.11 | 9.28 |
| SQOR | 7.24 | 7.10 | 7.12 | 7.10 | 7.47 | 7.12 | 6.72 | 7.26 |
| SQSTM1 | 9.61 | 8.34 | 9.37 | 8.13 | 9.02 | 8.53 | 7.77 | 9.58 |
| SRA1 | 7.11 | 7.26 | 7.20 | 7.37 | 7.50 | 7.21 | 6.70 | 7.30 |
| SRARP | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SRBD1 | 4.19 | 4.27 | 4.69 | 4.59 | 4.46 | 4.18 | 4.73 | 4.52 |
| SRC | 4.37 | 4.76 | 5.86 | 5.05 | 5.44 | 4.91 | 5.68 | 4.68 |
| SRCAP | 0.83 | 0.86 | 0.69 | 0.48 | 0.69 | 0.71 | 0.75 | 0.68 |
| SRCIN1 | 1.18 | 0.81 | 1.01 | 0.78 | 1.03 | 1.12 | 0.85 | 0.78 |
| SRD5A1 | 4.72 | 5.38 | 5.75 | 5.37 | 5.17 | 5.06 | 4.98 | 5.98 |
| SRD5A3 | 4.83 | 5.72 | 5.17 | 5.77 | 5.23 | 5.44 | 5.67 | 5.82 |
| SRD5A3-AS1 | -1.80 | -1.84 | -1.83 | -1.80 | -1.80 | -1.83 | -1.84 | -1.73 |
| SREBF1 | 6.08 | 6.47 | 7.43 | 6.25 | 5.71 | 5.76 | 7.09 | 5.93 |
| SREBF2 | 6.58 | 6.93 | 7.42 | 6.75 | 6.27 | 6.69 | 7.35 | 6.75 |
| SREBF2-AS1 | 1.12 | 1.03 | 0.75 | 0.98 | 0.99 | 0.79 | 0.78 | 0.97 |
| SREK1 | 6.31 | 6.81 | 7.49 | 7.04 | 6.82 | 6.98 | 7.25 | 6.47 |
| SREK1IP1 | 6.30 | 6.65 | 7.10 | 6.51 | 6.92 | 6.72 | 7.03 | 6.30 |
| SRF | 4.56 | 5.05 | 4.73 | 4.79 | 4.70 | 4.75 | 4.47 | 4.74 |
| SRFBP1 | 5.29 | 5.78 | 5.52 | 5.71 | 5.26 | 5.40 | 5.31 | 5.21 |
| SRGAP1 | 4.54 | 5.87 | 5.16 | 5.67 | 4.62 | 6.65 | 5.43 | 6.19 |
| SRGAP2 | 3.78 | 3.91 | 4.03 | 3.52 | 3.80 | 4.23 | 3.62 | 3.11 |
| SRGAP2B | 0.53 | 0.60 | 0.48 | 0.92 | 0.57 | 0.62 | 0.70 | 0.71 |
| SRGAP2C | 1.77 | 2.11 | 2.32 | 1.77 | 1.85 | 2.00 | 2.40 | 1.74 |
| SRGAP3 | 2.27 | 3.12 | 2.45 | 3.20 | 2.25 | 2.21 | 2.62 | 2.48 |
| SRGN | 1.91 | 1.10 | 0.88 | 0.82 | 1.12 | 0.83 | 0.90 | 3.07 |
| SRI | 7.67 | 8.28 | 7.72 | 8.29 | 8.69 | 8.54 | 7.17 | 8.24 |
| SRL | -1.64 | -1.37 | -1.63 | -1.64 | -1.61 | -1.65 | -1.59 | -1.66 |
| SRM | 7.89 | 7.53 | 6.60 | 7.67 | 6.94 | 7.27 | 6.21 | 6.49 |
| SRMS | -1.59 | -1.58 | -1.68 | -1.64 | -1.66 | -1.70 | -1.59 | -1.71 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SRP14 | 9.86 | 9.22 | 8.65 | 9.39 | 9.56 | 9.22 | 8.48 | 9.51 |
| SRP14-AS1 | 3.60 | 2.53 | 2.83 | 2.91 | 3.34 | 2.99 | 2.69 | 3.38 |
| SRP14P1 | -1.84 | -1.79 | -1.83 | -1.84 | -1.82 | -1.83 | -1.76 | -1.86 |
| SRP14P2 | -0.72 | -0.63 | -0.77 | -0.72 | -0.74 | -0.63 | -0.72 | -0.68 |
| SRP14P3 | -1.89 | -1.84 | -1.84 | -1.90 | -1.87 | -1.90 | -1.85 | -1.87 |
| SRP19 | 6.38 | 6.69 | 6.36 | 6.70 | 7.10 | 6.76 | 6.26 | 6.81 |
| SRP54 | 6.20 | 6.14 | 6.28 | 6.24 | 7.09 | 6.50 | 6.42 | 6.67 |
| SRP54-AS1 | 1.78 | 1.87 | 1.49 | 1.98 | 2.63 | 1.96 | 1.79 | 1.86 |
| SRP68 | 6.54 | 6.42 | 6.34 | 6.22 | 6.79 | 6.72 | 6.13 | 6.56 |
| SRP72 | 6.93 | 7.45 | 6.99 | 7.55 | 6.94 | 7.56 | 7.45 | 8.04 |
| SRP72P1 | -1.96 | -1.99 | -1.98 | -1.96 | -1.97 | -1.98 | -2.00 | -1.97 |
| SRP72P2 | -1.54 | -1.54 | -1.47 | -1.55 | -1.54 | -1.45 | -1.49 | -1.46 |
| SRP9 | 9.18 | 8.54 | 7.86 | 8.78 | 8.73 | 9.21 | 8.04 | 9.06 |
| SRP9P1 | -1.39 | -1.32 | -1.38 | -1.33 | -1.36 | -1.25 | -1.34 | -1.41 |
| SRPK1 | 7.74 | 6.65 | 6.91 | 6.37 | 7.01 | 7.43 | 7.02 | 7.51 |
| SRPK2 | 5.88 | 5.79 | 5.75 | 5.68 | 6.14 | 5.64 | 6.11 | 6.69 |
| SRPK2P | -1.04 | -1.11 | -1.09 | -1.05 | -1.07 | -0.99 | -1.04 | -1.07 |
| SRPK3 | -0.32 | -0.01 | -0.30 | -0.05 | -0.23 | 0.02 | -0.25 | 0.42 |
| SRPRA | 7.20 | 6.92 | 6.96 | 6.96 | 7.63 | 6.85 | 6.28 | 7.96 |
| SRPRB | 6.99 | 6.53 | 6.73 | 6.82 | 7.19 | 6.61 | 6.67 | 7.52 |
| SRPX | 1.18 | 1.08 | 0.95 | 1.39 | 1.07 | 1.00 | 0.96 | 1.10 |
| SRPX2 | 2.38 | 2.37 | 4.17 | 2.21 | 2.63 | 4.50 | 2.75 | 2.72 |
| SRR | 2.75 | 3.28 | 2.87 | 2.67 | 2.71 | 3.17 | 2.99 | 2.51 |
| SRRD | 4.81 | 4.45 | 3.46 | 4.45 | 4.22 | 4.41 | 3.96 | 4.58 |
| SRRM1 | 7.57 | 7.92 | 7.95 | 7.67 | 8.09 | 8.20 | 8.28 | 7.94 |
| SRRM1P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| SRRM1P3 | 0.57 | 0.86 | 0.52 | 0.68 | 0.58 | 0.67 | 0.74 | 0.71 |
| SRRM2 | 9.06 | 9.03 | 9.05 | 9.23 | 8.67 | 9.09 | 9.63 | 9.28 |
| SRRM2-AS1 | 0.43 | 0.53 | 0.25 | 0.65 | 0.19 | 0.45 | 0.35 | 0.39 |
| SRRM3 | 1.84 | 2.23 | 1.74 | 2.04 | 1.67 | 1.85 | 1.87 | 1.50 |
| SRRM5 | -2.04 | -2.04 | -2.01 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| SRRT | 5.65 | 6.15 | 6.34 | 6.61 | 6.19 | 6.23 | 6.28 | 5.82 |
| SRSF1 | 5.73 | 6.15 | 6.60 | 5.58 | 5.92 | 6.05 | 6.56 | 5.66 |
| SRSF10 | 7.01 | 6.76 | 7.14 | 6.94 | 7.41 | 7.13 | 7.43 | 6.80 |
| SRSF10P1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| SRSF11 | 7.63 | 7.95 | 8.08 | 7.72 | 7.75 | 8.05 | 8.36 | 7.73 |
| SRSF12 | -1.30 | -1.29 | -1.21 | -1.30 | -1.19 | -1.31 | -1.30 | -1.32 |
| SRSF2 | 7.78 | 7.54 | 7.48 | 7.82 | 7.57 | 7.90 | 7.39 | 7.64 |
| SRSF3 | 8.55 | 8.41 | 7.99 | 8.39 | 8.36 | 8.64 | 8.06 | 8.44 |
| SRSF4 | 5.86 | 6.16 | 6.76 | 6.24 | 6.76 | 7.05 | 7.03 | 6.77 |
| SRSF5 | 6.98 | 6.84 | 7.23 | 6.98 | 7.62 | 7.18 | 7.57 | 7.61 |
| SRSF6 | 6.45 | 6.42 | 6.24 | 6.59 | 6.42 | 6.17 | 6.02 | 6.30 |
| SRSF7 | 8.16 | 7.65 | 7.52 | 7.93 | 8.47 | 8.16 | 7.49 | 8.12 |
| SRSF8 | 5.20 | 5.70 | 5.30 | 5.87 | 5.67 | 5.05 | 4.94 | 5.95 |
| SRSF9 | 7.69 | 7.86 | 7.89 | 7.92 | 7.88 | 7.96 | 7.46 | 8.20 |
| SRXN1 | -1.46 | -1.34 | -1.50 | -1.52 | -1.51 | -1.52 | -1.52 | -1.48 |
| SS18L1 | 3.81 | 3.64 | 4.24 | 3.67 | 3.29 | 3.68 | 4.18 | 3.74 |
| SS18L2 | 7.34 | 6.76 | 6.06 | 6.93 | 6.85 | 6.95 | 6.02 | 6.56 |
| SSB | 9.05 | 8.35 | 8.22 | 8.26 | 8.57 | 8.61 | 7.76 | 8.24 |
| SSBP1 | 8.21 | 8.61 | 7.87 | 8.48 | 8.57 | 8.47 | 8.04 | 8.61 |
| SSBP2 | 3.45 | 4.35 | 4.34 | 4.27 | 3.39 | 3.75 | 4.37 | 3.81 |
| SSBP3 | 5.65 | 5.64 | 5.50 | 5.44 | 5.17 | 5.54 | 5.80 | 4.28 |
| SSBP4 | 5.44 | 5.32 | 5.35 | 5.67 | 5.83 | 5.56 | 5.56 | 5.06 |
| SSC4D | 0.71 | 0.80 | 0.62 | 0.76 | 1.02 | 0.54 | 0.69 | 0.72 |
| SSC5D | -1.99 | -1.99 | -1.95 | -2.00 | -1.96 | -2.00 | -2.00 | -2.01 |
| SSH1 | 3.39 | 4.19 | 4.55 | 3.57 | 3.69 | 3.63 | 4.25 | 3.88 |
| SSH2 | 6.08 | 4.87 | 5.43 | 5.14 | 5.98 | 5.27 | 5.29 | 5.36 |
| SSH3 | 5.96 | 5.59 | 5.60 | 5.75 | 5.18 | 5.10 | 5.65 | 6.32 |
| SSNA1 | 7.95 | 7.36 | 7.09 | 7.45 | 6.94 | 7.36 | 6.82 | 6.64 |
| SSPN | 3.57 | 3.71 | 2.97 | 4.05 | 3.76 | 3.12 | 2.96 | 4.86 |
| SSPO | -0.95 | -1.08 | -1.00 | -1.02 | -1.01 | -1.06 | -1.03 | -1.05 |
| SSR1 | 7.68 | 6.84 | 6.61 | 6.80 | 7.61 | 6.48 | 7.88 | 8.61 |
| SSR2 | 8.63 | 8.59 | 8.10 | 9.02 | 9.93 | 9.12 | 8.69 | 9.54 |
| SSR3 | 8.06 | 8.11 | 7.35 | 8.46 | 8.79 | 7.76 | 7.86 | 9.20 |
| SSR4 | 9.02 | 9.64 | 9.34 | 9.87 | 10.59 | 9.49 | 9.20 | 9.88 |
| SSR4P1 | -0.81 | -0.79 | -0.78 | -0.81 | -0.76 | -0.80 | -0.75 | -0.89 |
| SSRP1 | 6.71 | 6.77 | 7.31 | 6.47 | 6.56 | 6.65 | 6.92 | 6.58 |
| SSSCA1-AS1 | 0.33 | 0.13 | 0.16 | 0.04 | 0.57 | 0.13 | 0.31 | 0.19 |
| SSTR1 | 0.51 | 1.52 | 0.91 | 1.39 | 0.44 | 0.48 | 0.84 | 0.45 |
| SSTR2 | 1.02 | 0.56 | 0.73 | 0.60 | 0.56 | 0.72 | 0.38 | 0.69 |
| SSTR3 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SSTR5-AS1 | -0.06 | 0.03 | 0.15 | -0.07 | 0.36 | 0.20 | 0.08 | -0.09 |
| SSU72 | 8.33 | 7.76 | 7.19 | 7.91 | 8.07 | 7.83 | 7.41 | 7.91 |
| SSUH2 | -0.40 | -0.39 | -0.37 | -0.42 | 0.66 | -0.31 | -0.41 | -0.53 |
| SSX2IP | 5.18 | 4.62 | 4.67 | 4.71 | 4.86 | 4.44 | 5.07 | 4.22 |
| ST13 | 8.05 | 7.60 | 7.48 | 7.50 | 7.18 | 7.91 | 7.61 | 8.03 |
| ST13P10 | -2.25 | -2.23 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| ST13P12 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ST13P15 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -2.00 | -2.01 |
| ST13P19 | -1.96 | -1.99 | -1.98 | -1.96 | -1.97 | -2.00 | -2.00 | -1.97 |
| ST13P2 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ST13P21 | -2.36 | -2.36 | -2.35 | -2.36 | -2.34 | -2.36 | -2.36 | -2.37 |
| ST13P3 | -1.99 | -1.99 | -1.98 | -1.96 | -1.97 | -2.00 | -2.00 | -1.97 |
| ST13P4 | -1.60 | -1.59 | -1.59 | -1.50 | -1.60 | -1.56 | -1.50 | -1.53 |
| ST13P5 | -0.50 | -0.57 | -0.38 | -0.43 | -0.53 | -0.35 | -0.51 | -0.53 |
| ST13P6 | -2.10 | -2.07 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.11 |
| ST14 | 8.07 | 8.62 | 9.32 | 8.42 | 8.00 | 8.03 | 8.08 | 8.19 |
| ST18 | -2.00 | -1.99 | -1.99 | -2.00 | -1.99 | -1.96 | -2.00 | -2.02 |
| ST20 | 4.27 | 3.43 | 3.68 | 3.51 | 4.00 | 4.53 | 2.93 | 4.34 |
| ST20-AS1 | 2.06 | 2.39 | 1.95 | 1.73 | 1.69 | 1.94 | 1.93 | 1.99 |
| ST20-MTHFS | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| ST3GAL1 | 6.92 | 8.09 | 8.69 | 8.49 | 8.53 | 7.92 | 7.78 | 7.57 |
| ST3GAL2 | 4.69 | 3.67 | 3.96 | 3.66 | 3.71 | 4.04 | 3.21 | 2.91 |
| ST3GAL3 | 0.83 | 1.38 | 1.33 | 1.11 | 1.37 | 1.26 | 1.38 | 1.05 |

| | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ST3GAL4 | 7.54 | 5.40 | 5.85 | 5.47 | 9.62 | 7.78 | 6.06 | 7.16 |
| ST3GAL5 | 2.65 | 3.65 | 2.68 | 3.09 | 2.60 | 2.66 | 3.87 | 2.45 |
| ST3GAL5-AS1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.14 | -2.15 | -2.15 | -2.14 |
| ST3GAL6 | 3.76 | 2.74 | 3.09 | 2.92 | 2.76 | 3.67 | 4.37 | 3.87 |
| ST3GAL6-AS1 | -1.69 | -1.69 | -1.73 | -1.65 | -1.73 | -1.70 | -1.74 | -1.76 |
| ST5 | 4.90 | 4.60 | 4.88 | 4.77 | 4.49 | 4.29 | 5.11 | 3.99 |
| ST6GAL1 | 3.25 | 3.85 | 3.80 | 4.22 | 5.22 | 3.86 | 3.83 | 3.97 |
| ST6GAL2 | -0.12 | -0.20 | -0.19 | -0.22 | -0.15 | -0.23 | -0.13 | -0.25 |
| ST6GALNAC1 | 5.65 | 6.32 | 4.65 | 6.87 | 5.86 | 4.82 | 5.95 | 5.64 |
| ST6GALNAC2 | -1.85 | -1.89 | -1.84 | -1.85 | -1.87 | -1.84 | -1.89 | -1.87 |
| ST6GALNAC3 | 1.36 | 1.56 | 1.93 | 1.54 | 2.78 | 1.37 | 1.95 | 1.42 |
| ST6GALNAC4 | 6.67 | 6.08 | 5.33 | 6.56 | 5.95 | 5.65 | 5.91 | 5.81 |
| ST6GALNAC4P1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| ST6GALNAC5 | -0.22 | -0.22 | -0.20 | -0.13 | -0.17 | 1.32 | -0.23 | -0.18 |
| ST6GALNAC6 | -0.68 | -0.75 | -0.54 | -0.76 | -0.83 | -0.77 | -0.76 | -0.85 |
| ST7 | 4.64 | 4.85 | 4.20 | 5.17 | 5.12 | 4.45 | 5.05 | 5.04 |
| ST7-AS1 | 0.95 | 0.71 | 0.66 | 0.83 | 0.98 | 0.90 | 0.61 | 0.78 |
| ST7-AS2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| ST7-OT4 | -0.56 | -0.25 | -0.30 | -0.48 | -0.55 | -0.50 | -0.24 | -0.58 |
| ST7L | 4.61 | 3.64 | 3.92 | 4.10 | 4.27 | 4.02 | 3.83 | 3.59 |
| ST8SIA1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.16 |
| ST8SIA2 | -2.25 | -2.25 | -2.25 | -2.21 | -2.24 | -2.26 | -2.25 | -2.26 |
| ST8SIA3 | -1.74 | -1.74 | -1.73 | -1.69 | -1.74 | -1.75 | -1.59 | -1.76 |
| ST8SIA4 | -1.69 | -1.68 | -1.58 | -1.69 | -1.69 | -1.62 | -1.69 | -1.66 |
| ST8SIA6 | 0.79 | 0.54 | 0.96 | 0.51 | 0.58 | 0.49 | 1.00 | 0.53 |
| ST8SIA6-AS1 | -2.04 | -2.01 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| STAB1 | -0.38 | -0.82 | -0.88 | -0.83 | -0.90 | -0.84 | -0.77 | -0.80 |
| STAB2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| STAC | 2.38 | 1.14 | 1.31 | 1.02 | 1.09 | 1.03 | 1.10 | 1.27 |
| STAC2 | -1.56 | -1.50 | -1.49 | -1.56 | -1.53 | -1.51 | -1.29 | -1.44 |
| STAC3 | -0.88 | -0.88 | -0.74 | -0.90 | -0.96 | -0.87 | -0.84 | -0.92 |
| STAG1 | 4.83 | 4.02 | 5.07 | 4.42 | 4.44 | 4.55 | 5.11 | 5.09 |
| STAG2 | 5.83 | 6.00 | 6.76 | 5.88 | 6.36 | 6.23 | 6.46 | 7.10 |
| STAG3 | -1.10 | -1.23 | -1.22 | -1.10 | -1.20 | -1.25 | -1.24 | -1.15 |
| STAG3L1 | -1.09 | -1.01 | -0.92 | -1.03 | -0.87 | -1.10 | -1.10 | -0.95 |
| STAG3L2 | 3.57 | 3.03 | 3.27 | 3.37 | 3.41 | 3.37 | 3.22 | 3.26 |
| STAG3L3 | 0.67 | 0.70 | 0.75 | 0.45 | 0.55 | 0.60 | 0.77 | 0.83 |
| STAG3L4 | 3.38 | 2.86 | 2.85 | 3.06 | 3.74 | 3.17 | 3.39 | 3.57 |
| STAG3L5P | -0.25 | -0.17 | -0.17 | -0.13 | -0.18 | -0.09 | -0.27 | -0.13 |
| STAG3L5P-PVRIG: | 0.43 | 0.54 | 0.73 | 0.29 | 0.58 | 0.35 | 0.43 | 0.53 |
| STAM | 4.08 | 4.82 | 4.39 | 4.53 | 4.51 | 4.66 | 4.97 | 4.73 |
| STAM-AS1 | 1.37 | 1.48 | 1.76 | 1.81 | 1.53 | 1.42 | 1.18 | 1.10 |
| STAM2 | 5.13 | 5.15 | 4.90 | 5.01 | 5.07 | 5.02 | 5.18 | 5.03 |
| STAMPB | 6.95 | 6.47 | 6.57 | 6.25 | 6.57 | 6.71 | 6.51 | 6.98 |
| STAMPBPL1 | 3.88 | 3.63 | 3.30 | 2.97 | 3.98 | 4.38 | 3.33 | 3.54 |
| STAP2 | 5.66 | 6.63 | 5.94 | 6.72 | 6.12 | 6.54 | 5.76 | 6.04 |
| STARD10 | 8.26 | 8.86 | 7.59 | 9.36 | 8.26 | 7.40 | 8.75 | 8.25 |
| STARD13 | 2.10 | 2.66 | 2.30 | 2.68 | 2.74 | 2.19 | 2.39 | 2.27 |
| STARD13-AS | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| STARD3 | 5.89 | 5.28 | 6.14 | 5.44 | 5.11 | 6.31 | 5.47 | 6.19 |
| STARD3NL | 5.46 | 5.19 | 5.20 | 5.48 | 5.96 | 5.87 | 4.89 | 5.82 |
| STARD4 | 4.61 | 5.51 | 5.44 | 5.06 | 5.66 | 4.75 | 6.21 | 4.80 |
| STARD4-AS1 | -1.48 | -1.42 | -1.58 | -1.54 | -1.53 | -1.60 | -1.54 | -1.61 |
| STARD5 | 2.95 | 2.60 | 2.29 | 2.82 | 2.95 | 2.05 | 2.53 | 2.95 |
| STARD7 | 6.37 | 6.84 | 6.38 | 6.62 | 6.50 | 6.24 | 6.46 | 6.20 |
| STARD7-AS1 | 0.76 | 1.19 | 1.25 | 0.97 | 1.02 | 0.96 | 1.15 | 1.27 |
| STARD8 | -1.15 | -1.14 | -0.91 | -1.15 | -1.14 | -1.00 | -1.08 | -1.16 |
| STARD9 | -0.92 | -1.31 | -1.23 | -1.25 | -1.31 | -1.27 | -1.26 | -1.33 |
| STAT1 | 7.49 | 6.43 | 6.39 | 5.97 | 6.44 | 6.30 | 6.15 | 6.14 |
| STAT2 | 4.59 | 4.16 | 4.43 | 4.44 | 4.51 | 4.95 | 4.70 | 4.88 |
| STAT3 | 5.88 | 6.98 | 6.96 | 6.41 | 6.50 | 6.48 | 6.85 | 6.78 |
| STAT4 | -1.39 | -1.32 | -1.37 | -1.39 | -1.35 | -1.34 | -1.33 | -1.30 |
| STAT5A | 2.48 | 2.71 | 3.08 | 2.91 | 3.71 | 2.79 | 2.80 | 3.82 |
| STAT5B | 3.00 | 3.60 | 4.53 | 3.64 | 3.76 | 3.72 | 4.31 | 3.32 |
| STAT6 | 5.45 | 5.77 | 5.72 | 5.95 | 5.38 | 5.85 | 5.95 | 5.74 |
| STATH | -1.33 | -1.32 | -1.31 | -1.33 | -1.32 | -1.34 | -1.33 | -1.35 |
| STAU1 | 7.59 | 6.78 | 7.29 | 6.96 | 6.93 | 7.20 | 7.30 | 7.58 |
| STAU2 | 5.27 | 5.61 | 5.54 | 5.25 | 5.01 | 5.59 | 5.64 | 5.72 |
| STAU2-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| STBD1 | -0.32 | -0.32 | -0.23 | -0.11 | -0.28 | -0.27 | -0.18 | -0.22 |
| STC1 | 5.18 | 3.03 | 5.65 | 3.11 | 4.13 | 4.41 | 5.21 | 3.71 |
| STC2 | 2.53 | 2.85 | 2.63 | 2.78 | 2.50 | 2.42 | 4.95 | 2.45 |
| STEAP1 | 5.55 | 5.86 | 5.66 | 5.67 | 5.95 | 6.28 | 4.76 | 6.42 |
| STEAP1B | -0.38 | -0.93 | -1.00 | -1.02 | -1.02 | -1.03 | -1.03 | -1.04 |
| STEAP2 | 4.41 | 5.41 | 5.64 | 4.98 | 4.83 | 5.40 | 5.26 | 5.80 |
| STEAP2-AS1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.00 |
| STEAP3 | 3.76 | 4.79 | 3.89 | 4.81 | 3.79 | 4.52 | 4.16 | 4.05 |
| STEAP3-AS1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| STEAP4 | 1.73 | 2.25 | 1.92 | 1.92 | 2.22 | 3.10 | 1.77 | 2.13 |
| STIL | 3.54 | 3.75 | 4.43 | 3.73 | 3.56 | 3.87 | 4.20 | 3.36 |
| STIM1 | 4.39 | 4.76 | 5.48 | 4.72 | 4.40 | 4.91 | 4.94 | 3.58 |
| STIM2 | 4.60 | 5.32 | 5.20 | 5.43 | 5.02 | 5.19 | 5.95 | 5.03 |
| STIM2-AS1 | 2.21 | 1.26 | 1.21 | 1.37 | 1.43 | 1.25 | 1.84 | 1.25 |
| STIMATE | 1.88 | 1.38 | 1.91 | 1.42 | 1.96 | 1.60 | 1.65 | 1.38 |
| STIP1 | 7.87 | 6.33 | 7.88 | 6.28 | 7.44 | 7.68 | 6.84 | 7.57 |
| STIP1P3 | -1.81 | -1.89 | -1.88 | -1.89 | -1.89 | -1.88 | -1.82 | -1.87 |
| STK10 | 3.02 | 3.51 | 3.88 | 3.55 | 3.78 | 3.91 | 3.42 | 2.93 |
| STK11 | 6.27 | 5.66 | 6.52 | 5.27 | 5.45 | 5.89 | 6.04 | 6.12 |
| STK11IP | 2.77 | 3.28 | 3.52 | 3.31 | 3.40 | 3.57 | 3.70 | 3.39 |
| STK16 | 5.24 | 5.23 | 4.71 | 5.33 | 5.52 | 5.61 | 4.92 | 5.53 |
| STK17A | 5.48 | 5.73 | 5.10 | 5.51 | 5.78 | 6.15 | 5.96 | 6.07 |
| STK17B | 5.08 | 4.75 | 4.83 | 4.49 | 4.68 | 5.43 | 4.70 | 5.54 |
| STK19 | 0.95 | 0.77 | 0.81 | 0.97 | 0.76 | 1.03 | 1.03 | 0.94 |
| STK24 | 5.85 | 6.93 | 6.89 | 6.66 | 6.81 | 6.42 | 6.94 | 6.59 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| STK24-AS1 | 0.36 | -0.12 | -0.01 | -0.14 | -0.16 | -0.10 | -0.21 | -0.11 |
| STK24P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| STK25 | 6.59 | 6.26 | 6.28 | 6.32 | 6.44 | 6.56 | 6.48 | 6.47 |
| STK26 | 4.23 | 4.62 | 4.93 | 3.98 | 4.28 | 4.84 | 4.51 | 4.52 |
| STK3 | 5.32 | 5.75 | 5.78 | 5.21 | 5.21 | 6.11 | 5.34 | 5.78 |
| STK31 | -0.74 | -0.87 | -0.86 | -0.60 | -0.76 | -0.85 | -0.88 | -0.77 |
| STK32A | 0.23 | 0.41 | 0.70 | 0.15 | 0.55 | 0.18 | 0.30 | 0.68 |
| STK32A-AS1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| STK32B | -2.15 | -2.12 | -2.14 | -2.12 | -2.15 | -2.15 | -2.07 | -2.16 |
| STK32C | 6.05 | 4.65 | 5.48 | 4.90 | 6.30 | 5.12 | 4.40 | 4.27 |
| STK33 | 1.35 | 1.26 | 1.39 | 1.27 | 1.43 | 0.91 | 0.94 | 0.74 |
| STK35 | 4.80 | 4.55 | 5.23 | 4.31 | 4.56 | 4.78 | 4.79 | 4.71 |
| STK36 | 2.17 | 2.16 | 2.43 | 2.19 | 2.06 | 2.22 | 2.59 | 1.92 |
| STK38 | 5.85 | 5.34 | 5.49 | 5.07 | 5.26 | 6.00 | 5.96 | 5.91 |
| STK38L | 5.46 | 5.22 | 5.80 | 5.27 | 5.79 | 4.25 | 5.16 | 5.60 |
| STK39 | 5.63 | 6.37 | 6.39 | 6.04 | 7.03 | 6.58 | 6.51 | 5.58 |
| STK4 | 6.32 | 5.87 | 6.18 | 6.04 | 5.90 | 5.65 | 5.95 | 5.79 |
| STK4-AS1 | -1.48 | -1.59 | -1.58 | -1.60 | -1.53 | -1.60 | -1.54 | -1.61 |
| STK40 | 3.67 | 3.71 | 3.83 | 3.87 | 4.33 | 3.76 | 4.11 | 4.60 |
| STKLD1 | 0.09 | -0.44 | -0.43 | -0.31 | -0.21 | -0.25 | -0.37 | -0.35 |
| STMN1 | 7.77 | 6.92 | 7.11 | 7.02 | 7.79 | 8.83 | 7.27 | 7.50 |
| STMN1P1 | -1.03 | -1.09 | -1.00 | -1.10 | -1.06 | -1.01 | -1.11 | -1.06 |
| STMN2 | 0.56 | 0.70 | 0.62 | 0.65 | 0.69 | 0.62 | 0.84 | 0.65 |
| STMN3 | 5.56 | 4.21 | 3.97 | 3.93 | 5.09 | 3.52 | 3.26 | 3.04 |
| STMP1 | 7.40 | 7.64 | 6.78 | 7.71 | 7.54 | 7.05 | 7.00 | 7.40 |
| STN1 | 6.92 | 6.81 | 5.84 | 7.18 | 7.84 | 6.30 | 6.36 | 7.06 |
| STOM | 3.78 | 5.01 | 4.16 | 5.51 | 3.85 | 4.80 | 4.93 | 3.94 |
| STOML1 | 4.01 | 3.76 | 4.33 | 3.96 | 3.82 | 3.64 | 4.12 | 3.95 |
| STOML2 | 7.47 | 7.81 | 6.93 | 7.95 | 7.56 | 7.87 | 7.15 | 7.26 |
| STON1 | 1.52 | 0.63 | 0.85 | 0.91 | 0.67 | 0.66 | 0.68 | 0.69 |
| STON2 | 2.49 | 3.17 | 2.93 | 3.28 | 3.21 | 2.81 | 2.97 | 2.72 |
| STOX1 | 2.35 | 1.96 | 1.60 | 1.89 | 2.15 | 1.54 | 1.97 | 1.32 |
| STOX2 | 2.32 | 2.64 | 2.91 | 2.52 | 2.53 | 2.02 | 2.77 | 2.44 |
| STPG1 | 2.66 | 2.69 | 3.01 | 2.91 | 3.07 | 3.12 | 3.27 | 2.88 |
| STPG2 | -1.90 | -1.94 | -1.86 | -1.91 | -1.94 | -1.95 | -1.91 | -1.96 |
| STPG3-AS1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.78 | -1.80 | -1.81 |
| STPG4 | 1.27 | 0.55 | 0.50 | 0.58 | 0.38 | 0.50 | 0.28 | 0.50 |
| STRA6 | 1.85 | 2.47 | 2.69 | 1.82 | 2.05 | 3.39 | 1.65 | 2.34 |
| STRADA | 1.01 | 0.82 | 0.98 | 1.01 | 1.04 | 1.05 | 1.17 | 1.10 |
| STRADB | 3.63 | 2.72 | 3.12 | 2.91 | 3.30 | 3.20 | 3.15 | 3.04 |
| STRAP | 8.47 | 6.91 | 7.79 | 7.07 | 8.93 | 7.42 | 7.32 | 8.24 |
| STRBP | 5.91 | 5.94 | 5.86 | 5.80 | 5.56 | 5.80 | 5.97 | 4.97 |
| STRCP1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| STRIP1 | 4.28 | 4.14 | 3.90 | 4.18 | 3.91 | 3.82 | 3.97 | 3.69 |
| STRIP2 | 3.35 | 3.74 | 4.05 | 3.77 | 3.79 | 3.84 | 4.36 | 3.21 |
| STRIT1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.90 | -1.90 | -1.91 |
| STRN | 4.56 | 5.42 | 5.00 | 5.30 | 4.49 | 5.14 | 5.57 | 5.11 |
| STRN3 | 5.11 | 5.63 | 5.56 | 5.60 | 6.02 | 6.14 | 5.88 | 5.61 |
| STRN4 | 6.21 | 6.07 | 5.79 | 6.10 | 6.13 | 5.95 | 6.15 | 6.52 |
| STS | 5.26 | 4.66 | 5.58 | 4.21 | 4.24 | 4.80 | 4.76 | 4.05 |
| STT3A | 6.62 | 6.67 | 7.24 | 6.76 | 7.32 | 6.50 | 6.92 | 7.18 |
| STT3B | 6.73 | 7.32 | 7.37 | 7.18 | 6.79 | 7.04 | 7.36 | 6.82 |
| STUB1 | 8.71 | 7.95 | 8.05 | 8.20 | 7.15 | 7.94 | 7.49 | 8.24 |
| STX10 | 6.41 | 6.24 | 6.57 | 6.44 | 6.75 | 6.71 | 6.16 | 6.16 |
| STX11 | 0.01 | 0.11 | 0.05 | -0.07 | -0.06 | 0.25 | -0.07 | 0.29 |
| STX12 | 4.56 | 4.80 | 4.99 | 4.65 | 5.04 | 5.06 | 6.17 | 4.99 |
| STX16 | 5.29 | 5.14 | 5.80 | 5.01 | 5.00 | 5.26 | 5.85 | 5.22 |
| STX16-NPEPL1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| STX17 | 5.62 | 5.66 | 5.22 | 5.37 | 5.08 | 5.40 | 5.62 | 5.18 |
| STX17-AS1 | 1.60 | 1.31 | 1.11 | 1.38 | 1.36 | 1.28 | 1.19 | 1.64 |
| STX18 | 4.73 | 5.30 | 4.63 | 5.38 | 5.10 | 5.16 | 4.90 | 5.37 |
| STX18-AS1 | 1.43 | 1.46 | 1.67 | 1.23 | 1.15 | 1.41 | 1.43 | 1.33 |
| STX18-IT1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| STX19 | 3.22 | 2.43 | 2.37 | 2.28 | 2.31 | 2.61 | 2.26 | 4.04 |
| STX1A | 3.35 | 3.55 | 3.69 | 3.73 | 3.73 | 4.17 | 3.47 | 3.51 |
| STX1B | -0.79 | -0.93 | -0.62 | -1.02 | -0.90 | -1.02 | -0.89 | -1.03 |
| STX2 | 3.14 | 4.01 | 4.27 | 3.84 | 3.92 | 4.18 | 4.29 | 2.63 |
| STX3 | 6.71 | 6.34 | 5.83 | 6.52 | 6.17 | 5.68 | 6.21 | 6.44 |
| STX4 | 6.24 | 6.19 | 6.23 | 5.89 | 5.97 | 6.01 | 5.90 | 6.38 |
| STX5 | 5.50 | 4.77 | 5.19 | 4.90 | 5.46 | 5.08 | 4.61 | 6.15 |
| STX6 | 5.35 | 5.40 | 4.54 | 4.87 | 5.03 | 5.43 | 4.68 | 5.55 |
| STX7 | 6.01 | 5.19 | 5.66 | 5.14 | 5.29 | 5.57 | 5.70 | 5.26 |
| STX8 | 5.32 | 5.48 | 5.81 | 5.14 | 5.72 | 5.74 | 5.80 | 5.75 |
| STX8P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| STXBP1 | 5.57 | 5.08 | 4.91 | 4.89 | 4.84 | 5.42 | 5.15 | 3.95 |
| STXBP2 | 5.58 | 6.11 | 5.89 | 6.24 | 6.34 | 5.92 | 6.00 | 6.38 |
| STXBP3 | 5.85 | 5.95 | 5.67 | 5.76 | 5.52 | 5.63 | 5.72 | 5.32 |
| STXBP4 | 3.12 | 3.65 | 3.71 | 3.17 | 3.42 | 4.11 | 3.58 | 3.09 |
| STXBP5 | 3.36 | 4.24 | 4.25 | 4.61 | 3.50 | 3.73 | 4.92 | 3.89 |
| STXBP5-AS1 | -0.48 | -0.29 | -0.36 | -0.48 | -0.43 | -0.37 | -0.48 | -0.50 |
| STXBP5L | -0.90 | -1.16 | -1.15 | -1.17 | -1.16 | -1.14 | -1.17 | -1.12 |
| STXBP6 | 3.47 | 4.20 | 3.98 | 4.77 | 6.60 | 3.13 | 4.22 | 2.31 |
| STYK1 | 2.90 | 3.06 | 2.95 | 3.28 | 2.61 | 2.65 | 2.93 | 2.52 |
| STYX | 4.72 | 4.72 | 4.62 | 4.83 | 5.17 | 5.15 | 4.90 | 4.90 |
| STYXL1 | 5.65 | 5.43 | 5.63 | 5.37 | 6.04 | 5.79 | 5.30 | 6.10 |
| SUB1 | 9.63 | 8.64 | 8.52 | 8.76 | 9.27 | 9.06 | 8.39 | 9.07 |
| SUB1P1 | -1.64 | -1.63 | -1.63 | -1.59 | -1.56 | -1.60 | -1.59 | -1.66 |
| SUB1P3 | -0.56 | -0.62 | -0.69 | -0.56 | -0.51 | -0.53 | -0.64 | -0.57 |
| SUCLA2 | 5.69 | 5.71 | 5.62 | 5.94 | 5.92 | 5.49 | 5.62 | 6.63 |
| SUCLA2-AS1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.07 | -2.11 |
| SUCLA2P1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SUCLG1 | 7.77 | 7.21 | 6.97 | 7.59 | 7.88 | 7.23 | 7.17 | 7.50 |
| SUCLG2 | 5.47 | 7.00 | 5.94 | 6.89 | 6.32 | 6.13 | 7.07 | 6.43 |
| SUCLG2-AS1 | 1.31 | 1.71 | 1.29 | 1.40 | 1.28 | 1.50 | 1.35 | 1.40 |

| | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SUCLG2P2 | -1.79 | -1.79 | -1.78 | -1.75 | -1.79 | -1.78 | -1.70 | -1.81 |
| SUCNR1 | -1.74 | -1.59 | -1.73 | -1.74 | -1.69 | -1.75 | -1.75 | -1.71 |
| SUCO | 5.03 | 5.71 | 5.34 | 5.63 | 6.22 | 6.70 | 5.78 | 6.12 |
| SUDS3 | 6.27 | 6.71 | 7.18 | 6.53 | 6.70 | 7.13 | 6.79 | 7.02 |
| SUDS3P1 | -0.15 | -0.28 | -0.26 | -0.30 | -0.28 | -0.16 | -0.30 | -0.16 |
| SUFU | 2.66 | 3.15 | 3.17 | 3.03 | 2.95 | 3.13 | 3.01 | 2.59 |
| SUGCT | 0.86 | 0.04 | 0.27 | 0.02 | 0.12 | 0.09 | 0.10 | 0.06 |
| SUGP2 | 5.64 | 5.47 | 5.64 | 5.87 | 5.67 | 5.78 | 6.23 | 5.56 |
| SUGT1 | 5.56 | 6.73 | 6.23 | 6.46 | 6.83 | 6.32 | 6.31 | 6.86 |
| SUGT1P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SUGT1P2 | -0.88 | -0.66 | -0.79 | -0.81 | -0.73 | -0.65 | -0.67 | -0.90 |
| SUGT1P3 | 0.24 | 0.10 | 0.37 | 0.24 | 0.93 | 0.18 | 0.24 | 0.30 |
| SUGT1P4-STRA6L | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.02 | -2.05 | -2.05 |
| SULF1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| SULF2 | 6.26 | 7.10 | 6.59 | 7.79 | 6.69 | 6.38 | 6.06 | 7.74 |
| SULT1A1 | 6.47 | 5.75 | 5.14 | 5.64 | 4.33 | 3.90 | 5.41 | 5.31 |
| SULT1A2 | 4.25 | 2.70 | 2.95 | 3.17 | 3.02 | 2.39 | 3.31 | 3.17 |
| SULT1B1 | 0.41 | 0.90 | 0.44 | 1.11 | 0.42 | 0.39 | 1.21 | 0.88 |
| SULT1C2 | 3.87 | 7.61 | 7.29 | 8.05 | 4.02 | 4.57 | 4.47 | 4.69 |
| SULT1C2P1 | -2.04 | -2.04 | -2.04 | -1.99 | -2.04 | -2.05 | -2.05 | -2.03 |
| SULT1C2P2 | -2.36 | -2.36 | -2.35 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 |
| SULT1C3 | -1.70 | -1.69 | -1.63 | -1.70 | -1.69 | -1.68 | -1.65 | -1.62 |
| SULT1C4 | -2.25 | -2.25 | -2.20 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| SULT1E1 | 0.93 | 1.36 | 1.32 | 1.95 | 0.83 | 0.73 | 2.13 | 0.69 |
| SULT2B1 | 5.75 | 5.70 | 5.13 | 5.61 | 5.03 | 5.65 | 6.31 | 5.21 |
| SULT4A1 | -1.80 | -1.84 | -1.79 | -1.84 | -1.84 | -1.85 | -1.80 | -1.86 |
| SUMF1 | 5.13 | 5.38 | 5.63 | 5.73 | 5.27 | 5.08 | 4.60 | 5.34 |
| SUMF2 | 7.32 | 7.21 | 6.47 | 7.38 | 8.22 | 6.95 | 6.80 | 7.03 |
| SUMO1 | 8.25 | 7.08 | 6.94 | 7.41 | 7.76 | 7.55 | 6.98 | 7.89 |
| SUMO1P3 | -1.99 | -1.99 | -1.98 | -1.96 | -1.99 | -2.00 | -2.00 | -1.97 |
| SUMO2 | 8.01 | 7.62 | 7.05 | 7.62 | 8.04 | 8.02 | 7.09 | 8.28 |
| SUMO2P1 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| SUMO2P20 | -2.18 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| SUMO2P3 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| SUMO2P6 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| SUMO3 | 8.43 | 7.84 | 6.93 | 7.87 | 7.58 | 8.48 | 7.06 | 8.28 |
| SUMO4 | -0.43 | -0.42 | -0.34 | -0.30 | -0.39 | -0.33 | -0.38 | -0.41 |
| SUN1 | 6.18 | 6.18 | 6.65 | 6.13 | 6.84 | 6.40 | 6.39 | 6.65 |
| SUN2 | 5.81 | 6.18 | 6.70 | 5.67 | 5.66 | 5.96 | 5.80 | 6.16 |
| SUN3 | -1.39 | -1.44 | -1.37 | -1.39 | -1.44 | -1.20 | -1.46 | -1.47 |
| SUOX | 3.01 | 3.88 | 3.40 | 3.61 | 3.15 | 3.20 | 3.12 | 3.54 |
| SUPT16H | 7.65 | 7.55 | 7.37 | 7.53 | 7.71 | 7.93 | 7.47 | 6.83 |
| SUPT16HP1 | -0.09 | -0.30 | -0.21 | -0.09 | -0.18 | -0.10 | -0.24 | -0.21 |
| SUPT20H | 4.86 | 5.77 | 5.45 | 5.35 | 5.35 | 4.90 | 6.14 | 6.14 |
| SUPT20HL1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 |
| SUPT3H | 3.02 | 2.34 | 2.26 | 2.20 | 3.55 | 2.88 | 2.56 | 2.60 |
| SUPT4H1 | 0.09 | -0.10 | -0.17 | -0.12 | -0.19 | -0.13 | 0.15 | 0.12 |
| SUPT5H | 6.89 | 6.54 | 6.13 | 6.50 | 6.67 | 6.48 | 6.35 | 6.47 |
| SUPT6H | 5.49 | 5.79 | 6.02 | 5.89 | 5.79 | 5.94 | 5.72 | 5.71 |
| SUPT7L | 5.25 | 4.78 | 4.86 | 4.78 | 4.48 | 4.42 | 4.63 | 4.97 |
| SUPV3L1 | 4.51 | 4.23 | 4.58 | 4.19 | 4.45 | 4.27 | 4.33 | 4.31 |
| SURF1 | 7.87 | 7.02 | 6.43 | 7.28 | 7.05 | 6.95 | 6.80 | 6.94 |
| SURF2 | 5.95 | 5.85 | 4.84 | 5.62 | 4.97 | 5.91 | 5.23 | 5.03 |
| SURF4 | 7.95 | 7.76 | 7.70 | 7.80 | 7.40 | 7.39 | 7.52 | 7.77 |
| SURF6 | 6.74 | 7.03 | 6.23 | 7.24 | 5.97 | 6.69 | 6.23 | 6.25 |
| SUSD1 | 3.75 | 3.87 | 3.08 | 3.80 | 3.18 | 3.49 | 3.17 | 3.01 |
| SUSD2 | 4.41 | 3.05 | 2.55 | 3.79 | 2.16 | 2.51 | 3.46 | 3.72 |
| SUSD3 | 0.82 | 0.33 | 0.44 | 0.38 | 0.43 | 0.72 | 0.45 | 0.20 |
| SUSD4 | 1.07 | 0.94 | 0.46 | 0.87 | 1.68 | 0.48 | 0.42 | 0.45 |
| SUSD5 | -1.43 | -1.36 | -1.41 | -1.43 | -1.42 | -1.44 | -1.38 | -1.39 |
| SUSD6 | 3.58 | 3.79 | 4.54 | 3.80 | 4.11 | 4.55 | 4.83 | 4.08 |
| SUV39H1 | 3.21 | 3.05 | 3.89 | 2.70 | 3.00 | 3.18 | 3.25 | 2.88 |
| SUV39H2 | 3.94 | 3.80 | 3.80 | 4.00 | 3.67 | 4.18 | 3.82 | 3.54 |
| SUZ12 | 7.36 | 7.01 | 7.53 | 6.58 | 6.67 | 7.10 | 7.16 | 6.59 |
| SUZ12P1 | 3.93 | 3.55 | 4.19 | 3.70 | 3.88 | 4.02 | 3.75 | 3.79 |
| SV2A | 0.90 | 0.64 | 0.67 | 0.61 | 1.32 | 1.11 | 0.93 | 0.85 |
| SV2C | -1.91 | -1.94 | -1.90 | -1.94 | -1.92 | -1.95 | -1.95 | -1.96 |
| SVBP | 4.92 | 5.40 | 4.88 | 5.20 | 5.20 | 5.55 | 4.47 | 4.88 |
| SVEP1 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.91 | -1.88 | -1.96 |
| SVIL | 4.66 | 5.88 | 5.31 | 5.71 | 5.73 | 6.43 | 5.90 | 5.72 |
| SVIL-AS1 | 3.57 | 3.43 | 3.51 | 3.47 | 4.30 | 4.03 | 3.91 | 3.58 |
| SVIL2P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.30 |
| SVIP | 7.75 | 8.07 | 7.91 | 7.80 | 7.73 | 7.74 | 8.31 | 8.02 |
| SVOPL | -1.47 | -1.46 | -1.51 | -1.32 | -1.41 | -1.48 | -1.53 | -1.35 |
| SWAP70 | 5.15 | 5.25 | 5.44 | 4.68 | 5.05 | 5.07 | 5.39 | 5.16 |
| SWI5 | 7.55 | 5.85 | 5.36 | 5.52 | 5.76 | 6.21 | 5.47 | 5.90 |
| SWSAP1 | 3.91 | 4.34 | 3.84 | 4.55 | 4.07 | 3.88 | 3.53 | 3.91 |
| SWT1 | 2.13 | 1.92 | 2.20 | 2.05 | 2.48 | 2.45 | 2.23 | 2.37 |
| SYAP1 | 8.80 | 7.70 | 8.42 | 7.47 | 7.70 | 7.72 | 7.71 | 7.22 |
| SYBU | 4.30 | 3.49 | 4.02 | 3.42 | 3.46 | 4.10 | 3.52 | 3.78 |
| SYCE1 | 4.33 | 1.79 | 1.87 | 1.72 | 4.46 | 1.70 | 2.03 | 1.72 |
| SYCE1L | 4.71 | 2.92 | 3.86 | 3.04 | 3.42 | 4.42 | 4.26 | 3.17 |
| SYCE2 | -0.05 | 0.20 | -0.02 | 0.28 | 0.05 | 0.12 | 0.09 | 0.14 |
| SYCE3 | 4.24 | 2.49 | 2.66 | 2.54 | 3.78 | 3.05 | 2.40 | 3.25 |
| SYCP2 | 2.56 | 2.02 | 2.12 | 1.91 | 1.99 | 2.15 | 3.52 | 2.19 |
| SYCP2L | -1.04 | -1.18 | -1.09 | -1.19 | -1.18 | -1.19 | -1.12 | -1.09 |
| SYCP3 | -0.64 | -0.69 | -0.61 | -0.50 | -0.66 | -0.63 | -0.78 | -0.62 |
| SYDE1 | -0.74 | -0.46 | -0.64 | -0.48 | -0.74 | -0.80 | -0.68 | -0.84 |
| SYDE2 | 2.87 | 2.98 | 2.54 | 2.91 | 2.36 | 2.58 | 2.48 | 2.74 |
| SYF2 | 7.38 | 6.88 | 7.22 | 6.84 | 7.70 | 7.84 | 7.27 | 7.77 |
| SYK | 4.82 | 5.75 | 5.16 | 5.36 | 4.08 | 4.83 | 5.50 | 4.21 |
| SYMPK | 4.52 | 4.16 | 4.63 | 4.20 | 4.63 | 4.28 | 4.39 | 4.53 |
| SYN1 | 0.00 | -0.15 | 0.29 | -0.09 | 0.56 | 0.19 | -0.09 | -0.19 |
| SYN2 | -0.52 | 0.05 | -0.51 | 0.10 | -0.48 | -0.53 | -0.38 | -0.48 |

| | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| SYN3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.34 | -2.36 |
| SYNC | 4.66 | 3.24 | 3.96 | 3.55 | 4.12 | 4.05 | 3.94 | 3.88 |
| SYNCRIP | 7.88 | 7.74 | 7.84 | 7.54 | 7.38 | 8.10 | 7.93 | 7.91 |
| SYNE1 | 1.29 | 1.55 | 1.97 | 1.87 | 1.85 | 1.63 | 1.47 | 1.04 |
| SYNE2 | 6.92 | 7.68 | 7.74 | 7.66 | 7.69 | 7.93 | 7.85 | 5.78 |
| SYNE3 | 0.00 | -0.08 | 0.02 | -0.01 | 0.26 | 0.26 | 0.19 | -0.05 |
| SYNE4 | 5.10 | 4.91 | 3.92 | 5.36 | 5.41 | 3.93 | 5.01 | 4.62 |
| SYNGAP1 | 0.45 | 0.40 | 0.59 | 0.37 | 0.53 | 0.52 | 0.29 | 0.48 |
| SYNGAP1-AS1 | -0.69 | -0.52 | -0.57 | -0.49 | -0.64 | -0.50 | -0.54 | -0.41 |
| SYNGR1 | 5.46 | 4.12 | 3.07 | 4.18 | 3.75 | 3.38 | 3.16 | 3.43 |
| SYNGR2 | 10.52 | 9.96 | 9.48 | 10.32 | 9.70 | 9.35 | 8.72 | 8.96 |
| SYNGR3 | 3.37 | 1.93 | 2.18 | 1.88 | 2.49 | 2.32 | 1.95 | 1.86 |
| SYNGR4 | -1.40 | -1.46 | -1.45 | -1.47 | -1.31 | -1.36 | -1.47 | -1.33 |
| SYNJ1 | 2.33 | 2.50 | 2.64 | 2.42 | 2.62 | 2.38 | 2.57 | 2.39 |
| SYNJ2 | 5.80 | 5.34 | 6.14 | 5.38 | 4.97 | 5.82 | 5.84 | 4.62 |
| SYNJ2BP | 5.16 | 6.10 | 5.57 | 5.92 | 6.01 | 5.95 | 6.19 | 5.12 |
| SYNJ2BP-COX16 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| SYNM | 4.90 | 3.53 | 3.30 | 3.40 | 4.49 | 4.19 | 4.03 | 3.07 |
| SYNPO | 2.78 | 4.82 | 2.93 | 4.65 | 4.10 | 3.18 | 3.82 | 3.16 |
| SYNPO2 | -0.81 | -0.81 | -0.54 | -0.82 | -0.81 | -0.68 | -0.74 | -0.70 |
| SYNPO2L | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| SYNPR | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| SYNPR-AS1 | -1.64 | -1.64 | -1.63 | -1.48 | -1.50 | -1.65 | -1.65 | -1.61 |
| SYNRG | 5.25 | 5.36 | 5.66 | 5.66 | 5.44 | 6.00 | 5.69 | 5.73 |
| SYP | 1.48 | 1.32 | 1.85 | 1.32 | 2.30 | 1.35 | 1.12 | 1.22 |
| SYP-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| SYPL1 | 6.83 | 7.56 | 7.16 | 7.49 | 7.91 | 7.38 | 7.15 | 7.32 |
| SYPL1P2 | -1.65 | -1.69 | -1.68 | -1.70 | -1.69 | -1.63 | -1.65 | -1.63 |
| SYPL2 | -0.63 | -0.78 | -0.69 | -0.79 | -0.74 | -0.73 | -0.79 | -0.74 |
| SYS1 | 5.87 | 4.92 | 4.92 | 5.23 | 5.60 | 5.51 | 5.03 | 5.60 |
| SYT1 | 2.76 | 1.76 | 1.92 | 1.85 | 1.62 | 1.56 | 1.60 | 1.67 |
| SYT10 | -2.25 | -2.23 | -2.25 | -2.22 | -2.25 | -2.25 | -2.25 | -2.26 |
| SYT11 | 0.14 | 0.00 | 0.40 | -0.02 | 0.04 | -0.03 | 0.06 | 0.02 |
| SYT12 | 3.02 | 3.06 | 3.97 | 3.07 | 2.97 | 3.17 | 4.48 | 3.22 |
| SYT13 | 4.72 | 5.86 | 6.02 | 5.95 | 5.96 | 5.42 | 7.18 | 5.15 |
| SYT14 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SYT16 | -1.90 | -1.89 | -1.89 | -1.90 | -1.89 | -1.89 | -1.87 | -1.67 |
| SYT17 | 2.99 | 3.03 | 3.67 | 2.89 | 3.44 | 3.00 | 3.14 | 3.66 |
| SYT2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| SYT3 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| SYT5 | 4.40 | 1.63 | 1.49 | 1.48 | 1.79 | 1.59 | 1.68 | 1.35 |
| SYT7 | 3.64 | 2.47 | 3.19 | 2.15 | 3.35 | 3.41 | 2.36 | 1.95 |
| SYT8 | 5.70 | 8.54 | 6.36 | 8.89 | 7.81 | 5.93 | 8.13 | 7.78 |
| SYT9 | -1.74 | -1.74 | -1.73 | -1.74 | -1.71 | -1.75 | -1.65 | -1.71 |
| SYTL1 | 4.64 | 5.04 | 5.38 | 5.59 | 5.39 | 5.32 | 5.75 | 5.39 |
| SYTL2 | 4.20 | 4.12 | 4.26 | 3.78 | 3.66 | 4.30 | 5.13 | 4.57 |
| SYTL3 | 1.78 | 2.30 | 2.57 | 1.93 | 1.73 | 3.51 | 1.85 | 2.02 |
| SYTL4 | 4.38 | 4.74 | 4.93 | 4.71 | 4.64 | 4.96 | 5.32 | 3.40 |
| SYTL5 | 2.36 | 2.43 | 2.88 | 1.98 | 2.31 | 2.53 | 3.54 | 2.10 |
| SYVN1 | 5.00 | 4.82 | 6.03 | 4.81 | 5.35 | 5.14 | 5.65 | 5.68 |
| SZRD1 | 7.45 | 7.04 | 7.08 | 6.79 | 6.49 | 6.93 | 6.76 | 6.73 |
| SZT2 | 3.32 | 3.43 | 3.76 | 3.38 | 3.19 | 3.58 | 3.65 | 3.06 |
| TAAR3P | 0.45 | 0.26 | 0.10 | 0.43 | 0.36 | 0.17 | 0.15 | 0.11 |
| TAB1 | 4.21 | 4.03 | 4.13 | 4.02 | 3.33 | 3.72 | 3.96 | 3.81 |
| TAB2 | 4.66 | 4.89 | 5.54 | 4.50 | 4.20 | 5.20 | 5.62 | 5.21 |
| TAB3 | 3.08 | 3.69 | 3.77 | 3.56 | 3.45 | 3.42 | 3.91 | 3.55 |
| TAC1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| TAC3 | -1.84 | -1.79 | -1.79 | -1.76 | -1.84 | -1.85 | -1.80 | -1.86 |
| TACC1 | 5.91 | 6.18 | 7.24 | 6.11 | 5.28 | 6.50 | 6.39 | 5.01 |
| TACC2 | 4.68 | 5.30 | 4.49 | 5.35 | 5.08 | 4.47 | 5.23 | 4.83 |
| TACC3 | 6.18 | 5.64 | 6.12 | 5.79 | 5.06 | 6.34 | 5.94 | 6.05 |
| TACO1 | 5.42 | 4.89 | 5.28 | 4.94 | 5.28 | 5.40 | 4.81 | 4.99 |
| TACR2 | -0.32 | 0.18 | -0.28 | 0.33 | -0.26 | -0.21 | -0.40 | -0.29 |
| TACSTD2 | 8.45 | 9.63 | 9.56 | 9.15 | 9.29 | 10.16 | 8.05 | 9.74 |
| TADA1 | 3.73 | 3.65 | 3.53 | 3.83 | 4.06 | 4.01 | 3.90 | 3.97 |
| TADA2A | 3.73 | 3.47 | 4.06 | 3.54 | 3.69 | 3.77 | 3.13 | 3.51 |
| TADA2B | 3.71 | 3.69 | 3.82 | 3.45 | 3.63 | 3.75 | 4.11 | 4.20 |
| TADA3 | 6.54 | 5.89 | 5.91 | 6.10 | 6.26 | 6.11 | 5.58 | 5.98 |
| TAF1 | 4.05 | 4.33 | 5.11 | 4.47 | 4.46 | 4.35 | 4.62 | 4.02 |
| TAF10 | 4.90 | 4.57 | 4.81 | 4.53 | 5.10 | 4.70 | 4.47 | 5.00 |
| TAF11 | 6.83 | 6.28 | 5.76 | 6.52 | 5.12 | 6.47 | 6.14 | 6.66 |
| TAF12 | 5.90 | 5.05 | 5.67 | 5.22 | 5.85 | 6.05 | 5.48 | 5.70 |
| TAF13 | 5.23 | 5.66 | 5.01 | 5.58 | 5.40 | 5.35 | 5.31 | 5.30 |
| TAF15 | 7.21 | 6.82 | 7.23 | 6.79 | 6.77 | 7.04 | 6.67 | 6.64 |
| TAF1A | 2.67 | 2.17 | 2.46 | 2.32 | 2.64 | 2.61 | 2.43 | 2.95 |
| TAF1A-AS1 | 2.03 | 1.67 | 1.58 | 1.56 | 2.60 | 1.61 | 1.41 | 2.00 |
| TAF1B | 4.14 | 4.42 | 3.73 | 4.13 | 3.90 | 4.37 | 4.33 | 4.08 |
| TAF1C | 3.44 | 2.89 | 3.45 | 3.25 | 3.29 | 3.37 | 3.72 | 3.07 |
| TAF1D | 7.85 | 7.66 | 7.64 | 7.72 | 8.26 | 7.70 | 7.33 | 7.91 |
| TAF1L | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.19 |
| TAF2 | 4.72 | 4.92 | 5.10 | 4.70 | 4.62 | 5.08 | 4.80 | 5.02 |
| TAF3 | 5.10 | 5.66 | 5.60 | 5.62 | 5.44 | 5.51 | 5.54 | 4.63 |
| TAF4 | 4.70 | 4.31 | 4.29 | 4.23 | 4.38 | 4.19 | 4.21 | 4.47 |
| TAF4B | 1.32 | 1.26 | 2.01 | 1.37 | 1.53 | 1.31 | 0.96 | 1.03 |
| TAF5 | 3.61 | 3.09 | 3.12 | 3.29 | 3.61 | 3.10 | 3.06 | 3.00 |
| TAF5L | 4.26 | 4.16 | 4.41 | 4.08 | 4.12 | 4.11 | 4.32 | 4.69 |
| TAF6 | 6.22 | 5.69 | 5.77 | 5.89 | 5.85 | 5.68 | 5.49 | 5.65 |
| TAF6L | 3.95 | 3.75 | 3.88 | 3.90 | 3.81 | 3.70 | 3.44 | 3.85 |
| TAF7 | 7.08 | 7.05 | 7.51 | 7.18 | 6.89 | 7.22 | 6.18 | 7.14 |
| TAF7L | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| TAF8 | 5.23 | 4.78 | 4.90 | 4.56 | 4.85 | 5.04 | 4.98 | 5.16 |
| TAF9 | 7.18 | 7.02 | 7.16 | 7.47 | 7.78 | 7.65 | 6.73 | 7.27 |
| TAF9B | 2.77 | 2.47 | 2.59 | 2.48 | 2.54 | 2.82 | 2.33 | 2.79 |
| TAF2A2 | 0.28 | 0.21 | 0.39 | 0.41 | 0.45 | 0.43 | 0.33 | 0.39 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TAF3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| TAF5 | 0.62 | 0.18 | -0.20 | 0.14 | -0.22 | -0.20 | -0.23 | -0.19 |
| TAGAP | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.89 | -1.91 | -1.96 |
| TAGLN | 1.77 | 2.19 | 2.08 | 2.21 | 1.90 | 1.82 | 2.30 | 2.18 |
| TAGLN2 | 10.12 | 9.53 | 9.74 | 9.54 | 10.02 | 10.28 | 9.54 | 9.93 |
| TAGLN2P1 | -1.71 | -1.75 | -1.75 | -1.72 | -1.71 | -1.75 | -1.76 | -1.61 |
| TAGLN3 | 0.20 | 0.06 | 0.40 | -0.05 | -0.03 | 1.00 | -0.05 | -0.09 |
| TAL2 | -1.79 | -1.79 | -1.74 | -1.71 | -1.79 | -1.78 | -1.71 | -1.72 |
| TALDO1 | 10.15 | 8.95 | 9.04 | 9.12 | 9.07 | 8.86 | 8.81 | 9.69 |
| TAMM41 | 4.40 | 3.99 | 3.96 | 3.97 | 4.45 | 4.37 | 4.38 | 4.08 |
| TANC1 | 5.41 | 6.32 | 5.47 | 6.72 | 5.72 | 5.45 | 6.64 | 5.77 |
| TANC2 | 3.81 | 3.48 | 4.47 | 3.32 | 3.26 | 4.24 | 3.33 | 3.57 |
| TANGO2 | 4.52 | 3.73 | 3.80 | 3.67 | 3.80 | 3.56 | 4.21 | 4.65 |
| TANGO6 | 2.47 | 2.62 | 2.51 | 2.73 | 2.27 | 2.28 | 2.61 | 2.40 |
| TANK | 6.25 | 6.20 | 5.91 | 5.91 | 6.14 | 6.33 | 6.41 | 6.88 |
| TAOK1 | 5.81 | 6.59 | 6.88 | 6.12 | 6.20 | 6.63 | 6.85 | 6.09 |
| TAOK2 | 5.31 | 5.57 | 5.60 | 5.36 | 4.97 | 5.07 | 5.17 | 4.95 |
| TAOK3 | 6.18 | 6.53 | 7.14 | 6.25 | 6.01 | 6.14 | 6.75 | 7.02 |
| TAP1 | 6.28 | 6.19 | 6.23 | 6.21 | 5.69 | 6.52 | 6.16 | 5.68 |
| TAP2 | 5.38 | 5.32 | 5.63 | 5.27 | 4.55 | 5.29 | 5.10 | 4.74 |
| TAPBP | 7.79 | 7.86 | 7.81 | 7.67 | 7.00 | 7.71 | 7.41 | 7.43 |
| TAPBPL | 4.42 | 4.78 | 4.54 | 5.22 | 4.38 | 3.50 | 4.03 | 4.53 |
| TAPT1 | 3.81 | 4.15 | 4.35 | 4.39 | 3.72 | 4.16 | 4.62 | 4.49 |
| TAPT1-AS1 | -0.67 | -0.64 | -0.71 | -0.81 | -0.76 | -0.82 | -0.74 | -0.82 |
| TARBP1 | 4.34 | 4.40 | 4.61 | 4.20 | 4.30 | 4.28 | 4.68 | 4.45 |
| TARBP2 | 5.17 | 5.23 | 4.75 | 5.23 | 4.93 | 5.52 | 4.31 | 5.29 |
| TARDBP | 5.39 | 5.51 | 5.98 | 5.30 | 5.11 | 5.37 | 5.45 | 5.00 |
| TARID | -2.15 | -2.12 | -2.11 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| TARM1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| TARS | 6.21 | 7.12 | 7.18 | 6.88 | 7.29 | 6.96 | 7.47 | 7.49 |
| TARS2 | 4.69 | 3.63 | 4.15 | 3.87 | 4.12 | 4.28 | 4.27 | 4.55 |
| TARSL2 | 4.23 | 4.48 | 3.28 | 4.53 | 4.12 | 3.62 | 4.15 | 3.24 |
| TAS1R1 | -2.36 | -2.36 | -2.34 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| TAS1R3 | -0.72 | -0.72 | -0.61 | -0.64 | -0.64 | -0.39 | -0.65 | -0.27 |
| TAS2R10 | -2.15 | -2.15 | -2.14 | -2.12 | -2.13 | -2.14 | -2.15 | -2.13 |
| TAS2R13 | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.21 |
| TAS2R14 | 0.05 | 0.07 | 0.08 | -0.02 | -0.01 | -0.07 | 0.25 | 0.01 |
| TAS2R15P | -2.10 | -2.07 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| TAS2R20 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| TAS2R30 | -0.14 | -0.21 | -0.26 | -0.29 | -0.36 | -0.24 | -0.11 | -0.33 |
| TAS2R31 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| TAS2R4 | 0.01 | 0.19 | 0.13 | 0.23 | 0.29 | 0.22 | 0.61 | 0.11 |
| TAS2R43 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| TAS2R46 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TAS2R5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.35 |
| TAS2R50 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TAS2R64P | -0.77 | -0.76 | -0.59 | -0.77 | -0.69 | -0.79 | -0.71 | -0.74 |
| TASOR | 4.92 | 6.38 | 5.99 | 6.25 | 5.60 | 6.16 | 6.40 | 5.82 |
| TASOR2 | 4.91 | 5.63 | 6.04 | 5.58 | 5.64 | 5.68 | 5.83 | 5.71 |
| TASP1 | 4.73 | 4.51 | 4.75 | 4.74 | 4.21 | 4.35 | 4.27 | 4.32 |
| TAT | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| TAT-AS1 | 0.39 | 0.27 | 0.28 | 0.24 | 0.31 | 0.19 | 0.17 | 0.30 |
| TATDN1 | 6.17 | 5.81 | 6.15 | 5.60 | 6.86 | 6.75 | 5.59 | 6.85 |
| TATDN1P1 | 0.06 | 0.15 | 0.49 | 0.33 | 0.39 | 0.31 | 0.19 | 0.27 |
| TATDN2 | 4.03 | 4.33 | 4.26 | 4.14 | 3.70 | 3.91 | 4.12 | 3.92 |
| TATDN2P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| TATDN3 | 4.74 | 4.17 | 4.06 | 3.98 | 4.92 | 4.53 | 4.19 | 4.73 |
| TAX1BP1 | 9.10 | 8.31 | 8.17 | 8.13 | 8.96 | 8.82 | 8.47 | 9.32 |
| TAX1BP3 | 6.11 | 6.65 | 6.56 | 6.56 | 6.33 | 6.92 | 6.89 | 6.84 |
| TAZ | 5.61 | 4.31 | 5.18 | 4.61 | 5.01 | 5.19 | 4.64 | 5.32 |
| TBC1D1 | 5.01 | 5.67 | 6.09 | 5.24 | 5.06 | 5.31 | 5.78 | 4.58 |
| TBC1D10A | 5.54 | 4.69 | 4.58 | 4.93 | 5.06 | 5.28 | 5.17 | 5.67 |
| TBC1D10B | 4.79 | 4.76 | 5.34 | 5.05 | 4.85 | 4.65 | 5.31 | 4.90 |
| TBC1D12 | 3.75 | 3.87 | 3.23 | 3.59 | 3.79 | 3.49 | 3.64 | 3.41 |
| TBC1D13 | 3.48 | 3.69 | 3.64 | 3.80 | 3.37 | 3.55 | 3.97 | 3.69 |
| TBC1D14 | 4.56 | 4.87 | 4.93 | 4.81 | 4.65 | 5.08 | 5.30 | 5.62 |
| TBC1D15 | 4.24 | 4.74 | 4.94 | 4.73 | 4.85 | 4.59 | 5.16 | 5.29 |
| TBC1D16 | 5.13 | 4.82 | 5.58 | 4.62 | 4.87 | 5.25 | 5.13 | 4.59 |
| TBC1D17 | 4.81 | 4.34 | 4.57 | 4.45 | 4.51 | 4.99 | 4.31 | 4.60 |
| TBC1D19 | 1.85 | 2.73 | 2.72 | 2.58 | 2.10 | 2.53 | 2.86 | 2.19 |
| TBC1D2 | 4.14 | 4.24 | 4.22 | 4.03 | 3.32 | 3.94 | 4.45 | 3.76 |
| TBC1D20 | 5.84 | 5.36 | 5.47 | 5.47 | 5.66 | 5.25 | 6.04 | 5.53 |
| TBC1D22A | 5.15 | 4.91 | 4.92 | 5.13 | 4.41 | 4.92 | 5.16 | 5.14 |
| TBC1D22B | 3.51 | 3.45 | 3.30 | 3.55 | 3.31 | 3.78 | 3.58 | 4.08 |
| TBC1D23 | 4.90 | 4.35 | 4.96 | 4.35 | 4.71 | 4.75 | 5.52 | 5.84 |
| TBC1D24 | 3.93 | 3.69 | 3.79 | 3.80 | 3.19 | 3.24 | 3.89 | 3.20 |
| TBC1D25 | 3.17 | 3.20 | 3.76 | 3.48 | 3.40 | 2.83 | 2.89 | 3.21 |
| TBC1D2B | 4.36 | 4.43 | 4.58 | 4.62 | 4.29 | 4.18 | 4.57 | 4.61 |
| TBC1D30 | 3.24 | 3.44 | 3.16 | 3.50 | 3.66 | 3.64 | 3.66 | 3.37 |
| TBC1D31 | 3.44 | 3.25 | 3.89 | 3.07 | 3.44 | 3.57 | 3.39 | 3.51 |
| TBC1D32 | 3.02 | 2.66 | 3.01 | 2.46 | 2.72 | 2.87 | 3.53 | 3.04 |
| TBC1D3C | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| TBC1D3L | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.21 | -2.20 | -2.21 |
| TBC1D4 | 3.71 | 4.00 | 4.49 | 3.91 | 5.04 | 3.62 | 4.60 | 3.87 |
| TBC1D5 | 5.40 | 5.18 | 5.21 | 5.08 | 4.96 | 5.07 | 5.47 | 5.04 |
| TBC1D7 | 5.73 | 5.20 | 5.10 | 5.06 | 5.45 | 4.93 | 5.24 | 5.78 |
| TBC1D8 | 3.52 | 3.88 | 3.30 | 3.81 | 3.86 | 3.68 | 4.07 | 3.75 |
| TBC1D8-AS1 | 0.23 | 0.39 | 0.35 | 0.15 | 0.24 | 0.36 | 0.22 | 0.40 |
| TBC1D8B | 4.42 | 3.18 | 5.43 | 3.33 | 5.38 | 4.64 | 5.74 | 4.73 |
| TBC1D9 | 2.75 | 3.21 | 3.14 | 3.05 | 2.58 | 3.19 | 3.22 | 3.22 |
| TBC1D9B | 4.73 | 5.24 | 6.22 | 5.38 | 5.23 | 5.13 | 5.76 | 4.97 |
| TBCA | 7.56 | 7.89 | 7.44 | 8.07 | 8.64 | 8.11 | 7.85 | 7.79 |
| TBCAP1 | 0.44 | 0.68 | 0.54 | 0.65 | 0.53 | 0.64 | 0.43 | 0.70 |
| TBCAP3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TBCB | 7.25 | 7.10 | 6.68 | 7.03 | 7.38 | 7.16 | 6.27 | 6.08 |
| TBCC | 5.86 | 5.25 | 4.71 | 5.54 | 5.29 | 5.50 | 4.81 | 5.63 |
| TBCCD1 | 1.65 | 2.00 | 1.84 | 1.63 | 1.78 | 1.53 | 1.96 | 1.89 |
| TBCD | 5.48 | 5.55 | 6.25 | 5.31 | 5.02 | 6.05 | 5.19 | 4.94 |
| TBCEL | 1.98 | 2.83 | 2.52 | 2.30 | 2.17 | 2.19 | 2.58 | 1.89 |
| TBCK | 3.12 | 3.74 | 3.58 | 3.40 | 3.42 | 4.01 | 4.14 | 3.56 |
| TBILA | 0.02 | 0.03 | 0.32 | 0.09 | 0.27 | 0.14 | 0.23 | 0.34 |
| TBK1 | 4.67 | 4.81 | 5.12 | 4.88 | 4.84 | 5.25 | 5.36 | 5.42 |
| TBKBP1 | 1.10 | 1.10 | 1.06 | 1.08 | 1.21 | 0.95 | 1.25 | 1.55 |
| TBL1X | 4.53 | 3.63 | 3.83 | 3.91 | 4.70 | 4.10 | 5.01 | 4.72 |
| TBL1XR1 | 6.02 | 6.94 | 6.83 | 6.42 | 6.08 | 6.54 | 6.77 | 6.54 |
| TBL1XR1-AS1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| TBL1Y | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TBL2 | 5.28 | 5.53 | 5.13 | 5.81 | 6.07 | 4.92 | 4.97 | 5.65 |
| TBL3 | 5.32 | 4.98 | 4.98 | 4.50 | 4.71 | 5.20 | 4.84 | 5.19 |
| TBP | 5.16 | 3.89 | 4.53 | 3.82 | 4.23 | 4.48 | 4.28 | 4.23 |
| TBPL1 | 5.29 | 4.08 | 4.70 | 4.50 | 4.24 | 4.91 | 4.17 | 4.19 |
| TBPL2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| TBRG1 | 6.54 | 6.51 | 6.16 | 6.55 | 6.74 | 5.89 | 7.05 | 6.54 |
| TBRG4 | 6.96 | 6.36 | 6.30 | 6.07 | 6.40 | 6.40 | 6.11 | 6.26 |
| TBX1 | 0.08 | -0.26 | -0.33 | -0.21 | -0.15 | -0.12 | -0.36 | -0.31 |
| TBX10 | -2.07 | -2.09 | -2.09 | -2.04 | -2.09 | -2.09 | -2.07 | -2.11 |
| TBX15 | 0.42 | 0.84 | 0.39 | 0.55 | 0.48 | 0.85 | 0.47 | 0.46 |
| TBX18 | 1.28 | 0.75 | 0.97 | 0.82 | 1.61 | 1.42 | 0.73 | 0.75 |
| TBX19 | 0.06 | -0.01 | 0.08 | -0.02 | 0.27 | 0.28 | 0.18 | 0.24 |
| TBX2 | -0.52 | -0.65 | -0.72 | -0.74 | -0.65 | -0.30 | -0.74 | -0.75 |
| TBX2-AS1 | 0.64 | 0.35 | 0.28 | 0.33 | 0.90 | 0.88 | 0.24 | 0.21 |
| TBX21 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TBX3 | 3.56 | 4.33 | 3.07 | 3.37 | 3.04 | 2.92 | 5.15 | 2.90 |
| TBX4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.20 | -2.21 |
| TBX6 | 1.91 | 2.62 | 2.19 | 2.34 | 2.51 | 2.03 | 2.14 | 2.45 |
| TBXA2R | -1.64 | -1.74 | -1.73 | -1.74 | -1.69 | -1.73 | -1.75 | -1.76 |
| TBXAS1 | 3.91 | 5.56 | 5.43 | 5.75 | 6.74 | 5.11 | 4.17 | 4.03 |
| TC2N | 5.35 | 5.90 | 5.47 | 5.67 | 5.55 | 5.17 | 6.41 | 5.15 |
| TCAF1 | 3.75 | 4.49 | 4.61 | 4.68 | 4.31 | 4.24 | 4.80 | 3.68 |
| TCAF2 | 0.44 | 0.90 | 1.07 | 0.79 | 0.69 | 0.63 | 0.81 | 0.46 |
| TCAIM | 4.69 | 4.83 | 4.29 | 4.56 | 4.98 | 4.70 | 4.78 | 5.08 |
| TCAM1P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TCAP | -0.26 | -0.39 | -0.21 | -0.32 | -0.24 | -0.31 | -0.41 | -0.31 |
| TCEA1 | 6.29 | 6.44 | 6.32 | 5.98 | 5.90 | 6.28 | 6.10 | 6.37 |
| TCEA1P2 | 1.78 | 1.82 | 2.23 | 1.98 | 1.78 | 2.03 | 1.84 | 2.22 |
| TCEA1P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TCEA1P4 | 0.09 | 0.41 | 0.11 | 0.17 | 0.28 | 0.28 | 0.59 | 0.06 |
| TCEA2 | 7.02 | 5.16 | 5.55 | 5.43 | 5.90 | 5.76 | 5.21 | 5.22 |
| TCEA3 | 5.09 | 4.29 | 3.19 | 4.37 | 4.82 | 3.70 | 4.79 | 5.71 |
| TCEAL1 | 3.79 | 4.32 | 3.61 | 4.81 | 3.86 | 4.24 | 3.97 | 3.99 |
| TCEAL2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TCEAL3 | 4.33 | 3.99 | 4.61 | 4.32 | 5.88 | 5.18 | 5.01 | 4.47 |
| TCEAL4 | 6.26 | 7.67 | 7.03 | 7.38 | 7.20 | 7.37 | 6.85 | 6.39 |
| TCEAL7 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| TCEAL8 | 6.56 | 7.31 | 6.57 | 7.36 | 7.14 | 6.65 | 6.46 | 6.52 |
| TCEAL9 | 7.52 | 7.58 | 7.52 | 7.61 | 7.74 | 7.60 | 6.72 | 7.33 |
| TCEANC | 1.60 | 1.34 | 1.32 | 1.09 | 1.54 | 1.19 | 1.28 | 1.03 |
| TCEANC2 | 3.22 | 4.23 | 3.76 | 4.02 | 3.94 | 4.05 | 4.08 | 3.75 |
| TCERG1 | 6.48 | 6.66 | 7.00 | 6.89 | 6.85 | 6.96 | 6.89 | 6.71 |
| TCERG1L-AS1 | -1.99 | -1.99 | -1.98 | -1.93 | -1.99 | -2.00 | -1.96 | -2.01 |
| TCF12 | 5.13 | 4.66 | 5.02 | 4.97 | 4.95 | 4.89 | 5.27 | 4.84 |
| TCF15 | -1.65 | -1.64 | -1.63 | -1.65 | -1.64 | -1.66 | -1.55 | -1.67 |
| TCF19 | 4.83 | 4.70 | 5.21 | 4.72 | 3.84 | 4.69 | 4.66 | 4.29 |
| TCF20 | 5.28 | 5.05 | 5.08 | 4.93 | 4.61 | 4.97 | 5.31 | 4.94 |
| TCF21 | -2.30 | -2.29 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| TCF23 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TCF24 | -1.60 | -1.64 | -1.63 | -1.65 | -1.64 | -1.61 | -1.65 | -1.57 |
| TCF25 | 7.92 | 8.07 | 7.94 | 8.00 | 7.56 | 7.64 | 8.16 | 6.93 |
| TCF3 | 5.20 | 4.85 | 5.86 | 5.06 | 5.59 | 6.33 | 5.45 | 5.79 |
| TCF3P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TCF4 | -0.20 | 0.14 | -0.35 | 0.24 | -0.32 | -0.23 | -0.37 | -0.26 |
| TCF7 | 3.43 | 3.95 | 4.70 | 3.61 | 3.65 | 3.54 | 3.82 | 3.01 |
| TCF7L1 | 1.20 | 0.92 | 1.28 | 1.19 | 1.64 | 1.21 | 0.97 | 1.14 |
| TCF7L2 | 7.07 | 7.53 | 7.03 | 7.46 | 7.53 | 7.10 | 7.43 | 6.54 |
| TCFL5 | 4.38 | 3.96 | 3.92 | 4.03 | 3.63 | 3.42 | 3.65 | 3.71 |
| TCHH | -1.61 | -1.55 | -1.59 | -1.51 | -1.58 | -1.62 | -1.56 | -1.63 |
| TCHP | 5.19 | 5.58 | 5.27 | 5.81 | 5.38 | 5.52 | 5.59 | 5.42 |
| TCIM | 6.57 | 4.95 | 6.61 | 5.13 | 5.23 | 5.19 | 6.77 | 8.73 |
| TCIRG1 | 4.62 | 4.50 | 5.02 | 4.39 | 4.79 | 4.73 | 5.02 | 5.55 |
| TCL6 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 | -1.88 | -1.89 | -1.83 |
| TCN1 | 7.54 | 10.45 | 8.97 | 11.27 | 6.57 | 8.74 | 7.94 | 7.68 |
| TCN2 | 4.01 | 4.36 | 3.71 | 4.28 | 3.61 | 3.99 | 4.88 | 4.21 |
| TCOF1 | 5.41 | 6.13 | 7.48 | 5.82 | 5.83 | 6.02 | 5.84 | 5.09 |
| TCP1 | 8.31 | 7.70 | 8.13 | 7.76 | 7.51 | 8.24 | 7.68 | 7.53 |
| TCP10L | 1.53 | 2.02 | 1.65 | 1.84 | 2.09 | 2.52 | 1.71 | 2.13 |
| TCP10L2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| TCP11 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.25 | -2.26 |
| TCP11L1 | 2.33 | 2.69 | 2.39 | 2.89 | 2.68 | 2.60 | 2.85 | 2.19 |
| TCP11L2 | 2.37 | 2.36 | 2.66 | 2.22 | 2.61 | 2.65 | 2.15 | 3.14 |
| TCP1P1 | -1.94 | -1.90 | -1.93 | -1.91 | -1.94 | -1.95 | -1.91 | -1.96 |
| TCP1P3 | -1.91 | -1.90 | -1.93 | -1.94 | -1.94 | -1.93 | -1.91 | -1.96 |
| TCTA | 5.63 | 4.47 | 4.58 | 5.00 | 4.51 | 4.12 | 4.39 | 4.36 |
| TCTE3 | 1.35 | 0.67 | 1.00 | 0.94 | 0.90 | 0.96 | 1.32 | 0.93 |
| TCTEX1D2 | 6.65 | 5.54 | 5.14 | 5.40 | 5.00 | 6.07 | 4.63 | 6.44 |
| TCTEX1D4 | -0.93 | -0.87 | -1.06 | -0.87 | -1.04 | -1.06 | -1.02 | -1.04 |
| TCTN1 | 4.05 | 4.08 | 4.44 | 4.81 | 3.91 | 4.65 | 3.81 | 3.87 |
| TCTN2 | 2.43 | 3.04 | 3.07 | 3.07 | 2.56 | 2.59 | 2.82 | 2.91 |
| TCTN3 | 6.03 | 6.26 | 5.89 | 6.89 | 6.67 | 6.29 | 6.12 | 5.54 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| TDG | 4.70 | 5.50 | 5.02 | 5.38 | 4.79 | 5.17 | 5.48 | 5.99 |
| TDGF1 | 1.31 | 2.18 | 1.07 | 1.58 | 0.98 | 1.28 | 1.71 | 1.23 |
| TDGP1 | 0.24 | 0.32 | 0.28 | 0.37 | 0.24 | 0.33 | 0.49 | 0.45 |
| TDH | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TDO2 | -0.38 | -0.36 | -0.25 | -0.37 | -0.45 | -0.26 | -0.38 | 0.13 |
| TDP1 | 4.10 | 4.23 | 4.11 | 3.75 | 4.43 | 4.45 | 3.92 | 3.65 |
| TDP2 | 5.22 | 5.44 | 5.13 | 5.58 | 5.02 | 5.75 | 5.51 | 5.97 |
| TDRD1 | 4.19 | 1.74 | 2.09 | 1.84 | 1.83 | 1.67 | 1.84 | 3.79 |
| TDRD3 | 2.76 | 3.48 | 3.12 | 3.31 | 3.66 | 3.03 | 3.86 | 3.58 |
| TDRD5 | 0.90 | 0.57 | 0.27 | 0.54 | 0.26 | 0.30 | 0.24 | 0.75 |
| TDRD6 | -0.91 | -0.90 | -0.88 | -0.91 | -0.98 | -0.87 | -0.84 | -1.00 |
| TDRD7 | 3.60 | 3.40 | 3.47 | 3.30 | 3.15 | 3.51 | 3.39 | 3.06 |
| TDRD9 | 0.79 | 1.45 | 0.85 | 1.53 | 0.85 | 0.68 | 1.88 | 0.72 |
| TDRKH | 4.22 | 2.84 | 3.17 | 2.93 | 3.31 | 3.42 | 2.98 | 2.93 |
| TDRKH-AS1 | 1.43 | 1.17 | 0.96 | 1.19 | 1.59 | 1.26 | 1.18 | 1.55 |
| TDRP | 2.00 | 2.28 | 2.43 | 2.05 | 1.99 | 2.03 | 3.77 | 1.95 |
| TEAD1 | 5.14 | 5.57 | 6.37 | 5.06 | 5.31 | 6.11 | 6.40 | 5.10 |
| TEAD2 | 3.53 | 2.93 | 2.50 | 2.78 | 3.33 | 3.11 | 2.89 | 3.05 |
| TEAD3 | 4.51 | 4.42 | 4.50 | 4.47 | 3.74 | 4.73 | 4.61 | 4.81 |
| TEAD4 | 4.15 | 3.58 | 3.23 | 4.04 | 4.03 | 3.42 | 3.46 | 3.38 |
| TEC | 1.90 | 2.02 | 2.18 | 2.02 | 1.98 | 2.30 | 2.21 | 1.91 |
| TECPR1 | 3.52 | 3.87 | 4.08 | 3.72 | 3.87 | 3.42 | 4.59 | 4.00 |
| TECPR2 | 3.36 | 3.71 | 3.74 | 3.94 | 3.66 | 4.29 | 4.03 | 3.47 |
| TECR | 6.13 | 6.27 | 6.15 | 6.80 | 6.21 | 6.14 | 5.93 | 5.75 |
| TECRP1 | 1.38 | 1.48 | 1.28 | 1.78 | 1.56 | 1.55 | 1.22 | 1.45 |
| TECRP2 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TEDC1 | 4.78 | 5.25 | 5.25 | 5.38 | 5.04 | 5.27 | 5.33 | 4.67 |
| TEDC2 | 4.28 | 3.51 | 4.04 | 3.35 | 3.18 | 3.48 | 3.55 | 3.60 |
| TEF | 3.61 | 4.05 | 4.11 | 3.97 | 2.97 | 3.04 | 3.24 | 4.46 |
| TEFM | 4.83 | 4.37 | 4.36 | 4.58 | 4.28 | 4.52 | 4.16 | 4.70 |
| TEK | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| TEKT2 | -1.99 | -1.99 | -1.98 | -1.99 | -1.94 | -1.97 | -2.00 | -2.01 |
| TEKT3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TEKT4 | -1.21 | -1.06 | -1.12 | -1.03 | -1.10 | -1.22 | -1.14 | -1.17 |
| TEKT4P2 | 0.61 | 0.72 | 0.57 | 1.02 | 1.11 | 0.58 | 0.52 | 1.56 |
| TEKT5 | -1.54 | -1.54 | -1.59 | -1.61 | -1.57 | -1.59 | -1.61 | -1.51 |
| TELO2 | 3.88 | 4.37 | 4.13 | 4.27 | 3.49 | 3.84 | 4.05 | 3.86 |
| TEN1-CDK3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.15 |
| TENM1 | -2.20 | -2.18 | -2.17 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| TENM2 | -2.20 | -2.13 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| TENM3 | 0.37 | 0.56 | 0.41 | 0.45 | 0.43 | 0.39 | 0.73 | 0.76 |
| TENM3-AS1 | -1.37 | -1.23 | -1.35 | -1.31 | -1.36 | -1.35 | -1.09 | -1.33 |
| TENM4 | 0.13 | 0.39 | 0.59 | 0.53 | 1.10 | 0.11 | 0.13 | 0.21 |
| TENT2 | 3.71 | 4.62 | 4.95 | 4.48 | 4.66 | 4.52 | 5.19 | 4.52 |
| TENT4A | 3.80 | 3.93 | 4.61 | 3.66 | 3.97 | 3.72 | 4.39 | 4.10 |
| TENT4B | 5.11 | 5.41 | 5.80 | 5.27 | 4.86 | 5.09 | 5.25 | 4.61 |
| TENT5A | 5.53 | 6.74 | 5.61 | 7.32 | 5.37 | 5.28 | 5.94 | 4.67 |
| TENT5B | 2.04 | 1.81 | 1.71 | 1.94 | 1.48 | 2.28 | 1.83 | 1.45 |
| TENT5C | 2.03 | 2.15 | 2.23 | 2.29 | 2.82 | 2.41 | 1.75 | 2.43 |
| TENT5D | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| TEP1 | 4.00 | 4.58 | 4.73 | 4.53 | 5.06 | 4.11 | 4.80 | 4.05 |
| TEPP | 0.42 | -0.40 | -0.39 | -0.41 | -0.40 | -0.38 | -0.25 | -0.43 |
| TEPSIN | 2.85 | 2.75 | 3.28 | 2.76 | 2.87 | 2.39 | 2.54 | 2.66 |
| TERB1 | -1.94 | -1.94 | -1.86 | -1.94 | -1.94 | -1.95 | -1.95 | -1.96 |
| TERF1 | 5.18 | 5.08 | 5.78 | 5.25 | 5.79 | 6.25 | 5.23 | 5.86 |
| TERF1P4 | -1.65 | -1.60 | -1.64 | -1.55 | -1.60 | -1.63 | -1.65 | -1.62 |
| TERF1P5 | -2.04 | -2.04 | -2.01 | -2.05 | -2.03 | -2.04 | -2.05 | -2.00 |
| TERF2 | 5.88 | 5.17 | 5.23 | 5.40 | 5.71 | 5.50 | 5.09 | 5.84 |
| TERF2IP | 6.40 | 5.76 | 5.66 | 5.85 | 6.32 | 6.36 | 5.77 | 6.35 |
| TERT | -1.65 | -1.74 | -1.73 | -1.70 | -1.74 | -1.80 | -1.80 | -1.76 |
| TES | 6.39 | 6.67 | 6.97 | 6.36 | 6.89 | 6.90 | 7.52 | 7.41 |
| TESC | 8.83 | 9.58 | 9.37 | 10.12 | 10.33 | 8.12 | 8.32 | 8.35 |
| TESC-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| TESK1 | 4.09 | 4.80 | 4.82 | 4.54 | 4.65 | 4.45 | 4.58 | 4.01 |
| TESK2 | 1.43 | 1.47 | 1.77 | 1.57 | 1.82 | 1.80 | 1.94 | 1.87 |
| TESMIN | 3.04 | 2.66 | 2.29 | 2.58 | 3.42 | 3.26 | 2.26 | 2.95 |
| TET1 | 2.78 | 2.60 | 2.02 | 2.63 | 2.09 | 2.02 | 2.34 | 2.52 |
| TET2 | 3.17 | 4.23 | 3.91 | 4.28 | 3.20 | 3.78 | 4.28 | 3.83 |
| TET3 | 3.34 | 3.61 | 3.21 | 3.72 | 3.39 | 3.59 | 3.64 | 3.45 |
| TEX10 | 4.57 | 4.57 | 4.87 | 4.51 | 3.67 | 4.04 | 4.42 | 4.05 |
| TEX101 | -1.76 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.96 |
| TEX11 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.08 |
| TEX12 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 | -2.10 | -2.10 | -2.08 |
| TEX14 | -1.79 | -1.74 | -1.78 | -1.75 | -1.74 | -1.80 | -1.80 | -1.72 |
| TEX15 | 2.74 | 1.95 | 3.01 | 2.16 | 1.94 | 2.09 | 3.87 | 2.42 |
| TEX19 | -1.99 | -1.99 | -1.98 | -1.99 | -1.97 | -1.98 | -1.99 | -1.92 |
| TEX2 | 4.38 | 4.61 | 4.57 | 4.50 | 4.17 | 4.55 | 4.23 | 4.02 |
| TEX21P | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.84 | -1.90 | -1.91 |
| TEX22 | -1.48 | -1.59 | -1.58 | -1.60 | -1.44 | -1.55 | -1.60 | -1.56 |
| TEX26-AS1 | -1.27 | -1.44 | -1.49 | -1.51 | -1.50 | -1.48 | -1.45 | -1.52 |
| TEX261 | 5.86 | 5.89 | 5.09 | 5.62 | 5.59 | 4.99 | 5.13 | 5.26 |
| TEX264 | 7.02 | 6.90 | 6.46 | 7.15 | 7.16 | 6.45 | 6.74 | 6.17 |
| TEX29 | -1.59 | -1.59 | -1.58 | -1.54 | -1.51 | -1.55 | -1.54 | -1.51 |
| TEX30 | 5.56 | 4.84 | 5.01 | 4.60 | 5.69 | 5.16 | 4.51 | 4.56 |
| TEX35 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| TEX41 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| TEX45 | 0.35 | 0.70 | 0.23 | 0.81 | 0.39 | 0.37 | 0.47 | 0.28 |
| TEX46 | -2.04 | -2.04 | -2.04 | -2.05 | -2.00 | -2.01 | -2.05 | -2.06 |
| TEX48 | -0.72 | -0.80 | -0.78 | -0.72 | -0.80 | -0.65 | -0.66 | -0.76 |
| TEX49 | -2.05 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.01 | -2.06 |
| TEX9 | 4.25 | 4.65 | 4.08 | 5.10 | 3.62 | 4.81 | 3.57 | 2.99 |
| TF | -1.32 | -1.25 | -1.04 | -1.32 | -1.21 | -1.27 | -1.33 | -1.28 |
| TFAM | 7.39 | 6.55 | 6.24 | 6.80 | 7.13 | 6.79 | 6.59 | 6.73 |
| TFAMP1 | -1.74 | -1.79 | -1.78 | -1.79 | -1.76 | -1.78 | -1.70 | -1.76 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TFAP2A | 4.54 | 4.01 | 3.53 | 3.85 | 4.17 | 4.24 | 3.87 | 5.76 |
| TFAP2A-AS1 | 0.05 | -0.01 | 0.01 | -0.11 | 0.05 | -0.13 | -0.12 | 0.27 |
| TFAP2C | 3.26 | 3.36 | 3.50 | 3.22 | 2.27 | 2.14 | 2.89 | 3.42 |
| TFAP2E | -1.69 | -1.69 | -1.73 | -1.74 | -1.71 | -1.63 | -1.74 | -1.67 |
| TFAP4 | 2.90 | 3.08 | 2.94 | 3.01 | 2.46 | 2.49 | 2.55 | 2.75 |
| TFB1M | 6.11 | 5.71 | 5.52 | 5.65 | 5.11 | 5.03 | 5.09 | 5.14 |
| TFB2M | 5.04 | 4.54 | 4.34 | 4.98 | 5.38 | 4.99 | 4.27 | 5.57 |
| TFCP2 | 4.53 | 4.86 | 4.68 | 4.85 | 4.35 | 4.89 | 4.75 | 4.64 |
| TFCP2L1 | 4.71 | 6.18 | 5.53 | 5.76 | 4.87 | 4.50 | 6.08 | 6.33 |
| TFDP1 | 6.59 | 6.77 | 6.49 | 6.72 | 7.32 | 6.00 | 6.77 | 6.94 |
| TFDP2 | 6.45 | 5.03 | 6.16 | 4.90 | 5.80 | 5.76 | 6.07 | 6.61 |
| TFDP3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| TFE3 | 4.45 | 4.19 | 4.76 | 4.38 | 4.21 | 3.92 | 4.13 | 4.08 |
| TFEB | 5.37 | 4.84 | 4.31 | 4.07 | 4.33 | 4.22 | 4.50 | 4.49 |
| TFF1 | 10.10 | 11.28 | 10.97 | 11.91 | 12.88 | 10.13 | 13.68 | 12.70 |
| TFF2 | 10.17 | 9.19 | 11.37 | 9.81 | 13.69 | 9.78 | 12.43 | 12.70 |
| TFF3 | 9.33 | 10.36 | 11.21 | 10.18 | 12.01 | 10.26 | 13.16 | 11.21 |
| TFG | 7.98 | 6.57 | 7.44 | 6.88 | 7.65 | 7.54 | 7.35 | 8.78 |
| TFIP11 | 5.57 | 5.50 | 4.61 | 5.59 | 5.39 | 5.40 | 5.41 | 5.99 |
| TFPI | 6.56 | 5.29 | 7.06 | 4.80 | 5.44 | 6.83 | 6.69 | 7.94 |
| TFPI2 | 4.83 | 4.12 | 4.29 | 4.41 | 4.39 | 4.07 | 4.92 | 4.78 |
| TFPT | 4.88 | 4.84 | 3.95 | 4.53 | 4.43 | 4.82 | 4.10 | 4.27 |
| TFR2 | -0.38 | -0.36 | -0.17 | -0.05 | -0.18 | -0.39 | -0.38 | -0.15 |
| TFRC | 7.85 | 7.49 | 7.24 | 8.01 | 6.89 | 6.54 | 7.90 | 7.94 |
| TG | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TGDS | 4.57 | 4.29 | 3.70 | 4.47 | 5.31 | 4.20 | 4.38 | 4.75 |
| TGFA | 5.44 | 5.72 | 6.15 | 5.80 | 5.60 | 5.46 | 5.80 | 5.72 |
| TGFA-IT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TGFB1 | 2.50 | 3.48 | 3.24 | 3.61 | 3.46 | 3.45 | 2.54 | 2.01 |
| TGFB11 | 2.79 | 3.62 | 2.69 | 3.75 | 3.25 | 3.45 | 2.68 | 2.74 |
| TGFB2 | 2.84 | 3.79 | 3.82 | 3.18 | 2.94 | 4.06 | 3.53 | 2.85 |
| TGFB2-AS1 | -1.08 | -1.27 | -1.19 | -1.21 | -1.27 | -1.13 | -1.22 | -1.29 |
| TGFB3 | 0.55 | 0.78 | 0.41 | 0.53 | 0.33 | 0.46 | 0.34 | 0.81 |
| TGFB1 | 3.04 | 3.25 | 3.90 | 2.77 | 3.19 | 6.00 | 2.70 | 3.08 |
| TGFB1R1 | 3.69 | 4.16 | 4.21 | 4.02 | 3.53 | 3.70 | 3.98 | 3.21 |
| TGFB1R2 | 7.30 | 8.58 | 7.11 | 8.34 | 6.93 | 7.40 | 7.50 | 6.66 |
| TGFB1R3 | 3.95 | 4.25 | 3.71 | 4.39 | 4.69 | 4.23 | 4.63 | 3.67 |
| TGFB1R3L | 4.17 | 4.51 | 3.16 | 4.58 | 4.33 | 3.34 | 3.41 | 3.92 |
| TGFB1RAP1 | 4.27 | 4.38 | 3.99 | 4.15 | 4.24 | 3.86 | 4.38 | 4.38 |
| TGIF1 | 7.07 | 6.71 | 6.57 | 6.58 | 7.24 | 7.29 | 6.66 | 7.83 |
| TGIF2 | 4.71 | 4.35 | 4.76 | 4.30 | 4.35 | 4.24 | 4.04 | 4.20 |
| TGM1 | -0.47 | -0.31 | -0.45 | -0.25 | -0.38 | -0.39 | -0.02 | -0.43 |
| TGM2 | 7.06 | 6.34 | 8.18 | 5.74 | 7.64 | 7.33 | 6.24 | 6.56 |
| TGM5 | -0.27 | -0.17 | -0.15 | -0.27 | -0.26 | -0.20 | -0.28 | -0.23 |
| TGM7 | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| TGOLN2 | 7.69 | 8.28 | 7.59 | 8.26 | 7.28 | 7.67 | 8.16 | 7.55 |
| TGS1 | 5.55 | 5.25 | 5.69 | 5.17 | 5.55 | 5.69 | 5.54 | 6.45 |
| TH | -0.54 | -0.62 | -0.52 | -0.62 | -0.53 | -0.63 | -0.63 | -0.46 |
| THA1P | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| THADA | 4.14 | 4.29 | 4.86 | 4.53 | 4.61 | 4.30 | 4.79 | 4.26 |
| THAP1 | 4.66 | 4.15 | 3.84 | 4.13 | 4.02 | 4.58 | 3.89 | 4.14 |
| THAP10 | 2.74 | 2.17 | 2.49 | 2.20 | 2.35 | 2.66 | 2.38 | 2.34 |
| THAP11 | 6.80 | 5.81 | 5.85 | 6.24 | 6.14 | 6.04 | 5.29 | 6.15 |
| THAP12 | 4.74 | 4.59 | 4.92 | 4.00 | 4.76 | 4.45 | 3.89 | 4.58 |
| THAP12P1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| THAP12P7 | -1.64 | -1.59 | -1.58 | -1.64 | -1.59 | -1.63 | -1.54 | -1.66 |
| THAP2 | 2.88 | 2.81 | 2.90 | 2.94 | 3.37 | 3.47 | 2.96 | 3.46 |
| THAP3 | 5.06 | 4.23 | 4.29 | 4.45 | 4.71 | 4.48 | 4.36 | 4.23 |
| THAP4 | 6.95 | 6.55 | 6.05 | 6.36 | 6.71 | 6.45 | 6.03 | 6.84 |
| THAP5 | 4.91 | 5.12 | 4.65 | 4.97 | 4.65 | 4.95 | 4.77 | 5.08 |
| THAP5P1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| THAP6 | 3.88 | 4.14 | 3.61 | 3.63 | 3.64 | 3.59 | 4.21 | 3.78 |
| THAP7 | 6.18 | 5.55 | 5.34 | 5.92 | 5.52 | 5.50 | 5.31 | 5.94 |
| THAP7-AS1 | 4.28 | 3.19 | 2.80 | 3.35 | 3.37 | 2.72 | 3.45 | 3.42 |
| THAP8 | 3.25 | 2.73 | 2.26 | 2.46 | 2.64 | 2.63 | 2.63 | 2.26 |
| THAP9 | 1.39 | 1.67 | 1.48 | 1.62 | 1.43 | 1.58 | 1.67 | 1.94 |
| THAP9-AS1 | 5.03 | 4.50 | 4.20 | 4.51 | 5.18 | 5.34 | 4.75 | 5.77 |
| THBD | 2.91 | 4.98 | 4.00 | 4.80 | 4.85 | 3.62 | 4.55 | 3.95 |
| THBS1 | 3.20 | 4.25 | 3.52 | 3.45 | 2.68 | 4.64 | 4.84 | 3.47 |
| THBS2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| THBS3 | 1.69 | 2.18 | 2.06 | 2.19 | 2.43 | 2.13 | 2.28 | 1.94 |
| THBS4 | -1.39 | -1.25 | -1.18 | -1.22 | -1.35 | -1.31 | -1.39 | -1.41 |
| THEG | -1.89 | -1.89 | -1.88 | -1.89 | -1.89 | -1.80 | -1.89 | -1.91 |
| THEM4 | 4.83 | 3.83 | 4.17 | 3.79 | 4.14 | 4.95 | 3.96 | 4.64 |
| THEM5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| THEM6 | 7.25 | 7.26 | 7.26 | 7.44 | 7.17 | 6.66 | 6.46 | 7.06 |
| THEMIS2 | 2.44 | 1.70 | 2.09 | 1.71 | 2.00 | 2.73 | 1.56 | 2.06 |
| THG1L | 3.46 | 4.48 | 4.46 | 4.68 | 4.97 | 4.41 | 3.92 | 3.84 |
| THNSL1 | 2.03 | 2.40 | 2.46 | 2.35 | 2.82 | 2.50 | 2.22 | 1.87 |
| THNSL2 | 3.25 | 2.29 | 2.91 | 2.29 | 3.28 | 2.60 | 3.13 | 3.40 |
| THOC1 | 4.81 | 4.74 | 5.21 | 4.73 | 5.16 | 4.63 | 4.98 | 5.21 |
| THOC2 | 7.53 | 7.49 | 8.59 | 7.58 | 7.68 | 7.61 | 8.11 | 7.89 |
| THOC3 | 3.30 | 4.14 | 3.67 | 4.05 | 4.72 | 4.25 | 3.87 | 3.59 |
| THOC5 | 4.38 | 3.79 | 3.55 | 3.68 | 4.03 | 4.11 | 3.83 | 3.95 |
| THOC6 | 6.58 | 6.42 | 5.39 | 6.50 | 5.53 | 5.86 | 5.79 | 5.61 |
| THOC7 | 7.53 | 7.57 | 7.26 | 7.60 | 7.96 | 7.76 | 7.62 | 7.61 |
| THORLNC | -0.63 | -0.53 | -0.68 | -0.30 | -0.55 | -0.64 | -0.63 | -0.44 |
| THPO | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| THRA | 4.21 | 4.45 | 5.19 | 4.54 | 4.87 | 4.69 | 4.66 | 4.52 |
| THRAP3 | 7.01 | 6.79 | 7.49 | 7.01 | 7.49 | 7.59 | 7.23 | 7.38 |
| THRAP3P1 | -1.23 | -1.23 | -1.22 | -1.24 | -1.36 | -1.35 | -1.37 | -1.33 |
| THRB | 3.25 | 3.24 | 4.07 | 2.80 | 3.87 | 3.99 | 4.17 | 4.05 |
| THRB-AS1 | -0.46 | -0.53 | -0.60 | -0.62 | -0.38 | -0.52 | -0.47 | -0.57 |
| THRB-IT1 | 0.24 | 0.18 | 0.44 | 0.08 | 0.25 | 0.24 | 0.23 | 0.12 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| THRIL | 3.92 | 3.96 | 3.63 | 5.10 | 4.05 | 4.08 | 4.40 | 3.95 |
| THRSP | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| THSD1 | -1.51 | -1.51 | -1.50 | -1.52 | -1.41 | -1.33 | -1.52 | -1.54 |
| THSD4 | 3.14 | 3.89 | 3.58 | 2.88 | 3.08 | 3.69 | 5.15 | 3.44 |
| THSD7A | 1.73 | 1.56 | 1.80 | 1.66 | 1.55 | 2.03 | 1.80 | 2.15 |
| THTPA | -1.39 | -1.45 | -1.44 | -1.45 | -1.42 | -1.43 | -1.46 | -1.42 |
| THUMPD1 | 5.96 | 6.15 | 6.17 | 5.85 | 5.51 | 5.93 | 6.18 | 5.98 |
| THUMPD2 | 4.84 | 5.05 | 4.75 | 5.32 | 5.58 | 5.13 | 4.47 | 5.09 |
| THUMPD3 | 6.62 | 5.69 | 5.67 | 6.03 | 6.39 | 6.32 | 6.27 | 6.09 |
| THUMPD3-AS1 | 6.86 | 6.06 | 6.55 | 6.36 | 6.11 | 6.05 | 6.09 | 6.20 |
| THUMPD3P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| THY1 | -1.09 | -1.15 | -1.14 | -1.16 | -1.15 | -1.13 | -1.17 | -1.12 |
| THYN1 | 6.82 | 6.23 | 6.27 | 6.49 | 7.05 | 6.48 | 6.14 | 6.67 |
| TIA1 | 4.75 | 5.09 | 5.34 | 5.46 | 5.61 | 5.38 | 6.01 | 5.05 |
| TIAF1 | -0.74 | -0.66 | -0.63 | -0.81 | -0.65 | -0.75 | -0.54 | -0.83 |
| TIAL1 | 5.92 | 6.18 | 6.59 | 6.35 | 6.08 | 6.22 | 6.38 | 5.80 |
| TIAM1 | 3.10 | 3.70 | 2.97 | 3.59 | 3.21 | 4.30 | 3.68 | 3.54 |
| TIAM2 | 1.77 | 1.83 | 1.82 | 2.39 | 1.60 | 1.95 | 2.25 | 1.78 |
| TICAM1 | 3.60 | 4.16 | 4.59 | 4.31 | 4.51 | 4.06 | 4.32 | 4.53 |
| TICAM2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| TICRR | 3.17 | 3.20 | 4.47 | 3.10 | 2.98 | 3.09 | 3.54 | 2.88 |
| TIFA | 3.50 | 3.58 | 4.15 | 3.47 | 3.91 | 4.03 | 4.05 | 4.74 |
| TIFAB | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TIGAR | 3.12 | 4.19 | 2.77 | 3.93 | 2.87 | 2.79 | 3.55 | 3.01 |
| TIGD1 | 2.52 | 2.34 | 2.43 | 2.25 | 2.54 | 2.45 | 2.06 | 2.39 |
| TIGD2 | 2.52 | 3.05 | 2.92 | 2.85 | 2.46 | 2.67 | 2.62 | 2.61 |
| TIGD3 | 1.65 | 0.93 | 1.44 | 0.82 | 1.29 | 1.10 | 1.10 | 1.43 |
| TIGD4 | -0.99 | -1.06 | -0.97 | -0.85 | -1.06 | -0.97 | -1.07 | -1.08 |
| TIGD5 | 4.05 | 3.95 | 5.17 | 4.39 | 3.84 | 4.05 | 3.83 | 4.13 |
| TIGD6 | 3.06 | 2.77 | 2.73 | 3.04 | 3.19 | 2.58 | 2.60 | 2.55 |
| TIGD7 | 1.45 | 0.99 | 1.12 | 0.93 | 0.78 | 0.91 | 0.80 | 0.90 |
| TIMELESS | 5.13 | 5.11 | 5.68 | 5.06 | 4.64 | 5.70 | 5.28 | 4.69 |
| TIMM10 | 6.34 | 5.26 | 5.29 | 5.59 | 6.04 | 5.67 | 5.36 | 5.46 |
| TIMM10B | 5.77 | 5.69 | 5.36 | 5.35 | 5.77 | 5.36 | 5.22 | 5.38 |
| TIMM13 | 8.08 | 7.76 | 8.04 | 7.87 | 7.79 | 8.13 | 7.82 | 8.01 |
| TIMM17A | 7.77 | 7.61 | 6.91 | 7.73 | 7.82 | 7.84 | 6.80 | 8.04 |
| TIMM17B | 7.69 | 7.04 | 7.41 | 7.21 | 7.94 | 7.52 | 6.74 | 7.18 |
| TIMM21 | 5.65 | 6.18 | 5.61 | 6.21 | 5.73 | 5.27 | 5.59 | 4.94 |
| TIMM22 | 5.19 | 5.03 | 4.84 | 4.97 | 5.14 | 4.86 | 5.09 | 5.15 |
| TIMM23 | 7.85 | 7.19 | 6.66 | 7.29 | 7.35 | 7.22 | 6.66 | 7.05 |
| TIMM23B | 0.10 | -0.24 | -0.15 | -0.04 | 0.00 | -0.09 | -0.11 | -0.16 |
| TIMM29 | 4.97 | 5.04 | 4.57 | 5.29 | 5.50 | 5.23 | 4.69 | 5.25 |
| TIMM44 | 6.04 | 6.45 | 5.92 | 6.27 | 6.38 | 6.20 | 6.32 | 6.33 |
| TIMM50 | 7.17 | 6.40 | 5.92 | 6.46 | 6.81 | 6.70 | 6.10 | 6.19 |
| TIMM8A | 5.39 | 4.42 | 5.00 | 4.99 | 4.85 | 4.57 | 4.31 | 4.49 |
| TIMM8AP1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TIMM8B | 8.68 | 8.57 | 7.36 | 8.56 | 7.69 | 7.60 | 7.60 | 7.64 |
| TIMM8BP2 | -1.69 | -1.73 | -1.68 | -1.70 | -1.71 | -1.70 | -1.74 | -1.76 |
| TIMM9 | 5.85 | 6.19 | 5.23 | 6.26 | 6.64 | 6.51 | 5.50 | 5.89 |
| TIMMDC1 | 7.10 | 5.74 | 6.96 | 6.15 | 6.81 | 6.47 | 6.42 | 7.61 |
| TIMP1 | 8.49 | 9.59 | 9.33 | 9.66 | 10.35 | 9.50 | 9.17 | 8.30 |
| TIMP2 | 6.98 | 7.14 | 7.52 | 6.60 | 6.65 | 6.99 | 7.32 | 7.20 |
| TIMP3 | 3.38 | 1.49 | 1.64 | 1.53 | 1.49 | 1.52 | 2.38 | 2.59 |
| TIMP4 | 4.42 | 3.12 | 2.75 | 3.00 | 3.29 | 2.79 | 3.18 | 2.67 |
| TINAG | 0.20 | -0.07 | -0.14 | 0.18 | -0.02 | -0.03 | -0.16 | 0.09 |
| TINAGL1 | 8.30 | 7.85 | 9.57 | 7.62 | 9.11 | 8.59 | 7.51 | 8.62 |
| TINCR | 2.42 | 1.49 | 1.27 | 1.33 | 1.05 | 1.07 | 1.17 | 1.16 |
| TIPARP | 5.86 | 6.21 | 5.70 | 5.50 | 5.54 | 5.48 | 5.78 | 6.79 |
| TIPARP-AS1 | 2.43 | 2.71 | 2.37 | 2.64 | 3.55 | 1.97 | 2.30 | 2.36 |
| TIPIN | 5.25 | 4.48 | 4.31 | 4.76 | 4.54 | 4.77 | 3.93 | 4.58 |
| TIPRL | 6.29 | 6.37 | 5.82 | 6.10 | 6.58 | 7.09 | 6.29 | 6.61 |
| TIRAP | 2.43 | 2.54 | 2.10 | 2.20 | 2.59 | 2.28 | 2.38 | 2.26 |
| TJAP1 | 3.43 | 3.87 | 3.72 | 3.81 | 3.82 | 4.11 | 3.95 | 4.53 |
| TJP1 | 6.35 | 6.70 | 6.57 | 6.43 | 6.74 | 6.70 | 6.69 | 6.99 |
| TJP2 | 0.49 | 0.44 | 0.77 | 0.34 | 0.47 | 0.54 | 0.94 | 0.63 |
| TJP3 | 5.41 | 5.23 | 6.01 | 5.23 | 5.78 | 5.73 | 6.19 | 6.04 |
| TK1 | 9.64 | 7.91 | 8.73 | 8.11 | 7.93 | 8.34 | 8.15 | 7.34 |
| TK2 | 5.34 | 5.31 | 5.65 | 5.25 | 5.62 | 5.15 | 5.09 | 5.58 |
| TKFC | 5.64 | 5.52 | 5.28 | 5.52 | 6.25 | 4.92 | 5.60 | 5.51 |
| TKT | 10.33 | 9.60 | 9.69 | 9.66 | 9.75 | 9.20 | 9.59 | 10.01 |
| TLCD1 | 5.57 | 5.16 | 4.65 | 5.23 | 5.33 | 5.41 | 3.88 | 5.84 |
| TLCD2 | 4.60 | 4.47 | 4.92 | 4.12 | 4.09 | 3.96 | 5.41 | 5.44 |
| TLDC2 | 2.80 | 2.69 | 2.23 | 3.46 | 2.72 | 2.63 | 3.00 | 1.94 |
| TLE1 | 5.16 | 4.99 | 4.89 | 4.85 | 4.12 | 4.95 | 5.75 | 5.04 |
| TLE2 | 1.75 | 1.92 | 1.71 | 1.74 | 2.30 | 1.59 | 2.10 | 1.77 |
| TLE3 | 5.48 | 5.80 | 5.66 | 5.34 | 5.40 | 5.64 | 4.84 | 5.11 |
| TLE4 | 4.06 | 3.76 | 3.73 | 3.97 | 3.83 | 4.11 | 4.57 | 3.78 |
| TLE5 | 6.88 | 7.05 | 7.20 | 6.98 | 7.44 | 7.25 | 7.84 | 8.24 |
| TLE6 | 2.43 | 2.44 | 2.36 | 2.19 | 3.47 | 2.02 | 2.38 | 1.85 |
| TLK1 | 5.99 | 6.39 | 5.76 | 6.44 | 6.33 | 6.17 | 6.09 | 6.79 |
| TLK1P1 | -1.45 | -1.50 | -1.43 | -1.51 | -1.39 | -1.46 | -1.51 | -1.52 |
| TLK2 | 4.71 | 4.68 | 4.70 | 4.39 | 4.60 | 4.63 | 4.77 | 4.69 |
| TLK2P1 | -0.28 | -0.35 | -0.27 | -0.16 | -0.39 | -0.31 | -0.37 | -0.29 |
| TLK2P2 | -0.25 | -0.08 | -0.13 | -0.26 | -0.17 | 0.09 | 0.15 | -0.15 |
| TLL1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| TLL2 | 0.93 | 1.33 | 1.23 | 1.28 | 1.56 | 1.04 | 1.64 | 1.06 |
| TLN1 | 5.88 | 7.03 | 6.52 | 6.49 | 6.98 | 6.72 | 6.97 | 6.14 |
| TLN2 | 3.93 | 4.31 | 3.38 | 4.14 | 4.04 | 3.29 | 4.77 | 3.48 |
| TLNRD1 | 4.75 | 5.43 | 6.57 | 5.19 | 5.46 | 5.47 | 5.57 | 5.71 |
| TLR1 | -0.89 | -0.66 | -0.87 | -0.74 | -0.81 | -0.86 | -0.82 | -0.84 |
| TLR2 | -0.35 | -0.48 | -0.30 | -0.42 | -0.37 | -0.43 | -0.49 | -0.35 |
| TLR3 | 2.20 | 3.22 | 3.23 | 2.65 | 2.22 | 2.55 | 3.46 | 2.91 |
| TLR4 | 1.71 | 2.64 | 2.44 | 2.29 | 1.65 | 3.12 | 1.67 | 2.62 |
| TLR5 | 3.22 | 2.84 | 2.91 | 3.17 | 2.90 | 2.76 | 2.45 | 2.31 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TLR6 | -0.22 | -0.04 | -0.20 | 0.20 | -0.09 | 0.16 | -0.22 | -0.06 |
| TLR7 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| TLX1 | 1.14 | 1.04 | 0.54 | 0.87 | 1.50 | 0.63 | 0.57 | 0.69 |
| TLX1NB | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TLX2 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| TLX3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TM2D1 | 6.36 | 6.74 | 6.19 | 6.77 | 7.14 | 6.70 | 6.50 | 6.83 |
| TM2D2 | 6.67 | 6.62 | 6.80 | 6.62 | 5.66 | 6.55 | 5.89 | 6.22 |
| TM2D3 | 6.58 | 5.65 | 5.59 | 5.93 | 6.63 | 5.79 | 5.33 | 6.06 |
| TM4SF1 | 9.50 | 8.03 | 9.86 | 8.16 | 10.75 | 9.29 | 9.09 | 10.06 |
| TM4SF1-AS1 | 2.66 | 2.18 | 2.63 | 2.33 | 3.34 | 2.45 | 2.58 | 2.72 |
| TM4SF18 | 0.36 | 0.23 | 0.42 | 0.92 | 0.49 | 0.27 | 0.29 | 0.83 |
| TM4SF19 | -1.62 | -1.71 | -1.70 | -1.72 | -1.69 | -1.72 | -1.72 | -1.48 |
| TM4SF19-AS1 | 0.52 | 0.53 | 0.72 | 0.51 | 0.68 | 0.54 | 0.43 | 0.32 |
| TM4SF20 | 1.30 | 1.13 | 1.60 | 1.28 | 2.14 | 1.17 | 1.16 | 1.14 |
| TM4SF4 | 7.21 | 7.08 | 7.92 | 7.29 | 7.88 | 7.16 | 10.78 | 7.01 |
| TM4SF5 | 4.27 | 4.28 | 3.44 | 5.00 | 5.79 | 3.31 | 3.22 | 3.01 |
| TM6SF1 | -1.39 | -1.44 | -1.37 | -1.45 | -1.44 | -1.46 | -1.39 | -1.41 |
| TM6SF2 | 0.52 | 0.87 | 0.58 | 0.60 | 0.61 | 0.41 | 1.63 | 0.45 |
| TM7SF2 | 7.73 | 6.50 | 6.18 | 6.39 | 7.06 | 6.77 | 6.83 | 6.67 |
| TM7SF3 | 6.72 | 7.53 | 7.01 | 7.36 | 7.21 | 5.46 | 6.47 | 6.55 |
| TM9SF1 | 3.08 | 3.61 | 3.16 | 3.63 | 3.25 | 3.03 | 3.38 | 3.11 |
| TM9SF2 | 6.51 | 7.67 | 7.34 | 7.63 | 7.72 | 6.58 | 7.50 | 7.03 |
| TM9SF3 | 8.30 | 8.79 | 8.38 | 8.74 | 8.76 | 8.10 | 8.98 | 8.04 |
| TM9SF4 | 5.76 | 5.66 | 6.15 | 5.87 | 6.35 | 5.57 | 5.86 | 6.00 |
| TMA16 | 6.50 | 6.35 | 6.45 | 6.34 | 6.03 | 6.71 | 6.12 | 7.03 |
| TMA16P2 | -2.02 | -2.04 | -2.04 | -2.02 | -2.04 | -2.05 | -2.05 | -1.97 |
| TMA7 | 9.88 | 9.57 | 8.42 | 9.64 | 9.27 | 9.24 | 8.48 | 8.67 |
| TMBIM1 | 8.25 | 8.34 | 8.63 | 8.25 | 8.43 | 8.08 | 8.25 | 9.19 |
| TMBIM4 | 6.55 | 7.14 | 6.19 | 7.48 | 6.78 | 7.47 | 6.04 | 6.95 |
| TMBIM6 | 10.26 | 10.42 | 10.82 | 10.30 | 10.15 | 10.53 | 10.62 | 10.32 |
| TMBIM7P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| TMC1 | -0.78 | -0.78 | -0.67 | -0.78 | -0.70 | -0.56 | -0.79 | -0.74 |
| TMC3-AS1 | -0.41 | -0.41 | -0.21 | -0.44 | -0.12 | -0.59 | -0.50 | -0.11 |
| TMC4 | 5.78 | 5.99 | 5.64 | 6.07 | 5.92 | 5.41 | 6.46 | 6.64 |
| TMC5 | 8.55 | 7.77 | 7.55 | 8.09 | 9.32 | 7.04 | 8.08 | 6.90 |
| TMC6 | 6.65 | 5.94 | 6.20 | 5.84 | 6.02 | 6.28 | 5.58 | 5.19 |
| TMC7 | 2.88 | 3.23 | 2.65 | 2.98 | 3.12 | 2.48 | 2.73 | 3.09 |
| TMC8 | 3.24 | 2.20 | 2.84 | 1.66 | 2.07 | 2.28 | 1.60 | 1.56 |
| TMCC1 | 4.79 | 4.70 | 5.41 | 4.13 | 4.60 | 4.83 | 6.15 | 4.89 |
| TMCC1-AS1 | 1.21 | 0.83 | 1.08 | 0.95 | 1.03 | 0.91 | 0.80 | 1.02 |
| TMCC2 | -0.74 | -0.66 | -0.78 | -0.77 | -0.84 | -0.84 | -0.97 | -0.98 |
| TMCC3 | 1.23 | 1.47 | 1.39 | 1.26 | 1.36 | 1.48 | 1.20 | 1.70 |
| TMCO1 | 8.61 | 8.09 | 7.59 | 8.27 | 8.36 | 8.27 | 8.09 | 8.70 |
| TMCO1-AS1 | -1.42 | -1.41 | -1.34 | -1.42 | -1.41 | -1.40 | -1.36 | -1.44 |
| TMCO3 | 5.02 | 6.68 | 5.99 | 6.42 | 6.51 | 5.32 | 6.12 | 6.72 |
| TMCO4 | 3.60 | 3.55 | 4.25 | 3.53 | 3.73 | 3.97 | 3.59 | 3.41 |
| TMCO5A | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TMCO6 | 2.97 | 2.83 | 3.48 | 2.93 | 3.58 | 3.10 | 2.81 | 3.06 |
| TMED1 | 6.00 | 6.25 | 5.92 | 6.28 | 6.23 | 6.12 | 5.45 | 6.34 |
| TMED10 | 9.83 | 8.90 | 8.35 | 9.31 | 9.61 | 8.67 | 8.53 | 9.22 |
| TMED10P1 | -2.05 | -1.98 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| TMED10P2 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| TMED2 | 8.25 | 8.79 | 8.54 | 8.89 | 8.69 | 8.45 | 8.37 | 9.33 |
| TMED3 | 7.98 | 8.33 | 8.04 | 8.96 | 9.24 | 7.50 | 8.03 | 8.64 |
| TMED4 | 7.89 | 7.28 | 7.04 | 7.59 | 7.83 | 7.34 | 7.44 | 8.00 |
| TMED5 | 6.37 | 6.15 | 5.89 | 6.47 | 6.38 | 6.46 | 6.68 | 6.74 |
| TMED6 | 0.65 | 0.40 | 0.52 | 0.51 | 0.35 | 0.21 | 0.44 | 0.19 |
| TMED7 | 5.62 | 6.68 | 6.58 | 6.45 | 6.49 | 6.06 | 6.45 | 6.30 |
| TMED7-TICAM2 | -2.15 | -2.15 | -2.14 | -2.12 | -2.13 | -2.15 | -2.15 | -2.16 |
| TMED8 | 3.30 | 4.08 | 4.40 | 3.80 | 3.79 | 4.21 | 4.26 | 3.46 |
| TMED9 | 8.83 | 9.30 | 9.62 | 9.64 | 9.80 | 9.29 | 8.74 | 9.52 |
| TMEFF2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| TMEM101 | 5.19 | 5.38 | 5.85 | 5.79 | 6.47 | 5.86 | 5.28 | 5.90 |
| TMEM102 | 3.74 | 3.94 | 4.59 | 3.83 | 4.36 | 4.13 | 3.98 | 4.28 |
| TMEM104 | 3.41 | 3.72 | 3.38 | 3.69 | 3.84 | 3.59 | 3.43 | 3.96 |
| TMEM106A | 1.03 | 1.31 | 1.05 | 1.14 | 1.10 | 1.10 | 1.07 | 1.23 |
| TMEM106B | 6.22 | 6.36 | 5.91 | 6.20 | 6.02 | 6.51 | 6.86 | 6.94 |
| TMEM106C | 7.78 | 7.13 | 7.46 | 7.70 | 7.20 | 7.74 | 6.96 | 7.20 |
| TMEM107 | 4.27 | 3.91 | 4.40 | 4.01 | 4.52 | 4.37 | 4.63 | 4.42 |
| TMEM108 | -2.20 | -2.20 | -2.15 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| TMEM109 | 6.74 | 6.56 | 6.86 | 6.89 | 7.00 | 5.90 | 6.25 | 6.42 |
| TMEM11 | 7.13 | 5.56 | 5.99 | 5.75 | 6.01 | 6.12 | 5.89 | 6.21 |
| TMEM115 | 5.78 | 5.10 | 5.03 | 5.45 | 5.14 | 5.46 | 5.11 | 5.21 |
| TMEM116 | 3.19 | 3.35 | 3.39 | 3.36 | 3.59 | 3.60 | 3.38 | 3.60 |
| TMEM117 | 1.19 | 1.65 | 1.25 | 1.69 | 1.38 | 1.38 | 1.63 | 1.80 |
| TMEM120A | 5.71 | 5.48 | 5.36 | 6.00 | 6.36 | 5.48 | 6.29 | 6.10 |
| TMEM120B | 4.36 | 4.22 | 4.81 | 4.33 | 4.83 | 4.72 | 4.66 | 5.81 |
| TMEM121 | 0.71 | 0.15 | 0.35 | 0.14 | 0.44 | 0.24 | 0.20 | 0.27 |
| TMEM121B | -1.70 | -1.79 | -1.73 | -1.79 | -1.79 | -1.80 | -1.79 | -1.81 |
| TMEM123 | 8.38 | 8.27 | 9.00 | 8.10 | 8.22 | 8.53 | 8.21 | 8.38 |
| TMEM125 | 5.81 | 5.87 | 5.27 | 6.24 | 6.27 | 5.64 | 6.20 | 5.37 |
| TMEM126A | 6.66 | 6.32 | 6.10 | 6.26 | 6.67 | 6.22 | 5.41 | 6.70 |
| TMEM126B | 6.99 | 6.50 | 6.07 | 6.65 | 6.57 | 6.53 | 6.10 | 6.99 |
| TMEM127 | 5.49 | 6.15 | 5.88 | 5.66 | 5.68 | 5.52 | 5.58 | 5.68 |
| TMEM128 | 4.69 | 5.05 | 4.57 | 5.17 | 5.41 | 4.98 | 4.58 | 5.76 |
| TMEM129 | 6.51 | 6.27 | 6.45 | 6.20 | 5.53 | 5.58 | 5.91 | 6.16 |
| TMEM130 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TMEM131 | 5.34 | 6.14 | 5.59 | 5.94 | 5.37 | 5.54 | 6.04 | 5.77 |
| TMEM131L | 1.65 | 1.55 | 2.29 | 1.91 | 1.60 | 2.28 | 1.41 | 1.60 |
| TMEM132A | 4.74 | 4.61 | 6.36 | 4.28 | 4.21 | 4.99 | 4.34 | 3.51 |
| TMEM132B | -0.59 | -0.72 | -0.71 | -0.65 | -0.65 | -0.57 | -0.59 | -0.74 |
| TMEM132C | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| TMEM132E | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |

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|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TMEM134 | 7.17 | 7.32 | 7.00 | 7.36 | 7.64 | 7.08 | 7.20 | 7.81 |
| TMEM135 | 3.86 | 4.72 | 4.36 | 4.33 | 4.47 | 4.04 | 4.56 | 4.58 |
| TMEM136 | 2.44 | 2.31 | 2.17 | 2.09 | 2.97 | 2.52 | 2.53 | 2.39 |
| TMEM138 | 6.41 | 5.46 | 4.97 | 5.58 | 5.78 | 5.54 | 4.56 | 5.73 |
| TMEM139 | 5.60 | 3.80 | 5.08 | 4.17 | 5.51 | 5.63 | 5.75 | 6.14 |
| TMEM140 | 1.60 | 1.43 | 1.83 | 1.47 | 1.85 | 1.50 | 1.80 | 1.77 |
| TMEM141 | 7.17 | 7.97 | 6.44 | 7.80 | 6.44 | 7.16 | 7.47 | 7.01 |
| TMEM143 | 2.87 | 2.49 | 2.29 | 2.73 | 3.65 | 2.58 | 3.01 | 3.06 |
| TMEM144 | 2.70 | 3.80 | 3.00 | 3.70 | 2.81 | 3.55 | 3.20 | 3.59 |
| TMEM145 | -0.60 | -0.60 | -0.67 | -0.62 | -0.20 | -0.66 | -0.69 | -0.64 |
| TMEM147 | 8.24 | 8.37 | 7.25 | 8.61 | 8.73 | 7.32 | 7.84 | 7.45 |
| TMEM147-AS1 | 1.99 | 1.61 | 1.89 | 1.55 | 2.03 | 1.52 | 1.59 | 1.52 |
| TMEM14A | 7.50 | 7.08 | 7.01 | 7.42 | 7.17 | 7.34 | 6.66 | 7.99 |
| TMEM14B | 7.04 | 5.81 | 5.60 | 5.61 | 5.86 | 5.56 | 6.20 | 7.36 |
| TMEM14C | 7.77 | 7.02 | 6.72 | 7.01 | 7.30 | 6.52 | 7.26 | 8.69 |
| TMEM14DP | -1.48 | -1.54 | -1.53 | -1.55 | -1.54 | -1.56 | -1.36 | -1.51 |
| TMEM14EP | -2.15 | -2.15 | -2.12 | -2.12 | -2.13 | -2.15 | -2.15 | -2.16 |
| TMEM150A | 3.40 | 3.57 | 3.28 | 3.59 | 4.16 | 4.06 | 3.60 | 4.47 |
| TMEM150B | 0.11 | 0.28 | 0.13 | 0.61 | 0.31 | 0.13 | 0.64 | 0.14 |
| TMEM150C | -0.94 | -0.79 | -1.00 | -1.02 | -0.86 | -0.96 | -1.02 | -0.92 |
| TMEM151A | 2.72 | 2.41 | 2.12 | 2.43 | 3.22 | 2.08 | 2.47 | 1.69 |
| TMEM154 | 2.17 | 2.96 | 3.29 | 2.69 | 2.40 | 3.61 | 2.88 | 2.84 |
| TMEM156 | 0.33 | 0.51 | 0.35 | 0.32 | 0.46 | 0.92 | 0.39 | 0.91 |
| TMEM158 | 4.77 | 4.96 | 4.44 | 4.77 | 4.69 | 5.89 | 3.24 | 3.38 |
| TMEM159 | 6.29 | 6.29 | 5.65 | 6.04 | 6.41 | 6.06 | 5.61 | 6.78 |
| TMEM160 | 7.93 | 7.28 | 7.47 | 7.09 | 7.71 | 7.21 | 7.10 | 7.43 |
| TMEM161A | 5.42 | 5.29 | 6.01 | 5.65 | 6.50 | 5.49 | 5.40 | 5.32 |
| TMEM161B | 4.30 | 4.82 | 5.31 | 5.03 | 5.02 | 4.71 | 5.25 | 4.72 |
| TMEM161B-AS1 | 4.90 | 5.23 | 6.07 | 5.61 | 5.75 | 5.75 | 6.06 | 5.44 |
| TMEM161BP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| TMEM163 | 3.01 | 3.59 | 3.79 | 3.52 | 3.33 | 3.72 | 2.89 | 2.54 |
| TMEM164 | 4.61 | 5.09 | 5.15 | 4.92 | 4.25 | 4.35 | 4.83 | 4.26 |
| TMEM165 | 6.81 | 7.03 | 6.61 | 7.43 | 6.30 | 7.10 | 6.78 | 7.28 |
| TMEM167A | 7.51 | 7.27 | 7.10 | 7.32 | 8.26 | 7.48 | 7.12 | 7.68 |
| TMEM167B | 5.35 | 5.40 | 5.33 | 5.12 | 5.31 | 4.95 | 5.20 | 5.30 |
| TMEM168 | 3.69 | 4.80 | 4.45 | 4.79 | 4.37 | 3.98 | 4.58 | 4.71 |
| TMEM169 | 1.05 | 0.99 | 1.18 | 1.10 | 1.05 | 1.68 | 1.29 | 0.89 |
| TMEM17 | 3.72 | 3.17 | 3.11 | 3.51 | 3.54 | 3.25 | 3.11 | 3.24 |
| TMEM170A | 6.30 | 6.02 | 6.03 | 6.04 | 5.88 | 5.84 | 6.21 | 5.75 |
| TMEM170B | 1.44 | 1.39 | 1.66 | 1.23 | 1.36 | 1.25 | 1.39 | 1.39 |
| TMEM171 | 3.45 | 3.40 | 3.06 | 3.35 | 4.44 | 3.47 | 2.95 | 3.28 |
| TMEM173 | 4.22 | 4.59 | 4.36 | 4.26 | 5.72 | 4.40 | 4.08 | 3.26 |
| TMEM175 | 4.04 | 4.47 | 4.46 | 4.49 | 4.49 | 4.42 | 4.51 | 4.31 |
| TMEM176A | 5.04 | 4.41 | 4.81 | 3.77 | 6.37 | 5.44 | 4.51 | 4.08 |
| TMEM176B | 6.17 | 5.16 | 6.02 | 4.67 | 6.82 | 5.99 | 5.89 | 5.01 |
| TMEM177 | 5.70 | 5.06 | 4.97 | 5.42 | 5.09 | 5.19 | 5.13 | 5.23 |
| TMEM178A | -0.26 | -0.25 | -0.23 | -0.27 | -0.25 | -0.21 | -0.20 | 0.01 |
| TMEM178B | 1.11 | 0.67 | 1.67 | 0.64 | 0.62 | 0.66 | 0.70 | 0.52 |
| TMEM179 | -1.37 | -1.36 | -1.35 | -1.38 | -1.37 | -1.38 | -1.25 | -1.39 |
| TMEM179B | 7.86 | 7.49 | 7.14 | 7.60 | 7.87 | 6.75 | 6.79 | 7.44 |
| TMEM18 | 5.85 | 5.89 | 5.60 | 6.37 | 5.48 | 5.95 | 5.93 | 5.93 |
| TMEM181 | 6.12 | 6.06 | 6.60 | 5.58 | 5.60 | 6.39 | 7.11 | 5.95 |
| TMEM182 | 2.53 | 2.48 | 2.56 | 2.45 | 3.30 | 2.62 | 2.43 | 2.93 |
| TMEM183A | 5.35 | 5.27 | 4.82 | 5.03 | 4.88 | 5.26 | 5.45 | 5.77 |
| TMEM183B | -1.49 | -1.54 | -1.53 | -1.55 | -1.54 | -1.45 | -1.55 | -1.56 |
| TMEM184A | 4.40 | 4.85 | 4.99 | 5.04 | 4.50 | 4.20 | 5.01 | 4.94 |
| TMEM184B | 6.50 | 6.50 | 6.11 | 6.15 | 5.67 | 6.02 | 6.17 | 5.83 |
| TMEM184C | 4.19 | 4.96 | 4.93 | 5.15 | 4.36 | 4.61 | 5.12 | 5.03 |
| TMEM185A | 3.27 | 3.04 | 3.36 | 3.40 | 2.70 | 3.32 | 2.46 | 3.62 |
| TMEM185B | 5.17 | 5.55 | 5.05 | 5.42 | 5.45 | 5.02 | 4.66 | 4.67 |
| TMEM186 | 4.83 | 4.35 | 4.43 | 4.79 | 4.52 | 4.40 | 4.19 | 4.50 |
| TMEM187 | 5.58 | 4.58 | 4.53 | 4.77 | 5.33 | 5.00 | 4.54 | 4.93 |
| TMEM189 | 7.04 | 6.62 | 6.62 | 6.65 | 6.70 | 6.78 | 6.34 | 7.06 |
| TMEM19 | 3.38 | 4.72 | 4.62 | 4.07 | 3.92 | 3.94 | 4.30 | 4.14 |
| TMEM190 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.09 | -2.07 | -2.11 |
| TMEM191A | 5.27 | 5.00 | 4.16 | 5.52 | 4.30 | 4.30 | 5.07 | 4.60 |
| TMEM191B | -1.06 | -1.19 | -1.18 | -1.13 | -1.09 | -1.15 | -1.20 | -1.05 |
| TMEM191C | 1.49 | 1.29 | 1.11 | 1.53 | 1.17 | 1.50 | 1.10 | 1.06 |
| TMEM192 | 4.52 | 4.77 | 4.55 | 5.05 | 4.44 | 4.77 | 5.01 | 5.31 |
| TMEM198 | 2.30 | 1.77 | 1.48 | 1.78 | 2.42 | 1.46 | 1.65 | 1.68 |
| TMEM198B | 2.37 | 2.60 | 2.61 | 2.68 | 2.73 | 2.40 | 2.57 | 2.88 |
| TMEM199 | 5.33 | 5.11 | 5.03 | 5.04 | 4.98 | 4.95 | 4.70 | 4.87 |
| TMEM200B | 2.29 | 1.24 | 1.54 | 1.19 | 1.73 | 1.31 | 1.63 | 1.11 |
| TMEM200C | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TMEM201 | 3.80 | 3.77 | 4.01 | 3.67 | 3.38 | 3.27 | 3.73 | 2.62 |
| TMEM202-AS1 | -1.14 | -1.13 | -1.12 | -1.08 | -1.10 | -1.08 | -1.08 | -0.95 |
| TMEM203 | 5.43 | 4.36 | 4.13 | 4.57 | 4.30 | 4.78 | 4.10 | 4.42 |
| TMEM204 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.03 |
| TMEM205 | 7.65 | 8.22 | 7.02 | 8.78 | 7.81 | 7.55 | 6.94 | 7.10 |
| TMEM206 | 3.44 | 2.94 | 3.09 | 3.26 | 3.78 | 3.14 | 2.89 | 3.61 |
| TMEM208 | 7.47 | 7.52 | 7.20 | 7.84 | 7.44 | 7.09 | 7.05 | 7.96 |
| TMEM209 | 3.88 | 3.80 | 3.85 | 4.18 | 4.59 | 4.29 | 4.48 | 4.54 |
| TMEM211 | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| TMEM212 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TMEM213 | 3.58 | 1.29 | 1.61 | 1.25 | 1.70 | 1.34 | 1.87 | 1.56 |
| TMEM214 | 6.06 | 6.10 | 5.88 | 6.14 | 5.67 | 5.63 | 6.22 | 6.62 |
| TMEM216 | 4.97 | 4.52 | 4.03 | 4.93 | 5.50 | 5.02 | 3.87 | 5.29 |
| TMEM217 | 0.26 | 0.10 | 0.12 | 0.17 | 0.14 | 0.26 | 0.30 | 0.24 |
| TMEM218 | 4.24 | 4.57 | 4.00 | 4.44 | 4.58 | 4.48 | 4.06 | 4.68 |
| TMEM219 | 7.67 | 7.51 | 7.25 | 7.38 | 7.97 | 7.65 | 7.36 | 7.95 |
| TMEM220 | 2.09 | 1.55 | 1.69 | 1.67 | 2.96 | 1.94 | 2.43 | 2.68 |
| TMEM220-AS1 | 0.17 | 0.18 | 0.11 | 0.08 | 0.45 | 0.11 | 0.44 | 0.55 |
| TMEM221 | 0.01 | -0.40 | -0.30 | -0.41 | -0.07 | -0.35 | -0.41 | -0.32 |
| TMEM222 | 4.93 | 4.86 | 5.46 | 5.08 | 5.67 | 5.21 | 4.96 | 5.29 |

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|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TMEM223 | 6.81 | 6.06 | 5.72 | 6.15 | 5.90 | 5.84 | 5.47 | 6.39 |
| TMEM225B | 0.48 | 0.41 | 0.43 | 0.47 | 0.85 | 1.02 | 0.47 | 0.61 |
| TMEM229A | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| TMEM229B | 2.24 | 3.07 | 2.31 | 2.92 | 2.43 | 2.34 | 2.65 | 2.08 |
| TMEM230 | 8.02 | 7.06 | 6.81 | 7.26 | 7.94 | 7.38 | 6.72 | 7.56 |
| TMEM231 | 2.69 | 2.56 | 3.28 | 2.90 | 2.44 | 2.77 | 2.68 | 2.63 |
| TMEM231P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| TMEM232 | -0.56 | -0.55 | -0.61 | -0.72 | -0.63 | -0.65 | -0.53 | -0.73 |
| TMEM233 | -1.37 | -1.37 | -1.35 | -1.31 | -1.37 | -1.35 | -1.31 | -1.39 |
| TMEM234 | 2.87 | 2.76 | 3.13 | 3.24 | 2.87 | 3.41 | 2.98 | 3.42 |
| TMEM236 | -1.99 | -1.99 | -1.95 | -1.99 | -1.99 | -1.97 | -2.00 | -1.97 |
| TMEM237 | 5.26 | 4.39 | 4.51 | 4.21 | 4.46 | 4.83 | 4.04 | 4.73 |
| TMEM238 | 8.37 | 8.05 | 6.70 | 8.10 | 8.38 | 7.32 | 7.03 | 6.59 |
| TMEM240 | 0.86 | 0.52 | 1.01 | 0.62 | 0.52 | 0.61 | 0.57 | 0.57 |
| TMEM241 | 3.16 | 3.64 | 3.41 | 3.36 | 3.26 | 3.58 | 2.84 | 3.94 |
| TMEM242 | 7.03 | 5.57 | 5.71 | 5.65 | 5.73 | 6.25 | 5.94 | 5.65 |
| TMEM243 | 4.44 | 4.88 | 4.57 | 5.39 | 5.58 | 4.77 | 4.77 | 5.28 |
| TMEM245 | 6.09 | 6.94 | 7.03 | 6.36 | 5.52 | 6.85 | 6.83 | 6.22 |
| TMEM246 | 5.80 | 5.55 | 5.25 | 5.71 | 5.55 | 4.08 | 5.77 | 5.42 |
| TMEM246-AS1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -2.01 |
| TMEM248 | 6.97 | 6.83 | 6.65 | 6.78 | 6.92 | 6.57 | 6.55 | 6.88 |
| TMEM249 | -2.20 | -2.20 | -2.19 | -2.16 | -2.20 | -2.20 | -2.18 | -2.21 |
| TMEM25 | 5.47 | 4.15 | 4.07 | 4.68 | 4.61 | 4.37 | 3.58 | 2.85 |
| TMEM250 | 5.80 | 5.74 | 5.62 | 5.54 | 4.88 | 5.50 | 5.41 | 5.25 |
| TMEM251 | 5.45 | 5.05 | 4.54 | 5.56 | 5.41 | 5.36 | 4.58 | 4.63 |
| TMEM253 | 2.17 | 2.43 | 2.03 | 3.27 | 2.10 | 1.86 | 2.29 | 1.79 |
| TMEM254 | 5.39 | 4.64 | 4.81 | 4.87 | 5.49 | 4.66 | 4.82 | 5.24 |
| TMEM254-AS1 | -0.55 | -0.87 | -0.86 | -0.88 | -0.95 | -0.89 | -0.89 | -0.97 |
| TMEM255A | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| TMEM255B | 0.92 | 0.65 | 0.61 | 0.70 | 1.66 | 1.19 | 0.67 | 0.56 |
| TMEM256 | 8.04 | 7.29 | 6.92 | 7.45 | 7.60 | 7.69 | 7.86 | 7.53 |
| TMEM256-PLSCRC | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.18 | -2.18 | -2.21 |
| TMEM258 | 9.92 | 9.64 | 9.32 | 9.89 | 10.47 | 9.39 | 8.94 | 10.35 |
| TMEM259 | 7.47 | 6.46 | 7.88 | 6.58 | 7.16 | 7.23 | 7.54 | 7.29 |
| TMEM26 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| TMEM260 | 3.59 | 4.69 | 3.69 | 4.20 | 4.01 | 3.63 | 4.28 | 3.72 |
| TMEM262 | -0.09 | -0.16 | 0.10 | -0.25 | -0.12 | -0.06 | -0.18 | -0.15 |
| TMEM263 | 4.45 | 5.59 | 5.47 | 5.76 | 5.61 | 5.17 | 5.46 | 5.93 |
| TMEM266 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.29 |
| TMEM267 | 4.31 | 4.20 | 4.05 | 4.32 | 4.57 | 4.28 | 4.15 | 4.64 |
| TMEM268 | 1.80 | 1.90 | 1.78 | 2.05 | 1.71 | 1.94 | 1.85 | 1.79 |
| TMEM269 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -1.96 | -1.91 |
| TMEM270 | -0.86 | -1.13 | -1.11 | -1.06 | -0.71 | -1.07 | -1.14 | -1.09 |
| TMEM273 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.11 |
| TMEM30A | 6.67 | 6.94 | 7.21 | 7.13 | 6.30 | 6.85 | 7.39 | 6.75 |
| TMEM30B | 5.51 | 6.25 | 6.65 | 5.90 | 6.33 | 6.16 | 6.49 | 5.70 |
| TMEM31 | -2.05 | -2.01 | -2.00 | -2.05 | -2.04 | -2.02 | -2.02 | -2.06 |
| TMEM33 | 6.35 | 6.91 | 6.79 | 6.83 | 6.42 | 6.72 | 7.00 | 7.23 |
| TMEM35A | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| TMEM37 | 4.09 | 4.66 | 3.54 | 4.57 | 3.73 | 3.64 | 5.68 | 4.25 |
| TMEM38A | 5.33 | 3.57 | 4.10 | 4.43 | 4.79 | 4.74 | 3.84 | 4.78 |
| TMEM38B | 4.66 | 4.85 | 4.84 | 4.54 | 4.74 | 5.16 | 5.21 | 4.13 |
| TMEM39A | 4.58 | 4.09 | 4.60 | 4.22 | 5.02 | 4.60 | 4.31 | 5.62 |
| TMEM39B | 3.74 | 3.61 | 3.81 | 3.46 | 3.56 | 3.69 | 3.63 | 3.43 |
| TMEM40 | 0.63 | 0.54 | 0.56 | 0.29 | 0.27 | 0.40 | 0.21 | 0.82 |
| TMEM41A | 6.43 | 6.01 | 6.15 | 5.83 | 5.55 | 5.66 | 5.89 | 6.19 |
| TMEM41B | 6.19 | 5.85 | 6.63 | 5.95 | 6.53 | 5.85 | 6.61 | 7.39 |
| TMEM42 | 5.24 | 4.55 | 4.79 | 4.48 | 5.15 | 4.85 | 4.30 | 4.33 |
| TMEM43 | 5.49 | 6.17 | 5.99 | 5.93 | 5.72 | 5.63 | 6.05 | 5.22 |
| TMEM44 | 2.72 | 3.40 | 3.40 | 3.42 | 3.31 | 3.46 | 3.60 | 3.08 |
| TMEM44-AS1 | 4.43 | 3.33 | 3.60 | 3.71 | 3.38 | 3.55 | 3.08 | 3.27 |
| TMEM45A | 2.50 | 1.95 | 3.51 | 2.38 | 2.09 | 2.19 | 2.15 | 2.61 |
| TMEM45B | 7.45 | 7.46 | 7.35 | 7.92 | 7.78 | 7.51 | 8.75 | 7.58 |
| TMEM47 | 2.15 | 3.43 | 5.46 | 2.82 | 1.89 | 1.77 | 2.20 | 2.99 |
| TMEM50A | 7.63 | 7.35 | 7.53 | 7.53 | 8.34 | 8.02 | 7.86 | 7.94 |
| TMEM50B | 7.31 | 6.62 | 6.38 | 6.83 | 6.63 | 6.45 | 6.76 | 7.34 |
| TMEM51 | 6.29 | 5.46 | 5.84 | 5.70 | 5.92 | 6.11 | 5.34 | 4.91 |
| TMEM51-AS1 | 1.70 | 1.88 | 2.20 | 1.96 | 1.81 | 1.81 | 2.15 | 1.37 |
| TMEM52 | 4.27 | 3.67 | 2.69 | 3.59 | 2.66 | 2.88 | 2.98 | 2.98 |
| TMEM53 | 5.12 | 4.90 | 4.99 | 5.27 | 6.17 | 6.13 | 5.69 | 5.55 |
| TMEM54 | 9.73 | 7.78 | 8.14 | 7.79 | 8.15 | 8.18 | 8.13 | 7.51 |
| TMEM56 | 5.05 | 4.66 | 4.65 | 4.85 | 4.29 | 4.28 | 4.42 | 3.69 |
| TMEM56-RWDD3 | -0.72 | -0.78 | -0.85 | -0.54 | -0.86 | -0.78 | -0.87 | -0.82 |
| TMEM59 | 9.15 | 9.79 | 8.97 | 10.13 | 9.84 | 9.28 | 9.49 | 9.94 |
| TMEM60 | 5.57 | 5.61 | 5.48 | 6.11 | 6.08 | 5.82 | 5.36 | 6.08 |
| TMEM61 | 4.39 | 3.74 | 3.43 | 3.52 | 4.57 | 3.16 | 4.20 | 4.41 |
| TMEM62 | 4.82 | 4.41 | 4.35 | 4.41 | 4.33 | 4.10 | 4.33 | 4.43 |
| TMEM63A | 5.78 | 5.85 | 5.04 | 6.12 | 5.37 | 5.53 | 5.61 | 5.38 |
| TMEM63B | 4.55 | 4.98 | 5.00 | 4.94 | 4.44 | 4.52 | 5.52 | 4.92 |
| TMEM63C | -1.55 | -1.54 | -1.53 | -1.55 | -1.54 | -1.53 | -1.56 | -1.57 |
| TMEM64 | 4.33 | 4.90 | 5.00 | 5.24 | 4.12 | 4.51 | 4.91 | 4.04 |
| TMEM65 | 3.69 | 4.00 | 4.53 | 3.94 | 3.78 | 4.20 | 4.19 | 3.26 |
| TMEM67 | 2.51 | 2.61 | 3.23 | 2.68 | 2.86 | 3.11 | 2.65 | 2.14 |
| TMEM68 | 5.49 | 4.41 | 5.36 | 4.79 | 5.18 | 5.26 | 5.46 | 5.98 |
| TMEM69 | 5.38 | 4.74 | 4.40 | 4.80 | 5.00 | 5.21 | 4.95 | 4.92 |
| TMEM70 | 6.25 | 6.21 | 6.33 | 6.14 | 6.66 | 6.18 | 5.81 | 6.45 |
| TMEM71 | -1.70 | -1.74 | -1.73 | -1.79 | -1.79 | -1.80 | -1.79 | -1.81 |
| TMEM72-AS1 | -2.25 | -2.25 | -2.23 | -2.23 | -2.25 | -2.26 | -2.25 | -2.26 |
| TMEM74 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.09 | -2.10 | -2.11 |
| TMEM74B | 1.23 | 1.33 | 1.52 | 1.34 | 1.82 | 1.30 | 1.83 | 1.06 |
| TMEM75 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| TMEM79 | 1.17 | 1.31 | 1.12 | 1.60 | 1.00 | 1.26 | 1.07 | 0.82 |
| TMEM80 | 5.31 | 4.55 | 5.68 | 5.26 | 5.58 | 4.66 | 5.18 | 5.80 |
| TMEM81 | 0.80 | 1.03 | 1.15 | 0.86 | 0.95 | 0.92 | 0.70 | 1.22 |

| | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TMEM82 | -0.11 | -0.10 | -0.09 | -0.11 | 0.20 | -0.08 | 0.18 | 0.09 |
| TMEM86A | 1.99 | 2.03 | 2.09 | 1.90 | 2.05 | 2.27 | 2.23 | 2.11 |
| TMEM86B | 1.39 | 1.27 | 1.54 | 1.61 | 1.52 | 1.53 | 1.43 | 1.61 |
| TMEM87A | 6.30 | 7.16 | 7.13 | 7.24 | 7.06 | 7.03 | 6.58 | 7.78 |
| TMEM87B | 5.54 | 6.33 | 5.64 | 6.07 | 5.83 | 5.41 | 6.35 | 5.69 |
| TMEM88 | -1.39 | -1.38 | -1.31 | -1.39 | -1.35 | -1.37 | -1.21 | -1.41 |
| TMEM89 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TMEM8A | 6.40 | 6.14 | 6.15 | 5.97 | 5.93 | 5.76 | 6.35 | 6.56 |
| TMEM8B | 3.47 | 3.74 | 4.11 | 3.74 | 4.65 | 4.41 | 4.33 | 3.73 |
| TMEM9 | 8.26 | 7.24 | 7.59 | 7.54 | 7.80 | 7.47 | 6.99 | 8.19 |
| TMEM91 | 0.75 | 0.92 | 1.04 | 0.66 | 1.09 | 1.04 | 0.92 | 1.34 |
| TMEM92 | 5.33 | 5.35 | 4.97 | 5.45 | 4.53 | 4.48 | 5.30 | 4.40 |
| TMEM92-AS1 | -1.96 | -1.99 | -1.95 | -2.00 | -1.99 | -2.00 | -2.00 | -2.01 |
| TMEM94 | 4.58 | 4.50 | 5.53 | 4.65 | 5.07 | 4.70 | 5.27 | 4.36 |
| TMEM97 | 7.89 | 7.17 | 6.90 | 7.67 | 8.74 | 7.43 | 7.49 | 6.98 |
| TMEM98 | 5.44 | 4.20 | 4.41 | 4.45 | 5.53 | 3.83 | 4.91 | 5.25 |
| TMEM99 | 4.63 | 4.53 | 4.93 | 4.91 | 5.03 | 4.89 | 4.29 | 4.19 |
| TMEM9B | 7.22 | 7.04 | 6.40 | 7.29 | 6.93 | 6.47 | 6.39 | 6.01 |
| TMEM9B-AS1 | 1.14 | 1.08 | 1.97 | 1.18 | 1.20 | 1.12 | 2.18 | 1.02 |
| TMF1 | 5.67 | 6.75 | 6.47 | 6.41 | 6.43 | 6.58 | 6.81 | 6.57 |
| TMIE | 0.41 | 0.15 | 0.19 | 0.07 | 0.08 | 0.12 | 0.19 | 0.62 |
| TMLHE | 1.91 | 1.75 | 1.54 | 1.89 | 2.33 | 1.69 | 1.69 | 2.34 |
| TMOD1 | 2.31 | 1.00 | 0.85 | 1.17 | 0.90 | 0.84 | 0.70 | 0.64 |
| TMOD2 | 2.71 | 2.06 | 3.53 | 2.17 | 2.60 | 2.37 | 2.52 | 1.78 |
| TMOD3 | 7.76 | 8.10 | 7.57 | 7.98 | 7.80 | 7.89 | 8.24 | 8.77 |
| TMPO | 6.06 | 6.98 | 7.39 | 6.87 | 6.36 | 7.07 | 7.05 | 7.17 |
| TMPO-AS1 | 2.97 | 2.69 | 3.12 | 2.31 | 2.76 | 2.63 | 2.29 | 2.45 |
| TMPOP2 | -1.82 | -1.89 | -1.88 | -1.89 | -1.85 | -1.88 | -1.89 | -1.87 |
| TMPPE | 0.20 | -0.09 | 0.19 | 0.12 | 0.03 | -0.01 | 0.16 | 0.00 |
| TMPRSS11BNL | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TMPRSS11E | 0.31 | 0.68 | 0.56 | 0.63 | 0.33 | 1.19 | 0.47 | 0.60 |
| TMPRSS11F | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TMPRSS12 | -1.82 | -1.89 | -1.88 | -1.86 | -1.89 | -1.88 | -1.89 | -1.87 |
| TMPRSS13 | 1.34 | 1.11 | 1.02 | 0.91 | 1.01 | 1.21 | 0.71 | 1.50 |
| TMPRSS15 | -1.32 | -1.32 | -0.20 | -1.33 | -1.27 | -1.29 | -1.33 | -1.26 |
| TMPRSS2 | 6.94 | 6.09 | 6.66 | 6.19 | 6.40 | 6.07 | 5.89 | 5.32 |
| TMPRSS3 | 6.74 | 6.05 | 5.25 | 6.18 | 6.55 | 5.64 | 4.99 | 5.49 |
| TMPRSS4 | 7.06 | 7.79 | 8.38 | 7.74 | 8.03 | 7.76 | 7.05 | 7.61 |
| TMPRSS5 | 0.84 | 1.04 | 1.80 | 1.32 | 2.22 | 0.98 | 0.98 | 1.13 |
| TMPRSS6 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| TMPRSS7 | -2.02 | -2.04 | -2.04 | -2.04 | -2.04 | -2.02 | -2.02 | -2.05 |
| TMPRSS9 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| TMSB10 | 12.32 | 12.80 | 12.11 | 12.71 | 12.98 | 12.79 | 12.66 | 12.85 |
| TMSB10P1 | 3.09 | 3.35 | 2.56 | 3.23 | 3.22 | 3.09 | 3.27 | 3.39 |
| TMSB10P2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| TMSB15A | 1.20 | 1.42 | 1.09 | 1.18 | 1.07 | 2.30 | 1.02 | 0.82 |
| TMSB15B-AS1 | -1.15 | -1.21 | -1.20 | -0.96 | -1.11 | -1.16 | -1.09 | -1.13 |
| TMSB4X | 11.16 | 10.49 | 10.23 | 10.19 | 10.04 | 11.39 | 10.13 | 11.37 |
| TMSB4XP2 | -1.69 | -1.73 | -1.73 | -1.74 | -1.73 | -1.64 | -1.74 | -1.71 |
| TMSB4XP4 | 2.56 | 2.32 | 2.18 | 1.99 | 2.20 | 2.87 | 2.22 | 3.05 |
| TMSB4XP8 | -0.02 | 0.08 | 0.10 | 0.12 | 0.03 | 0.18 | 0.11 | 0.00 |
| TMSB4Y | -1.11 | -1.10 | -1.01 | -1.11 | -1.06 | -1.12 | -1.11 | -1.12 |
| TMTC1 | 0.71 | 0.36 | 0.40 | 0.26 | 0.32 | 0.32 | 0.25 | 0.85 |
| TMTC2 | 3.85 | 4.81 | 4.76 | 4.40 | 3.90 | 4.51 | 4.64 | 4.49 |
| TMTC3 | 5.05 | 5.36 | 5.42 | 5.22 | 4.71 | 5.22 | 5.32 | 4.97 |
| TMTC4 | 2.84 | 3.33 | 3.06 | 3.38 | 3.45 | 3.01 | 3.61 | 3.22 |
| TMUB1 | 6.31 | 6.66 | 6.38 | 6.68 | 7.34 | 6.57 | 6.55 | 6.98 |
| TMUB2 | 4.54 | 4.63 | 5.30 | 5.20 | 5.40 | 5.51 | 5.17 | 5.68 |
| TMX1 | 5.46 | 6.53 | 6.08 | 6.56 | 6.31 | 6.41 | 6.28 | 5.63 |
| TMX2 | 7.26 | 7.23 | 6.87 | 7.48 | 7.26 | 6.74 | 6.93 | 7.30 |
| TMX2P1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| TMX3 | 4.02 | 4.45 | 4.95 | 4.17 | 4.52 | 4.27 | 4.99 | 3.92 |
| TMX4 | 6.01 | 6.34 | 6.05 | 6.11 | 5.39 | 5.71 | 5.44 | 4.83 |
| TNC | 1.12 | 2.21 | 1.25 | 2.39 | 1.30 | 2.13 | 1.31 | 1.57 |
| TNF | 2.96 | 1.24 | 1.62 | 1.21 | 1.28 | 1.17 | 1.19 | 1.88 |
| TNFAIP1 | 5.01 | 4.92 | 5.41 | 5.09 | 5.04 | 4.75 | 5.14 | 5.07 |
| TNFAIP2 | 7.41 | 5.45 | 7.28 | 5.35 | 6.34 | 7.05 | 6.26 | 6.91 |
| TNFAIP3 | 3.53 | 3.04 | 3.66 | 2.61 | 2.54 | 2.84 | 2.82 | 3.26 |
| TNFAIP6 | 2.01 | 0.59 | 0.43 | 0.61 | 0.45 | 0.38 | 0.70 | 0.67 |
| TNFAIP8 | 3.86 | 4.60 | 4.15 | 4.52 | 4.57 | 4.29 | 4.59 | 4.46 |
| TNFAIP8L1 | 3.81 | 4.11 | 4.07 | 4.36 | 3.85 | 4.43 | 3.24 | 3.78 |
| TNFAIP8L3 | 0.02 | -0.27 | -0.18 | -0.28 | -0.23 | -0.29 | -0.28 | -0.24 |
| TNFRSF10A | 5.05 | 4.96 | 6.00 | 4.70 | 5.12 | 5.87 | 5.01 | 4.85 |
| TNFRSF10A-AS1 | -1.89 | -1.89 | -1.88 | -1.90 | -1.89 | -1.88 | -1.90 | -1.91 |
| TNFRSF10B | 5.40 | 6.04 | 7.07 | 5.69 | 5.48 | 6.12 | 6.15 | 5.99 |
| TNFRSF10C | 2.18 | 2.14 | 2.22 | 1.86 | 1.94 | 2.34 | 2.78 | 1.78 |
| TNFRSF10D | 4.04 | 4.53 | 5.48 | 4.36 | 4.48 | 4.80 | 5.53 | 4.41 |
| TNFRSF11A | 4.26 | 4.59 | 4.75 | 4.48 | 4.54 | 3.73 | 5.72 | 3.77 |
| TNFRSF11B | 1.45 | 1.53 | 1.56 | 1.93 | 2.14 | 2.71 | 1.49 | 1.26 |
| TNFRSF12A | 9.75 | 9.70 | 9.20 | 9.46 | 9.19 | 10.16 | 9.27 | 10.22 |
| TNFRSF13C | -1.38 | -1.49 | -1.48 | -1.44 | -1.46 | -1.48 | -1.50 | -1.46 |
| TNFRSF14 | 5.27 | 6.21 | 5.14 | 6.21 | 5.55 | 5.15 | 6.37 | 5.60 |
| TNFRSF14-AS1 | 2.25 | 2.68 | 1.74 | 2.97 | 2.37 | 1.99 | 2.24 | 1.67 |
| TNFRSF18 | 4.68 | 2.36 | 3.12 | 2.18 | 4.25 | 4.25 | 2.22 | 2.91 |
| TNFRSF19 | 1.28 | 1.01 | 0.80 | 0.68 | 0.75 | 1.00 | 0.82 | 0.69 |
| TNFRSF1A | 7.57 | 6.63 | 7.14 | 6.37 | 6.45 | 6.25 | 7.07 | 7.57 |
| TNFRSF1B | 5.14 | 3.71 | 3.79 | 3.51 | 3.94 | 3.89 | 3.68 | 3.34 |
| TNFRSF21 | 7.86 | 6.83 | 7.77 | 6.84 | 7.09 | 7.72 | 7.10 | 8.63 |
| TNFRSF25 | 2.78 | 2.80 | 2.47 | 2.45 | 2.51 | 2.37 | 2.34 | 2.48 |
| TNFRSF4 | -2.15 | -2.14 | -2.14 | -2.15 | -2.14 | -2.13 | -2.15 | -2.14 |
| TNFRSF8 | -2.12 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| TNFRSF9 | 2.50 | 1.32 | 2.22 | 1.43 | 1.57 | 1.35 | 1.27 | 1.38 |
| TNFSF10 | 6.05 | 6.01 | 6.29 | 6.05 | 6.52 | 5.91 | 6.01 | 6.37 |
| TNFSF11 | -1.22 | -0.95 | -1.20 | -0.95 | -1.18 | -1.16 | -1.16 | -1.24 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TNFSF12 | 1.76 | 1.45 | 1.62 | 1.33 | 1.87 | 1.62 | 1.25 | 2.05 |
| TNFSF13 | -0.85 | -0.84 | -0.83 | -0.85 | -0.81 | -0.83 | -0.86 | -0.83 |
| TNFSF13B | 1.49 | 1.99 | 1.66 | 1.85 | 1.85 | 1.74 | 2.24 | 1.90 |
| TNFSF14 | -0.81 | -0.86 | -0.92 | -1.02 | -1.01 | -0.99 | -1.02 | -0.81 |
| TNFSF15 | 4.92 | 5.07 | 4.24 | 5.11 | 4.21 | 4.75 | 5.34 | 3.89 |
| TNFSF4 | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 | -1.90 | -1.86 | -1.91 |
| TNFSF9 | 5.92 | 6.61 | 5.22 | 6.72 | 4.68 | 5.57 | 6.24 | 5.29 |
| TNIK | 5.45 | 6.36 | 6.56 | 6.18 | 6.03 | 6.04 | 6.08 | 5.67 |
| TNIP1 | 6.82 | 5.99 | 7.22 | 5.93 | 6.22 | 6.17 | 6.47 | 5.87 |
| TNIP2 | 6.28 | 6.55 | 5.98 | 6.73 | 6.10 | 6.36 | 5.69 | 6.68 |
| TNIP3 | -1.84 | -1.80 | -1.83 | -1.81 | -1.84 | -1.85 | -1.84 | -1.75 |
| TNK1 | 2.57 | 3.15 | 3.21 | 2.92 | 2.78 | 2.65 | 3.29 | 3.15 |
| TNK2 | 4.12 | 5.15 | 5.54 | 4.65 | 4.82 | 4.90 | 4.16 | 5.69 |
| TNK2-AS1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.08 |
| TNKS | 4.11 | 4.74 | 5.15 | 4.77 | 4.15 | 4.77 | 4.94 | 4.30 |
| TNKS1BP1 | 5.51 | 6.01 | 6.43 | 5.88 | 5.06 | 5.73 | 5.99 | 6.12 |
| TNKS2 | 5.78 | 5.78 | 5.59 | 5.64 | 5.53 | 5.69 | 6.27 | 5.76 |
| TNKS2-AS1 | -0.44 | -0.42 | -0.22 | -0.44 | -0.53 | -0.51 | -0.58 | -0.53 |
| TNMD | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| TNNC1 | 4.59 | 2.93 | 2.74 | 3.23 | 4.93 | 2.87 | 3.07 | 4.15 |
| TNNC2 | 1.26 | 0.92 | 1.20 | 0.81 | 0.92 | 2.43 | 1.11 | 1.74 |
| TNNI1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.10 | -2.10 | -2.11 |
| TNNI2 | 3.63 | 5.23 | 4.10 | 6.20 | 4.49 | 3.64 | 6.04 | 5.31 |
| TNNI3 | 5.14 | 3.02 | 3.08 | 2.98 | 3.90 | 2.96 | 3.19 | 2.89 |
| TNNI3K | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.07 | -2.11 |
| TNNT1 | 4.60 | 3.10 | 4.48 | 2.87 | 5.07 | 4.66 | 3.22 | 2.99 |
| TNNT2 | -1.59 | -1.64 | -1.63 | -1.64 | -1.59 | -1.60 | -1.59 | -1.66 |
| TNP1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| TNPO1 | 5.79 | 6.76 | 6.91 | 6.48 | 6.35 | 6.60 | 6.75 | 6.22 |
| TNPO1P1 | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.90 | -1.85 | -1.91 |
| TNPO1P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TNPO1P3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| TNPO2 | 4.58 | 5.19 | 4.99 | 5.20 | 4.68 | 4.98 | 5.25 | 4.50 |
| TNPO3 | 4.50 | 5.59 | 5.47 | 5.08 | 5.20 | 5.28 | 5.64 | 5.40 |
| TNRC18 | 5.17 | 5.23 | 5.39 | 5.10 | 4.78 | 5.31 | 5.72 | 5.43 |
| TNRC6A | 6.84 | 6.61 | 7.25 | 6.46 | 6.47 | 6.47 | 6.91 | 6.55 |
| TNRC6B | 7.12 | 7.61 | 7.30 | 7.38 | 6.50 | 7.26 | 7.79 | 7.20 |
| TNRC6C | 3.72 | 4.10 | 3.83 | 4.12 | 4.28 | 3.79 | 4.16 | 3.08 |
| TNRC6C-AS1 | 3.48 | 2.91 | 3.82 | 2.50 | 2.76 | 2.81 | 3.24 | 2.53 |
| TNS1 | 2.83 | 2.24 | 3.33 | 2.10 | 2.23 | 2.06 | 4.56 | 2.26 |
| TNS2 | 2.13 | 1.99 | 2.14 | 2.21 | 1.91 | 2.05 | 2.82 | 1.92 |
| TNS3 | 4.30 | 4.92 | 4.58 | 4.62 | 4.26 | 4.96 | 4.54 | 4.45 |
| TNS4 | 6.37 | 7.68 | 7.13 | 7.58 | 6.33 | 7.10 | 6.90 | 6.77 |
| TNXB | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.07 | -2.10 | -2.08 |
| TOB1 | 7.39 | 6.70 | 7.11 | 6.62 | 7.23 | 7.67 | 6.36 | 7.26 |
| TOB1-AS1 | 2.86 | 2.41 | 2.61 | 2.31 | 3.13 | 2.86 | 2.51 | 2.42 |
| TOB2 | 6.46 | 6.99 | 6.51 | 6.84 | 6.06 | 6.60 | 7.05 | 7.09 |
| TOB2P1 | 1.26 | 0.78 | 1.02 | 0.61 | 0.98 | 1.11 | 0.95 | 0.96 |
| TOE1 | 3.43 | 3.16 | 3.59 | 3.53 | 3.75 | 3.88 | 3.84 | 3.88 |
| TOGARAM1 | 3.12 | 3.74 | 3.60 | 3.90 | 3.57 | 3.96 | 4.24 | 3.17 |
| TOGARAM2 | -1.89 | -1.89 | -1.84 | -1.89 | -1.87 | -1.90 | -1.82 | -1.91 |
| TOLLIP | 6.36 | 6.45 | 6.70 | 6.16 | 6.27 | 6.18 | 6.12 | 6.48 |
| TOLLIP-AS1 | 3.31 | 2.20 | 2.57 | 2.30 | 2.61 | 2.20 | 1.99 | 2.11 |
| TOM1 | 5.34 | 4.64 | 4.91 | 4.76 | 4.79 | 5.18 | 5.03 | 5.56 |
| TOM1L1 | 5.88 | 5.78 | 5.54 | 5.96 | 6.12 | 5.58 | 5.72 | 5.64 |
| TOM1L2 | 4.84 | 4.79 | 5.55 | 4.78 | 4.59 | 4.83 | 5.70 | 4.91 |
| TOMM20 | 7.87 | 7.96 | 7.30 | 7.98 | 8.35 | 8.22 | 7.78 | 8.55 |
| TOMM20L | -2.05 | -2.01 | -2.04 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| TOMM20P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| TOMM20P4 | -0.61 | -0.82 | -0.81 | -0.70 | -0.67 | -0.70 | -0.83 | -0.78 |
| TOMM22 | 8.01 | 7.46 | 6.51 | 7.57 | 7.08 | 7.27 | 6.59 | 6.94 |
| TOMM22P5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TOMM34 | 6.79 | 6.21 | 6.64 | 6.27 | 6.35 | 7.00 | 5.74 | 6.51 |
| TOMM40 | 8.54 | 7.53 | 7.73 | 7.72 | 7.84 | 7.45 | 6.72 | 7.68 |
| TOMM40L | 3.09 | 3.47 | 2.75 | 3.21 | 3.10 | 3.21 | 2.82 | 3.10 |
| TOMM5 | 2.32 | 2.43 | 1.73 | 2.51 | 2.49 | 2.43 | 2.20 | 2.04 |
| TOMM7 | 9.26 | 9.35 | 7.81 | 9.51 | 9.77 | 9.09 | 8.74 | 8.84 |
| TOMM70 | 5.77 | 5.27 | 6.34 | 5.29 | 6.08 | 5.89 | 6.06 | 6.62 |
| TONSL | 2.50 | 2.47 | 2.77 | 2.56 | 2.24 | 2.36 | 2.88 | 2.16 |
| TOP1 | 7.89 | 7.65 | 8.04 | 7.45 | 7.52 | 7.98 | 7.79 | 7.70 |
| TOP1MT | 5.47 | 5.09 | 5.66 | 5.28 | 5.92 | 5.46 | 4.63 | 5.34 |
| TOP2A | 8.61 | 7.75 | 9.12 | 7.64 | 7.90 | 9.14 | 8.21 | 8.03 |
| TOP2B | 5.87 | 6.30 | 6.07 | 5.71 | 5.71 | 6.20 | 6.07 | 5.88 |
| TOP3A | 3.73 | 3.14 | 3.83 | 3.31 | 3.08 | 3.17 | 3.53 | 2.78 |
| TOP3B | 0.15 | 0.33 | 0.18 | 0.49 | 0.31 | 0.42 | 0.22 | 0.35 |
| TOPBP1 | 5.98 | 5.53 | 6.27 | 5.33 | 5.55 | 6.01 | 6.30 | 6.44 |
| TOPORS | 4.22 | 5.37 | 5.27 | 5.10 | 4.46 | 5.23 | 5.44 | 4.86 |
| TOR1A | 5.49 | 4.92 | 5.31 | 5.13 | 4.75 | 5.71 | 5.03 | 5.37 |
| TOR1AIP1 | 5.36 | 5.18 | 5.00 | 5.04 | 5.19 | 5.64 | 4.83 | 5.69 |
| TOR1AIP2 | 7.64 | 7.04 | 6.76 | 6.84 | 6.89 | 7.22 | 7.14 | 7.42 |
| TOR1B | 4.67 | 4.50 | 4.78 | 4.20 | 4.20 | 4.33 | 4.39 | 4.51 |
| TOR2A | 5.06 | 4.33 | 4.43 | 4.88 | 4.48 | 4.65 | 4.23 | 3.95 |
| TOR3A | 6.12 | 6.01 | 5.81 | 6.09 | 6.33 | 6.16 | 5.49 | 5.62 |
| TOR4A | 5.69 | 5.51 | 5.35 | 5.00 | 4.73 | 4.91 | 5.93 | 5.58 |
| TOX | -1.20 | -1.12 | -1.18 | -0.85 | -1.19 | -1.05 | -1.20 | -0.86 |
| TOX2 | 2.38 | 1.88 | 1.37 | 1.54 | 1.58 | 2.25 | 1.54 | 1.94 |
| TOX3 | 6.00 | 5.80 | 5.35 | 5.98 | 5.59 | 5.84 | 5.97 | 4.63 |
| TOX4 | 6.49 | 6.00 | 5.85 | 6.31 | 6.38 | 6.36 | 6.10 | 6.21 |
| TOX4P1 | -1.91 | -1.94 | -1.93 | -1.91 | -1.92 | -1.93 | -1.95 | -1.92 |
| TP53 | 3.73 | 4.99 | 3.64 | 4.27 | 3.72 | 5.48 | 4.83 | 5.26 |
| TP53AIP1 | -1.94 | -1.94 | -1.89 | -1.91 | -1.94 | -1.93 | -1.95 | -1.96 |
| TP53BP1 | 4.21 | 4.71 | 5.04 | 4.50 | 4.57 | 4.85 | 5.11 | 5.01 |
| TP53BP2 | 4.91 | 4.78 | 5.12 | 4.80 | 4.78 | 5.25 | 4.89 | 4.98 |
| TP53I11 | 5.46 | 6.03 | 4.95 | 5.49 | 5.66 | 4.89 | 5.40 | 5.01 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TP53I13 | 7.90 | 7.28 | 7.69 | 7.82 | 7.92 | 7.75 | 7.18 | 7.66 |
| TP53I3 | 5.63 | 7.00 | 5.11 | 6.87 | 5.09 | 5.55 | 6.14 | 6.96 |
| TP53INP1 | 3.23 | 3.18 | 3.15 | 3.38 | 2.93 | 3.18 | 3.75 | 3.16 |
| TP53INP2 | 4.76 | 4.20 | 4.74 | 4.02 | 4.78 | 4.55 | 5.41 | 5.07 |
| TP53RK | 6.44 | 5.35 | 5.37 | 5.30 | 5.83 | 5.79 | 4.94 | 5.62 |
| TP53TG1 | 5.06 | 6.70 | 5.59 | 6.88 | 6.59 | 5.98 | 6.26 | 6.31 |
| TP53TG5 | -1.65 | -1.74 | -1.78 | -1.79 | -1.76 | -1.80 | -1.80 | -1.81 |
| TP63 | -0.58 | -0.22 | -0.70 | -0.37 | -0.71 | -0.65 | -0.64 | -0.37 |
| TP73 | 1.81 | 1.77 | 2.30 | 1.73 | 1.92 | 1.97 | 1.93 | 1.65 |
| TP73-AS1 | 3.51 | 2.60 | 3.48 | 2.58 | 3.22 | 3.08 | 3.50 | 2.71 |
| TPBG | 5.65 | 6.10 | 5.72 | 6.04 | 5.15 | 6.20 | 5.70 | 5.92 |
| TPBGL | -1.02 | -0.93 | -1.00 | -0.95 | -0.72 | -1.02 | -0.95 | -1.03 |
| TPCN1 | 3.74 | 5.10 | 5.21 | 5.21 | 4.49 | 5.02 | 5.18 | 4.79 |
| TPCN2 | 2.37 | 2.75 | 2.86 | 2.48 | 2.34 | 2.15 | 2.74 | 2.65 |
| TPD52 | 7.02 | 6.19 | 7.17 | 6.51 | 7.32 | 7.47 | 6.56 | 6.95 |
| TPD52L1 | 6.81 | 5.52 | 5.81 | 5.44 | 6.02 | 4.59 | 6.19 | 6.72 |
| TPD52L2 | 7.10 | 6.62 | 7.09 | 6.46 | 6.77 | 6.77 | 6.15 | 6.96 |
| TPGS1 | 5.21 | 4.89 | 4.62 | 4.82 | 5.07 | 5.41 | 4.57 | 5.16 |
| TPGS2 | 6.67 | 5.89 | 6.22 | 6.05 | 5.97 | 6.91 | 6.01 | 5.29 |
| TPH1 | -1.48 | -1.53 | -1.58 | -1.59 | -1.56 | -1.60 | -1.43 | -1.61 |
| TPH2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| TP11 | 10.71 | 10.62 | 10.75 | 10.45 | 10.02 | 9.76 | 10.38 | 10.10 |
| TP11P1 | 0.09 | -0.15 | 0.03 | 0.05 | -0.11 | -0.07 | -0.02 | 0.04 |
| TP11P2 | -1.69 | -1.68 | -1.68 | -1.69 | -1.69 | -1.67 | -1.65 | -1.71 |
| TPK1 | 1.63 | 1.86 | 1.74 | 1.96 | 2.07 | 1.71 | 1.60 | 1.69 |
| TPM1 | 8.42 | 8.23 | 8.00 | 8.60 | 8.23 | 7.86 | 8.63 | 7.42 |
| TPM1-AS | -0.23 | -0.45 | -0.53 | -0.32 | -0.41 | -0.45 | -0.48 | -0.45 |
| TPM2 | 6.62 | 8.28 | 5.39 | 8.15 | 7.81 | 8.75 | 6.57 | 7.19 |
| TPM3 | 8.57 | 8.30 | 7.39 | 8.37 | 7.95 | 8.65 | 8.33 | 8.38 |
| TPM3P1 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 | -2.26 | -2.27 |
| TPM3P6 | -2.10 | -2.09 | -2.09 | -2.07 | -2.09 | -2.10 | -2.07 | -2.11 |
| TPM3P7 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.14 | -2.12 | -2.16 |
| TPM3P8 | -1.60 | -1.48 | -1.58 | -1.60 | -1.56 | -1.58 | -1.60 | -1.62 |
| TPM3P9 | 2.85 | 1.59 | 1.71 | 1.73 | 1.61 | 1.90 | 1.79 | 1.61 |
| TPM4 | 7.33 | 8.26 | 8.15 | 7.69 | 7.63 | 7.82 | 8.47 | 7.35 |
| TPMT | 6.00 | 5.41 | 4.71 | 5.15 | 4.94 | 5.10 | 5.77 | 6.04 |
| TPMTP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| TPO | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| TPP1 | 5.28 | 5.26 | 5.57 | 5.30 | 5.26 | 4.89 | 5.34 | 5.18 |
| TPP2 | 3.98 | 5.04 | 4.67 | 4.77 | 4.86 | 4.52 | 5.01 | 4.40 |
| TPPP | 2.38 | 2.25 | 2.67 | 2.35 | 2.83 | 2.37 | 2.77 | 1.78 |
| TPPP2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| TPPP3 | 5.06 | 4.69 | 4.16 | 4.40 | 4.30 | 4.49 | 3.32 | 2.74 |
| TPR | 7.67 | 7.86 | 7.67 | 8.08 | 8.43 | 8.45 | 7.99 | 8.13 |
| TPRA1 | 7.13 | 5.29 | 6.59 | 5.76 | 6.34 | 6.23 | 5.72 | 6.79 |
| TPRG1 | 3.36 | 4.67 | 2.90 | 5.22 | 2.46 | 3.42 | 2.30 | 2.65 |
| TPRG1-AS1 | -1.06 | -1.13 | -1.05 | -1.21 | -1.06 | -1.18 | -1.21 | -1.05 |
| TPRG1L | 5.74 | 5.80 | 5.51 | 5.75 | 5.51 | 5.38 | 6.02 | 5.82 |
| TPRKB | 7.79 | 6.99 | 6.55 | 7.13 | 7.68 | 7.40 | 6.96 | 7.04 |
| TPRKBP1 | -1.37 | -1.58 | -1.57 | -1.59 | -1.53 | -1.54 | -1.54 | -1.61 |
| TPRKBP2 | -1.08 | -0.92 | -0.98 | -1.01 | -1.07 | -1.02 | -0.96 | -1.03 |
| TPRN | 4.81 | 4.50 | 4.34 | 4.22 | 3.94 | 3.92 | 4.67 | 4.09 |
| TPRXL | -1.31 | -1.36 | -1.17 | -1.26 | -1.37 | -1.35 | -1.31 | -1.23 |
| TPSB2 | -1.74 | -1.74 | -1.73 | -1.69 | -1.74 | -1.75 | -1.74 | -1.76 |
| TPSG1 | -2.24 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| TPSP2 | -1.29 | -1.41 | -1.33 | -1.42 | -1.38 | -1.39 | -1.36 | -1.33 |
| TPST1 | 3.65 | 2.64 | 3.14 | 2.91 | 3.53 | 3.07 | 2.88 | 2.60 |
| TPST2 | 4.60 | 3.78 | 3.32 | 4.10 | 3.88 | 3.72 | 4.51 | 3.92 |
| TPT1 | 9.91 | 11.45 | 10.51 | 11.54 | 12.06 | 10.63 | 11.49 | 11.72 |
| TPT1-AS1 | 3.21 | 3.37 | 3.84 | 3.46 | 3.63 | 3.76 | 3.83 | 4.00 |
| TPT1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TPT1P10 | -2.20 | -2.20 | -2.19 | -2.18 | -2.19 | -2.20 | -2.20 | -2.21 |
| TPT1P2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TPT1P4 | 0.36 | 0.54 | 0.64 | 0.89 | 0.85 | 0.38 | 0.57 | 0.89 |
| TPT1P6 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.30 |
| TPT1P7 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| TPT1P9 | 0.66 | 1.01 | 0.87 | 1.37 | 1.18 | 0.84 | 1.04 | 1.26 |
| TPTE2P5 | -0.26 | -0.18 | -0.33 | -0.13 | -0.01 | -0.25 | -0.20 | -0.14 |
| TPTEP1 | -0.21 | -0.21 | -0.20 | -0.22 | -0.17 | -0.23 | 0.38 | -0.24 |
| TPTEP2 | 1.31 | 1.49 | 1.69 | 1.78 | 1.43 | 1.65 | 1.88 | 1.85 |
| TPX2 | 7.25 | 6.23 | 7.21 | 6.22 | 6.24 | 7.21 | 6.27 | 7.04 |
| TRA2A | 5.99 | 6.20 | 6.27 | 6.12 | 6.25 | 6.16 | 6.31 | 6.02 |
| TRA2B | 6.96 | 7.04 | 7.51 | 7.14 | 7.18 | 7.25 | 7.18 | 7.32 |
| TRABD | 6.90 | 6.67 | 6.05 | 6.79 | 6.47 | 6.62 | 6.44 | 6.81 |
| TRABD2A | 3.73 | 4.29 | 4.42 | 4.71 | 4.46 | 3.98 | 3.40 | 5.11 |
| TRABD2B | 0.47 | 0.32 | 0.33 | 0.30 | 0.40 | 0.32 | 1.44 | 0.26 |
| TRAC | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TRADD | 5.90 | 5.14 | 5.18 | 5.16 | 5.39 | 5.48 | 5.48 | 5.62 |
| TRAF1 | -0.57 | -0.54 | -0.42 | -0.56 | -0.54 | -0.68 | -0.64 | -0.66 |
| TRAF2 | 5.52 | 4.79 | 5.40 | 4.79 | 4.53 | 4.89 | 4.95 | 4.95 |
| TRAF3 | 4.14 | 4.41 | 4.48 | 4.05 | 4.52 | 4.34 | 4.16 | 4.58 |
| TRAF3IP1 | 6.13 | 5.96 | 5.57 | 6.06 | 5.46 | 6.13 | 5.83 | 5.98 |
| TRAF3IP2 | 4.95 | 5.09 | 4.24 | 5.00 | 4.03 | 4.59 | 4.59 | 4.27 |
| TRAF3IP2-AS1 | 3.41 | 2.19 | 1.96 | 2.08 | 1.97 | 2.05 | 1.84 | 1.79 |
| TRAF3IP3 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 |
| TRAF4 | 6.08 | 6.00 | 5.94 | 6.26 | 6.13 | 6.43 | 6.19 | 6.81 |
| TRAF5 | 3.19 | 3.30 | 3.25 | 3.11 | 3.26 | 4.02 | 3.01 | 3.41 |
| TRAF6 | 3.39 | 3.40 | 3.51 | 3.65 | 3.40 | 3.11 | 3.59 | 3.32 |
| TRAF7 | 6.01 | 6.05 | 6.30 | 5.92 | 5.54 | 5.88 | 6.15 | 6.43 |
| TRAFD1 | 5.10 | 4.53 | 5.39 | 4.65 | 4.72 | 4.80 | 4.92 | 5.34 |
| TRAIIP | 4.08 | 3.08 | 3.41 | 3.51 | 4.01 | 3.93 | 3.20 | 3.45 |
| TRAK1 | 6.16 | 7.44 | 6.95 | 7.33 | 6.74 | 6.17 | 7.05 | 6.55 |
| TRAK2 | 4.51 | 5.17 | 4.47 | 5.04 | 4.32 | 4.36 | 5.30 | 4.46 |
| TRAM1 | 7.21 | 7.60 | 7.90 | 7.57 | 7.68 | 7.79 | 7.87 | 8.63 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TRAM1L1 | -0.19 | -0.02 | 0.44 | -0.14 | -0.19 | 0.13 | -0.06 | -0.24 |
| TRAM2 | 4.26 | 4.01 | 3.88 | 4.04 | 3.70 | 4.64 | 4.28 | 3.97 |
| TRAM2-AS1 | 2.63 | 2.36 | 2.49 | 2.66 | 2.45 | 2.14 | 2.38 | 2.45 |
| TRANK1 | 2.23 | 2.32 | 2.54 | 2.49 | 2.39 | 2.20 | 2.77 | 2.06 |
| TRAP1 | 7.65 | 6.89 | 7.78 | 7.08 | 7.01 | 7.40 | 7.10 | 7.43 |
| TRAPPC1 | 6.37 | 6.02 | 6.22 | 6.26 | 6.55 | 6.41 | 6.38 | 6.72 |
| TRAPPC10 | 4.95 | 5.35 | 4.53 | 5.06 | 4.58 | 5.14 | 5.06 | 5.51 |
| TRAPPC11 | 3.86 | 4.79 | 4.77 | 4.62 | 3.98 | 4.31 | 4.96 | 4.63 |
| TRAPPC12 | 5.04 | 5.28 | 5.08 | 5.51 | 4.91 | 5.17 | 4.97 | 5.30 |
| TRAPPC12-AS1 | -1.89 | -1.89 | -1.84 | -1.85 | -1.89 | -1.88 | -1.89 | -1.87 |
| TRAPPC13 | 3.93 | 4.34 | 4.07 | 4.43 | 4.97 | 4.40 | 4.48 | 4.49 |
| TRAPPC2 | 4.45 | 4.03 | 4.23 | 4.07 | 4.25 | 3.88 | 4.01 | 3.73 |
| TRAPPC2B | 5.83 | 3.92 | 4.93 | 3.76 | 4.46 | 5.14 | 4.62 | 5.70 |
| TRAPPC2L | 7.21 | 7.30 | 6.72 | 7.34 | 6.73 | 6.89 | 6.90 | 7.06 |
| TRAPPC3 | 6.99 | 6.23 | 6.44 | 6.29 | 6.92 | 6.92 | 6.67 | 6.90 |
| TRAPPC4 | 7.57 | 6.48 | 6.59 | 6.65 | 7.35 | 7.16 | 6.66 | 7.28 |
| TRAPPC5 | 1.21 | 1.71 | 1.69 | 1.55 | 1.30 | 1.41 | 1.24 | 1.41 |
| TRAPPC6A | 7.40 | 6.30 | 5.89 | 6.38 | 7.96 | 6.04 | 6.05 | 6.58 |
| TRAPPC6B | 4.16 | 4.60 | 4.48 | 5.00 | 4.87 | 4.85 | 4.82 | 4.74 |
| TRAPPC8 | 3.85 | 4.16 | 4.42 | 4.05 | 4.01 | 4.55 | 5.06 | 3.78 |
| TRAPPC9 | 3.85 | 4.10 | 4.94 | 4.07 | 4.19 | 4.14 | 4.59 | 4.57 |
| TRBC2 | -0.32 | -0.22 | -0.19 | -0.11 | -0.27 | -0.18 | -0.32 | 0.92 |
| TRBV29OR9-2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TRBV30 | -1.79 | -1.78 | -1.74 | -1.71 | -1.76 | -1.71 | -1.75 | -1.76 |
| TRDC | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| TRDMT1 | 1.99 | 1.87 | 1.62 | 1.86 | 1.93 | 1.97 | 1.84 | 1.56 |
| TRDN-AS1 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TREH | 0.59 | 0.51 | 0.21 | 0.41 | 0.24 | 0.28 | 0.47 | 0.15 |
| TREHP1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| TREM1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| TREML2 | -1.07 | -1.14 | -1.12 | -1.15 | -1.10 | -1.12 | -1.15 | -1.16 |
| TREML3P | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| TRERF1 | 4.11 | 4.58 | 4.21 | 4.80 | 4.16 | 4.46 | 3.73 | 4.80 |
| TREX2 | -1.84 | -1.84 | -1.79 | -1.84 | -1.82 | -1.83 | -1.80 | -1.77 |
| TRG-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TRH | -1.23 | -1.30 | -1.15 | -1.31 | -1.30 | -1.28 | -1.17 | -1.26 |
| TRHDE | -1.43 | -1.42 | -0.90 | -1.37 | -1.42 | -1.41 | -1.43 | -1.08 |
| TRHDE-AS1 | -0.88 | -0.87 | 0.31 | -0.88 | -0.78 | -0.85 | -0.88 | -0.12 |
| TRIAP1 | 5.48 | 6.59 | 5.48 | 6.94 | 5.66 | 5.80 | 5.45 | 6.21 |
| TRIB1 | 4.36 | 4.36 | 5.62 | 4.42 | 5.46 | 4.89 | 4.45 | 5.20 |
| TRIB2 | 4.61 | 4.74 | 5.65 | 4.71 | 3.91 | 4.88 | 4.57 | 5.41 |
| TRIB3 | 6.55 | 5.58 | 5.91 | 5.56 | 6.53 | 6.20 | 7.30 | 7.06 |
| TRIL | -0.85 | -0.91 | -0.98 | -0.74 | -0.84 | -0.94 | -1.00 | -0.95 |
| TRIM10 | 1.75 | 1.53 | 1.74 | 1.47 | 1.26 | 1.33 | 1.91 | 1.24 |
| TRIM11 | 4.88 | 4.79 | 4.93 | 5.01 | 5.27 | 4.97 | 4.92 | 5.20 |
| TRIM13 | 4.97 | 5.74 | 4.57 | 5.39 | 5.35 | 4.68 | 5.29 | 5.54 |
| TRIM14 | 6.17 | 5.35 | 5.13 | 5.12 | 4.75 | 5.32 | 5.92 | 4.32 |
| TRIM15 | 5.00 | 4.34 | 4.53 | 4.54 | 4.14 | 4.76 | 5.10 | 3.62 |
| TRIM16 | 5.85 | 5.03 | 5.26 | 4.74 | 4.85 | 4.79 | 5.10 | 5.71 |
| TRIM16L | 4.78 | 3.68 | 3.41 | 3.35 | 3.23 | 2.93 | 3.31 | 4.06 |
| TRIM17 | -1.40 | -1.51 | -1.50 | -1.46 | -1.51 | -1.52 | -1.41 | -1.34 |
| TRIM2 | 6.14 | 6.71 | 6.09 | 6.57 | 6.56 | 6.98 | 5.97 | 6.40 |
| TRIM21 | 4.94 | 4.68 | 4.38 | 4.75 | 4.90 | 4.54 | 4.14 | 4.63 |
| TRIM22 | 4.41 | 5.10 | 3.82 | 5.21 | 3.66 | 3.79 | 4.29 | 3.52 |
| TRIM23 | 2.88 | 3.09 | 3.66 | 2.98 | 3.16 | 3.08 | 3.43 | 2.92 |
| TRIM24 | 4.68 | 5.49 | 5.35 | 5.61 | 5.00 | 4.80 | 4.90 | 4.23 |
| TRIM25 | 5.86 | 6.23 | 6.59 | 6.07 | 5.81 | 6.08 | 6.18 | 5.59 |
| TRIM26 | 5.20 | 4.84 | 4.86 | 4.35 | 4.52 | 4.87 | 5.03 | 5.17 |
| TRIM27 | 6.25 | 5.40 | 5.77 | 5.30 | 5.62 | 6.35 | 5.86 | 6.30 |
| TRIM28 | 7.64 | 7.70 | 7.97 | 7.62 | 7.47 | 7.39 | 7.59 | 7.25 |
| TRIM29 | 5.40 | 8.15 | 6.88 | 7.66 | 6.74 | 5.81 | 6.93 | 7.94 |
| TRIM3 | 1.77 | 1.81 | 2.16 | 2.10 | 1.89 | 1.76 | 2.04 | 1.80 |
| TRIM31 | 5.15 | 3.70 | 5.09 | 3.39 | 3.42 | 4.58 | 3.68 | 4.94 |
| TRIM31-AS1 | -0.34 | -0.47 | -0.38 | -0.35 | -0.47 | -0.34 | -0.34 | -0.23 |
| TRIM32 | 3.74 | 3.49 | 3.59 | 3.57 | 3.24 | 3.65 | 3.57 | 3.47 |
| TRIM33 | 5.99 | 6.00 | 6.33 | 5.98 | 5.35 | 5.86 | 6.24 | 5.34 |
| TRIM34 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| TRIM35 | 2.73 | 2.88 | 2.68 | 2.51 | 2.58 | 2.67 | 2.62 | 2.45 |
| TRIM36 | 0.68 | 0.69 | 0.89 | 0.86 | 1.00 | 0.80 | 0.66 | 0.48 |
| TRIM37 | 5.01 | 4.86 | 4.54 | 4.88 | 4.70 | 5.03 | 5.30 | 4.83 |
| TRIM38 | 5.17 | 5.34 | 5.42 | 4.99 | 4.34 | 5.75 | 5.37 | 5.69 |
| TRIM39 | 2.08 | 1.95 | 2.14 | 1.99 | 2.04 | 2.48 | 2.49 | 2.58 |
| TRIM4 | 4.85 | 4.96 | 5.07 | 4.59 | 4.83 | 4.75 | 4.97 | 4.73 |
| TRIM40 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| TRIM41 | 3.93 | 4.23 | 4.61 | 4.15 | 4.21 | 4.09 | 4.15 | 3.94 |
| TRIM44 | 6.90 | 7.22 | 7.13 | 7.17 | 7.00 | 6.87 | 6.58 | 6.60 |
| TRIM45 | 0.95 | 1.25 | 0.99 | 1.12 | 0.93 | 1.33 | 1.12 | 1.09 |
| TRIM46 | -1.16 | -1.23 | -1.22 | -1.24 | -1.04 | -1.14 | -1.25 | -1.08 |
| TRIM5 | 5.20 | 5.30 | 4.62 | 4.71 | 4.80 | 4.46 | 4.65 | 4.95 |
| TRIM50 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| TRIM52 | 2.93 | 3.12 | 2.96 | 3.32 | 2.91 | 2.89 | 3.22 | 2.97 |
| TRIM52-AS1 | 4.41 | 3.78 | 3.95 | 4.17 | 4.43 | 4.05 | 3.58 | 3.61 |
| TRIM53CP | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| TRIM54 | 2.70 | 5.41 | 2.88 | 5.45 | 3.94 | 4.01 | 4.27 | 2.59 |
| TRIM56 | 5.51 | 7.07 | 6.79 | 6.76 | 6.46 | 6.24 | 7.10 | 6.16 |
| TRIM58 | -2.30 | -2.29 | -2.29 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| TRIM59 | 3.49 | 3.35 | 3.65 | 3.01 | 3.17 | 3.63 | 3.57 | 3.17 |
| TRIM6 | 0.15 | 0.37 | 0.02 | 0.07 | 0.20 | 0.40 | 0.07 | 0.20 |
| TRIM60 | -2.29 | -2.30 | -2.28 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| TRIM61 | -0.93 | -0.92 | -0.91 | -0.93 | -0.92 | -0.90 | -0.79 | -0.94 |
| TRIM62 | 1.71 | 1.88 | 2.36 | 1.81 | 1.89 | 2.00 | 2.15 | 2.04 |
| TRIM63 | -1.79 | -1.79 | -1.78 | -1.75 | -1.76 | -1.80 | -1.80 | -1.81 |
| TRIM65 | 4.33 | 3.95 | 4.06 | 3.92 | 4.06 | 3.89 | 3.83 | 3.51 |
| TRIM66 | 2.04 | 2.24 | 2.22 | 2.62 | 2.29 | 2.19 | 2.88 | 1.89 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TRIM67 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -2.00 | -2.01 |
| TRIM68 | 3.33 | 3.00 | 3.37 | 2.95 | 3.14 | 3.05 | 3.33 | 3.06 |
| TRIM69 | 3.71 | 3.89 | 3.56 | 3.40 | 4.43 | 3.75 | 3.63 | 3.42 |
| TRIM7 | 3.85 | 5.19 | 4.37 | 5.67 | 4.83 | 3.98 | 3.90 | 3.80 |
| TRIM71 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| TRIM72 | -1.49 | -1.49 | -1.48 | -1.44 | -1.46 | -1.48 | -1.44 | -1.52 |
| TRIM8 | 6.03 | 6.75 | 5.97 | 6.57 | 6.68 | 6.43 | 6.23 | 6.83 |
| TRIM80P | -1.87 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.95 | -1.89 |
| TRIM9 | -1.19 | -1.19 | -1.17 | -1.20 | -1.11 | -1.20 | -1.13 | -1.21 |
| TRIML2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TRIO | 4.08 | 4.41 | 5.60 | 4.57 | 4.80 | 4.79 | 5.30 | 4.16 |
| TRIOBP | 6.67 | 6.76 | 5.88 | 6.10 | 6.51 | 6.97 | 6.59 | 7.15 |
| TRIP10 | 6.75 | 7.17 | 6.77 | 6.99 | 6.80 | 6.67 | 7.07 | 7.22 |
| TRIP11 | 5.89 | 6.98 | 6.64 | 6.80 | 6.57 | 6.90 | 7.17 | 6.09 |
| TRIP12 | 6.61 | 6.83 | 6.72 | 6.70 | 6.65 | 7.03 | 7.28 | 7.32 |
| TRIP13 | 5.06 | 4.35 | 4.93 | 4.37 | 4.33 | 4.65 | 4.06 | 4.60 |
| TRIP4 | 4.64 | 4.92 | 4.81 | 4.55 | 5.03 | 4.80 | 4.73 | 5.55 |
| TRIP6 | 3.67 | 7.06 | 4.43 | 6.74 | 6.31 | 5.50 | 5.27 | 6.11 |
| TRIQK | 4.81 | 5.80 | 5.33 | 5.83 | 5.48 | 5.85 | 6.02 | 5.99 |
| TRIR | 7.80 | 8.33 | 7.71 | 8.49 | 7.92 | 7.84 | 7.82 | 7.58 |
| TRIT1 | 3.62 | 4.13 | 4.24 | 4.23 | 4.55 | 4.41 | 4.36 | 3.55 |
| TRMO | 3.72 | 3.75 | 3.45 | 3.91 | 3.28 | 3.79 | 3.61 | 3.84 |
| TRMT1 | 4.16 | 4.60 | 4.26 | 4.60 | 4.49 | 4.28 | 4.29 | 4.42 |
| TRMT10A | 3.56 | 4.21 | 3.93 | 4.08 | 3.93 | 4.07 | 4.65 | 4.04 |
| TRMT10B | 4.06 | 4.51 | 4.66 | 4.70 | 4.93 | 4.47 | 4.66 | 4.20 |
| TRMT10C | 7.17 | 6.06 | 6.63 | 5.97 | 6.64 | 6.54 | 6.23 | 7.28 |
| TRMT11 | 5.25 | 4.17 | 5.19 | 4.64 | 4.98 | 5.03 | 4.95 | 5.19 |
| TRMT112 | 9.25 | 8.23 | 9.11 | 8.44 | 9.55 | 9.43 | 8.44 | 9.80 |
| TRMT112P3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.19 | -2.20 | -2.21 |
| TRMT112P6 | 0.01 | -0.40 | -0.22 | -0.33 | -0.21 | -0.22 | -0.41 | -0.31 |
| TRMT12 | 3.26 | 3.15 | 3.25 | 3.29 | 2.79 | 3.45 | 3.07 | 3.61 |
| TRMT13 | 4.39 | 4.65 | 4.41 | 4.51 | 4.37 | 4.33 | 4.77 | 3.62 |
| TRMT1L | 4.90 | 4.95 | 4.90 | 4.91 | 5.16 | 4.82 | 4.88 | 4.82 |
| TRMT2A | 4.81 | 4.46 | 4.18 | 4.47 | 4.24 | 4.49 | 4.67 | 4.80 |
| TRMT2B | 3.73 | 3.50 | 3.98 | 3.62 | 3.49 | 3.38 | 3.52 | 3.28 |
| TRMT44 | 2.44 | 2.15 | 2.59 | 2.08 | 2.39 | 2.45 | 2.69 | 2.49 |
| TRMT5 | 4.08 | 4.36 | 4.01 | 4.30 | 4.80 | 4.54 | 4.06 | 4.19 |
| TRMT6 | 6.24 | 6.12 | 5.82 | 5.90 | 6.33 | 5.96 | 5.40 | 6.67 |
| TRMT61A | 4.60 | 4.41 | 4.36 | 4.66 | 4.50 | 4.27 | 3.84 | 4.50 |
| TRMT61B | 5.21 | 5.00 | 4.59 | 5.13 | 3.91 | 4.58 | 4.49 | 4.81 |
| TRMT9B | 0.87 | 1.35 | 1.17 | 1.23 | 1.01 | 1.02 | 1.89 | 0.93 |
| TRMU | 5.95 | 5.24 | 5.36 | 5.60 | 4.72 | 5.14 | 5.26 | 5.23 |
| TRNAU1AP | 4.54 | 4.45 | 4.72 | 4.41 | 4.57 | 4.68 | 4.97 | 4.44 |
| TRNP1 | 6.68 | 6.59 | 6.81 | 6.85 | 8.00 | 7.70 | 6.99 | 6.16 |
| TRNT1 | 5.09 | 4.92 | 4.66 | 5.00 | 5.05 | 4.49 | 4.56 | 4.30 |
| TRO | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| TROAP | 5.73 | 4.48 | 4.90 | 4.82 | 4.71 | 5.51 | 4.23 | 4.97 |
| TRPA1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TRPC1 | 1.80 | 1.27 | 2.28 | 1.39 | 1.59 | 1.35 | 2.01 | 1.36 |
| TRPC3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| TRPC4AP | 5.64 | 5.51 | 6.33 | 5.92 | 5.90 | 5.93 | 6.08 | 6.18 |
| TRPC6 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| TRPC7-AS1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -1.96 | -2.01 |
| TRPM1 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -2.04 | -1.91 |
| TRPM2 | 4.86 | 2.55 | 2.64 | 2.76 | 2.43 | 4.93 | 2.70 | 5.28 |
| TRPM2-AS | 0.34 | -0.11 | -0.18 | -0.13 | -0.15 | 0.28 | -0.21 | -0.04 |
| TRPM3 | -2.10 | -2.10 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.12 |
| TRPM4 | 5.05 | 5.11 | 5.15 | 5.33 | 4.88 | 4.43 | 5.51 | 5.41 |
| TRPM5 | -1.80 | -1.79 | -1.83 | -1.80 | -1.82 | -1.81 | -1.84 | -1.82 |
| TRPM6 | -1.16 | -1.35 | -1.34 | -1.29 | -1.35 | -1.33 | -1.36 | -1.37 |
| TRPM7 | 5.15 | 5.56 | 5.02 | 5.81 | 5.51 | 4.94 | 5.67 | 5.24 |
| TRPM8 | -1.17 | -1.16 | -1.15 | -1.17 | -1.08 | -1.01 | -0.53 | -1.12 |
| TRPS1 | 2.93 | 3.17 | 4.42 | 3.09 | 2.64 | 3.86 | 4.70 | 4.12 |
| TRPT1 | 6.20 | 5.10 | 5.84 | 5.30 | 6.30 | 6.04 | 5.65 | 6.68 |
| TRPV1 | 0.27 | 0.20 | 0.56 | 0.26 | 0.44 | 0.41 | 0.58 | 0.28 |
| TRPV2 | -0.14 | -0.49 | -0.48 | -0.35 | -0.33 | -0.44 | -0.51 | -0.20 |
| TRPV3 | -1.19 | -1.31 | -1.24 | -1.32 | -1.25 | -1.23 | -1.33 | -1.34 |
| TRPV4 | 2.69 | 2.98 | 3.01 | 3.65 | 4.03 | 3.40 | 3.02 | 3.32 |
| TRPV6 | 0.75 | 0.76 | 0.80 | 0.97 | 0.71 | 0.70 | 1.46 | 0.67 |
| TRRAP | 4.23 | 5.03 | 4.63 | 4.75 | 4.59 | 4.51 | 5.20 | 4.94 |
| TRUB1 | 4.49 | 4.61 | 4.71 | 4.66 | 4.73 | 4.30 | 4.83 | 4.32 |
| TRUB2 | 7.19 | 5.72 | 5.17 | 6.12 | 5.45 | 6.23 | 5.38 | 5.79 |
| TSACC | 1.79 | 1.33 | 1.23 | 1.28 | 1.18 | 1.39 | 1.28 | 1.39 |
| TSBP1-AS1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -1.96 |
| TSC1 | 4.25 | 4.13 | 4.24 | 4.30 | 3.85 | 4.29 | 4.15 | 3.99 |
| TSC2 | 4.78 | 4.72 | 4.83 | 4.41 | 4.09 | 4.88 | 5.07 | 5.12 |
| TSC22D1 | 7.79 | 7.64 | 7.70 | 7.74 | 8.28 | 7.34 | 8.06 | 9.35 |
| TSC22D1-AS1 | -0.95 | -0.94 | -0.93 | -0.68 | -0.76 | -0.89 | -0.88 | -0.70 |
| TSC22D2 | 4.37 | 3.97 | 5.10 | 3.68 | 4.59 | 4.91 | 4.88 | 5.22 |
| TSC22D3 | 7.33 | 4.52 | 7.88 | 4.50 | 7.05 | 5.32 | 6.89 | 7.48 |
| TSC22D4 | 5.74 | 5.55 | 5.82 | 5.87 | 5.72 | 5.49 | 5.61 | 5.59 |
| TSEN15 | 6.49 | 5.95 | 5.64 | 6.02 | 7.48 | 6.72 | 5.77 | 6.68 |
| TSEN15P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TSEN2 | 4.27 | 4.43 | 4.06 | 4.46 | 3.99 | 3.96 | 4.02 | 3.83 |
| TSEN34 | 7.70 | 6.62 | 6.52 | 6.79 | 6.91 | 7.19 | 6.43 | 7.11 |
| TSEN54 | 6.43 | 5.42 | 5.98 | 5.73 | 6.05 | 5.97 | 5.52 | 5.36 |
| TSFM | -1.60 | -1.59 | -1.58 | -1.60 | -1.56 | -1.52 | -1.54 | -1.56 |
| TSG101 | 7.52 | 6.83 | 6.93 | 6.98 | 7.41 | 7.24 | 6.61 | 7.64 |
| TSGA10 | 4.05 | 3.58 | 3.21 | 3.68 | 3.93 | 3.56 | 3.51 | 3.51 |
| TSHZ1 | 3.42 | 4.11 | 4.38 | 4.04 | 3.30 | 3.47 | 4.51 | 3.16 |
| TSHZ2 | 2.71 | 3.41 | 3.70 | 3.06 | 2.50 | 3.56 | 4.38 | 3.24 |
| TSHZ3 | -1.90 | -1.86 | -1.93 | -1.87 | -1.94 | -1.93 | -1.95 | -1.96 |
| TSIX | 0.77 | 0.54 | 1.77 | 0.67 | 0.63 | 0.68 | 1.44 | 0.47 |
| TSKS | -2.01 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TSKU | 6.01 | 5.98 | 6.23 | 5.75 | 4.97 | 5.52 | 5.09 | 6.79 |
| TSLP | -0.40 | -0.40 | -0.38 | -0.41 | -0.14 | -0.30 | -0.33 | -0.29 |
| TSN | 6.32 | 5.90 | 6.04 | 5.94 | 6.14 | 6.07 | 6.09 | 6.21 |
| TSNARE1 | 1.35 | 1.61 | 1.35 | 1.93 | 1.88 | 1.84 | 1.32 | 2.10 |
| TSNAX | 5.54 | 5.61 | 5.11 | 5.52 | 5.26 | 5.68 | 5.53 | 5.81 |
| TSNAXIP1 | -1.36 | -1.36 | -1.07 | -1.37 | -1.36 | -1.34 | -1.30 | -1.38 |
| TSPAN1 | 7.83 | 8.24 | 7.27 | 8.19 | 8.44 | 8.07 | 8.35 | 8.77 |
| TSPAN10 | 1.72 | 1.25 | 1.54 | 1.22 | 1.83 | 1.56 | 1.52 | 1.22 |
| TSPAN11 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| TSPAN12 | 2.62 | 3.25 | 2.51 | 3.06 | 2.52 | 2.31 | 3.38 | 3.34 |
| TSPAN13 | 8.32 | 7.57 | 6.90 | 7.91 | 8.11 | 7.64 | 7.53 | 7.82 |
| TSPAN14 | 5.85 | 6.36 | 6.82 | 5.99 | 5.84 | 6.20 | 6.66 | 5.61 |
| TSPAN15 | 8.06 | 7.64 | 7.12 | 7.86 | 7.91 | 7.26 | 6.95 | 7.40 |
| TSPAN17 | 4.82 | 5.81 | 5.53 | 5.40 | 5.04 | 4.80 | 4.96 | 4.69 |
| TSPAN18 | -0.25 | -0.22 | -0.52 | -0.39 | -0.46 | -0.55 | -0.54 | -0.56 |
| TSPAN19 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.06 |
| TSPAN2 | 3.37 | 2.33 | 2.29 | 2.13 | 1.90 | 2.88 | 1.76 | 3.13 |
| TSPAN3 | 9.23 | 8.65 | 8.90 | 9.04 | 9.96 | 8.32 | 8.73 | 8.69 |
| TSPAN31 | 6.06 | 5.76 | 5.92 | 5.86 | 6.28 | 6.05 | 5.54 | 6.34 |
| TSPAN32 | -2.20 | -2.20 | -2.17 | -2.20 | -2.20 | -2.16 | -2.20 | -2.21 |
| TSPAN33 | 3.63 | 3.25 | 3.64 | 2.97 | 3.63 | 2.10 | 2.99 | 2.65 |
| TSPAN4 | 6.89 | 4.46 | 5.02 | 4.45 | 4.37 | 4.00 | 4.63 | 6.79 |
| TSPAN5 | 2.70 | 3.47 | 4.24 | 3.72 | 4.13 | 4.34 | 4.21 | 4.55 |
| TSPAN6 | 5.58 | 5.63 | 5.95 | 5.80 | 5.92 | 6.49 | 5.51 | 5.31 |
| TSPAN7 | 0.73 | 0.63 | 0.75 | 0.74 | 1.08 | 0.52 | 0.61 | 0.61 |
| TSPAN8 | 8.64 | 9.63 | 9.31 | 10.31 | 10.22 | 8.16 | 9.33 | 9.60 |
| TSPAN9 | 4.68 | 3.49 | 3.95 | 3.45 | 3.53 | 3.19 | 3.97 | 3.82 |
| TSPEAR | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| TSPEAR-AS1 | -1.78 | -1.89 | -1.88 | -1.89 | -1.89 | -1.90 | -1.89 | -1.91 |
| TSPEAR-AS2 | 0.47 | -0.30 | -0.18 | -0.39 | -0.39 | -0.40 | -0.31 | -0.42 |
| TSPO | 9.06 | 10.06 | 9.24 | 10.03 | 9.39 | 9.47 | 9.90 | 9.80 |
| TSPO2 | -1.24 | -1.16 | -1.22 | -1.24 | -1.12 | -1.25 | -1.17 | -1.26 |
| TSPOAP1 | -0.95 | -1.01 | -1.00 | -1.10 | -0.98 | -0.98 | -0.97 | -1.11 |
| TSPOAP1-AS1 | -0.19 | -0.26 | -0.25 | -0.27 | 0.06 | -0.18 | 0.00 | -0.07 |
| TSPY26P | -0.17 | -0.08 | 0.01 | -0.26 | 0.12 | -0.23 | -0.18 | -0.04 |
| TSPYL1 | 5.89 | 6.08 | 6.11 | 5.93 | 5.50 | 6.22 | 6.09 | 5.67 |
| TSPYL2 | 3.13 | 2.26 | 4.00 | 2.31 | 3.64 | 3.33 | 3.04 | 3.74 |
| TSPYL4 | 2.72 | 2.98 | 3.44 | 2.89 | 2.60 | 3.19 | 3.24 | 2.55 |
| TSPYL5 | 3.47 | 3.16 | 2.32 | 3.18 | 2.79 | 2.03 | 2.28 | 1.93 |
| TSR1 | 4.92 | 4.63 | 5.33 | 4.61 | 4.80 | 4.95 | 4.95 | 5.03 |
| TSR2 | 7.27 | 6.40 | 7.15 | 6.49 | 6.69 | 6.36 | 5.64 | 6.30 |
| TSR3 | 7.39 | 7.11 | 6.76 | 7.06 | 6.56 | 6.93 | 6.50 | 7.57 |
| TSSC2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TSSC4 | 6.41 | 5.96 | 6.02 | 6.27 | 6.23 | 6.09 | 5.33 | 6.17 |
| TSSK3 | -1.70 | -1.74 | -1.73 | -1.70 | -1.72 | -1.73 | -1.75 | -1.59 |
| TSSK4 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.13 | -2.16 |
| TSSK6 | 0.55 | 0.43 | 0.70 | 0.47 | 0.62 | 0.49 | 0.52 | 0.46 |
| TST | 6.78 | 7.45 | 7.16 | 7.72 | 7.67 | 7.00 | 7.74 | 6.42 |
| TSTA3 | 6.99 | 6.92 | 6.83 | 7.39 | 7.23 | 6.43 | 6.83 | 7.26 |
| TSTD1 | 8.48 | 7.92 | 7.43 | 7.94 | 8.79 | 8.20 | 7.23 | 8.30 |
| TSTD2 | 4.34 | 3.50 | 3.92 | 3.77 | 3.56 | 3.72 | 4.02 | 3.24 |
| TSTD3 | 2.71 | 2.28 | 2.57 | 3.09 | 2.67 | 2.99 | 3.01 | 2.72 |
| TTBK1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.94 | -1.98 | -2.00 | -2.01 |
| TTBK2 | 2.99 | 3.41 | 3.61 | 2.90 | 3.66 | 3.08 | 3.66 | 2.99 |
| TTC1 | 6.98 | 7.12 | 6.61 | 6.79 | 7.49 | 6.92 | 6.81 | 6.91 |
| TTC12 | 2.77 | 2.84 | 3.47 | 3.21 | 2.61 | 2.82 | 2.90 | 2.41 |
| TTC13 | 3.58 | 3.82 | 3.72 | 3.87 | 3.67 | 3.94 | 3.94 | 3.63 |
| TTC14 | 4.66 | 5.50 | 5.77 | 5.50 | 5.17 | 5.06 | 5.86 | 5.37 |
| TTC16 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| TTC17 | 5.81 | 5.70 | 6.65 | 5.59 | 6.13 | 5.51 | 6.48 | 6.72 |
| TTC19 | 6.36 | 5.85 | 6.38 | 5.76 | 5.91 | 5.92 | 6.49 | 6.35 |
| TTC21A | 0.38 | 0.16 | 0.44 | 0.15 | 0.24 | 0.46 | 0.36 | 0.41 |
| TTC21B | 3.50 | 3.34 | 3.16 | 3.04 | 2.91 | 3.11 | 3.48 | 3.00 |
| TTC21B-AS1 | -2.10 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.12 | -2.16 |
| TTC22 | 3.91 | 4.42 | 4.49 | 4.37 | 4.07 | 3.79 | 4.40 | 4.18 |
| TTC23 | 2.98 | 3.03 | 3.73 | 2.88 | 3.22 | 3.05 | 3.35 | 3.78 |
| TTC23L | -2.15 | -2.15 | -2.12 | -2.15 | -2.13 | -2.14 | -2.15 | -2.16 |
| TTC25 | 0.18 | -0.11 | -0.02 | 0.09 | 0.11 | 0.28 | -0.12 | 0.09 |
| TTC26 | 2.81 | 2.50 | 2.72 | 2.79 | 2.51 | 2.92 | 2.73 | 2.48 |
| TTC27 | 3.32 | 3.21 | 3.53 | 3.32 | 2.89 | 3.24 | 3.18 | 3.81 |
| TTC28 | 0.64 | 0.98 | 0.44 | 1.03 | 0.73 | 0.50 | 0.74 | 1.11 |
| TTC28-AS1 | 4.75 | 3.22 | 3.45 | 3.60 | 4.30 | 4.06 | 3.75 | 4.41 |
| TTC29 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| TTC3 | 7.10 | 8.04 | 7.79 | 7.93 | 7.35 | 7.11 | 7.87 | 8.26 |
| TTC30A | 1.81 | 1.91 | 2.30 | 1.58 | 2.21 | 1.98 | 1.78 | 1.97 |
| TTC30B | 2.54 | 2.61 | 2.62 | 1.97 | 2.28 | 2.17 | 2.18 | 2.21 |
| TTC31 | 2.82 | 3.30 | 3.19 | 3.39 | 3.58 | 3.32 | 3.45 | 2.96 |
| TTC32 | 5.61 | 4.79 | 4.93 | 4.58 | 4.49 | 4.50 | 4.44 | 6.11 |
| TTC33 | 3.51 | 3.80 | 3.65 | 3.74 | 4.05 | 3.43 | 4.22 | 3.44 |
| TTC34 | -1.74 | -1.69 | -1.73 | -1.74 | -1.69 | -1.70 | -1.75 | -1.76 |
| TTC36 | -0.78 | -0.61 | -0.84 | -0.71 | -0.77 | -0.80 | -0.87 | -0.88 |
| TTC37 | 5.40 | 6.81 | 6.67 | 6.60 | 6.25 | 6.16 | 7.11 | 5.80 |
| TTC38 | 4.76 | 4.83 | 4.86 | 5.20 | 4.45 | 4.67 | 5.15 | 4.84 |
| TTC39A | 3.37 | 4.09 | 3.72 | 3.96 | 3.58 | 3.44 | 4.63 | 4.34 |
| TTC39A-AS1 | -1.40 | -1.40 | -1.39 | -1.41 | -1.40 | -1.35 | -1.22 | -1.32 |
| TTC39B | 4.10 | 4.78 | 4.54 | 5.07 | 4.33 | 4.86 | 5.76 | 3.58 |
| TTC39C | 4.36 | 4.35 | 4.63 | 4.25 | 5.27 | 4.58 | 4.98 | 5.09 |
| TTC39C-AS1 | -1.68 | -1.73 | -1.78 | -1.80 | -1.76 | -1.75 | -1.80 | -1.82 |
| TTC3P1 | 2.80 | 3.14 | 3.32 | 3.14 | 2.64 | 2.32 | 2.78 | 2.62 |
| TTC4 | 1.56 | 1.77 | 1.66 | 1.52 | 1.63 | 1.70 | 1.59 | 1.20 |
| TTC41P | -1.60 | -1.59 | -1.47 | -1.60 | -1.59 | -1.55 | -1.60 | -1.62 |
| TTC4P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| TTC5 | 4.94 | 4.78 | 4.47 | 4.60 | 4.82 | 4.97 | 3.95 | 4.07 |
| TTC6 | -1.07 | -0.98 | -1.05 | -1.00 | -1.07 | -0.95 | -1.00 | -1.03 |

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|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| TTC7A | 4.90 | 5.00 | 4.95 | 5.09 | 4.86 | 4.77 | 5.15 | 5.07 |
| TTC7B | 0.56 | 0.58 | 0.89 | 0.40 | 0.86 | 0.55 | 0.59 | 0.55 |
| TTC8 | 2.90 | 3.93 | 3.48 | 4.11 | 3.43 | 3.23 | 3.52 | 3.29 |
| TTC9 | 4.57 | 5.31 | 5.36 | 4.97 | 5.55 | 5.69 | 5.91 | 4.98 |
| TTC9B | -1.20 | -1.19 | -1.11 | -1.20 | -1.09 | -0.99 | -1.13 | -1.15 |
| TTC9C | 4.96 | 4.49 | 4.94 | 4.61 | 5.66 | 5.25 | 4.92 | 5.66 |
| TTF1 | 5.68 | 5.10 | 5.25 | 4.89 | 4.70 | 5.33 | 4.90 | 5.26 |
| TTF2 | 5.65 | 5.47 | 5.79 | 5.46 | 5.02 | 5.34 | 5.92 | 5.07 |
| TTI1 | 4.34 | 3.98 | 4.93 | 4.19 | 4.17 | 4.37 | 4.38 | 4.24 |
| TTI2 | 4.90 | 4.41 | 4.94 | 4.44 | 4.08 | 4.51 | 4.05 | 4.42 |
| TTK | 4.31 | 4.22 | 4.74 | 4.05 | 3.83 | 4.88 | 4.35 | 4.33 |
| TTL | 5.02 | 5.11 | 4.83 | 5.17 | 4.71 | 5.24 | 5.35 | 4.26 |
| TTLL1 | 3.09 | 3.11 | 2.82 | 2.79 | 3.22 | 3.47 | 3.07 | 3.32 |
| TTLL10 | -1.13 | -1.31 | -1.30 | -1.14 | -1.31 | -1.27 | -1.26 | -1.23 |
| TTLL11 | 0.71 | 0.87 | 0.67 | 1.29 | 0.68 | 0.81 | 0.72 | 0.68 |
| TTLL11-IT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TTLL12 | 5.82 | 6.90 | 6.44 | 6.66 | 5.44 | 5.79 | 6.47 | 5.63 |
| TTLL13P | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.25 | -2.26 |
| TTLL3 | 2.32 | 1.91 | 2.68 | 2.42 | 2.59 | 2.66 | 3.20 | 2.43 |
| TTLL4 | 3.44 | 3.51 | 3.49 | 3.44 | 3.46 | 3.59 | 3.39 | 3.39 |
| TTLL5 | 3.65 | 4.42 | 4.45 | 4.21 | 4.14 | 3.90 | 4.70 | 3.64 |
| TTLL6 | 0.18 | 0.20 | 0.67 | 0.39 | 0.38 | 0.44 | 0.24 | 0.20 |
| TTLL7 | 1.42 | 1.21 | 1.73 | 1.34 | 1.41 | 1.29 | 1.86 | 1.36 |
| TTLL9 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -1.93 | -2.01 |
| TTN | 1.54 | 1.66 | 1.99 | 1.74 | 3.87 | 1.63 | 2.36 | 1.75 |
| TTN-AS1 | 2.87 | 3.35 | 3.59 | 3.52 | 3.33 | 2.91 | 3.43 | 2.34 |
| TPA | 0.59 | 0.61 | 0.97 | 0.58 | 0.38 | 0.41 | 0.57 | 0.44 |
| TTPAL | 4.60 | 4.59 | 4.90 | 4.53 | 4.21 | 4.34 | 4.25 | 3.86 |
| TTR | 0.07 | 0.08 | 0.30 | 0.15 | 0.42 | 0.14 | 0.31 | 0.48 |
| TTY10 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| TTY14 | 0.62 | 0.55 | 0.67 | 0.53 | 0.72 | 0.55 | 0.68 | 0.61 |
| TTYH1 | 1.52 | 1.09 | 1.14 | 1.25 | 1.90 | 1.76 | 1.13 | 1.04 |
| TTYH2 | 2.87 | 1.91 | 2.13 | 2.00 | 1.98 | 1.86 | 1.35 | 2.45 |
| TTYH3 | 5.91 | 7.35 | 6.62 | 7.38 | 5.79 | 6.14 | 6.75 | 5.61 |
| TUB | 0.60 | -0.03 | 0.18 | 0.10 | 0.16 | -0.06 | -0.05 | -0.08 |
| TUBA1A | 3.15 | 4.47 | 3.99 | 3.82 | 2.93 | 4.58 | 3.16 | 2.71 |
| TUBA1B | 10.44 | 10.56 | 10.54 | 10.62 | 10.51 | 11.14 | 9.91 | 10.00 |
| TUBA1C | 8.33 | 8.70 | 8.56 | 8.66 | 8.21 | 9.07 | 7.98 | 8.84 |
| TUBA3FP | -0.33 | -0.79 | -0.69 | -0.71 | -0.63 | -0.76 | -0.79 | -0.81 |
| TUBA4A | 7.97 | 7.94 | 7.51 | 8.24 | 7.55 | 7.34 | 7.56 | 6.91 |
| TUBA4B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TUBA8 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| TUBAL3 | 0.20 | 0.38 | 0.30 | 0.42 | 0.29 | 0.36 | 0.61 | 0.46 |
| TUBAP2 | -0.44 | -0.58 | -0.50 | -0.38 | -0.45 | -0.40 | -0.59 | -0.61 |
| TUBB | 9.03 | 8.32 | 8.77 | 8.19 | 8.52 | 9.80 | 9.01 | 8.85 |
| TUBB2A | 5.87 | 4.96 | 4.98 | 5.00 | 5.55 | 5.28 | 5.19 | 4.94 |
| TUBB2B | 2.08 | 1.89 | 1.90 | 1.70 | 1.98 | 2.72 | 1.68 | 1.44 |
| TUBB3 | -1.79 | -1.79 | -1.78 | -1.79 | -1.79 | -1.78 | -1.79 | -1.81 |
| TUBB4A | -0.60 | -0.82 | -0.81 | -0.83 | -0.67 | -0.83 | -0.75 | -0.84 |
| TUBB4AP1 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 |
| TUBB4B | 9.50 | 9.28 | 8.93 | 9.45 | 8.89 | 9.34 | 9.08 | 8.61 |
| TUBB4BP2 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| TUBB6 | 5.32 | 4.91 | 6.17 | 5.08 | 6.06 | 4.01 | 5.95 | 7.23 |
| TUBBP1 | 0.24 | 0.32 | 0.52 | 0.29 | 0.40 | 0.40 | 0.30 | 0.31 |
| TUBBP10 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| TUBBP5 | 1.36 | 0.79 | 0.90 | 0.85 | 1.03 | 0.96 | 1.36 | 1.21 |
| TUBBP6 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| TUBD1 | 4.09 | 3.24 | 3.01 | 2.83 | 3.47 | 3.64 | 3.52 | 3.48 |
| TUBE1 | 4.00 | 3.86 | 3.66 | 4.43 | 3.70 | 4.14 | 4.84 | 4.47 |
| TUBG1 | 7.01 | 7.18 | 7.28 | 7.53 | 7.28 | 7.84 | 7.04 | 6.95 |
| TUBG2 | 3.65 | 4.01 | 3.84 | 4.30 | 3.79 | 4.07 | 3.58 | 4.30 |
| TUBGCP2 | 6.18 | 6.14 | 6.03 | 6.24 | 6.09 | 6.02 | 6.30 | 6.12 |
| TUBGCP3 | 4.42 | 4.92 | 4.49 | 4.29 | 5.42 | 4.46 | 4.64 | 5.28 |
| TUBGCP4 | 4.83 | 4.92 | 4.94 | 4.93 | 4.97 | 4.83 | 5.31 | 4.72 |
| TUBGCP5 | 4.66 | 4.82 | 4.83 | 4.86 | 4.85 | 4.51 | 5.24 | 4.53 |
| TUBGCP6 | 3.41 | 3.49 | 3.06 | 3.75 | 3.08 | 3.56 | 3.82 | 3.47 |
| TUFM | 8.64 | 8.22 | 8.37 | 8.52 | 8.59 | 8.25 | 8.14 | 8.32 |
| TUFMP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| TUFT1 | 4.53 | 3.92 | 4.35 | 4.15 | 4.26 | 4.54 | 4.41 | 4.83 |
| TUG1 | 6.01 | 6.25 | 5.98 | 5.93 | 5.27 | 6.24 | 6.25 | 6.48 |
| TULP2 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| TULP3 | 4.30 | 4.32 | 4.64 | 4.18 | 3.83 | 3.91 | 4.52 | 4.22 |
| TULP4 | 6.06 | 5.61 | 5.45 | 5.47 | 5.34 | 6.09 | 5.67 | 6.03 |
| TUSC1 | 4.50 | 4.80 | 4.24 | 5.24 | 3.50 | 4.26 | 4.32 | 4.43 |
| TUSC2 | 7.26 | 6.42 | 5.98 | 6.53 | 6.81 | 6.66 | 6.21 | 6.33 |
| TUSC3 | 6.01 | 6.57 | 6.57 | 6.85 | 4.20 | 6.36 | 5.45 | 5.11 |
| TUSC8 | -1.74 | -1.73 | -1.73 | -1.74 | -1.71 | -1.72 | -1.61 | -1.76 |
| TUT1 | 4.08 | 3.70 | 4.64 | 3.71 | 3.90 | 4.01 | 3.80 | 3.83 |
| TUT4 | 5.04 | 5.56 | 4.79 | 5.51 | 5.56 | 5.80 | 5.87 | 5.42 |
| TUT7 | 5.76 | 5.77 | 5.41 | 5.67 | 5.11 | 5.91 | 6.25 | 5.52 |
| TVP23A | -1.34 | -1.40 | -1.39 | -1.41 | -1.34 | -1.42 | -1.41 | -1.37 |
| TVP23B | 4.15 | 2.78 | 2.98 | 3.16 | 3.09 | 3.06 | 3.22 | 3.68 |
| TVP23C | 0.82 | 0.63 | 0.49 | 0.74 | 0.85 | 0.55 | 0.85 | 0.54 |
| TVP23C-CDRT4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| TVP23CP1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| TVP23CP2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.13 | -2.10 | -2.16 |
| TWF1 | 5.32 | 5.73 | 5.43 | 5.45 | 5.10 | 5.62 | 5.67 | 5.50 |
| TWF1P1 | -1.41 | -1.40 | -1.45 | -1.35 | -1.43 | -1.39 | -1.47 | -1.38 |
| TWF2 | 6.55 | 6.96 | 6.83 | 7.18 | 6.78 | 6.90 | 6.58 | 7.23 |
| TWIST1 | 1.87 | 0.54 | 0.58 | 0.51 | 0.49 | 0.53 | 0.51 | 0.37 |
| TWIST2 | -0.70 | -0.78 | -0.77 | -0.71 | -0.78 | -0.72 | -0.71 | -0.81 |
| TWISTNB | 6.88 | 6.50 | 6.04 | 6.30 | 6.13 | 6.25 | 5.89 | 6.44 |
| TWNB | 4.08 | 4.03 | 3.76 | 4.02 | 4.40 | 3.69 | 3.57 | 3.86 |
| TWSG1 | 5.39 | 5.80 | 6.01 | 5.73 | 5.58 | 5.59 | 5.52 | 5.43 |

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|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| TXK | 0.16 | 0.34 | 0.19 | 0.16 | 0.17 | 0.40 | 0.38 | 0.19 |
| TXLNA | 5.22 | 5.13 | 5.71 | 5.25 | 5.69 | 5.61 | 5.62 | 5.50 |
| TXLNB | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| TXLNG | 6.43 | 5.01 | 6.19 | 5.37 | 6.00 | 5.61 | 5.02 | 5.28 |
| TXLNGY | 1.49 | 1.53 | 1.69 | 1.46 | 1.71 | 1.58 | 1.71 | 1.41 |
| TXN | 11.66 | 10.99 | 10.17 | 10.77 | 10.42 | 10.85 | 10.46 | 10.86 |
| TXN2 | 7.78 | 7.15 | 6.78 | 7.34 | 7.11 | 7.26 | 7.24 | 7.38 |
| TXNDC11 | 5.02 | 4.80 | 5.07 | 4.92 | 4.41 | 4.49 | 5.17 | 5.42 |
| TXNDC12 | 1.49 | 1.51 | 1.50 | 1.41 | 1.65 | 1.59 | 1.57 | 1.57 |
| TXNDC15 | 4.25 | 4.92 | 4.62 | 5.24 | 5.14 | 4.75 | 4.25 | 4.47 |
| TXNDC16 | 3.52 | 4.25 | 4.34 | 4.15 | 3.69 | 4.25 | 4.16 | 3.39 |
| TXNDC17 | 8.69 | 8.71 | 8.47 | 8.68 | 8.71 | 9.64 | 9.60 | 9.21 |
| TXNDC5 | -0.81 | -0.60 | -0.80 | -0.82 | -0.73 | -0.75 | -0.56 | -0.55 |
| TXNDC9 | 7.23 | 6.70 | 5.85 | 6.64 | 6.52 | 6.31 | 6.08 | 6.96 |
| TXNIP | 7.67 | 9.11 | 8.82 | 8.60 | 8.85 | 8.64 | 9.51 | 9.46 |
| TXNL1 | 6.67 | 6.19 | 6.26 | 6.41 | 6.63 | 6.00 | 6.25 | 5.92 |
| TXNL4A | 7.81 | 7.83 | 7.04 | 8.10 | 7.71 | 6.85 | 7.26 | 6.58 |
| TXNL4B | 3.32 | 3.36 | 3.44 | 3.41 | 3.68 | 3.25 | 3.41 | 3.35 |
| TXNP1 | 2.44 | 1.91 | 2.12 | 1.71 | 2.29 | 2.53 | 2.07 | 1.88 |
| TXNP4 | 0.72 | 0.39 | 0.50 | 0.58 | 0.39 | 0.67 | 0.43 | 0.38 |
| TXNP5 | 1.03 | 0.74 | 1.08 | 1.01 | 0.86 | 1.49 | 1.00 | 0.81 |
| TXNP6 | 3.07 | 2.47 | 2.64 | 2.80 | 2.65 | 2.74 | 2.62 | 2.55 |
| TXNP7 | -2.25 | -2.25 | -2.25 | -2.22 | -2.25 | -2.25 | -2.25 | -2.26 |
| TXNRD1 | 7.16 | 7.03 | 8.09 | 6.54 | 7.08 | 6.83 | 6.72 | 8.59 |
| TXNRD2 | 5.11 | 4.55 | 4.45 | 4.59 | 4.18 | 4.74 | 4.23 | 5.09 |
| TXNRD3 | 3.62 | 3.02 | 3.79 | 3.01 | 3.22 | 2.92 | 2.96 | 3.52 |
| TYK2 | 3.93 | 4.38 | 4.31 | 4.27 | 4.05 | 4.22 | 4.51 | 3.93 |
| TYMP | 7.24 | 6.81 | 5.79 | 6.56 | 5.86 | 5.46 | 5.12 | 5.90 |
| TYMS | 7.09 | 6.76 | 6.40 | 6.91 | 6.50 | 6.51 | 6.77 | 6.67 |
| TYMSOS | 4.68 | 4.42 | 3.75 | 4.42 | 4.05 | 3.69 | 5.05 | 4.10 |
| TYRO3 | 3.70 | 2.92 | 3.73 | 2.97 | 3.05 | 3.00 | 3.49 | 3.12 |
| TYRO3P | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.25 | -2.26 |
| TYSND1 | 5.30 | 5.12 | 4.77 | 4.78 | 5.46 | 4.97 | 4.80 | 4.71 |
| TYW1 | 4.73 | 4.87 | 4.56 | 4.68 | 4.75 | 4.25 | 4.34 | 4.34 |
| TYW1B | 3.31 | 2.45 | 2.76 | 2.58 | 3.82 | 2.62 | 2.94 | 3.03 |
| TYW3 | 4.58 | 5.59 | 5.01 | 5.59 | 4.66 | 4.99 | 5.27 | 4.70 |
| TYW5 | 4.12 | 4.00 | 4.30 | 4.19 | 4.39 | 4.14 | 4.22 | 4.41 |
| U2AF1 | -0.26 | -0.40 | -0.29 | -0.21 | -0.32 | -0.41 | -0.19 | -0.30 |
| U2AF1L4 | 2.01 | 1.90 | 1.85 | 1.99 | 2.21 | 1.85 | 1.87 | 1.81 |
| U2AF1L5 | -0.48 | -0.22 | 0.44 | -0.09 | -0.47 | -0.22 | -0.48 | -0.50 |
| U2AF2 | 6.10 | 5.87 | 6.51 | 6.02 | 6.40 | 6.26 | 6.29 | 6.28 |
| U2SURP | 7.77 | 7.04 | 8.07 | 6.69 | 7.33 | 7.72 | 7.44 | 8.20 |
| U40455.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 |
| U47924.1 | -0.88 | -1.14 | -1.13 | -1.15 | -0.92 | -1.12 | -1.15 | -1.10 |
| U47924.2 | 1.68 | 1.65 | 1.85 | 1.82 | 2.11 | 1.62 | 1.99 | 1.86 |
| U47924.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| U52111.1 | -0.97 | -0.88 | -1.02 | -0.83 | -0.88 | -0.98 | -1.04 | -0.79 |
| U62317.1 | 2.77 | 1.15 | 1.29 | 1.20 | 1.06 | 1.12 | 1.19 | 1.29 |
| U62317.3 | -1.69 | -1.74 | -1.73 | -1.74 | -1.64 | -1.75 | -1.74 | -1.71 |
| U62317.4 | -1.92 | -1.99 | -1.98 | -2.00 | -1.99 | -1.98 | -2.00 | -2.01 |
| U73166.1 | -1.37 | -1.17 | -1.35 | -1.37 | -1.33 | -1.32 | -1.31 | -1.28 |
| U73169.1 | -1.35 | -1.21 | -1.33 | -1.22 | -1.34 | -1.30 | -1.29 | -1.37 |
| U91328.1 | 0.12 | -0.07 | -0.06 | 0.07 | 0.01 | 0.07 | 0.16 | 0.18 |
| U91328.2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.13 | -2.13 | -2.15 | -2.16 |
| U91328.3 | -1.99 | -1.96 | -1.98 | -1.99 | -1.99 | -1.95 | -1.96 | -1.97 |
| UACA | 5.77 | 6.45 | 6.72 | 6.18 | 6.29 | 6.82 | 6.62 | 5.63 |
| UAP1 | 5.25 | 5.61 | 5.44 | 5.46 | 6.01 | 5.59 | 5.49 | 6.70 |
| UAP1L1 | 1.80 | 1.79 | 1.40 | 1.56 | 1.19 | 1.66 | 1.54 | 1.27 |
| UBA1 | 7.36 | 7.25 | 8.34 | 7.20 | 7.12 | 7.00 | 7.36 | 6.67 |
| UBA2 | 6.29 | 5.90 | 5.89 | 5.96 | 6.33 | 6.26 | 6.20 | 5.84 |
| UBA3 | 5.18 | 5.87 | 5.37 | 5.60 | 5.79 | 5.92 | 5.83 | 5.64 |
| UBA5 | 5.40 | 4.44 | 4.78 | 4.34 | 5.04 | 5.15 | 5.23 | 5.95 |
| UBA52 | 9.50 | 10.44 | 9.12 | 10.68 | 10.76 | 10.08 | 9.74 | 9.85 |
| UBA52P3 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| UBA52P5 | -0.02 | 0.07 | 0.10 | 0.27 | 0.18 | 0.17 | 0.05 | 0.18 |
| UBA52P7 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.07 | -2.11 |
| UBA52P8 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| UBA6 | 5.17 | 5.87 | 6.21 | 5.75 | 5.31 | 6.02 | 6.38 | 6.42 |
| UBA6-AS1 | 2.88 | 2.43 | 2.63 | 2.85 | 2.44 | 2.58 | 2.53 | 2.94 |
| UBA7 | 3.23 | 4.10 | 3.87 | 3.77 | 3.64 | 3.50 | 3.35 | 3.71 |
| UBAC1 | 6.72 | 6.70 | 6.12 | 6.67 | 6.19 | 6.23 | 6.17 | 6.00 |
| UBAC2 | 6.59 | 6.36 | 6.71 | 6.48 | 6.95 | 6.19 | 6.35 | 6.73 |
| UBAC2-AS1 | 1.23 | 1.47 | 1.12 | 1.59 | 2.01 | 1.32 | 1.35 | 1.25 |
| UBALD1 | 3.95 | 4.10 | 4.35 | 3.88 | 4.05 | 3.85 | 3.75 | 3.91 |
| UBALD2 | 5.75 | 5.97 | 7.04 | 6.18 | 6.10 | 6.69 | 6.78 | 6.38 |
| UBAP1 | 4.84 | 5.32 | 5.44 | 5.25 | 5.25 | 5.27 | 5.06 | 5.03 |
| UBAP1L | 0.13 | 0.10 | 0.37 | -0.01 | 0.24 | 0.07 | 0.44 | 0.07 |
| UBAP2 | 4.72 | 6.29 | 5.86 | 5.50 | 5.83 | 5.64 | 5.58 | 5.38 |
| UBAP2L | 6.27 | 6.00 | 6.34 | 5.97 | 6.13 | 6.45 | 5.98 | 6.63 |
| UBASH3A | -1.57 | -1.71 | -1.70 | -1.71 | -1.68 | -1.72 | -1.71 | -1.48 |
| UBASH3B | 4.07 | 4.94 | 4.92 | 4.47 | 4.62 | 4.01 | 5.02 | 3.33 |
| UBB | 11.39 | 9.59 | 10.10 | 9.94 | 10.37 | 10.55 | 9.78 | 10.19 |
| UBBP1 | -1.60 | -1.73 | -1.73 | -1.74 | -1.69 | -1.70 | -1.74 | -1.76 |
| UBBP4 | 4.43 | 2.99 | 3.42 | 3.46 | 3.73 | 3.44 | 3.15 | 3.49 |
| UBBP5 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| UBC | 9.81 | 10.10 | 10.13 | 10.02 | 10.46 | 10.21 | 9.95 | 10.59 |
| UBD | -0.07 | -0.14 | -0.13 | -0.24 | -0.19 | -0.17 | -0.08 | -0.26 |
| UBE2A | 7.65 | 6.97 | 7.25 | 7.10 | 7.27 | 7.22 | 6.82 | 7.87 |
| UBE2B | 7.20 | 7.52 | 7.46 | 7.34 | 7.65 | 7.48 | 7.44 | 6.68 |
| UBE2C | 9.18 | 7.63 | 8.07 | 7.49 | 8.20 | 8.98 | 6.98 | 8.28 |
| UBE2CP1 | -1.84 | -1.84 | -1.83 | -1.84 | -1.82 | -1.79 | -1.84 | -1.86 |
| UBE2CP2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| UBE2CP3 | -0.25 | -0.31 | -0.37 | -0.48 | -0.31 | -0.22 | -0.33 | -0.32 |
| UBE2D1 | 6.85 | 5.43 | 5.32 | 5.43 | 5.98 | 5.86 | 5.10 | 5.42 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| UBE2D2 | 7.43 | 7.60 | 7.42 | 7.68 | 8.01 | 7.58 | 7.19 | 7.32 |
| UBE2D3 | 7.91 | 8.12 | 7.65 | 8.17 | 7.82 | 8.35 | 8.00 | 8.65 |
| UBE2D3-AS1 | 1.46 | 1.44 | 1.80 | 1.44 | 1.50 | 1.58 | 1.79 | 2.19 |
| UBE2D3P1 | -1.20 | -1.12 | -1.18 | -1.14 | -1.20 | -1.05 | -1.14 | -1.05 |
| UBE2D3P2 | -1.79 | -1.78 | -1.78 | -1.79 | -1.74 | -1.80 | -1.79 | -1.72 |
| UBE2D4 | 5.20 | 4.99 | 4.39 | 5.18 | 5.34 | 4.49 | 4.52 | 4.59 |
| UBE2E1 | 6.29 | 5.74 | 5.84 | 5.73 | 6.04 | 5.96 | 5.75 | 6.46 |
| UBE2E1-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.30 |
| UBE2E2 | 5.70 | 3.51 | 3.61 | 3.36 | 4.71 | 3.44 | 4.73 | 5.93 |
| UBE2E3 | 5.86 | 6.10 | 5.43 | 6.60 | 6.43 | 6.54 | 5.83 | 6.33 |
| UBE2F | 6.47 | 5.82 | 5.22 | 5.73 | 6.03 | 6.20 | 5.56 | 6.11 |
| UBE2FP2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| UBE2G1 | 4.68 | 4.03 | 4.87 | 4.62 | 4.63 | 4.56 | 4.90 | 5.39 |
| UBE2G2 | 6.21 | 6.15 | 5.43 | 6.09 | 5.30 | 6.18 | 6.39 | 5.31 |
| UBE2H | 6.92 | 7.30 | 7.33 | 6.87 | 7.63 | 7.27 | 7.15 | 8.15 |
| UBE2HP1 | -1.41 | -1.34 | -1.39 | -1.41 | -1.31 | -1.39 | -1.42 | -1.32 |
| UBE2I | 8.58 | 8.17 | 8.19 | 8.16 | 7.58 | 8.62 | 7.68 | 8.55 |
| UBE2J1 | 5.41 | 5.14 | 5.28 | 5.17 | 5.44 | 5.17 | 5.58 | 5.67 |
| UBE2J2 | 7.25 | 6.57 | 6.34 | 6.94 | 6.75 | 6.72 | 6.49 | 6.57 |
| UBE2K | 7.36 | 7.47 | 7.21 | 7.58 | 7.14 | 7.51 | 7.65 | 8.25 |
| UBE2L3 | 7.36 | 7.01 | 6.67 | 7.14 | 6.40 | 6.90 | 6.78 | 7.50 |
| UBE2L4 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 |
| UBE2L5 | -0.50 | -0.49 | -0.64 | -0.45 | -0.65 | -0.67 | -0.59 | -0.51 |
| UBE2L6 | 7.81 | 6.54 | 6.69 | 6.42 | 7.41 | 7.08 | 5.36 | 6.37 |
| UBE2M | 8.12 | 7.31 | 7.23 | 7.52 | 7.63 | 7.42 | 6.97 | 7.71 |
| UBE2MP1 | -1.70 | -1.78 | -1.78 | -1.79 | -1.74 | -1.78 | -1.75 | -1.81 |
| UBE2N | 7.27 | 7.52 | 7.22 | 7.57 | 7.40 | 7.36 | 7.08 | 7.35 |
| UBE2NL | -1.80 | -1.84 | -1.83 | -1.80 | -1.82 | -1.85 | -1.84 | -1.86 |
| UBE2NP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| UBE2O | 4.30 | 4.69 | 5.52 | 4.63 | 4.78 | 4.81 | 4.77 | 3.81 |
| UBE2Q1 | 5.19 | 5.83 | 5.06 | 5.58 | 5.69 | 5.77 | 5.59 | 6.10 |
| UBE2Q2 | 4.48 | 4.69 | 4.38 | 4.59 | 4.42 | 4.68 | 3.61 | 4.61 |
| UBE2Q2L | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| UBE2Q2P1 | 1.61 | 1.15 | 1.12 | 1.38 | 1.48 | 1.31 | 1.24 | 1.04 |
| UBE2Q2P2 | 2.43 | 2.43 | 2.64 | 2.67 | 2.99 | 2.57 | 3.14 | 1.95 |
| UBE2QL1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| UBE2R2 | 6.77 | 7.34 | 6.99 | 7.16 | 7.47 | 7.30 | 7.19 | 7.28 |
| UBE2R2-AS1 | -1.03 | -0.95 | -1.01 | -0.96 | -0.91 | -0.91 | -0.77 | -0.87 |
| UBE2S | 6.81 | 6.03 | 5.66 | 6.07 | 6.59 | 6.97 | 4.99 | 5.87 |
| UBE2SP1 | -0.45 | -0.52 | -0.51 | -0.61 | -0.41 | -0.47 | -0.54 | 0.13 |
| UBE2SP2 | -1.45 | -1.50 | -1.43 | -1.50 | -1.50 | -1.38 | -1.45 | -1.42 |
| UBE2T | 8.58 | 7.21 | 7.46 | 7.38 | 7.85 | 8.35 | 6.89 | 7.92 |
| UBE2V1 | 3.58 | 2.80 | 2.77 | 2.70 | 2.94 | 2.82 | 3.03 | 3.03 |
| UBE2V1P1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.76 | -1.78 | -1.80 | -1.81 |
| UBE2V1P11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| UBE2V1P13 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| UBE2V1P2 | 0.52 | 0.67 | 0.50 | 0.36 | 0.35 | 0.44 | 0.22 | 0.58 |
| UBE2V1P5 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| UBE2V2 | 8.64 | 7.63 | 8.17 | 7.73 | 8.07 | 8.32 | 7.74 | 8.34 |
| UBE2V2P3 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| UBE2W | 5.84 | 5.30 | 5.71 | 5.23 | 5.86 | 6.11 | 5.30 | 6.13 |
| UBE2Z | 6.47 | 6.40 | 7.22 | 6.47 | 6.17 | 6.59 | 6.51 | 6.22 |
| UBE3A | 6.65 | 6.96 | 7.34 | 6.62 | 6.62 | 6.82 | 7.07 | 6.90 |
| UBE3AP2 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| UBE3B | 4.57 | 5.01 | 5.20 | 5.03 | 4.81 | 4.96 | 4.95 | 4.78 |
| UBE3C | 6.17 | 6.86 | 6.77 | 6.78 | 6.88 | 6.26 | 7.30 | 6.68 |
| UBE3D | 2.97 | 2.69 | 3.15 | 2.72 | 2.57 | 2.88 | 2.74 | 2.10 |
| UBE4A | 5.60 | 5.42 | 6.08 | 5.29 | 5.52 | 5.18 | 5.83 | 5.70 |
| UBE4B | 4.24 | 4.49 | 4.65 | 4.88 | 4.14 | 4.47 | 4.94 | 4.56 |
| UBFD1 | 5.50 | 5.11 | 5.50 | 5.08 | 5.05 | 5.26 | 5.07 | 5.06 |
| UBIAD1 | 5.17 | 4.96 | 4.50 | 4.95 | 4.51 | 4.37 | 4.01 | 4.11 |
| UBL3 | 4.07 | 5.78 | 5.16 | 5.59 | 4.94 | 4.87 | 5.64 | 6.46 |
| UBL4A | 6.88 | 5.49 | 5.93 | 5.86 | 5.46 | 6.22 | 5.38 | 6.33 |
| UBL5 | 9.24 | 9.49 | 8.74 | 9.46 | 9.63 | 9.49 | 8.87 | 9.32 |
| UBL5P2 | 1.36 | 1.03 | 1.00 | 1.10 | 0.99 | 1.11 | 0.85 | 1.02 |
| UBL5P4 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| UBL7 | 6.48 | 5.87 | 6.31 | 6.27 | 6.86 | 6.10 | 5.85 | 6.28 |
| UBL7-AS1 | 3.91 | 3.16 | 3.35 | 3.39 | 3.76 | 3.32 | 3.81 | 3.90 |
| UBLCP1 | 4.75 | 5.58 | 5.28 | 5.21 | 5.46 | 4.99 | 5.28 | 5.08 |
| UBN1 | 6.45 | 6.30 | 6.66 | 6.46 | 6.12 | 6.46 | 6.18 | 7.02 |
| UBN2 | 4.23 | 4.97 | 4.89 | 4.82 | 5.11 | 4.78 | 5.31 | 5.03 |
| UBOX5 | 3.63 | 3.20 | 3.30 | 3.32 | 3.21 | 2.94 | 3.12 | 3.16 |
| UBOX5-AS1 | -1.99 | -1.99 | -1.98 | -2.00 | -1.97 | -1.98 | -2.00 | -2.01 |
| UBP1 | 5.25 | 5.48 | 5.33 | 5.44 | 4.94 | 4.96 | 5.00 | 4.42 |
| UBQLN1 | 6.74 | 6.40 | 6.56 | 6.28 | 5.89 | 6.48 | 6.55 | 6.41 |
| UBQLN2 | 4.48 | 5.30 | 5.44 | 5.13 | 4.64 | 4.91 | 5.08 | 5.12 |
| UBQLN4 | 1.75 | 1.74 | 1.48 | 1.63 | 1.50 | 1.68 | 1.49 | 1.59 |
| UBQLN4P1 | -2.24 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| UBQLN4P1 | -1.93 | -1.99 | -1.98 | -1.96 | -1.99 | -1.97 | -2.00 | -1.97 |
| UBR1 | 4.89 | 5.20 | 5.09 | 5.06 | 4.85 | 5.01 | 5.42 | 5.29 |
| UBR2 | 5.32 | 5.54 | 5.50 | 5.22 | 5.22 | 5.56 | 5.91 | 5.96 |
| UBR3 | 4.80 | 5.23 | 5.30 | 5.32 | 4.85 | 4.87 | 5.80 | 5.03 |
| UBR4 | 5.07 | 5.11 | 5.96 | 4.83 | 5.29 | 5.41 | 6.09 | 5.79 |
| UBR5 | 5.71 | 6.17 | 7.14 | 5.74 | 5.89 | 6.62 | 6.45 | 6.61 |
| UBR5-AS1 | 2.29 | 2.06 | 2.08 | 2.08 | 2.35 | 1.90 | 1.86 | 1.94 |
| UBR7 | 4.29 | 4.72 | 5.20 | 4.62 | 4.65 | 4.52 | 4.73 | 3.80 |
| UBTD1 | 5.15 | 4.51 | 4.86 | 4.16 | 5.12 | 5.23 | 4.26 | 4.71 |
| UBTD2 | 4.39 | 5.24 | 5.04 | 4.92 | 4.66 | 4.78 | 4.94 | 3.88 |
| UBTF | 5.08 | 5.76 | 5.47 | 5.65 | 5.54 | 5.49 | 5.55 | 6.01 |
| UBXN1 | 7.63 | 7.16 | 7.00 | 7.22 | 7.86 | 7.47 | 6.96 | 8.03 |
| UBXN10 | 1.82 | 2.00 | 2.68 | 2.12 | 4.03 | 3.48 | 2.30 | 2.28 |
| UBXN10-AS1 | -0.77 | -0.84 | -0.66 | -0.84 | -0.76 | -0.43 | -0.84 | -0.70 |
| UBXN11 | 3.33 | 3.06 | 3.86 | 3.48 | 3.67 | 3.87 | 3.78 | 3.12 |
| UBXN2A | 5.91 | 5.73 | 5.28 | 5.78 | 4.96 | 5.60 | 5.75 | 5.56 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| UBXN2B | 4.25 | 4.47 | 4.82 | 4.24 | 4.51 | 4.30 | 4.36 | 4.07 |
| UBXN4 | 8.63 | 8.15 | 8.04 | 8.07 | 8.39 | 7.47 | 8.25 | 8.59 |
| UBXN6 | 5.24 | 6.18 | 6.11 | 6.06 | 5.71 | 5.74 | 6.15 | 6.15 |
| UBXN7 | 4.90 | 4.52 | 5.50 | 4.62 | 4.68 | 5.00 | 5.39 | 4.82 |
| UBXN8 | 3.54 | 3.98 | 3.45 | 4.27 | 3.48 | 3.79 | 3.62 | 3.77 |
| UCA1 | 7.27 | 7.24 | 8.69 | 7.37 | 7.74 | 9.56 | 9.85 | 6.94 |
| UCHL1 | 7.74 | 3.11 | 3.32 | 3.47 | 3.29 | 3.21 | 3.66 | 2.96 |
| UCHL3 | 7.21 | 7.24 | 6.85 | 7.27 | 7.88 | 6.85 | 6.81 | 7.50 |
| UCHL5 | 7.02 | 6.26 | 6.29 | 6.42 | 6.64 | 7.09 | 6.82 | 7.13 |
| UCK1 | 5.37 | 4.43 | 4.46 | 4.50 | 4.11 | 4.68 | 4.77 | 4.82 |
| UCK2 | 5.26 | 5.55 | 5.57 | 5.38 | 5.57 | 5.79 | 5.21 | 5.40 |
| UCKL1 | 5.85 | 4.95 | 4.95 | 5.37 | 5.55 | 5.20 | 5.20 | 5.35 |
| UCKL1-AS1 | -0.92 | -0.70 | -0.61 | -0.84 | -0.87 | -0.82 | -0.72 | -0.82 |
| UCN | 1.51 | 1.15 | 1.62 | 1.19 | 1.23 | 1.31 | 1.36 | 1.28 |
| UCN3 | -2.07 | -2.09 | -2.09 | -2.10 | -2.07 | -2.10 | -2.10 | -2.11 |
| UCP1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| UCP2 | 5.83 | 3.73 | 4.05 | 4.06 | 5.90 | 5.61 | 4.70 | 4.32 |
| UCP3 | -1.49 | -1.49 | -1.48 | -1.50 | -1.43 | -1.45 | -1.44 | -1.46 |
| UEVLD | 5.09 | 5.22 | 5.26 | 5.04 | 4.91 | 5.11 | 4.93 | 5.16 |
| UFC1 | 6.59 | 7.47 | 5.96 | 7.59 | 7.65 | 7.51 | 6.44 | 7.90 |
| UFD1 | 8.35 | 6.85 | 7.18 | 7.10 | 6.82 | 7.12 | 6.81 | 7.37 |
| UFL1 | 5.92 | 5.70 | 5.69 | 5.25 | 5.74 | 6.14 | 6.11 | 5.93 |
| UFL1-AS1 | -1.96 | -1.99 | -1.98 | -2.00 | -1.97 | -2.00 | -2.00 | -1.97 |
| UFM1 | 6.43 | 7.20 | 6.41 | 7.18 | 7.51 | 6.52 | 6.98 | 7.86 |
| UFSP1 | 1.92 | 2.02 | 1.55 | 1.79 | 1.93 | 1.70 | 1.61 | 1.78 |
| UFSP2 | 4.63 | 5.13 | 4.85 | 5.36 | 4.94 | 5.06 | 5.06 | 5.59 |
| UGCG | 6.14 | 5.73 | 6.07 | 5.52 | 5.84 | 5.86 | 6.73 | 5.68 |
| UGDH | 6.10 | 7.05 | 6.40 | 6.76 | 5.67 | 6.80 | 6.42 | 7.45 |
| UGDH-AS1 | 0.47 | 0.65 | 0.58 | 0.64 | 0.40 | 0.59 | 0.85 | 0.85 |
| UGGT1 | 5.71 | 6.16 | 6.17 | 5.85 | 5.91 | 5.62 | 6.21 | 6.23 |
| UGGT2 | 4.67 | 5.11 | 5.28 | 5.61 | 5.37 | 4.53 | 5.50 | 4.67 |
| UGP2 | 7.27 | 7.13 | 7.07 | 7.14 | 7.75 | 7.19 | 7.71 | 7.68 |
| UGT1A1 | 3.41 | 3.52 | 3.28 | 3.43 | 3.83 | 3.51 | 3.91 | 3.78 |
| UGT1A10 | 2.05 | 1.73 | 2.01 | 1.92 | 1.72 | 1.81 | 1.38 | 3.33 |
| UGT1A3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| UGT1A4 | -1.96 | -1.99 | -1.95 | -2.00 | -1.96 | -1.97 | -2.00 | -1.97 |
| UGT1A5 | -2.15 | -2.12 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| UGT1A6 | 2.77 | 1.66 | 2.45 | 2.18 | 2.15 | 1.77 | 1.80 | 2.66 |
| UGT1A7 | -0.84 | -0.76 | -0.48 | -0.78 | -0.66 | -0.85 | -0.78 | -0.69 |
| UGT1A8 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| UGT1A9 | -2.15 | -2.15 | -2.14 | -2.13 | -2.15 | -2.14 | -2.15 | -2.16 |
| UGT2A1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| UGT2A3 | 2.57 | 4.67 | 2.63 | 5.91 | 2.59 | 2.23 | 4.37 | 2.47 |
| UGT2B10 | -0.46 | -0.45 | -0.44 | -0.46 | -0.45 | -0.47 | 0.30 | -0.48 |
| UGT2B11 | 2.17 | 1.97 | 2.32 | 2.06 | 1.96 | 1.90 | 4.91 | 1.91 |
| UGT2B15 | 2.68 | 4.03 | 2.46 | 5.52 | 2.45 | 2.38 | 6.00 | 2.32 |
| UGT2B17 | -0.46 | -0.36 | -0.44 | -0.14 | -0.41 | -0.47 | 0.16 | -0.49 |
| UGT2B27P | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| UGT2B28 | -1.55 | -1.54 | -1.53 | -1.55 | -1.54 | -1.56 | -1.55 | -1.46 |
| UGT2B4 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| UGT2B7 | 2.52 | 3.64 | 3.41 | 4.77 | 3.11 | 2.35 | 4.65 | 2.45 |
| UGT3A2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| UGT8 | 4.96 | 5.94 | 5.43 | 6.08 | 5.43 | 5.38 | 6.10 | 5.03 |
| UHMK1 | 6.79 | 7.22 | 6.98 | 6.57 | 6.45 | 7.05 | 6.89 | 6.66 |
| UHRF1 | 3.49 | 3.64 | 4.45 | 3.13 | 2.97 | 3.92 | 3.77 | 2.99 |
| UHRF1BP1 | 3.48 | 3.66 | 3.65 | 3.38 | 3.34 | 3.72 | 4.03 | 4.05 |
| UHRF1BP1L | 3.73 | 4.10 | 4.11 | 4.12 | 3.49 | 3.92 | 4.73 | 3.63 |
| UHRF2 | 3.36 | 4.08 | 4.39 | 4.09 | 3.47 | 4.12 | 4.50 | 4.11 |
| UIMC1 | 4.61 | 4.60 | 5.01 | 4.88 | 5.26 | 4.67 | 4.95 | 4.61 |
| ULBP1 | -0.32 | -0.31 | -0.21 | -0.40 | -0.21 | -0.15 | -0.26 | 0.04 |
| ULBP2 | 2.77 | 2.47 | 3.43 | 2.77 | 2.93 | 3.25 | 2.56 | 2.41 |
| ULBP3 | 2.89 | 2.89 | 2.69 | 2.66 | 2.36 | 2.59 | 2.68 | 2.06 |
| ULK1 | 3.46 | 4.42 | 4.93 | 4.06 | 3.74 | 4.05 | 4.64 | 4.97 |
| ULK2 | 3.62 | 2.82 | 3.43 | 2.67 | 3.12 | 2.99 | 3.49 | 2.51 |
| ULK3 | 4.80 | 4.42 | 4.68 | 4.61 | 4.75 | 4.48 | 4.81 | 4.42 |
| ULK4 | 2.10 | 2.55 | 2.26 | 2.46 | 2.90 | 2.29 | 3.06 | 1.88 |
| UMAD1 | 4.60 | 3.96 | 3.78 | 3.97 | 4.18 | 4.09 | 3.94 | 4.31 |
| UMPS | 6.35 | 5.24 | 5.85 | 5.32 | 5.49 | 5.83 | 5.29 | 6.46 |
| UNC119 | 6.55 | 5.63 | 5.75 | 5.72 | 5.95 | 6.02 | 5.71 | 5.92 |
| UNC119B | 4.29 | 4.58 | 4.11 | 4.35 | 4.11 | 4.08 | 4.43 | 3.88 |
| UNC13A | 0.29 | 0.08 | 0.26 | 0.06 | 0.42 | 0.04 | -0.02 | 0.02 |
| UNC13B | 3.14 | 4.20 | 3.73 | 4.05 | 4.10 | 3.88 | 4.94 | 3.41 |
| UNC13C | -1.32 | -1.31 | -1.30 | -1.25 | -1.31 | -1.33 | -1.12 | -1.34 |
| UNC13D | 4.25 | 3.81 | 4.44 | 3.06 | 4.56 | 5.24 | 3.70 | 3.54 |
| UNC45A | 5.88 | 5.41 | 5.96 | 5.33 | 5.36 | 5.11 | 5.48 | 5.42 |
| UNC50 | 7.18 | 6.19 | 6.11 | 6.65 | 6.90 | 6.47 | 5.76 | 7.05 |
| UNC5A | -0.15 | -0.22 | 0.04 | -0.16 | 0.25 | -0.14 | -0.02 | -0.26 |
| UNC5B | 4.48 | 6.30 | 5.68 | 5.73 | 5.31 | 4.73 | 6.07 | 5.98 |
| UNC5B-AS1 | 3.25 | 4.93 | 3.76 | 5.48 | 5.01 | 3.94 | 3.41 | 4.02 |
| UNC5CL | 1.64 | 1.94 | 1.73 | 2.47 | 1.90 | 1.75 | 2.03 | 1.64 |
| UNC79 | -0.08 | -0.30 | -0.20 | -0.03 | -0.14 | -0.17 | -0.24 | -0.03 |
| UNC80 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| UNC93A | -0.87 | -0.69 | -0.76 | -0.79 | -0.04 | -0.84 | -0.88 | -0.89 |
| UNC93B1 | 7.93 | 7.43 | 7.36 | 7.35 | 7.61 | 7.36 | 7.41 | 8.18 |
| UNC93B2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| UNC93B3 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| UNC93B4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| UNC93B6 | -2.01 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| UNC93B8 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| UNG | 5.57 | 5.99 | 5.94 | 5.95 | 5.55 | 5.85 | 5.43 | 5.61 |
| UNK | 4.82 | 4.28 | 4.68 | 4.41 | 4.15 | 4.54 | 3.90 | 4.58 |
| UNKL | 4.92 | 3.95 | 4.56 | 3.47 | 3.66 | 3.60 | 3.83 | 4.79 |
| UOX | -1.59 | -1.59 | -1.58 | -1.54 | -1.59 | -1.60 | -1.60 | -1.61 |
| UPB1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| UPF1 | 5.40 | 6.14 | 6.44 | 5.90 | 5.68 | 5.72 | 5.87 | 5.73 |
| UPF2 | 6.82 | 7.40 | 7.66 | 7.22 | 7.30 | 7.12 | 6.92 | 7.09 |
| UPF3A | 5.57 | 5.90 | 5.17 | 5.86 | 6.00 | 4.87 | 5.47 | 5.86 |
| UPF3AP1 | -0.29 | -0.43 | -0.50 | -0.45 | -0.43 | -0.49 | -0.37 | -0.36 |
| UPF3AP2 | -1.94 | -1.94 | -1.89 | -1.94 | -1.94 | -1.95 | -1.95 | -1.92 |
| UPF3AP3 | 0.25 | 0.28 | 0.51 | 0.10 | 0.07 | 0.12 | 0.51 | 0.12 |
| UPF3B | 6.11 | 6.39 | 6.44 | 6.24 | 6.16 | 6.17 | 5.95 | 6.33 |
| UPK1A | -0.47 | -0.69 | -0.67 | -0.69 | -0.61 | -0.60 | -0.70 | -0.65 |
| UPK1A-AS1 | -1.31 | -1.54 | -1.47 | -1.49 | -1.45 | -1.47 | -1.55 | -1.56 |
| UPK1B | 3.95 | 4.20 | 4.35 | 4.14 | 6.25 | 5.07 | 5.61 | 3.84 |
| UPK2 | 1.91 | 1.46 | 1.98 | 1.56 | 1.57 | 2.79 | 1.39 | 1.40 |
| UPK3A | 1.81 | 1.05 | 0.99 | 1.18 | 1.22 | 1.83 | 0.92 | 0.93 |
| UPK3B | 2.01 | 1.91 | 1.87 | 1.84 | 2.15 | 2.26 | 1.90 | 3.32 |
| UPK3BL1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| UPP1 | 6.43 | 5.94 | 5.72 | 5.66 | 5.83 | 6.31 | 4.89 | 6.78 |
| UPP2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| UPRT | 2.71 | 2.94 | 3.40 | 3.32 | 2.91 | 2.91 | 3.05 | 2.75 |
| UQCC1 | 5.35 | 4.86 | 4.97 | 5.15 | 5.48 | 5.07 | 4.86 | 5.26 |
| UQCC2 | 8.99 | 8.45 | 7.72 | 8.64 | 8.09 | 9.36 | 8.21 | 8.99 |
| UQCC3 | 8.29 | 7.43 | 7.25 | 7.54 | 7.80 | 7.29 | 7.03 | 7.22 |
| UQCR10 | 10.70 | 10.10 | 8.74 | 10.13 | 9.86 | 10.05 | 9.78 | 9.94 |
| UQCR11 | 9.51 | 9.32 | 9.32 | 9.30 | 10.37 | 9.72 | 9.43 | 9.63 |
| UQCRB | 9.64 | 9.77 | 9.32 | 9.68 | 10.26 | 10.10 | 9.43 | 9.94 |
| UQCRBP1 | 0.26 | 0.29 | 0.26 | 0.21 | 0.40 | 0.21 | 0.38 | 0.32 |
| UQCRC1 | 9.04 | 8.62 | 8.29 | 8.72 | 8.70 | 8.51 | 8.61 | 7.97 |
| UQCRC2 | 8.54 | 7.78 | 7.80 | 7.93 | 8.33 | 7.97 | 7.77 | 8.33 |
| UQCRFS1 | 7.86 | 7.33 | 6.83 | 7.67 | 7.95 | 7.44 | 7.07 | 7.18 |
| UQCRFS1P1 | -1.32 | -1.31 | -1.30 | -1.32 | -1.31 | -1.24 | -1.32 | -1.28 |
| UQCRH | 9.06 | 9.05 | 8.73 | 9.08 | 10.34 | 9.79 | 9.06 | 9.53 |
| UQCRHL | 2.19 | 2.11 | 2.05 | 2.27 | 2.85 | 2.46 | 2.44 | 2.58 |
| UQCRHP1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| UQCRHP2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| UQCRQ | 10.33 | 10.58 | 10.15 | 10.69 | 10.69 | 10.42 | 10.19 | 9.25 |
| URAHP | -0.54 | -0.62 | -0.61 | -0.44 | -0.47 | -0.53 | -0.48 | -0.58 |
| URB1 | 3.76 | 4.53 | 4.35 | 4.36 | 3.76 | 4.10 | 4.19 | 4.39 |
| URB1-AS1 | 5.47 | 4.18 | 3.95 | 4.28 | 4.50 | 4.39 | 4.05 | 4.19 |
| URB2 | 3.60 | 3.85 | 3.65 | 3.82 | 3.84 | 3.57 | 3.47 | 3.68 |
| URGCP | 4.74 | 4.53 | 4.48 | 4.74 | 4.57 | 4.38 | 4.84 | 4.33 |
| URGCP-MRPS24 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| URI1 | 6.27 | 6.29 | 5.68 | 5.99 | 6.46 | 5.93 | 5.94 | 5.87 |
| URM1 | 7.71 | 6.75 | 5.71 | 6.50 | 5.77 | 5.98 | 5.93 | 6.08 |
| UROD | 5.58 | 4.96 | 5.82 | 5.18 | 5.42 | 5.68 | 5.77 | 5.71 |
| UROS | 6.90 | 6.45 | 5.75 | 6.41 | 6.27 | 6.19 | 5.78 | 5.55 |
| USB1 | 7.08 | 6.15 | 5.47 | 6.16 | 5.71 | 5.97 | 5.95 | 5.99 |
| USE1 | 4.43 | 4.56 | 4.33 | 4.93 | 5.21 | 4.94 | 3.86 | 4.73 |
| USF1 | 4.72 | 4.14 | 4.12 | 4.37 | 4.68 | 4.70 | 4.36 | 4.86 |
| USF1P1 | -2.31 | -2.30 | -2.30 | -2.28 | -2.30 | -2.31 | -2.31 | -2.29 |
| USF2 | 5.47 | 5.50 | 5.68 | 5.57 | 5.69 | 5.36 | 5.72 | 5.16 |
| USF3 | 5.20 | 4.75 | 5.25 | 4.57 | 4.88 | 5.27 | 5.45 | 6.10 |
| USH1C | 5.80 | 6.81 | 6.29 | 7.09 | 6.26 | 6.04 | 7.15 | 5.70 |
| USH1G | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -1.97 | -2.00 | -2.01 |
| USHBP1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.24 | -2.26 |
| USO1 | 5.68 | 6.73 | 6.38 | 6.68 | 6.50 | 6.65 | 6.87 | 7.46 |
| USP1 | 5.71 | 6.40 | 6.43 | 6.19 | 6.07 | 6.27 | 6.61 | 5.89 |
| USP10 | 5.78 | 5.52 | 6.06 | 5.53 | 5.51 | 5.31 | 5.84 | 5.99 |
| USP11 | 3.98 | 3.92 | 4.48 | 3.72 | 3.81 | 4.04 | 3.09 | 3.48 |
| USP12 | 4.18 | 4.79 | 4.52 | 4.51 | 5.42 | 4.73 | 4.98 | 5.39 |
| USP12-AS2 | -1.64 | -1.69 | -1.68 | -1.64 | -1.69 | -1.65 | -1.70 | -1.66 |
| USP13 | 2.72 | 3.44 | 3.73 | 3.27 | 3.11 | 3.43 | 3.59 | 3.48 |
| USP14 | 6.88 | 6.94 | 7.05 | 6.77 | 6.89 | 6.62 | 7.16 | 7.58 |
| USP15 | 5.16 | 5.94 | 5.66 | 5.88 | 5.46 | 6.18 | 5.99 | 5.88 |
| USP16 | 6.27 | 6.33 | 5.95 | 6.17 | 5.66 | 5.11 | 6.38 | 4.87 |
| USP18 | 1.29 | 1.18 | 0.95 | 1.33 | 1.35 | 1.26 | 0.88 | 1.21 |
| USP19 | 3.73 | 4.03 | 4.55 | 4.08 | 3.89 | 4.15 | 4.34 | 4.41 |
| USP2 | 0.60 | 0.47 | 0.67 | 0.51 | 0.79 | 0.56 | 0.82 | 0.52 |
| USP2-AS1 | -0.12 | -0.16 | -0.21 | -0.25 | 0.13 | 0.01 | -0.33 | -0.28 |
| USP20 | 3.62 | 3.39 | 3.48 | 3.41 | 2.91 | 3.21 | 3.46 | 3.26 |
| USP21 | 3.14 | 2.99 | 2.93 | 2.93 | 3.33 | 3.63 | 3.22 | 3.55 |
| USP22 | 6.52 | 6.45 | 7.53 | 6.39 | 6.03 | 6.49 | 7.09 | 6.71 |
| USP24 | 4.48 | 5.08 | 5.24 | 5.06 | 4.67 | 4.90 | 5.32 | 4.47 |
| USP25 | 4.37 | 4.76 | 4.31 | 4.61 | 4.46 | 5.40 | 5.04 | 3.98 |
| USP27X | 0.58 | 0.90 | 1.01 | 0.79 | 0.71 | 0.80 | 1.01 | 0.52 |
| USP27X-AS1 | -0.83 | -0.96 | -0.66 | -0.89 | -0.92 | -0.91 | -0.97 | -0.86 |
| USP28 | 4.70 | 4.44 | 4.37 | 4.13 | 4.33 | 4.14 | 4.42 | 4.36 |
| USP3 | 5.73 | 5.55 | 6.19 | 5.84 | 5.99 | 5.68 | 6.21 | 6.58 |
| USP3-AS1 | 1.87 | 1.34 | 1.32 | 1.29 | 1.32 | 1.14 | 1.08 | 1.12 |
| USP30 | 2.48 | 2.93 | 2.91 | 2.57 | 2.79 | 2.31 | 2.59 | 2.83 |
| USP30-AS1 | 1.43 | 1.26 | 1.39 | 1.26 | 1.20 | 1.55 | 1.13 | 1.11 |
| USP31 | 3.34 | 2.84 | 3.58 | 2.93 | 3.02 | 3.02 | 3.10 | 2.84 |
| USP32 | 4.60 | 4.38 | 4.73 | 4.12 | 4.52 | 4.48 | 4.64 | 4.61 |
| USP32P3 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.95 | -1.96 |
| USP33 | 5.34 | 5.90 | 5.98 | 5.87 | 5.83 | 6.04 | 6.99 | 5.83 |
| USP34 | 6.11 | 6.31 | 6.27 | 6.60 | 6.83 | 6.25 | 6.98 | 6.23 |
| USP35 | 1.81 | 1.54 | 1.87 | 1.58 | 1.68 | 1.58 | 1.71 | 1.42 |
| USP37 | 4.87 | 4.49 | 4.17 | 4.42 | 4.35 | 4.79 | 4.80 | 3.81 |
| USP38 | 3.36 | 4.58 | 4.43 | 4.29 | 3.62 | 3.88 | 4.48 | 4.32 |
| USP39 | 6.41 | 5.78 | 5.63 | 5.78 | 6.20 | 6.08 | 5.69 | 6.23 |
| USP4 | 4.74 | 4.78 | 5.06 | 4.87 | 4.79 | 4.81 | 5.07 | 4.63 |
| USP40 | 4.76 | 4.97 | 5.14 | 4.91 | 4.47 | 5.11 | 5.18 | 4.96 |
| USP42 | 3.91 | 3.98 | 4.10 | 3.42 | 3.61 | 3.97 | 4.13 | 3.98 |
| USP43 | 2.21 | 2.74 | 3.22 | 2.69 | 2.78 | 2.70 | 3.18 | 2.30 |
| USP44 | 1.04 | 0.74 | 0.76 | 0.80 | 0.78 | 0.77 | 1.11 | 0.66 |
| USP45 | 4.05 | 3.26 | 3.90 | 3.32 | 3.67 | 3.78 | 3.74 | 3.58 |
| USP46 | 3.47 | 4.09 | 4.39 | 3.91 | 3.42 | 3.94 | 4.29 | 4.57 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| USP46-AS1 | 0.97 | 0.86 | 1.03 | 0.91 | 0.66 | 0.79 | 0.80 | 0.74 |
| USP47 | 5.61 | 6.32 | 6.59 | 6.17 | 6.13 | 6.21 | 6.83 | 6.23 |
| USP48 | 5.50 | 5.58 | 6.45 | 5.32 | 6.38 | 6.70 | 6.54 | 5.89 |
| USP49 | 1.75 | 1.85 | 1.71 | 1.72 | 1.64 | 1.91 | 2.05 | 1.95 |
| USP5 | 5.28 | 5.08 | 5.36 | 4.74 | 4.25 | 4.40 | 5.00 | 5.24 |
| USP50 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.13 | -2.16 |
| USP51 | -1.18 | -1.10 | -0.94 | -1.19 | -0.93 | -1.16 | -1.19 | -1.08 |
| USP53 | 4.83 | 6.13 | 5.68 | 6.12 | 6.07 | 5.55 | 6.54 | 5.68 |
| USP54 | 3.22 | 3.33 | 3.37 | 3.40 | 3.15 | 3.36 | 3.15 | 2.88 |
| USP6 | -2.15 | -2.15 | -2.14 | -2.12 | -2.10 | -2.15 | -2.15 | -2.16 |
| USP6NL | 3.70 | 4.74 | 3.99 | 4.72 | 4.44 | 4.34 | 4.79 | 4.10 |
| USP7 | 6.45 | 6.80 | 7.10 | 6.56 | 5.94 | 6.21 | 6.66 | 6.66 |
| USP8 | 7.56 | 7.69 | 6.71 | 7.89 | 7.95 | 7.58 | 7.67 | 7.99 |
| USP8P1 | -1.74 | -1.64 | -1.73 | -1.70 | -1.74 | -1.75 | -1.74 | -1.76 |
| USP9X | 6.55 | 6.36 | 7.52 | 6.19 | 6.05 | 6.03 | 6.83 | 6.01 |
| USP9Y | 1.56 | 1.50 | 1.77 | 1.52 | 1.49 | 1.42 | 1.58 | 1.37 |
| USPL1 | 4.99 | 3.99 | 4.08 | 3.67 | 3.80 | 3.82 | 4.00 | 4.36 |
| UST | 2.29 | 2.15 | 2.67 | 2.69 | 3.27 | 2.43 | 3.10 | 2.34 |
| UTP11 | 6.68 | 6.75 | 6.30 | 6.91 | 6.76 | 6.80 | 6.30 | 6.64 |
| UTP14A | 5.15 | 5.56 | 5.03 | 5.24 | 5.04 | 4.76 | 4.75 | 5.06 |
| UTP15 | 3.60 | 4.23 | 3.96 | 3.68 | 4.22 | 3.80 | 3.64 | 3.67 |
| UTP18 | 6.53 | 5.97 | 6.17 | 5.86 | 6.41 | 6.50 | 5.69 | 6.28 |
| UTP20 | 4.22 | 4.97 | 4.90 | 4.56 | 3.92 | 4.60 | 4.38 | 4.53 |
| UTP23 | 6.31 | 5.74 | 6.48 | 5.50 | 6.04 | 6.48 | 5.48 | 6.29 |
| UTP25 | 3.46 | 4.19 | 3.97 | 4.06 | 3.87 | 4.15 | 3.63 | 4.02 |
| UTP3 | 5.33 | 6.09 | 5.75 | 6.33 | 5.47 | 6.12 | 5.89 | 6.05 |
| UTP4 | 5.77 | 5.18 | 5.64 | 5.50 | 5.33 | 5.32 | 4.89 | 5.40 |
| UTP6 | 6.41 | 5.82 | 6.23 | 5.69 | 6.39 | 6.19 | 5.25 | 6.01 |
| UTRN | 4.11 | 4.98 | 4.99 | 4.90 | 4.14 | 4.89 | 6.86 | 4.74 |
| UTS2 | 1.06 | 0.99 | 0.40 | 0.78 | 0.52 | 0.55 | 0.44 | 0.62 |
| UTS2B | -0.49 | -0.48 | -0.37 | -0.58 | -0.53 | -0.58 | -0.58 | -0.53 |
| UTY | 0.37 | 0.39 | 0.41 | 0.54 | 0.43 | 0.43 | 0.36 | 0.31 |
| UVRAG | 5.47 | 5.09 | 5.26 | 5.06 | 5.38 | 4.92 | 5.00 | 5.29 |
| UVRAG-DT | -0.55 | -0.68 | -0.67 | -0.69 | -0.38 | -0.47 | -0.69 | -0.64 |
| UVSSA | 3.29 | 3.71 | 3.99 | 3.74 | 3.67 | 3.27 | 4.69 | 3.60 |
| UXS1 | 6.41 | 5.95 | 5.87 | 6.23 | 6.29 | 5.76 | 5.70 | 6.35 |
| UXT | 7.58 | 7.53 | 7.32 | 7.92 | 8.42 | 7.52 | 7.24 | 7.17 |
| UXT-AS1 | -0.72 | -0.64 | -0.54 | -0.66 | -0.60 | -0.60 | -0.65 | -0.74 |
| VAC14 | 3.71 | 3.97 | 4.48 | 3.50 | 3.35 | 3.49 | 3.80 | 3.68 |
| VAC14-AS1 | -1.04 | -1.11 | -1.09 | -1.12 | -1.03 | -1.05 | -1.04 | -1.07 |
| VAMP1 | 2.63 | 1.67 | 1.55 | 1.72 | 2.11 | 1.63 | 1.60 | 1.83 |
| VAMP2 | 4.77 | 4.33 | 5.11 | 4.44 | 5.19 | 4.86 | 5.75 | 5.07 |
| VAMP3 | 6.88 | 6.49 | 5.96 | 6.38 | 6.40 | 6.36 | 6.34 | 6.58 |
| VAMP4 | 4.37 | 4.74 | 4.15 | 4.82 | 5.13 | 4.82 | 4.69 | 5.32 |
| VAMP5 | 5.10 | 5.00 | 4.11 | 4.92 | 6.30 | 5.90 | 5.25 | 5.51 |
| VAMP8 | 8.56 | 8.29 | 7.88 | 8.24 | 8.64 | 8.40 | 8.32 | 8.76 |
| VANGL1 | 5.40 | 5.97 | 5.48 | 6.23 | 4.99 | 5.71 | 5.38 | 5.37 |
| VANGL2 | 1.35 | 1.51 | 1.36 | 1.19 | 1.21 | 1.11 | 1.25 | 2.06 |
| VAPA | 8.85 | 8.28 | 8.59 | 8.23 | 8.97 | 8.23 | 8.26 | 9.57 |
| VAPB | 6.47 | 5.78 | 6.34 | 5.67 | 6.02 | 5.96 | 6.01 | 6.28 |
| VARS | 5.82 | 5.66 | 6.21 | 5.84 | 4.84 | 6.00 | 6.18 | 5.64 |
| VARS2 | 3.85 | 4.13 | 4.23 | 3.96 | 3.92 | 4.11 | 4.78 | 4.47 |
| VASH1 | 0.93 | 1.54 | 0.99 | 1.45 | 1.10 | 1.21 | 1.17 | 0.78 |
| VASH1-AS1 | 2.07 | 2.17 | 1.92 | 1.84 | 1.77 | 1.72 | 1.73 | 1.69 |
| VASH2 | -0.03 | 0.14 | 0.09 | 0.12 | 0.41 | 0.54 | 0.18 | -0.06 |
| VASN | 3.05 | 2.42 | 2.90 | 2.17 | 2.30 | 3.36 | 3.10 | 3.36 |
| VASP | 7.00 | 7.15 | 6.85 | 6.73 | 6.81 | 6.53 | 7.22 | 7.81 |
| VAT1 | 5.73 | 5.91 | 6.54 | 5.71 | 6.63 | 7.19 | 6.08 | 6.51 |
| VAV1 | 2.39 | 1.58 | 1.62 | 1.68 | 2.13 | 3.24 | 1.81 | 1.99 |
| VAV2 | 5.30 | 5.03 | 5.82 | 5.33 | 4.73 | 5.35 | 5.98 | 4.85 |
| VAV3 | -0.84 | -0.93 | -0.91 | -0.94 | -0.84 | -0.94 | -0.94 | -0.95 |
| VAX2 | 1.99 | 1.83 | 1.24 | 1.88 | 1.55 | 1.04 | 1.09 | 1.15 |
| VBP1 | 7.30 | 6.49 | 6.53 | 6.56 | 7.08 | 7.41 | 6.35 | 7.28 |
| VCAM1 | -1.94 | -1.94 | -1.93 | -1.94 | -1.94 | -1.95 | -1.94 | -1.83 |
| VCAN | 4.60 | 4.29 | 4.92 | 4.60 | 4.73 | 5.32 | 8.37 | 4.15 |
| VCAN-AS1 | -1.64 | -1.64 | -1.57 | -1.65 | -1.64 | -1.65 | -1.59 | -1.67 |
| VCL | 6.04 | 6.96 | 6.29 | 6.73 | 6.17 | 6.66 | 6.62 | 6.22 |
| VCP | 7.39 | 7.95 | 8.36 | 7.95 | 7.33 | 7.89 | 8.04 | 7.63 |
| VCPIP1 | 4.38 | 4.44 | 5.15 | 4.60 | 4.56 | 5.27 | 4.90 | 5.16 |
| VCPKMT | 3.31 | 3.56 | 3.27 | 3.89 | 3.90 | 4.11 | 3.30 | 3.84 |
| VDAC1 | 8.07 | 8.38 | 8.58 | 8.75 | 8.99 | 8.27 | 8.49 | 7.56 |
| VDAC1P1 | -2.10 | -2.09 | -2.05 | -2.10 | -2.06 | -2.09 | -2.10 | -2.11 |
| VDAC1P11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| VDAC1P2 | -1.50 | -1.43 | -1.48 | -1.50 | -1.43 | -1.51 | -1.44 | -1.47 |
| VDAC1P4 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| VDAC1P5 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| VDAC1P6 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| VDAC1P8 | -1.75 | -1.74 | -1.78 | -1.79 | -1.76 | -1.75 | -1.75 | -1.81 |
| VDAC2 | 7.73 | 7.49 | 7.06 | 7.49 | 8.29 | 7.79 | 7.64 | 7.57 |
| VDAC2P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| VDAC3 | 8.19 | 7.62 | 7.81 | 7.75 | 6.89 | 7.66 | 7.27 | 7.37 |
| VDAC3P1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -1.99 | -2.06 |
| VDR | 5.57 | 4.98 | 5.63 | 4.74 | 4.37 | 4.66 | 5.23 | 4.15 |
| VEGFA | 7.47 | 6.47 | 7.58 | 6.97 | 7.36 | 7.27 | 8.18 | 8.03 |
| VEGFB | 5.10 | 4.84 | 5.10 | 4.74 | 5.69 | 5.40 | 4.51 | 6.49 |
| VEGFC | -0.82 | -0.73 | -0.80 | -0.82 | -0.82 | -0.76 | -0.83 | -0.23 |
| VEGFD | -1.84 | -1.89 | -1.83 | -1.90 | -1.89 | -1.88 | -1.85 | -1.87 |
| VENTX | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| VEPH1 | 1.38 | 1.64 | 1.43 | 1.99 | 1.66 | 1.71 | 1.63 | 1.40 |
| VEZF1 | 5.45 | 5.41 | 5.54 | 5.42 | 5.71 | 6.41 | 6.05 | 5.94 |
| VEZT | 5.09 | 5.31 | 5.97 | 5.20 | 5.16 | 5.35 | 5.93 | 5.54 |
| VGf | 1.47 | 2.10 | 1.13 | 2.00 | 1.56 | 1.57 | 1.45 | 1.12 |
| VGLL1 | 2.49 | 2.78 | 4.37 | 2.90 | 2.56 | 2.63 | 2.68 | 4.27 |
| VGLL3 | 1.01 | 1.13 | 1.76 | 1.33 | 1.21 | 3.17 | 1.08 | 1.60 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| VGLL4 | 5.32 | 5.79 | 5.60 | 5.71 | 5.85 | 5.48 | 5.93 | 5.56 |
| VHL | 6.05 | 5.66 | 5.80 | 5.69 | 5.48 | 5.50 | 5.97 | 5.17 |
| VIL1 | 6.63 | 6.52 | 5.75 | 7.01 | 5.92 | 6.05 | 8.10 | 4.98 |
| VILL | 6.19 | 6.16 | 6.60 | 6.02 | 6.21 | 5.73 | 7.13 | 5.94 |
| VIM | 2.22 | 3.34 | 3.07 | 2.59 | 2.37 | 5.07 | 2.70 | 3.36 |
| VIM-AS1 | -0.87 | -0.79 | -0.77 | -0.73 | -0.79 | -0.63 | -0.75 | -0.89 |
| VINAC1P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 |
| VIPAS39 | 2.86 | 3.21 | 3.54 | 3.02 | 3.57 | 3.36 | 3.37 | 2.88 |
| VIPR1 | 2.96 | 3.53 | 3.42 | 4.02 | 3.31 | 2.66 | 3.57 | 3.67 |
| VIPR1-AS1 | -2.01 | -2.04 | -2.04 | -2.05 | -2.01 | -2.05 | -2.05 | -2.06 |
| VIPR2 | -2.25 | -2.25 | -2.23 | -2.25 | -2.24 | -2.26 | -2.25 | -2.26 |
| VIRMA | 4.94 | 5.18 | 5.73 | 5.14 | 5.32 | 5.77 | 5.39 | 5.71 |
| VKORC1 | 6.99 | 7.05 | 6.98 | 6.99 | 8.14 | 6.49 | 7.22 | 6.71 |
| VKORC1L1 | 6.73 | 5.89 | 5.84 | 6.03 | 6.21 | 5.64 | 5.82 | 5.96 |
| VLDLR | 3.06 | 3.62 | 3.75 | 3.17 | 2.77 | 3.38 | 4.80 | 2.91 |
| VLDLR-AS1 | -0.60 | -0.52 | -0.41 | -0.47 | -0.48 | -0.58 | -0.27 | -0.44 |
| VMA21 | 6.50 | 6.32 | 5.93 | 6.20 | 6.92 | 6.86 | 6.06 | 6.93 |
| VMAC | 2.13 | 1.83 | 1.67 | 2.05 | 2.01 | 2.24 | 1.93 | 2.35 |
| VMO1 | 3.26 | 2.10 | 2.50 | 2.48 | 5.28 | 1.82 | 2.40 | 2.02 |
| VMP1 | 8.42 | 7.43 | 8.24 | 7.36 | 8.19 | 8.30 | 7.89 | 7.91 |
| VN1R1 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| VN1R108P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| VN1R48P | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| VN1R81P | -2.04 | -2.04 | -2.01 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| VN1R83P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| VN1R84P | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| VN2R10P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 |
| VNN1 | 2.92 | 2.87 | 3.28 | 3.62 | 2.96 | 3.97 | 3.49 | 2.67 |
| VNN2 | 0.79 | 0.64 | 0.76 | 0.61 | 0.63 | 0.67 | 0.61 | 0.63 |
| VOPP1 | 4.98 | 5.55 | 5.94 | 5.20 | 5.20 | 5.48 | 5.18 | 5.09 |
| VPREB3 | 0.50 | 0.39 | 0.24 | 0.41 | 0.61 | 0.49 | 0.29 | 0.80 |
| VPS11 | 3.14 | 3.73 | 3.49 | 3.26 | 3.44 | 3.39 | 3.37 | 3.86 |
| VPS13A | 5.62 | 6.34 | 5.99 | 6.39 | 5.73 | 5.89 | 7.14 | 5.50 |
| VPS13A-AS1 | -2.10 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 | -2.06 | -2.12 |
| VPS13B | 3.47 | 3.68 | 4.21 | 3.55 | 3.52 | 4.11 | 4.03 | 3.84 |
| VPS13C | 6.16 | 6.65 | 6.50 | 6.59 | 6.34 | 6.24 | 6.98 | 6.31 |
| VPS13D | 5.01 | 5.68 | 5.75 | 5.48 | 5.18 | 5.09 | 6.35 | 4.70 |
| VPS16 | 4.89 | 4.96 | 4.79 | 4.92 | 4.90 | 4.44 | 4.99 | 4.35 |
| VPS18 | 3.72 | 3.84 | 3.70 | 3.60 | 3.21 | 3.69 | 3.60 | 3.91 |
| VPS25 | 6.81 | 7.14 | 6.62 | 6.99 | 7.16 | 7.48 | 6.59 | 7.20 |
| VPS26A | 7.36 | 7.02 | 6.55 | 6.94 | 6.81 | 7.02 | 7.03 | 6.83 |
| VPS26AP1 | -2.04 | -2.04 | -2.00 | -2.05 | -2.03 | -2.05 | -2.05 | -2.06 |
| VPS26B | 5.58 | 5.55 | 5.75 | 5.52 | 6.21 | 5.45 | 5.88 | 5.85 |
| VPS26BP1 | -0.80 | -0.64 | -0.78 | -0.75 | -0.79 | -0.85 | -0.81 | -0.90 |
| VPS26C | 5.68 | 4.83 | 5.00 | 5.33 | 4.99 | 4.54 | 5.18 | 5.27 |
| VPS28 | 7.50 | 7.06 | 7.47 | 7.13 | 7.90 | 7.57 | 7.39 | 7.75 |
| VPS29 | 8.17 | 8.42 | 8.15 | 8.51 | 8.03 | 8.20 | 7.90 | 8.16 |
| VPS33A | 3.47 | 3.40 | 3.71 | 3.65 | 3.31 | 3.16 | 3.63 | 3.62 |
| VPS33B | 3.29 | 3.16 | 3.57 | 3.28 | 3.38 | 3.28 | 3.66 | 3.21 |
| VPS33B-DT | -0.70 | -0.85 | -0.76 | -0.86 | -0.41 | -0.70 | -0.79 | -0.69 |
| VPS35 | 6.96 | 7.24 | 7.63 | 7.03 | 6.71 | 7.08 | 7.31 | 7.18 |
| VPS35L | 3.32 | 2.92 | 3.59 | 3.17 | 3.54 | 2.98 | 3.51 | 3.31 |
| VPS35P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| VPS36 | 5.65 | 6.60 | 5.29 | 6.61 | 6.37 | 5.22 | 6.02 | 6.64 |
| VPS37A | 5.08 | 5.45 | 5.97 | 5.31 | 4.90 | 5.64 | 5.48 | 5.39 |
| VPS37B | 4.90 | 6.42 | 6.48 | 6.32 | 6.00 | 5.76 | 6.07 | 6.66 |
| VPS37C | 3.75 | 4.01 | 4.30 | 4.29 | 4.12 | 4.01 | 4.09 | 4.35 |
| VPS37D | 2.38 | 1.54 | 1.67 | 1.56 | 2.32 | 2.07 | 2.22 | 1.59 |
| VPS39 | 6.00 | 5.76 | 5.37 | 6.04 | 6.40 | 6.08 | 6.00 | 6.72 |
| VPS41 | 4.87 | 5.20 | 5.30 | 4.98 | 4.90 | 4.71 | 5.18 | 5.45 |
| VPS45 | 4.58 | 4.12 | 4.20 | 4.18 | 4.14 | 4.97 | 4.53 | 5.02 |
| VPS4A | 7.20 | 6.60 | 6.53 | 6.65 | 6.61 | 6.40 | 6.39 | 6.80 |
| VPS4B | 6.25 | 6.54 | 6.71 | 6.14 | 6.29 | 6.22 | 7.30 | 6.24 |
| VPS50 | 3.03 | 3.56 | 3.58 | 3.31 | 3.32 | 3.15 | 3.97 | 3.67 |
| VPS51 | 5.95 | 5.07 | 5.85 | 5.05 | 6.29 | 5.62 | 5.71 | 5.97 |
| VPS52 | 4.51 | 4.51 | 4.49 | 4.75 | 4.08 | 4.97 | 4.84 | 5.40 |
| VPS53 | 4.78 | 4.79 | 5.66 | 4.63 | 4.69 | 4.61 | 5.92 | 5.02 |
| VPS54 | 4.31 | 4.35 | 4.24 | 4.50 | 4.79 | 4.13 | 4.80 | 4.67 |
| VPS72 | 6.91 | 5.89 | 5.70 | 6.12 | 6.56 | 6.71 | 5.78 | 6.88 |
| VPS8 | 4.26 | 4.23 | 4.46 | 4.30 | 3.98 | 4.01 | 4.48 | 4.31 |
| VPS9D1 | 2.31 | 2.41 | 2.32 | 2.41 | 2.25 | 2.18 | 1.94 | 2.57 |
| VPS9D1-AS1 | 3.35 | 2.58 | 1.74 | 2.34 | 2.08 | 1.97 | 1.71 | 2.30 |
| VRK1 | 6.31 | 6.44 | 6.69 | 6.69 | 6.35 | 6.69 | 5.99 | 5.99 |
| VRK2 | 6.18 | 5.59 | 5.15 | 5.62 | 5.93 | 5.60 | 5.54 | 6.10 |
| VRK3 | 5.44 | 4.65 | 5.18 | 5.21 | 6.20 | 4.99 | 5.19 | 5.29 |
| VRTN | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| VSIG1 | 3.08 | 2.89 | 4.34 | 3.03 | 4.26 | 2.75 | 5.81 | 5.11 |
| VSIG10 | 4.91 | 5.82 | 5.58 | 5.56 | 5.02 | 5.08 | 5.20 | 5.10 |
| VSIG10L | 2.32 | 2.43 | 2.38 | 2.23 | 3.15 | 2.98 | 2.31 | 2.25 |
| VSIG10L2 | -1.80 | -1.84 | -1.83 | -1.84 | -1.82 | -1.81 | -1.84 | -1.82 |
| VSIG2 | 4.35 | 6.77 | 5.93 | 7.37 | 6.27 | 4.69 | 5.94 | 7.30 |
| VSIG8 | -1.64 | -1.64 | -1.63 | -1.60 | -1.61 | -1.58 | -1.55 | -1.62 |
| VSIR | 5.19 | 4.94 | 4.70 | 4.57 | 6.22 | 4.85 | 4.72 | 4.46 |
| VSNL1 | 0.49 | 0.87 | 0.31 | 1.06 | 0.30 | 0.67 | 0.33 | 0.53 |
| VSTM2A | -1.84 | -1.79 | -1.79 | -1.80 | -1.82 | -1.83 | -1.85 | -1.86 |
| VSTM2A-OT1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| VSTM2L | 5.16 | 8.61 | 6.16 | 8.17 | 6.53 | 6.31 | 7.47 | 7.58 |
| VSTM4 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| VSTM5 | 0.29 | 0.12 | 0.23 | 0.43 | 0.16 | 0.18 | 0.30 | 0.18 |
| VSX1 | -1.18 | -1.17 | -1.16 | -0.73 | -0.80 | -1.19 | -1.19 | -1.20 |
| VTa1 | 6.48 | 6.03 | 6.14 | 6.02 | 5.83 | 6.41 | 6.02 | 6.19 |
| VTCN1 | 1.08 | 1.59 | 1.49 | 1.70 | 1.33 | 1.67 | 1.13 | 1.11 |
| VTI1A | 4.88 | 4.73 | 4.59 | 4.63 | 4.86 | 4.77 | 4.81 | 4.57 |
| VTI1B | 6.74 | 7.25 | 6.55 | 6.95 | 7.34 | 7.24 | 6.66 | 6.91 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| VTI1BP1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 |
| VTI1BP4 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| VTN | 0.17 | 0.27 | 0.20 | 0.44 | 0.63 | 0.19 | 0.39 | 0.27 |
| VTRNA1-1 | 2.24 | 1.60 | 1.87 | 2.20 | 1.97 | 1.92 | 2.10 | 1.77 |
| VTRNA1-2 | 1.44 | 1.48 | 1.61 | 2.00 | 1.53 | 1.45 | 1.35 | 1.49 |
| VTRNA1-3 | 5.22 | 5.24 | 5.32 | 5.14 | 4.17 | 5.45 | 5.88 | 4.80 |
| VTRNA2-1 | 2.22 | 2.38 | 2.20 | 2.32 | 2.37 | 2.75 | 3.02 | 2.22 |
| VTRNA2-2P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| VWA1 | 7.86 | 6.91 | 7.90 | 7.15 | 6.91 | 7.51 | 6.82 | 5.67 |
| VWA2 | 1.99 | 2.41 | 2.44 | 1.84 | 5.09 | 1.69 | 2.10 | 2.08 |
| VWA3A | -1.79 | -1.78 | -1.70 | -1.79 | -1.79 | -1.74 | -1.79 | -1.69 |
| VWA3B | -0.21 | -0.28 | -0.17 | -0.14 | -0.24 | -0.03 | -0.29 | -0.25 |
| VWA5A | 3.73 | 3.93 | 4.55 | 3.50 | 4.33 | 3.99 | 4.09 | 3.92 |
| VWA5B1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| VWA5B2 | -0.65 | -0.92 | -0.83 | -0.93 | -0.85 | -0.79 | -0.93 | -0.88 |
| VWA7 | -0.05 | -0.32 | -0.31 | -0.33 | -0.36 | -0.42 | -0.41 | -0.27 |
| VWA8 | 4.49 | 3.50 | 4.06 | 3.66 | 3.67 | 3.21 | 4.43 | 4.28 |
| VWA8-AS1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| VWC2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| VWCE | -1.69 | -1.69 | -1.73 | -1.74 | -1.69 | -1.70 | -1.74 | -1.76 |
| VWDE | 0.86 | 0.89 | 0.85 | 0.87 | 0.85 | 0.69 | 1.51 | 1.39 |
| WAC | 6.20 | 7.00 | 7.04 | 6.58 | 6.97 | 6.88 | 7.10 | 6.66 |
| WAC-AS1 | 4.94 | 5.12 | 4.77 | 4.98 | 4.24 | 4.77 | 5.40 | 5.29 |
| WAPL | 6.52 | 6.23 | 6.43 | 6.35 | 6.59 | 6.27 | 6.54 | 6.04 |
| WARS | 5.47 | 5.48 | 6.08 | 5.61 | 6.13 | 6.24 | 5.93 | 6.53 |
| WARS2 | 3.65 | 4.39 | 3.42 | 4.29 | 3.69 | 3.95 | 3.54 | 3.73 |
| WARS2-AS1 | 3.46 | 3.04 | 3.48 | 3.19 | 2.88 | 3.01 | 3.25 | 3.31 |
| WARS2-IT1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| WAS | -1.96 | -1.95 | -1.98 | -2.00 | -1.99 | -1.98 | -1.96 | -2.01 |
| WASF1 | 2.93 | 2.95 | 3.23 | 3.13 | 2.70 | 2.99 | 3.21 | 2.66 |
| WASF2 | 6.69 | 6.83 | 7.42 | 6.36 | 7.13 | 7.16 | 7.58 | 7.72 |
| WASF3 | 2.32 | 1.88 | 2.56 | 1.74 | 2.51 | 1.71 | 2.49 | 2.01 |
| WASF3-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| WASF4P | -0.08 | 0.01 | 0.02 | -0.08 | 0.12 | 0.10 | -0.08 | 0.23 |
| WASH2P | 0.14 | -0.07 | 0.08 | -0.09 | 0.00 | 0.03 | 0.03 | 0.05 |
| WASH3P | -1.99 | -1.99 | -1.98 | -2.00 | -1.99 | -2.00 | -2.00 | -1.94 |
| WASH4P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| WASH5P | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| WASH8P | -0.39 | -0.30 | -0.50 | -0.33 | -0.56 | -0.58 | -0.48 | -0.51 |
| WASH9P | -2.15 | -2.15 | -2.14 | -2.12 | -2.15 | -2.15 | -2.15 | -2.16 |
| WASHC1 | 1.48 | 1.73 | 1.80 | 1.59 | 1.67 | 1.81 | 1.85 | 1.97 |
| WASHC2A | 3.63 | 3.87 | 3.60 | 3.91 | 3.36 | 3.68 | 3.90 | 3.20 |
| WASHC2C | 3.36 | 3.05 | 3.42 | 3.39 | 3.12 | 3.03 | 3.87 | 3.09 |
| WASHC3 | 6.42 | 6.74 | 6.88 | 6.85 | 6.26 | 6.56 | 5.85 | 6.58 |
| WASHC4 | 4.82 | 5.88 | 5.87 | 5.51 | 4.90 | 5.70 | 6.27 | 5.37 |
| WASHC5 | 4.41 | 4.39 | 5.19 | 4.47 | 3.97 | 4.52 | 4.46 | 5.09 |
| WASIR2 | -0.75 | -0.99 | -1.05 | -0.94 | -0.92 | -1.05 | -1.08 | -1.03 |
| WASL | 6.72 | 6.73 | 6.23 | 6.59 | 6.47 | 6.80 | 6.54 | 7.51 |
| WBP1 | 0.35 | 0.37 | 0.24 | 0.47 | 0.48 | 0.30 | 0.11 | 0.32 |
| WBP11 | 6.63 | 5.50 | 6.52 | 5.82 | 7.41 | 5.81 | 6.33 | 6.94 |
| WBP11P1 | -1.80 | -1.84 | -1.83 | -1.84 | -1.84 | -1.83 | -1.80 | -1.86 |
| WBP1L | 4.86 | 4.79 | 4.61 | 4.45 | 4.78 | 4.68 | 5.17 | 4.70 |
| WBP1LP2 | -1.60 | -1.59 | -1.59 | -1.55 | -1.60 | -1.58 | -1.60 | -1.57 |
| WBP2 | 7.72 | 6.64 | 7.55 | 6.69 | 7.92 | 7.68 | 7.18 | 7.44 |
| WBP2NL | 1.08 | 0.83 | 1.03 | 1.06 | 1.01 | 0.54 | 0.96 | 0.73 |
| WBP4 | 5.63 | 5.77 | 5.94 | 5.67 | 5.87 | 5.74 | 6.07 | 6.32 |
| WDCP | 2.95 | 2.81 | 2.72 | 2.42 | 2.54 | 2.69 | 2.81 | 2.33 |
| WDFY1 | 4.93 | 5.30 | 5.06 | 4.77 | 4.71 | 5.41 | 5.18 | 5.17 |
| WDFY2 | 2.87 | 3.55 | 3.28 | 3.83 | 4.02 | 3.22 | 3.76 | 3.59 |
| WDFY3 | 3.53 | 4.26 | 4.58 | 4.39 | 3.77 | 4.41 | 4.94 | 4.37 |
| WDFY3-AS2 | 1.35 | 1.78 | 1.17 | 1.72 | 1.47 | 1.70 | 1.38 | 1.83 |
| WDHD1 | 3.52 | 4.14 | 4.92 | 3.90 | 3.41 | 4.39 | 4.40 | 3.48 |
| WDPCP | 1.13 | 1.34 | 1.06 | 1.11 | 1.05 | 1.23 | 1.35 | 0.96 |
| WDR1 | 6.59 | 6.71 | 7.52 | 6.55 | 6.56 | 7.26 | 7.44 | 7.61 |
| WDR11 | 4.42 | 4.68 | 5.05 | 4.33 | 4.94 | 4.49 | 5.21 | 4.20 |
| WDR11-AS1 | -1.26 | -1.32 | -1.31 | -1.33 | -1.26 | -1.22 | -1.34 | -1.29 |
| WDR12 | 5.84 | 5.66 | 5.43 | 5.35 | 5.85 | 5.65 | 5.11 | 5.45 |
| WDR13 | 5.60 | 5.66 | 6.06 | 5.90 | 6.33 | 5.78 | 5.66 | 5.62 |
| WDR17 | -0.59 | -0.67 | -0.09 | -0.59 | -0.34 | -0.65 | -0.60 | -0.69 |
| WDR18 | 6.96 | 5.73 | 6.31 | 5.71 | 6.13 | 6.56 | 6.12 | 6.52 |
| WDR19 | 2.14 | 2.34 | 2.65 | 2.32 | 2.28 | 2.63 | 3.11 | 2.19 |
| WDR20 | 4.28 | 4.96 | 4.39 | 4.86 | 4.71 | 4.58 | 4.40 | 4.43 |
| WDR24 | 4.04 | 4.38 | 4.31 | 4.63 | 3.22 | 3.95 | 3.51 | 3.66 |
| WDR25 | 3.46 | 3.14 | 3.32 | 3.17 | 3.47 | 3.50 | 3.34 | 2.88 |
| WDR26 | 5.29 | 5.28 | 5.70 | 5.07 | 5.17 | 6.16 | 5.96 | 6.07 |
| WDR27 | 2.43 | 2.24 | 2.68 | 2.50 | 2.70 | 2.55 | 3.16 | 2.38 |
| WDR3 | 5.38 | 5.23 | 5.28 | 5.15 | 5.06 | 4.97 | 4.61 | 5.20 |
| WDR31 | 2.98 | 2.61 | 2.83 | 2.79 | 2.43 | 3.05 | 3.05 | 2.08 |
| WDR33 | 6.46 | 6.42 | 6.12 | 6.38 | 6.72 | 6.15 | 6.34 | 6.68 |
| WDR34 | 7.72 | 7.25 | 7.34 | 7.28 | 6.63 | 7.28 | 7.05 | 6.42 |
| WDR35 | 2.33 | 2.76 | 2.47 | 2.77 | 2.28 | 2.61 | 2.75 | 2.43 |
| WDR36 | 3.88 | 5.09 | 5.12 | 5.00 | 4.66 | 4.71 | 5.11 | 4.61 |
| WDR37 | 2.80 | 3.18 | 3.54 | 3.47 | 3.71 | 3.55 | 3.98 | 3.82 |
| WDR38 | -1.01 | -0.93 | -0.92 | -1.01 | -1.03 | -0.93 | -1.01 | -1.03 |
| WDR4 | 4.51 | 4.54 | 3.96 | 4.59 | 4.20 | 4.45 | 3.60 | 3.92 |
| WDR41 | 3.83 | 4.54 | 4.06 | 4.23 | 4.86 | 4.70 | 4.13 | 3.96 |
| WDR43 | 6.95 | 7.03 | 6.18 | 7.13 | 6.08 | 6.39 | 6.32 | 6.70 |
| WDR44 | 4.23 | 4.30 | 4.89 | 4.09 | 3.99 | 3.96 | 4.62 | 4.18 |
| WDR45 | 4.97 | 4.57 | 4.33 | 4.63 | 5.11 | 4.64 | 4.57 | 5.39 |
| WDR45B | 6.85 | 6.94 | 7.12 | 6.80 | 6.97 | 6.95 | 7.33 | 6.99 |
| WDR45BP1 | -2.10 | -2.09 | -2.06 | -2.07 | -2.08 | -2.10 | -2.07 | -2.11 |
| WDR46 | 6.27 | 6.02 | 5.84 | 6.34 | 5.41 | 6.18 | 5.68 | 6.49 |
| WDR47 | 2.68 | 2.74 | 2.42 | 2.55 | 2.64 | 2.63 | 2.62 | 2.14 |
| WDR48 | 4.33 | 4.44 | 4.60 | 3.92 | 4.44 | 4.35 | 4.68 | 3.96 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| WDR49 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| WDR5 | 5.76 | 5.81 | 5.88 | 5.37 | 4.84 | 5.56 | 5.50 | 5.25 |
| WDR53 | 3.92 | 3.44 | 3.57 | 3.26 | 3.49 | 3.67 | 3.17 | 3.86 |
| WDR54 | 5.35 | 5.59 | 6.03 | 5.58 | 5.99 | 5.97 | 5.09 | 3.47 |
| WDR55 | 4.53 | 5.50 | 5.27 | 5.42 | 5.08 | 4.90 | 5.04 | 4.97 |
| WDR59 | 4.60 | 4.35 | 5.14 | 4.86 | 4.61 | 4.40 | 4.62 | 4.57 |
| WDR5B | 3.23 | 2.70 | 3.23 | 2.54 | 3.23 | 2.84 | 2.45 | 3.44 |
| WDR6 | 4.89 | 5.77 | 5.48 | 5.82 | 4.94 | 5.49 | 5.52 | 4.57 |
| WDR60 | 4.82 | 5.90 | 5.74 | 6.12 | 5.80 | 5.28 | 6.75 | 5.63 |
| WDR61 | 7.17 | 6.67 | 6.55 | 7.18 | 7.50 | 6.77 | 6.32 | 7.33 |
| WDR62 | 3.55 | 3.25 | 3.35 | 3.18 | 2.94 | 3.39 | 3.64 | 2.46 |
| WDR63 | -0.49 | -0.02 | -0.63 | -0.02 | -0.64 | -0.66 | -0.31 | -0.54 |
| WDR66 | 1.56 | 1.58 | 1.98 | 2.07 | 1.58 | 1.86 | 1.53 | 1.31 |
| WDR7 | 2.53 | 2.59 | 2.96 | 2.75 | 2.55 | 2.63 | 3.21 | 2.36 |
| WDR70 | 4.83 | 4.84 | 5.20 | 5.05 | 5.15 | 4.82 | 5.04 | 4.79 |
| WDR72 | 5.55 | 3.40 | 3.79 | 3.33 | 2.85 | 2.77 | 3.00 | 2.71 |
| WDR73 | 4.77 | 4.85 | 5.04 | 5.23 | 4.97 | 4.93 | 5.11 | 4.96 |
| WDR74 | 6.26 | 5.93 | 6.04 | 5.91 | 6.26 | 5.73 | 5.49 | 6.13 |
| WDR75 | 4.69 | 5.09 | 5.02 | 4.70 | 5.01 | 4.93 | 4.69 | 4.66 |
| WDR76 | 4.97 | 3.99 | 4.37 | 4.15 | 3.91 | 4.26 | 4.56 | 4.23 |
| WDR77 | 5.40 | 4.93 | 4.69 | 4.92 | 4.44 | 4.94 | 4.20 | 4.27 |
| WDR78 | 1.81 | 1.98 | 1.84 | 1.98 | 2.00 | 2.43 | 1.71 | 2.01 |
| WDR81 | 1.81 | 2.32 | 2.06 | 2.06 | 2.13 | 2.18 | 2.28 | 2.38 |
| WDR82 | 5.95 | 6.53 | 6.29 | 6.19 | 5.93 | 5.90 | 6.23 | 5.60 |
| WDR83 | 4.02 | 4.04 | 3.33 | 4.27 | 4.29 | 3.86 | 3.66 | 3.89 |
| WDR86 | -1.11 | -1.24 | -1.29 | -1.32 | -1.31 | -1.32 | -1.19 | -1.33 |
| WDR86-AS1 | 1.47 | 0.41 | 0.82 | 0.48 | 0.41 | 0.42 | 0.39 | 0.34 |
| WDR87 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.26 |
| WDR88 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| WDR89 | 3.57 | 3.26 | 3.51 | 3.65 | 3.94 | 3.62 | 3.67 | 3.39 |
| WDR90 | 3.25 | 3.05 | 4.33 | 3.62 | 2.87 | 3.12 | 4.16 | 3.38 |
| WDR91 | 1.82 | 2.10 | 1.79 | 2.35 | 2.01 | 1.81 | 2.50 | 1.95 |
| WDR92 | 3.92 | 3.68 | 3.48 | 3.74 | 3.74 | 3.56 | 3.25 | 3.47 |
| WDR93 | -1.65 | -1.73 | -1.68 | -1.74 | -1.73 | -1.72 | -1.74 | -1.71 |
| WDR97 | -0.49 | -0.46 | -0.54 | -0.63 | -0.55 | -0.57 | -0.36 | -0.42 |
| WDSUB1 | 3.72 | 2.80 | 3.15 | 3.32 | 3.24 | 3.26 | 3.13 | 3.60 |
| WDTC1 | 3.39 | 3.61 | 3.96 | 3.22 | 3.75 | 3.86 | 4.38 | 3.33 |
| WDYHV1 | 4.99 | 4.28 | 4.45 | 4.59 | 5.32 | 5.13 | 4.22 | 4.96 |
| WEE1 | 4.65 | 4.26 | 4.67 | 4.18 | 4.53 | 4.28 | 4.42 | 4.39 |
| WEE2 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| WEE2-AS1 | -0.95 | -0.86 | -0.69 | -0.80 | -0.86 | -0.93 | -0.96 | -0.67 |
| WFDC1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.17 | -2.20 | -2.21 |
| WFDC10A | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| WFDC10B | -1.79 | -1.74 | -1.78 | -1.79 | -1.72 | -1.80 | -1.79 | -1.68 |
| WFDC11 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 |
| WFDC12 | -0.62 | -0.69 | -0.68 | -0.70 | -0.66 | -0.67 | -0.44 | -0.60 |
| WFDC13 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.04 | -2.05 | -2.05 |
| WFDC2 | 9.06 | 5.44 | 6.96 | 5.80 | 6.72 | 7.14 | 5.73 | 5.78 |
| WFDC21P | 2.06 | 0.79 | 0.82 | 1.12 | 0.87 | 0.96 | 0.99 | 0.91 |
| WFDC3 | 1.86 | 1.45 | 2.23 | 1.60 | 1.33 | 1.69 | 1.24 | 2.07 |
| WFDC5 | -1.50 | -1.49 | -1.42 | -1.50 | -1.49 | -1.51 | -1.38 | -1.41 |
| WFIKKN1 | -0.35 | -0.18 | -0.47 | -0.49 | -0.33 | -0.34 | -0.49 | -0.34 |
| WFS1 | 3.90 | 4.93 | 4.83 | 5.01 | 4.94 | 6.54 | 4.83 | 5.30 |
| WHAMM | 5.53 | 5.32 | 6.02 | 5.15 | 5.55 | 5.27 | 5.39 | 5.58 |
| WHAMMP2 | -0.14 | -0.25 | -0.30 | -0.29 | -0.18 | -0.27 | -0.29 | -0.38 |
| WHAMMP3 | 0.96 | 0.67 | 1.01 | 0.73 | 0.97 | 0.89 | 1.00 | 1.00 |
| WHRN | 0.86 | 1.43 | 1.30 | 1.10 | 1.48 | 1.38 | 1.19 | 1.14 |
| WHSC1L2P | 0.27 | -0.02 | 0.20 | -0.11 | 0.02 | 0.04 | 0.02 | -0.09 |
| WIF1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 |
| WIPF1 | 0.71 | 1.15 | 0.62 | 0.98 | 1.13 | 0.42 | 0.39 | 0.60 |
| WIPF2 | 5.38 | 5.89 | 6.46 | 5.38 | 5.76 | 5.77 | 5.96 | 5.63 |
| WIPF3 | 2.14 | 2.30 | 2.04 | 2.07 | 2.26 | 1.98 | 1.83 | 1.86 |
| WIP1 | 5.99 | 5.64 | 5.12 | 5.84 | 6.66 | 5.96 | 5.67 | 6.72 |
| WIP12 | 6.03 | 5.78 | 5.86 | 5.83 | 6.32 | 5.99 | 5.90 | 6.42 |
| WIZ | 3.60 | 4.29 | 4.40 | 4.24 | 3.92 | 4.02 | 3.85 | 3.86 |
| WLS | 4.01 | 4.64 | 5.34 | 4.98 | 5.98 | 5.10 | 6.14 | 5.19 |
| WNK1 | 6.51 | 6.90 | 7.33 | 6.52 | 5.84 | 6.28 | 7.12 | 6.84 |
| WNK2 | 3.53 | 2.65 | 2.91 | 3.08 | 2.77 | 2.59 | 3.71 | 2.58 |
| WNK3 | 0.12 | 0.12 | 0.29 | 0.39 | 0.24 | 0.28 | 0.26 | 0.15 |
| WNK4 | -0.66 | -0.81 | -0.62 | -0.68 | -0.69 | -0.62 | -0.74 | -0.77 |
| WNT10A | 2.44 | 1.62 | 1.39 | 1.89 | 1.93 | 1.87 | 1.36 | 2.07 |
| WNT10B | -1.47 | -1.59 | -1.46 | -1.48 | -1.50 | -1.54 | -1.60 | -1.61 |
| WNT11 | 0.36 | -0.16 | -0.06 | -0.17 | 0.20 | -0.10 | -0.10 | 0.13 |
| WNT16 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -2.00 | -2.01 |
| WNT2B | 0.51 | 0.83 | 1.05 | 0.85 | 0.60 | 0.62 | 0.84 | 1.01 |
| WNT3 | 0.43 | 0.22 | 0.23 | 0.20 | 0.40 | 0.28 | 0.40 | 0.42 |
| WNT3A | -1.15 | -1.22 | -1.14 | -1.23 | -1.22 | -1.17 | -1.23 | -0.82 |
| WNT4 | 2.02 | 2.14 | 1.95 | 1.77 | 2.45 | 2.34 | 1.97 | 1.78 |
| WNT5A | -1.56 | -1.49 | -1.54 | -1.50 | -1.55 | -1.57 | -1.56 | -1.52 |
| WNT5A-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| WNT5B | 1.28 | 1.19 | 0.86 | 1.62 | 0.86 | 0.70 | 0.79 | 0.91 |
| WNT6 | -1.55 | -1.64 | -1.59 | -1.65 | -1.64 | -1.58 | -1.60 | -1.67 |
| WNT7A | 2.77 | 3.89 | 3.42 | 3.42 | 3.88 | 2.86 | 4.07 | 4.19 |
| WNT7B | 4.64 | 4.56 | 4.85 | 4.04 | 4.09 | 4.80 | 5.00 | 4.52 |
| WNT8B | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| WNT9A | 0.03 | -0.12 | 0.51 | -0.06 | 0.19 | -0.03 | -0.06 | -0.16 |
| WRAP53 | 3.99 | 3.40 | 4.03 | 3.43 | 3.79 | 4.07 | 4.14 | 3.38 |
| WRAP73 | 5.78 | 4.78 | 5.32 | 4.73 | 5.48 | 5.51 | 5.19 | 4.97 |
| WRB | 6.87 | 6.09 | 5.99 | 6.31 | 6.36 | 5.75 | 5.94 | 6.58 |
| WRN | 5.25 | 5.53 | 5.59 | 5.34 | 4.94 | 5.25 | 5.55 | 4.83 |
| WRNIP1 | 6.21 | 5.21 | 5.09 | 5.07 | 5.40 | 5.28 | 5.78 | 6.57 |
| WSB1 | 5.62 | 6.02 | 6.90 | 6.10 | 6.47 | 6.17 | 6.99 | 5.99 |
| WSB2 | 5.58 | 6.65 | 6.39 | 6.35 | 6.25 | 6.68 | 6.63 | 7.19 |
| WSCD1 | 1.37 | 1.66 | 1.40 | 2.15 | 1.73 | 0.94 | 1.62 | 1.12 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| WSCD2 | -2.25 | -2.25 | -2.25 | -2.20 | -2.24 | -2.25 | -2.25 | -2.26 |
| WT1 | -1.51 | -1.35 | -1.60 | -1.37 | -1.61 | -1.63 | -1.62 | -1.50 |
| WTAP | 6.53 | 5.72 | 5.83 | 5.60 | 5.62 | 6.19 | 5.90 | 6.13 |
| WTAPP1 | 1.51 | 1.47 | 1.45 | 1.55 | 1.60 | 1.56 | 1.46 | 1.24 |
| WTIP | 4.06 | 3.59 | 3.12 | 3.62 | 3.41 | 3.20 | 3.93 | 3.08 |
| WWC1 | 4.96 | 5.73 | 6.27 | 5.20 | 6.39 | 5.25 | 6.62 | 4.40 |
| WWC2 | 4.43 | 5.62 | 5.26 | 5.23 | 4.81 | 5.91 | 6.02 | 5.72 |
| WWC2-AS2 | -0.27 | -0.40 | -0.38 | -0.34 | -0.44 | -0.36 | -0.25 | -0.39 |
| WWC3 | 5.34 | 6.01 | 5.64 | 5.75 | 5.97 | 5.87 | 5.24 | 3.59 |
| WWOX | 3.61 | 3.62 | 3.61 | 4.10 | 3.75 | 3.37 | 3.59 | 3.35 |
| WWP1 | 5.06 | 5.75 | 5.68 | 5.81 | 5.01 | 5.55 | 6.20 | 5.89 |
| WWP1P1 | -1.99 | -1.99 | -1.95 | -2.00 | -1.97 | -2.00 | -1.96 | -1.97 |
| WWP2 | 4.18 | 4.29 | 4.57 | 3.82 | 4.16 | 3.95 | 4.71 | 4.28 |
| WWTR1 | 5.80 | 5.14 | 6.52 | 4.66 | 5.31 | 6.75 | 6.45 | 5.91 |
| WWTR1-AS1 | -0.35 | -0.41 | -0.34 | -0.36 | -0.42 | -0.44 | -0.29 | -0.31 |
| WWTR1-IT1 | -0.79 | -0.79 | -0.61 | -0.79 | -0.67 | -0.67 | -0.59 | -0.81 |
| XAB2 | 2.62 | 2.68 | 2.98 | 2.78 | 2.72 | 2.56 | 2.57 | 2.30 |
| XACT | -2.30 | -2.30 | -2.27 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| XAF1 | 4.75 | 3.81 | 4.22 | 3.84 | 4.14 | 4.01 | 3.12 | 3.41 |
| XAGE2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| XBP1 | 8.64 | 8.42 | 6.97 | 8.75 | 9.24 | 8.10 | 8.50 | 9.21 |
| XCL1 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.98 | -1.99 | -2.00 |
| XCR1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| XDH | 0.73 | 1.18 | 1.03 | 0.81 | 1.32 | 1.03 | 0.80 | 1.54 |
| XG | 2.76 | 1.09 | 1.75 | 1.38 | 1.28 | 1.97 | 1.21 | 1.11 |
| XIAP | 5.54 | 6.39 | 6.84 | 6.26 | 6.10 | 6.16 | 6.51 | 6.70 |
| XIAP-AS1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| XIAPP1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| XIAPP3 | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -2.00 | -1.93 | -2.01 |
| XIST | 5.82 | 3.75 | 8.70 | 3.62 | 3.79 | 3.51 | 8.46 | 3.36 |
| XK | 1.85 | 2.53 | 2.11 | 2.07 | 2.07 | 1.77 | 1.29 | 1.29 |
| XKR5 | -1.79 | -1.78 | -1.78 | -1.79 | -1.72 | -1.73 | -1.71 | -1.81 |
| XKR6 | 2.21 | 2.40 | 3.01 | 2.60 | 2.84 | 2.94 | 3.12 | 2.13 |
| XKR8 | 3.23 | 2.54 | 2.83 | 2.70 | 3.11 | 2.97 | 2.86 | 2.62 |
| XKR9 | 3.05 | 2.92 | 2.89 | 2.95 | 2.43 | 2.76 | 2.70 | 3.50 |
| XKRX | -0.61 | -0.45 | -0.59 | -0.47 | -0.60 | -0.58 | -0.40 | -0.27 |
| XPA | 6.35 | 6.07 | 5.75 | 6.16 | 5.80 | 5.74 | 5.59 | 5.83 |
| XPC | 5.74 | 6.49 | 5.86 | 6.49 | 5.93 | 5.36 | 6.00 | 5.07 |
| XPNPEP1 | 5.34 | 5.32 | 5.78 | 5.50 | 5.62 | 5.45 | 5.60 | 5.26 |
| XPNPEP2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| XPNPEP3 | 5.48 | 5.13 | 4.49 | 5.37 | 4.43 | 4.86 | 5.30 | 5.18 |
| XPO1 | 6.95 | 6.58 | 6.70 | 6.62 | 6.99 | 6.70 | 6.77 | 6.79 |
| XPO4 | 3.39 | 3.91 | 4.06 | 3.88 | 3.42 | 3.27 | 3.87 | 3.96 |
| XPO5 | 4.71 | 4.93 | 4.89 | 4.69 | 4.29 | 4.93 | 4.39 | 4.95 |
| XPO6 | 6.15 | 5.65 | 6.57 | 5.42 | 5.16 | 5.46 | 5.90 | 5.61 |
| XPO7 | 4.60 | 4.79 | 5.82 | 4.23 | 4.50 | 5.43 | 5.37 | 4.84 |
| XPOT | 4.54 | 5.24 | 5.64 | 5.26 | 4.93 | 5.54 | 5.87 | 6.23 |
| XPOTP1 | -2.18 | -2.20 | -2.19 | -2.18 | -2.20 | -2.20 | -2.20 | -2.17 |
| XPR1 | 4.54 | 4.94 | 4.42 | 4.89 | 4.62 | 4.89 | 4.88 | 3.50 |
| XRCC1 | 3.23 | 3.71 | 3.59 | 3.76 | 3.75 | 3.81 | 3.75 | 3.61 |
| XRCC2 | 3.68 | 3.88 | 4.27 | 4.09 | 3.62 | 3.72 | 3.94 | 3.66 |
| XRCC3 | 3.15 | 2.60 | 3.56 | 2.70 | 3.09 | 3.14 | 3.23 | 2.87 |
| XRCC4 | 5.23 | 4.60 | 5.44 | 4.99 | 5.38 | 5.08 | 6.16 | 5.40 |
| XRCC5 | 8.41 | 8.38 | 8.13 | 8.23 | 7.93 | 8.96 | 8.48 | 8.45 |
| XRCC6 | 8.52 | 7.85 | 7.74 | 7.74 | 7.39 | 8.18 | 7.58 | 8.39 |
| XRCC6P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| XRCC6P2 | -1.00 | -0.92 | -0.99 | -0.88 | -0.96 | -0.80 | -0.94 | -0.91 |
| XRCC6P4 | -2.15 | -2.14 | -2.14 | -2.13 | -2.15 | -2.13 | -2.15 | -2.13 |
| XRN1 | 5.48 | 5.16 | 5.84 | 4.71 | 5.24 | 5.33 | 5.85 | 6.07 |
| XRN2 | 7.46 | 7.47 | 7.46 | 7.30 | 7.52 | 7.36 | 7.27 | 7.26 |
| XRRA1 | 4.88 | 4.42 | 3.86 | 4.31 | 4.24 | 3.45 | 4.45 | 3.29 |
| XXYLT1 | 4.61 | 4.65 | 4.20 | 4.54 | 3.78 | 3.86 | 4.06 | 4.21 |
| XXYLT1-AS2 | -0.13 | -0.19 | -0.18 | -0.28 | -0.12 | 0.13 | -0.28 | -0.02 |
| XYLB | 3.41 | 2.32 | 2.40 | 2.72 | 2.61 | 2.83 | 2.48 | 2.16 |
| XYLT1 | 1.62 | 2.54 | 2.12 | 2.54 | 1.75 | 2.05 | 2.39 | 1.42 |
| XYLT2 | 5.01 | 4.48 | 5.60 | 4.40 | 4.39 | 4.75 | 4.44 | 4.46 |
| YAE1 | 5.73 | 5.02 | 3.94 | 5.27 | 5.30 | 4.47 | 4.76 | 4.65 |
| YAF2 | 5.36 | 5.24 | 5.43 | 5.20 | 5.14 | 5.80 | 5.40 | 5.61 |
| YAP1 | 6.00 | 6.61 | 6.52 | 6.37 | 5.80 | 6.00 | 6.58 | 6.26 |
| YARS | 6.51 | 5.89 | 6.23 | 6.03 | 7.01 | 6.96 | 7.04 | 7.18 |
| YARS2 | 4.74 | 4.63 | 4.81 | 4.70 | 5.23 | 4.39 | 4.34 | 4.67 |
| YBEY | 4.74 | 5.07 | 4.44 | 5.13 | 4.31 | 5.31 | 4.49 | 5.22 |
| YBX1 | 7.71 | 8.14 | 7.78 | 8.37 | 8.23 | 8.38 | 7.95 | 7.66 |
| YBX1P1 | -0.12 | 0.11 | -0.18 | -0.01 | -0.02 | -0.08 | -0.01 | -0.16 |
| YBX1P10 | -0.20 | -0.11 | -0.17 | -0.19 | -0.18 | -0.14 | 0.06 | -0.23 |
| YBX1P2 | 1.13 | 1.31 | 1.29 | 1.13 | 1.17 | 1.14 | 1.05 | 1.02 |
| YBX1P3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| YBX1P6 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| YBX2 | 2.77 | 1.66 | 2.02 | 1.53 | 1.64 | 1.63 | 1.96 | 1.36 |
| YBX3 | 9.24 | 8.66 | 8.49 | 8.57 | 8.16 | 8.13 | 8.06 | 8.66 |
| YBX3P1 | -1.13 | -1.19 | -1.25 | -1.27 | -1.20 | -1.16 | -1.14 | -1.17 |
| YDJC | 6.93 | 6.52 | 6.12 | 6.64 | 6.61 | 6.58 | 6.01 | 7.34 |
| YEATS2 | 4.41 | 4.55 | 5.32 | 4.34 | 4.45 | 4.23 | 4.89 | 4.06 |
| YEATS2-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 | -2.25 | -2.26 |
| YEATS4 | 5.90 | 5.57 | 5.36 | 5.82 | 5.96 | 6.27 | 5.83 | 5.78 |
| YES1 | 6.05 | 5.97 | 6.34 | 5.63 | 6.23 | 5.51 | 6.83 | 7.18 |
| YES1P1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.08 |
| YIF1A | 8.52 | 8.14 | 8.07 | 8.42 | 8.87 | 7.90 | 7.80 | 8.44 |
| YIF1B | 6.20 | 5.59 | 5.73 | 5.74 | 6.50 | 5.91 | 5.34 | 5.63 |
| YIPF1 | 5.09 | 5.07 | 4.70 | 5.13 | 5.13 | 4.89 | 5.43 | 4.94 |
| YIPF2 | 5.83 | 6.08 | 6.07 | 6.65 | 6.75 | 6.29 | 6.41 | 7.02 |
| YIPF3 | 6.72 | 6.86 | 6.39 | 7.37 | 7.27 | 7.19 | 6.87 | 7.67 |
| YIPF4 | 7.55 | 6.84 | 6.65 | 7.11 | 6.71 | 6.90 | 6.75 | 7.26 |
| YIPF5 | 5.57 | 6.45 | 6.03 | 6.35 | 6.46 | 6.01 | 6.13 | 6.04 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| YIPF6 | 7.64 | 4.31 | 7.06 | 4.27 | 7.31 | 7.01 | 6.69 | 7.09 |
| YIPF7 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| YJEFN3 | 1.45 | 1.12 | 1.54 | 1.85 | 1.62 | 1.56 | 1.65 | 1.69 |
| YJU2 | 4.85 | 4.48 | 4.35 | 4.94 | 4.95 | 4.70 | 4.64 | 4.34 |
| YKT6 | 6.15 | 6.18 | 5.85 | 6.06 | 6.29 | 5.95 | 5.86 | 6.54 |
| YLP M1 | 4.79 | 5.64 | 5.63 | 5.32 | 5.13 | 5.53 | 5.62 | 5.20 |
| YME1L1 | 6.09 | 6.82 | 6.92 | 6.70 | 7.18 | 6.84 | 7.26 | 7.18 |
| YOD1 | 3.94 | 3.66 | 4.24 | 3.63 | 4.07 | 4.01 | 3.92 | 4.03 |
| YPEL1 | 0.90 | 0.86 | 0.91 | 0.76 | 0.83 | 1.13 | 1.08 | 1.13 |
| YPEL2 | 3.16 | 3.76 | 3.24 | 3.86 | 3.60 | 3.52 | 3.95 | 2.90 |
| YPEL3 | 5.11 | 4.64 | 5.19 | 4.31 | 5.26 | 4.90 | 5.34 | 6.11 |
| YPEL4 | -1.45 | -1.50 | -1.38 | -1.51 | -1.47 | -1.52 | -1.45 | -1.37 |
| YPEL5 | 5.92 | 5.99 | 5.33 | 5.63 | 5.42 | 5.88 | 5.51 | 6.88 |
| YRDC | 4.85 | 5.62 | 4.99 | 5.44 | 5.40 | 5.68 | 4.97 | 5.42 |
| YTHDC1 | 6.35 | 6.68 | 6.80 | 6.56 | 6.86 | 6.85 | 6.60 | 6.97 |
| YTHDC2 | 3.96 | 4.54 | 4.72 | 4.49 | 4.70 | 4.65 | 5.47 | 3.88 |
| YTHDF1 | 6.05 | 5.83 | 5.96 | 5.51 | 5.62 | 5.50 | 5.45 | 5.67 |
| YTHDF1P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| YTHDF2 | 5.85 | 6.18 | 6.43 | 6.17 | 6.70 | 6.69 | 6.45 | 6.34 |
| YTHDF2P1 | -1.59 | -1.59 | -1.52 | -1.60 | -1.56 | -1.58 | -1.60 | -1.51 |
| YTHDF3 | 5.22 | 5.54 | 6.13 | 5.39 | 5.29 | 5.51 | 5.72 | 5.79 |
| YTHDF3-AS1 | 3.79 | 2.33 | 2.84 | 2.44 | 2.97 | 3.12 | 2.09 | 2.63 |
| YWHAB | 9.78 | 9.69 | 9.67 | 9.37 | 9.08 | 9.34 | 9.11 | 9.32 |
| YWHABP1 | -1.84 | -1.80 | -1.83 | -1.84 | -1.82 | -1.83 | -1.84 | -1.86 |
| YWHABP2 | -1.26 | -1.19 | -1.31 | -1.33 | -1.29 | -1.34 | -1.27 | -1.19 |
| YWHA E | 9.00 | 8.57 | 9.43 | 8.69 | 9.02 | 9.16 | 9.23 | 9.32 |
| YWHAEP1 | -2.10 | -2.10 | -2.09 | -2.10 | -2.08 | -2.11 | -2.10 | -2.12 |
| YWHAEP4 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| YWHAEP5 | -0.33 | -0.32 | -0.16 | -0.33 | -0.16 | -0.17 | -0.26 | -0.06 |
| YWHAEP7 | -2.07 | -2.09 | -2.06 | -2.10 | -2.09 | -2.10 | -2.10 | -2.08 |
| YWHAG | 6.26 | 6.89 | 6.93 | 6.70 | 6.62 | 6.62 | 6.90 | 6.99 |
| YWHAH | 7.54 | 7.80 | 6.54 | 7.63 | 7.38 | 7.37 | 7.24 | 7.46 |
| YWHAQ | 7.27 | 7.26 | 6.66 | 7.20 | 6.51 | 7.42 | 6.87 | 7.04 |
| YWHAQP7 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| YWHAZ | 8.36 | 8.68 | 8.98 | 8.60 | 8.48 | 9.34 | 8.66 | 9.46 |
| YWHAZP2 | -1.42 | -1.42 | -1.41 | -1.43 | -1.36 | -1.38 | -1.31 | -1.30 |
| YWHAZP3 | -0.01 | -0.07 | -0.07 | 0.05 | -0.04 | -0.10 | 0.11 | -0.13 |
| YWHAZP4 | -2.00 | -1.95 | -1.91 | -2.00 | -1.99 | -1.98 | -1.96 | -2.01 |
| YWHAZP5 | -0.94 | -0.94 | -0.93 | -0.95 | -0.94 | -0.96 | -0.96 | -0.86 |
| YWHAZP6 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| YWHAZP7 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| YY1 | 6.63 | 7.48 | 7.25 | 7.15 | 7.24 | 7.39 | 7.60 | 7.54 |
| YY1AP1 | 5.18 | 5.11 | 5.08 | 5.11 | 5.12 | 5.30 | 5.13 | 5.40 |
| YY2 | -0.60 | -0.58 | -0.56 | -0.60 | -0.71 | -0.76 | -0.54 | -0.77 |
| Z68871.1 | 0.69 | 0.60 | 0.79 | 0.64 | 0.59 | 0.70 | 0.82 | 0.63 |
| Z69666.1 | -2.00 | -1.99 | -1.94 | -2.00 | -1.99 | -2.01 | -2.00 | -1.97 |
| Z69706.1 | -1.09 | -1.01 | -1.08 | -0.91 | -1.09 | -0.97 | -1.10 | -1.11 |
| Z69720.1 | 0.83 | 0.71 | 0.57 | 1.04 | 0.92 | 0.75 | 0.72 | 0.83 |
| Z69720.2 | -1.85 | -1.81 | -1.88 | -1.89 | -1.89 | -1.90 | -1.86 | -1.83 |
| Z69733.1 | -1.84 | -1.79 | -1.83 | -1.80 | -1.82 | -1.81 | -1.84 | -1.86 |
| Z73417.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| Z73420.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.24 |
| Z73429.1 | -1.50 | -1.44 | -1.43 | -1.51 | -1.47 | -1.49 | -1.51 | -1.53 |
| Z74021.1 | 4.00 | 4.26 | 3.55 | 4.40 | 4.37 | 3.97 | 3.62 | 4.08 |
| Z74696.2 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| Z75746.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| Z82190.1 | -0.77 | -0.84 | -0.82 | -0.93 | -0.77 | -0.87 | -0.85 | -0.88 |
| Z82195.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| Z82206.1 | 1.18 | 1.04 | 0.83 | 1.36 | 1.09 | 1.17 | 1.28 | 1.03 |
| Z82215.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| Z82217.1 | -1.07 | -1.13 | -1.12 | -1.00 | -1.09 | -1.08 | -1.07 | -0.99 |
| Z82243.1 | -2.04 | -2.04 | -2.04 | -2.05 | -2.03 | -2.05 | -2.02 | -2.06 |
| Z83745.1 | -1.33 | -1.32 | -1.25 | -1.33 | -1.22 | -1.28 | -1.27 | -1.29 |
| Z83838.1 | -1.84 | -1.84 | -1.79 | -1.76 | -1.82 | -1.83 | -1.85 | -1.86 |
| Z83840.1 | -0.54 | -0.48 | -0.68 | -0.48 | -0.61 | -0.64 | -0.70 | -0.65 |
| Z83841.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| Z83843.1 | 1.24 | 1.76 | 1.68 | 1.80 | 1.44 | 1.44 | 2.33 | 1.21 |
| Z83844.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| Z83844.2 | -1.89 | -1.89 | -1.88 | -1.89 | -1.85 | -1.86 | -1.82 | -1.87 |
| Z83847.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| Z84480.1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| Z84484.1 | -1.91 | -1.94 | -1.93 | -1.87 | -1.94 | -1.93 | -1.94 | -1.96 |
| Z84485.1 | 1.71 | 1.33 | 2.16 | 1.44 | 1.99 | 1.59 | 1.61 | 1.54 |
| Z84492.1 | 1.07 | 1.03 | 0.96 | 0.99 | 1.13 | 0.86 | 0.92 | 0.84 |
| Z85994.1 | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| Z86062.1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| Z92544.1 | -1.98 | -2.04 | -2.01 | -2.05 | -2.04 | -2.04 | -2.05 | -2.06 |
| Z92544.2 | 0.09 | 0.10 | 0.05 | 0.14 | -0.06 | 0.15 | 0.14 | -0.10 |
| Z92545.1 | -1.99 | -1.99 | -1.98 | -1.92 | -1.97 | -2.00 | -2.00 | -2.01 |
| Z93022.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| Z93241.1 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| Z93930.2 | 2.04 | 1.79 | 1.54 | 2.15 | 2.10 | 1.91 | 1.98 | 2.19 |
| Z93930.3 | -1.91 | -1.94 | -1.93 | -1.94 | -1.94 | -1.93 | -1.95 | -1.92 |
| Z93943.1 | -1.79 | -1.74 | -1.78 | -1.75 | -1.76 | -1.80 | -1.75 | -1.81 |
| Z94160.1 | -0.72 | -1.05 | -1.04 | -1.06 | -1.05 | -0.96 | -0.99 | -0.96 |
| Z94277.1 | -1.19 | -0.83 | -1.02 | -0.69 | -1.18 | -1.20 | -1.19 | -1.20 |
| Z94721.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| Z94721.2 | -1.13 | -1.12 | -1.18 | -1.13 | -1.20 | -1.15 | -1.07 | -1.22 |
| Z94721.3 | 0.19 | 0.29 | 0.86 | 0.34 | 0.24 | 0.49 | 0.84 | 0.44 |
| Z95114.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| Z95114.3 | -2.15 | -2.14 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| Z95114.4 | -2.01 | -2.04 | -2.00 | -2.05 | -2.03 | -2.02 | -2.05 | -2.06 |
| Z95115.1 | 2.20 | 1.95 | 2.26 | 2.08 | 2.12 | 1.84 | 1.74 | 1.95 |
| Z95118.2 | -1.42 | -1.41 | -1.34 | -1.42 | -1.41 | -1.32 | -1.42 | -1.34 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Z95152.1 | -0.10 | -0.24 | -0.13 | -0.18 | -0.12 | -0.19 | -0.18 | 0.06 |
| Z95327.1 | -1.85 | -1.89 | -1.84 | -1.89 | -1.87 | -1.88 | -1.90 | -1.87 |
| Z95331.1 | 2.72 | 2.33 | 2.45 | 2.67 | 2.28 | 2.76 | 2.77 | 2.37 |
| Z96811.1 | -1.44 | -1.43 | -1.42 | -1.44 | -1.49 | -1.48 | -1.44 | -1.52 |
| Z97055.2 | -1.76 | -1.84 | -1.79 | -1.80 | -1.84 | -1.83 | -1.84 | -1.86 |
| Z97056.2 | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| Z97192.1 | -1.89 | -1.81 | -1.88 | -1.78 | -1.89 | -1.90 | -1.90 | -1.87 |
| Z97192.4 | -2.20 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| Z97198.1 | -2.36 | -2.36 | -2.34 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| Z97200.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| Z97353.1 | 0.17 | 0.33 | 0.14 | 0.21 | 0.29 | 0.20 | -0.06 | 0.13 |
| Z97353.2 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| Z97633.1 | -1.55 | -1.49 | -1.53 | -1.55 | -1.52 | -1.50 | -1.44 | -1.46 |
| Z97634.1 | 0.90 | 0.56 | 0.82 | 0.81 | 0.67 | 0.74 | 0.73 | 0.66 |
| Z97832.2 | -1.99 | -1.96 | -1.95 | -1.93 | -1.99 | -2.00 | -2.00 | -2.01 |
| Z97986.1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.23 | -2.26 | -2.25 | -2.24 |
| Z97989.1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 | -2.20 | -2.21 |
| Z98048.1 | -2.10 | -2.09 | -2.06 | -2.10 | -2.08 | -2.09 | -2.10 | -2.11 |
| Z98200.1 | -1.79 | -1.79 | -1.78 | -1.79 | -1.79 | -1.75 | -1.75 | -1.81 |
| Z98257.1 | 0.66 | 1.26 | 0.61 | 1.14 | 0.86 | 0.90 | 0.55 | 0.36 |
| Z98742.3 | -2.12 | -2.15 | -2.12 | -2.15 | -2.15 | -2.14 | -2.15 | -2.16 |
| Z98742.4 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| Z98745.1 | -2.35 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| Z98745.2 | -2.22 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| Z98751.2 | -2.36 | -2.36 | -2.35 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 |
| Z98752.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| Z98752.2 | -2.04 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.10 | -2.11 |
| Z98752.4 | -1.71 | -1.79 | -1.78 | -1.80 | -1.75 | -1.80 | -1.80 | -1.81 |
| Z98884.1 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| Z98884.2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| Z98885.2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.21 |
| Z98885.3 | -2.15 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| Z99127.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| Z99127.3 | -2.09 | -2.09 | -2.09 | -2.10 | -2.09 | -2.09 | -2.07 | -2.08 |
| Z99127.4 | 0.26 | 0.50 | 0.32 | 0.34 | 0.36 | 0.41 | 0.19 | 0.44 |
| Z99129.3 | 0.29 | 0.24 | 0.66 | 0.43 | 0.36 | 0.29 | 0.48 | 0.23 |
| Z99129.4 | 1.23 | 1.01 | 1.30 | 1.14 | 1.09 | 1.43 | 1.85 | 1.29 |
| Z99289.1 | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| Z99289.3 | -2.10 | -2.09 | -2.06 | -2.10 | -2.09 | -2.08 | -2.10 | -2.08 |
| Z99572.1 | 1.18 | 1.36 | 1.74 | 1.51 | 1.67 | 1.47 | 1.60 | 1.71 |
| Z99714.1 | -1.49 | -1.54 | -1.53 | -1.39 | -1.54 | -1.45 | -1.55 | -1.52 |
| Z99716.2 | -0.93 | -1.00 | -0.98 | -0.73 | -0.89 | -0.91 | -0.93 | -0.96 |
| Z99943.1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| Z99943.2 | -1.59 | -1.53 | -1.57 | -1.48 | -1.56 | -1.52 | -1.54 | -1.61 |
| ZACN | -0.17 | -0.31 | -0.20 | -0.41 | -0.40 | -0.18 | -0.25 | -0.36 |
| ZADH2 | 4.17 | 4.86 | 4.76 | 4.74 | 4.39 | 4.00 | 4.58 | 4.20 |
| ZAN | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.30 |
| ZBBX | -1.99 | -1.99 | -1.98 | -1.99 | -1.99 | -1.97 | -1.99 | -1.90 |
| ZBED2 | 2.96 | 3.08 | 3.65 | 3.30 | 2.77 | 4.31 | 3.97 | 3.73 |
| ZBED3 | 2.69 | 3.37 | 2.96 | 3.18 | 4.19 | 3.02 | 3.26 | 3.02 |
| ZBED3-AS1 | -0.29 | -0.28 | -0.18 | -0.22 | -0.02 | -0.20 | -0.16 | 0.06 |
| ZBED4 | 4.74 | 4.73 | 4.22 | 4.55 | 4.19 | 4.24 | 4.49 | 4.35 |
| ZBED5 | 5.84 | 5.45 | 6.19 | 5.38 | 5.31 | 5.58 | 5.75 | 6.15 |
| ZBED5-AS1 | 6.10 | 5.42 | 4.50 | 5.82 | 5.00 | 4.95 | 4.35 | 5.69 |
| ZBED6 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ZBED6CL | 1.62 | 1.71 | 1.70 | 1.39 | 1.27 | 1.61 | 1.38 | 2.72 |
| ZBED8 | 2.28 | 1.90 | 2.36 | 2.04 | 1.86 | 1.86 | 2.04 | 1.94 |
| ZBED9 | 1.70 | 1.29 | 1.24 | 1.17 | 1.44 | 1.53 | 1.67 | 1.51 |
| ZBP1 | 0.28 | 0.21 | 0.34 | 0.28 | 0.38 | 0.38 | 0.18 | 0.22 |
| ZBTB1 | 4.04 | 4.58 | 4.29 | 4.65 | 4.61 | 4.75 | 4.96 | 4.77 |
| ZBTB10 | 2.88 | 2.44 | 4.01 | 2.22 | 3.55 | 3.14 | 2.81 | 3.01 |
| ZBTB11 | 4.27 | 4.50 | 5.02 | 4.63 | 4.81 | 4.90 | 5.31 | 5.18 |
| ZBTB11-AS1 | 1.89 | 1.51 | 2.00 | 1.87 | 1.87 | 2.06 | 1.67 | 2.09 |
| ZBTB12 | -1.84 | -1.84 | -1.83 | -1.84 | -1.84 | -1.81 | -1.84 | -1.82 |
| ZBTB14 | 2.81 | 3.02 | 3.33 | 3.07 | 3.16 | 2.67 | 3.08 | 3.34 |
| ZBTB16 | -0.03 | -0.02 | -0.10 | -0.12 | -0.07 | -0.13 | 0.28 | -0.08 |
| ZBTB17 | 4.74 | 4.21 | 4.35 | 4.40 | 4.71 | 4.25 | 4.42 | 4.02 |
| ZBTB18 | 3.52 | 3.44 | 3.91 | 3.05 | 3.43 | 3.51 | 3.91 | 3.34 |
| ZBTB2 | 2.68 | 2.83 | 2.71 | 2.66 | 2.20 | 2.78 | 2.99 | 2.92 |
| ZBTB20 | 4.30 | 4.54 | 5.88 | 4.37 | 4.34 | 4.95 | 5.52 | 5.33 |
| ZBTB20-AS1 | -2.15 | -2.15 | -2.12 | -2.15 | -2.15 | -2.15 | -2.15 | -2.13 |
| ZBTB20-AS2 | 1.23 | 1.33 | 1.52 | 1.06 | 1.24 | 1.34 | 1.31 | 1.74 |
| ZBTB20-AS4 | -2.15 | -2.12 | -2.14 | -2.13 | -2.13 | -2.15 | -2.15 | -2.16 |
| ZBTB21 | 4.42 | 4.23 | 4.13 | 3.62 | 4.15 | 3.58 | 4.69 | 3.70 |
| ZBTB22 | 2.95 | 3.30 | 3.33 | 3.56 | 2.98 | 3.77 | 3.60 | 4.03 |
| ZBTB24 | 4.12 | 3.46 | 3.85 | 3.39 | 3.44 | 3.71 | 3.53 | 3.57 |
| ZBTB25 | 2.98 | 3.45 | 3.72 | 3.38 | 4.73 | 3.70 | 3.81 | 3.56 |
| ZBTB26 | 1.95 | 1.95 | 2.02 | 1.75 | 2.02 | 2.03 | 1.70 | 1.74 |
| ZBTB3 | 2.77 | 3.06 | 3.04 | 2.84 | 2.66 | 2.50 | 2.66 | 2.70 |
| ZBTB32 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| ZBTB33 | 3.90 | 4.43 | 4.62 | 4.08 | 4.08 | 3.86 | 4.09 | 4.25 |
| ZBTB34 | 2.99 | 2.56 | 2.94 | 2.83 | 2.35 | 2.71 | 3.03 | 2.68 |
| ZBTB37 | 2.47 | 2.50 | 2.78 | 2.75 | 2.75 | 3.00 | 2.88 | 3.07 |
| ZBTB38 | 6.22 | 6.09 | 6.76 | 5.45 | 5.92 | 6.03 | 6.75 | 6.39 |
| ZBTB39 | 2.40 | 2.16 | 2.24 | 2.03 | 2.23 | 2.47 | 1.74 | 1.97 |
| ZBTB4 | 4.00 | 3.99 | 4.82 | 4.06 | 3.95 | 4.19 | 5.02 | 4.45 |
| ZBTB40 | 2.96 | 3.21 | 3.80 | 3.13 | 3.42 | 3.40 | 3.50 | 2.99 |
| ZBTB41 | 4.46 | 4.96 | 5.02 | 4.71 | 5.30 | 5.42 | 5.51 | 5.73 |
| ZBTB42 | 2.67 | 3.05 | 2.99 | 2.86 | 2.92 | 2.79 | 2.94 | 2.59 |
| ZBTB43 | 5.04 | 4.92 | 4.92 | 4.55 | 4.24 | 4.75 | 4.94 | 4.56 |
| ZBTB44 | 5.09 | 5.60 | 6.20 | 5.07 | 5.14 | 5.48 | 5.43 | 5.23 |
| ZBTB45 | 4.23 | 3.62 | 3.59 | 3.34 | 3.61 | 3.61 | 3.78 | 3.46 |
| ZBTB46 | 2.03 | 1.86 | 1.71 | 1.48 | 1.76 | 1.69 | 2.09 | 1.56 |
| ZBTB47 | 2.14 | 2.86 | 2.40 | 2.91 | 2.14 | 2.60 | 2.47 | 2.17 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| ZBTB48 | 3.07 | 3.00 | 3.16 | 3.21 | 3.17 | 3.17 | 3.09 | 2.79 |
| ZBTB49 | 1.26 | 1.06 | 1.31 | 1.58 | 1.37 | 1.22 | 1.51 | 1.47 |
| ZBTB5 | 3.32 | 3.20 | 3.31 | 3.10 | 3.36 | 3.08 | 3.61 | 2.80 |
| ZBTB6 | 3.13 | 3.74 | 3.27 | 3.38 | 2.64 | 3.38 | 3.48 | 3.21 |
| ZBTB7A | 7.07 | 7.61 | 8.08 | 7.61 | 7.61 | 7.55 | 8.34 | 7.38 |
| ZBTB7B | 4.50 | 4.90 | 4.92 | 4.42 | 4.40 | 4.48 | 6.04 | 5.18 |
| ZBTB7C | 2.96 | 4.14 | 3.39 | 4.06 | 3.39 | 3.73 | 3.83 | 3.40 |
| ZBTB8A | 3.06 | 3.25 | 2.91 | 3.10 | 2.87 | 3.31 | 3.29 | 2.78 |
| ZBTB8B | -1.59 | -1.68 | -1.68 | -1.69 | -1.51 | -1.67 | -1.64 | -1.71 |
| ZBTB8OS | 7.83 | 5.98 | 6.23 | 6.03 | 6.88 | 6.87 | 6.39 | 6.80 |
| ZBTB8OSP1 | -2.12 | -2.15 | -2.14 | -2.15 | -2.15 | -2.15 | -2.15 | -2.16 |
| ZBTB8OSP2 | -0.62 | -0.76 | -0.74 | -0.55 | -0.51 | -0.67 | -0.69 | -0.62 |
| ZC2HC1A | 3.82 | 4.22 | 4.85 | 4.15 | 4.30 | 5.10 | 3.89 | 3.99 |
| ZC2HC1C | 1.84 | 1.69 | 1.93 | 1.77 | 2.14 | 1.94 | 1.54 | 1.63 |
| ZC3H10 | 3.10 | 2.33 | 2.52 | 2.43 | 2.46 | 2.62 | 2.21 | 1.98 |
| ZC3H11A | -0.89 | -0.82 | -1.03 | -0.90 | -0.96 | -1.02 | -0.90 | -1.00 |
| ZC3H11B | -2.15 | -2.14 | -2.14 | -2.15 | -2.13 | -2.15 | -2.15 | -2.11 |
| ZC3H12A | 5.54 | 3.82 | 4.31 | 4.39 | 4.03 | 4.62 | 4.44 | 4.31 |
| ZC3H12B | -0.14 | -0.21 | -0.09 | -0.03 | -0.13 | -0.20 | 0.02 | -0.09 |
| ZC3H12C | 3.49 | 3.09 | 3.41 | 2.57 | 2.72 | 2.80 | 2.71 | 3.32 |
| ZC3H12D | -1.28 | -1.34 | -1.33 | -1.28 | -1.34 | -1.35 | -1.35 | -1.31 |
| ZC3H13 | 6.42 | 7.46 | 7.31 | 7.17 | 7.23 | 6.77 | 7.40 | 7.59 |
| ZC3H14 | 5.09 | 5.88 | 5.60 | 5.78 | 5.59 | 5.60 | 5.75 | 5.23 |
| ZC3H15 | 8.27 | 7.85 | 7.37 | 7.76 | 8.10 | 7.69 | 7.43 | 8.10 |
| ZC3H18 | 5.38 | 4.99 | 5.53 | 5.37 | 5.09 | 5.18 | 5.34 | 5.28 |
| ZC3H3 | 4.04 | 3.64 | 4.33 | 3.72 | 3.50 | 3.81 | 3.57 | 3.93 |
| ZC3H6 | 5.08 | 4.96 | 5.11 | 4.75 | 5.39 | 4.95 | 5.79 | 5.14 |
| ZC3H7A | 5.33 | 5.68 | 5.74 | 5.58 | 4.98 | 5.35 | 5.82 | 5.78 |
| ZC3H7B | 6.01 | 5.65 | 5.44 | 5.25 | 4.50 | 4.99 | 5.05 | 5.35 |
| ZC3H8 | 5.42 | 5.52 | 4.94 | 6.04 | 5.98 | 5.43 | 5.03 | 5.15 |
| ZC3HAV1 | 5.45 | 6.00 | 6.11 | 5.43 | 5.57 | 6.08 | 5.85 | 5.61 |
| ZC3HAV1L | 0.23 | 0.48 | 0.52 | 0.30 | 0.60 | 0.38 | 0.47 | 0.48 |
| ZC3HC1 | 4.03 | 4.40 | 3.73 | 4.13 | 4.44 | 4.10 | 3.72 | 4.20 |
| ZC4H2 | 2.80 | 2.56 | 3.19 | 2.92 | 3.02 | 2.08 | 2.65 | 2.50 |
| ZCCHC10 | 5.78 | 5.94 | 5.52 | 5.63 | 5.81 | 5.39 | 5.23 | 4.35 |
| ZCCHC12 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.04 | -2.05 | -2.06 |
| ZCCHC14 | 4.43 | 4.91 | 5.13 | 5.01 | 4.38 | 4.65 | 4.91 | 4.61 |
| ZCCHC17 | 6.66 | 6.17 | 6.65 | 6.04 | 6.96 | 6.85 | 6.57 | 6.87 |
| ZCCHC18 | -2.10 | -2.09 | -2.09 | -2.10 | -2.05 | -2.09 | -2.10 | -2.11 |
| ZCCHC2 | 3.96 | 3.98 | 4.57 | 3.77 | 3.99 | 3.48 | 4.75 | 3.17 |
| ZCCHC24 | 3.27 | 2.70 | 2.67 | 2.85 | 2.93 | 3.07 | 2.69 | 2.83 |
| ZCCHC3 | 4.81 | 4.63 | 4.27 | 4.54 | 4.44 | 3.99 | 4.21 | 4.03 |
| ZCCHC4 | 2.58 | 2.82 | 2.61 | 2.64 | 2.61 | 2.82 | 2.85 | 2.68 |
| ZCCHC7 | 4.39 | 4.66 | 4.40 | 4.80 | 5.65 | 5.03 | 4.74 | 5.09 |
| ZCCHC8 | 3.95 | 4.39 | 4.38 | 4.19 | 4.55 | 4.26 | 4.91 | 5.05 |
| ZCCHC9 | 5.69 | 5.93 | 5.56 | 5.69 | 6.17 | 6.14 | 5.59 | 5.83 |
| ZCRB1 | 8.08 | 7.24 | 7.48 | 7.07 | 7.80 | 7.98 | 7.10 | 8.10 |
| ZCWPW1 | 1.97 | 1.91 | 2.12 | 1.76 | 1.80 | 2.15 | 1.58 | 2.16 |
| ZCWPW2 | 0.42 | 0.86 | 0.36 | 0.69 | 0.66 | 0.52 | 0.61 | 0.63 |
| ZDBF2 | 3.61 | 2.92 | 4.01 | 2.87 | 2.84 | 2.98 | 3.34 | 2.88 |
| ZDHHC1 | 3.67 | 4.22 | 3.15 | 4.38 | 3.53 | 3.48 | 3.14 | 2.80 |
| ZDHHC11 | 0.40 | 0.41 | 0.90 | 0.66 | 0.77 | 0.79 | 0.61 | 0.59 |
| ZDHHC11B | 0.48 | 0.34 | 0.68 | 0.53 | 0.46 | 0.53 | 0.73 | 0.27 |
| ZDHHC12 | 8.17 | 8.11 | 7.39 | 8.07 | 7.01 | 7.73 | 7.62 | 7.05 |
| ZDHHC13 | 4.64 | 4.76 | 5.34 | 4.67 | 4.65 | 4.67 | 4.60 | 3.99 |
| ZDHHC14 | 4.16 | 4.15 | 3.92 | 3.95 | 3.65 | 4.30 | 4.54 | 3.32 |
| ZDHHC16 | 6.45 | 5.79 | 5.69 | 6.03 | 5.73 | 5.83 | 5.47 | 5.03 |
| ZDHHC17 | 2.75 | 3.09 | 3.61 | 2.81 | 2.83 | 3.12 | 3.26 | 2.63 |
| ZDHHC18 | 3.85 | 3.76 | 4.12 | 3.41 | 3.80 | 4.01 | 3.65 | 3.10 |
| ZDHHC19 | 0.47 | -0.22 | -0.13 | -0.23 | -0.14 | -0.24 | -0.16 | -0.19 |
| ZDHHC2 | 4.50 | 4.78 | 4.58 | 4.11 | 3.59 | 4.45 | 3.40 | 4.00 |
| ZDHHC20 | 5.63 | 6.86 | 6.37 | 6.63 | 6.14 | 5.78 | 6.39 | 6.97 |
| ZDHHC20P1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ZDHHC20P4 | -1.84 | -1.84 | -1.79 | -1.80 | -1.84 | -1.81 | -1.84 | -1.86 |
| ZDHHC21 | 3.72 | 4.57 | 4.57 | 4.55 | 3.63 | 4.00 | 4.77 | 3.69 |
| ZDHHC23 | 2.69 | 2.26 | 2.74 | 2.23 | 2.77 | 2.20 | 2.63 | 2.53 |
| ZDHHC24 | 6.35 | 5.71 | 5.85 | 5.73 | 5.92 | 5.25 | 5.20 | 5.92 |
| ZDHHC3 | 7.13 | 8.05 | 6.81 | 8.07 | 7.01 | 7.36 | 7.55 | 7.52 |
| ZDHHC4 | 6.99 | 5.84 | 5.51 | 5.97 | 6.91 | 6.05 | 5.16 | 5.82 |
| ZDHHC5 | 5.99 | 6.08 | 6.56 | 5.71 | 5.82 | 5.83 | 6.05 | 6.73 |
| ZDHHC6 | 5.47 | 5.32 | 5.01 | 5.37 | 5.06 | 5.33 | 5.53 | 4.89 |
| ZDHHC7 | 5.49 | 6.62 | 6.27 | 6.65 | 5.53 | 5.23 | 5.78 | 6.25 |
| ZDHHC8 | 4.48 | 4.32 | 5.02 | 4.60 | 3.78 | 4.31 | 4.68 | 4.17 |
| ZDHHC8P1 | 2.04 | 3.02 | 2.00 | 3.67 | 2.49 | 1.95 | 3.25 | 1.72 |
| ZDHHC9 | 5.46 | 5.97 | 6.42 | 5.85 | 5.88 | 5.47 | 5.85 | 6.00 |
| ZEB1 | 0.79 | 0.89 | 1.17 | 1.14 | 0.84 | 1.35 | 1.00 | 0.86 |
| ZEB1-AS1 | 1.92 | 1.89 | 1.93 | 1.83 | 2.39 | 2.26 | 1.75 | 1.94 |
| ZEB2 | -1.42 | -1.34 | -1.40 | -1.22 | -1.38 | -1.36 | -1.43 | -1.32 |
| ZER1 | 4.23 | 4.13 | 4.76 | 4.05 | 3.89 | 4.61 | 4.90 | 4.32 |
| ZFAND1 | 6.69 | 6.29 | 6.33 | 6.42 | 7.24 | 7.18 | 6.22 | 7.31 |
| ZFAND2A | 4.64 | 4.39 | 4.46 | 4.45 | 5.42 | 5.00 | 4.18 | 5.46 |
| ZFAND2B | 6.31 | 5.52 | 5.16 | 5.89 | 5.92 | 5.77 | 6.06 | 6.45 |
| ZFAND3 | 5.40 | 5.62 | 5.80 | 5.26 | 5.52 | 5.85 | 6.04 | 6.29 |
| ZFAND4 | 2.10 | 2.16 | 1.76 | 2.37 | 2.18 | 1.93 | 2.22 | 1.87 |
| ZFAND5 | 7.01 | 6.58 | 7.12 | 6.50 | 6.52 | 7.16 | 6.82 | 6.89 |
| ZFAND6 | 6.94 | 6.18 | 6.50 | 6.45 | 6.68 | 6.51 | 6.37 | 6.98 |
| ZFAS1 | 8.69 | 8.81 | 8.11 | 8.99 | 9.78 | 9.19 | 8.52 | 9.10 |
| ZFAT | 1.67 | 1.62 | 2.16 | 1.88 | 1.85 | 2.04 | 2.19 | 1.99 |
| ZFC3H1 | 5.02 | 5.58 | 6.20 | 5.70 | 5.96 | 5.70 | 6.25 | 6.36 |
| ZFHX2 | 1.16 | 1.04 | 1.35 | 1.12 | 1.14 | 1.05 | 1.16 | 0.97 |
| ZFHX2-AS1 | 1.57 | 1.43 | 1.69 | 1.65 | 1.72 | 1.54 | 1.88 | 1.38 |
| ZFHX3 | 4.19 | 4.51 | 5.63 | 3.82 | 5.23 | 5.31 | 5.52 | 4.35 |
| ZFHX4 | 1.04 | 1.07 | 1.01 | 1.03 | 1.06 | 0.95 | 2.06 | 1.98 |
| ZFHX4-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |

| | | | | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ZFP1 | 2.29 | 2.22 | 2.74 | 2.79 | 2.62 | 2.50 | 2.83 | 2.32 |
| ZFP14 | 2.97 | 2.67 | 3.06 | 2.75 | 3.19 | 2.79 | 3.34 | 2.70 |
| ZFP2 | -1.15 | -1.14 | -1.13 | -1.15 | -1.07 | -1.12 | -1.16 | -1.11 |
| ZFP28 | 1.09 | 0.15 | 0.17 | 0.21 | 0.28 | 0.12 | 0.29 | 0.10 |
| ZFP3 | 1.50 | 1.59 | 1.72 | 1.32 | 1.54 | 1.36 | 1.79 | 1.74 |
| ZFP30 | 2.66 | 2.77 | 2.29 | 2.06 | 2.63 | 2.20 | 3.42 | 2.05 |
| ZFP36 | 7.28 | 6.89 | 6.17 | 6.76 | 7.35 | 6.55 | 6.93 | 7.23 |
| ZFP36L1 | 5.45 | 7.01 | 6.89 | 6.44 | 6.02 | 7.39 | 7.00 | 7.03 |
| ZFP36L2 | 9.35 | 8.77 | 8.94 | 8.90 | 9.56 | 8.11 | 8.67 | 9.24 |
| ZFP37 | 1.54 | 1.73 | 1.80 | 1.97 | 1.71 | 1.86 | 1.88 | 1.12 |
| ZFP41 | 2.64 | 2.61 | 3.22 | 2.44 | 2.26 | 2.44 | 2.51 | 2.23 |
| ZFP42 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| ZFP57 | -1.35 | -1.27 | -1.33 | -1.28 | -1.34 | -1.36 | -1.35 | -1.30 |
| ZFP62 | 3.68 | 4.42 | 4.24 | 4.19 | 4.22 | 3.73 | 4.09 | 3.64 |
| ZFP64 | 3.64 | 3.40 | 3.38 | 2.78 | 3.27 | 2.95 | 3.33 | 3.26 |
| ZFP69 | 0.59 | 0.63 | 0.57 | 0.63 | 0.64 | 0.53 | 0.28 | 0.54 |
| ZFP69B | 0.14 | 0.23 | 0.35 | 0.42 | 0.19 | 0.26 | 0.54 | 0.23 |
| ZFP82 | 0.91 | 0.36 | 0.29 | 0.26 | 0.28 | 0.29 | 0.71 | 0.23 |
| ZFP90 | 3.29 | 3.66 | 3.98 | 3.67 | 3.68 | 4.09 | 4.03 | 3.42 |
| ZFP91 | 5.93 | 6.59 | 6.39 | 6.04 | 5.92 | 6.37 | 6.75 | 6.58 |
| ZFP92 | -1.74 | -1.73 | -1.73 | -1.74 | -1.69 | -1.75 | -1.74 | -1.76 |
| ZFPL1 | 6.46 | 5.03 | 6.19 | 5.32 | 6.35 | 6.11 | 5.50 | 7.05 |
| ZFPM1 | 3.70 | 3.62 | 3.69 | 4.00 | 3.75 | 3.15 | 4.10 | 3.14 |
| ZFPM2 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.22 |
| ZFPM2-AS1 | 1.55 | 0.64 | 1.18 | 0.61 | 0.59 | 0.86 | 0.61 | 1.30 |
| ZFR | 7.00 | 6.98 | 6.51 | 6.93 | 6.68 | 6.79 | 6.42 | 6.75 |
| ZFR2 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.21 |
| ZFX | 4.91 | 4.51 | 4.99 | 4.36 | 4.29 | 4.29 | 4.84 | 4.35 |
| ZFY | 0.77 | 0.79 | 1.03 | 0.85 | 0.89 | 0.78 | 0.84 | 0.69 |
| ZFY-AS1 | -1.94 | -1.94 | -1.93 | -1.95 | -1.92 | -1.95 | -1.95 | -1.96 |
| ZFYVE1 | 2.62 | 2.42 | 3.23 | 2.73 | 3.05 | 2.82 | 3.01 | 2.72 |
| ZFYVE16 | 4.24 | 5.13 | 4.86 | 4.88 | 4.36 | 4.70 | 5.15 | 4.32 |
| ZFYVE19 | 5.68 | 5.05 | 5.12 | 5.05 | 5.58 | 5.26 | 4.99 | 5.69 |
| ZFYVE21 | 6.32 | 5.82 | 6.58 | 6.09 | 6.85 | 6.97 | 6.24 | 6.85 |
| ZFYVE26 | 2.18 | 2.62 | 3.02 | 2.57 | 2.54 | 2.50 | 2.50 | 2.29 |
| ZFYVE27 | 4.22 | 4.13 | 4.41 | 4.66 | 4.62 | 4.10 | 4.27 | 3.82 |
| ZFYVE28 | 3.17 | 3.53 | 3.44 | 3.59 | 3.47 | 3.25 | 4.19 | 3.28 |
| ZFYVE9 | 3.65 | 3.80 | 3.69 | 3.48 | 3.66 | 3.33 | 4.14 | 3.10 |
| ZG16 | -0.82 | -1.11 | -1.10 | -1.13 | -0.93 | -1.06 | -1.13 | -1.14 |
| ZG16B | 7.35 | 6.73 | 5.85 | 6.71 | 8.26 | 5.79 | 6.29 | 4.58 |
| ZGLP1 | 0.32 | 0.23 | 0.62 | 0.35 | 0.21 | 0.15 | 0.21 | 0.03 |
| ZGPAT | 0.85 | 0.62 | 0.40 | 0.37 | 0.64 | 0.62 | 0.50 | 0.62 |
| ZGRF1 | 2.61 | 2.59 | 3.21 | 3.03 | 2.34 | 2.89 | 3.47 | 2.73 |
| ZHX1 | 5.43 | 5.44 | 6.34 | 5.78 | 5.63 | 5.44 | 6.05 | 5.79 |
| ZHX1-C8orf76 | 2.44 | 2.18 | 2.44 | 2.41 | 2.78 | 2.33 | 2.18 | 2.93 |
| ZHX2 | 1.90 | 2.62 | 2.38 | 2.44 | 2.33 | 2.69 | 2.35 | 2.63 |
| ZHX3 | 4.77 | 4.68 | 4.65 | 4.52 | 4.07 | 4.15 | 4.84 | 3.97 |
| ZIC2 | 1.21 | 1.92 | 0.93 | 1.79 | 1.86 | 0.86 | 0.78 | 1.37 |
| ZIC5 | -0.10 | -0.17 | -0.25 | 0.01 | 0.07 | -0.21 | -0.27 | 0.01 |
| ZIK1 | 1.40 | 0.78 | 0.91 | 0.68 | 0.74 | 0.81 | 1.15 | 0.70 |
| ZKSCAN1 | 7.37 | 6.84 | 7.56 | 7.01 | 7.53 | 7.11 | 8.13 | 7.17 |
| ZKSCAN2 | 1.86 | 1.87 | 2.35 | 1.79 | 1.96 | 1.81 | 2.21 | 1.98 |
| ZKSCAN2-DT | 1.03 | 1.12 | 1.11 | 1.13 | 0.88 | 0.95 | 1.12 | 0.97 |
| ZKSCAN3 | 1.35 | 1.39 | 1.28 | 1.21 | 1.34 | 1.43 | 1.26 | 1.32 |
| ZKSCAN4 | 2.09 | 1.92 | 1.92 | 1.80 | 1.85 | 2.11 | 1.79 | 1.93 |
| ZKSCAN5 | 2.57 | 3.18 | 2.77 | 2.87 | 2.87 | 2.95 | 2.83 | 2.81 |
| ZKSCAN7 | -0.17 | -0.25 | -0.16 | -0.19 | -0.17 | -0.27 | -0.05 | -0.16 |
| ZKSCAN7-AS1 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ZKSCAN8 | 2.35 | 2.34 | 2.29 | 2.21 | 2.29 | 2.48 | 2.44 | 2.43 |
| ZMAT1 | -1.55 | -1.54 | -1.47 | -1.55 | -1.54 | -1.53 | -1.44 | -1.57 |
| ZMAT2 | 6.55 | 6.55 | 6.34 | 6.66 | 7.13 | 6.93 | 6.51 | 6.89 |
| ZMAT3 | 4.23 | 6.70 | 4.43 | 6.40 | 4.31 | 4.27 | 6.15 | 4.90 |
| ZMAT5 | 6.55 | 5.16 | 4.78 | 5.45 | 6.02 | 5.49 | 5.31 | 5.79 |
| ZMIZ1 | 5.12 | 4.83 | 5.26 | 4.90 | 5.38 | 5.05 | 6.00 | 4.90 |
| ZMIZ1-AS1 | -1.22 | -1.21 | -1.20 | -1.15 | -1.03 | -1.06 | -1.23 | -1.07 |
| ZMIZ2 | 4.29 | 4.52 | 4.73 | 4.65 | 4.42 | 4.52 | 4.27 | 4.32 |
| ZMPSTE24 | 5.41 | 6.26 | 5.74 | 6.05 | 5.57 | 5.51 | 6.21 | 5.47 |
| ZMYM1 | 3.74 | 3.62 | 3.79 | 3.53 | 4.22 | 4.47 | 4.35 | 3.90 |
| ZMYM2 | 5.40 | 6.00 | 6.01 | 5.86 | 5.84 | 5.52 | 6.70 | 6.83 |
| ZMYM3 | 3.81 | 3.93 | 4.96 | 4.09 | 4.22 | 3.72 | 4.52 | 4.07 |
| ZMYM4 | 4.96 | 4.91 | 5.30 | 4.57 | 5.22 | 5.50 | 5.69 | 5.13 |
| ZMYM4-AS1 | -1.94 | -1.90 | -1.93 | -1.95 | -1.88 | -1.95 | -1.95 | -1.96 |
| ZMYM5 | 3.88 | 4.07 | 4.46 | 4.46 | 4.99 | 4.18 | 4.40 | 5.49 |
| ZMYM6 | 3.11 | 3.43 | 3.73 | 3.29 | 3.44 | 3.44 | 3.94 | 3.52 |
| ZMYND10 | 0.05 | -0.15 | -0.03 | -0.32 | -0.22 | 0.30 | -0.24 | -0.17 |
| ZMYND11 | 4.38 | 5.76 | 5.19 | 5.44 | 5.55 | 5.46 | 5.48 | 5.32 |
| ZMYND12 | 1.08 | 1.35 | 0.81 | 1.38 | 1.50 | 1.02 | 0.90 | 1.01 |
| ZMYND15 | 0.55 | 0.36 | 0.54 | 0.40 | 0.65 | 0.21 | 0.33 | 0.22 |
| ZMYND19 | 6.83 | 6.14 | 5.65 | 6.55 | 5.39 | 5.90 | 5.75 | 6.18 |
| ZMYND8 | 5.84 | 7.45 | 7.01 | 7.35 | 6.29 | 6.38 | 6.95 | 6.97 |
| ZNF10 | 1.12 | 1.19 | 1.67 | 1.17 | 1.20 | 1.40 | 1.28 | 0.95 |
| ZNF100 | 3.15 | 2.81 | 3.14 | 3.15 | 2.53 | 3.09 | 3.48 | 2.50 |
| ZNF101 | 2.75 | 3.13 | 3.02 | 3.17 | 3.06 | 3.06 | 2.87 | 2.94 |
| ZNF101P2 | -2.05 | -2.04 | -2.00 | -2.05 | -2.01 | -2.04 | -2.05 | -2.03 |
| ZNF106 | 6.86 | 6.84 | 6.79 | 6.51 | 6.90 | 6.68 | 6.76 | 6.91 |
| ZNF107 | 3.04 | 3.14 | 3.63 | 3.13 | 3.28 | 3.41 | 3.62 | 3.44 |
| ZNF112 | 1.12 | 0.96 | 1.24 | 0.91 | 0.96 | 0.81 | 1.11 | 0.97 |
| ZNF114 | 0.71 | 0.39 | 0.52 | 0.52 | 0.60 | 2.07 | 0.45 | 0.39 |
| ZNF114-AS1 | -1.38 | -1.31 | -1.42 | -1.44 | -1.40 | -1.08 | -1.44 | -1.46 |
| ZNF117 | 2.56 | 1.97 | 3.31 | 1.98 | 2.36 | 2.76 | 2.73 | 3.09 |
| ZNF12 | 4.76 | 4.92 | 4.98 | 4.21 | 4.36 | 4.54 | 4.77 | 4.29 |
| ZNF121 | 4.55 | 5.15 | 5.46 | 4.95 | 5.15 | 5.09 | 5.40 | 4.85 |
| ZNF124 | 2.18 | 1.94 | 2.09 | 1.91 | 1.94 | 2.44 | 2.21 | 1.68 |
| ZNF131 | 5.11 | 5.22 | 5.41 | 5.21 | 5.04 | 5.16 | 5.21 | 5.57 |

| | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ZNF132 | 0.45 | 0.34 | 0.19 | 0.23 | 0.37 | 0.22 | 0.38 | 0.13 |
| ZNF133 | 4.02 | 3.65 | 3.82 | 3.86 | 3.82 | 3.60 | 3.53 | 3.35 |
| ZNF134 | 4.01 | 2.52 | 3.66 | 2.45 | 2.69 | 3.45 | 3.57 | 3.58 |
| ZNF135 | -1.64 | -1.64 | -1.63 | -1.64 | -1.61 | -1.65 | -1.59 | -1.61 |
| ZNF136 | 2.45 | 2.54 | 2.84 | 2.26 | 2.19 | 2.56 | 2.77 | 2.54 |
| ZNF137P | -1.89 | -1.89 | -1.84 | -1.89 | -1.89 | -1.88 | -1.89 | -1.87 |
| ZNF138 | 5.19 | 3.60 | 4.31 | 4.01 | 4.41 | 4.25 | 4.32 | 4.45 |
| ZNF14 | 1.91 | 2.16 | 2.20 | 1.82 | 1.93 | 2.01 | 2.06 | 1.82 |
| ZNF140 | 3.09 | 3.69 | 3.72 | 3.24 | 3.06 | 3.42 | 3.44 | 3.36 |
| ZNF141 | 3.25 | 2.84 | 3.78 | 2.94 | 2.42 | 3.16 | 3.88 | 3.60 |
| ZNF142 | 3.01 | 3.19 | 3.34 | 3.32 | 2.65 | 3.23 | 3.22 | 2.97 |
| ZNF143 | 4.53 | 4.28 | 4.23 | 4.12 | 4.33 | 4.36 | 4.53 | 4.26 |
| ZNF146 | 6.10 | 6.07 | 5.95 | 5.97 | 6.03 | 6.02 | 6.18 | 5.79 |
| ZNF148 | 6.17 | 5.68 | 6.60 | 5.39 | 5.89 | 6.12 | 6.55 | 6.74 |
| ZNF154 | -0.28 | -0.35 | -0.34 | -0.36 | -0.31 | -0.33 | -0.01 | -0.38 |
| ZNF155 | 2.03 | 1.90 | 2.08 | 1.67 | 1.67 | 1.72 | 2.03 | 2.11 |
| ZNF16 | 2.74 | 2.55 | 3.02 | 2.53 | 2.62 | 2.45 | 2.68 | 3.00 |
| ZNF160 | 4.07 | 2.98 | 4.27 | 2.84 | 3.55 | 4.05 | 4.77 | 4.05 |
| ZNF165 | 3.32 | 2.87 | 2.88 | 3.16 | 3.51 | 3.47 | 3.32 | 3.22 |
| ZNF169 | 1.26 | 1.23 | 1.27 | 1.37 | 1.30 | 1.28 | 1.41 | 1.16 |
| ZNF17 | 1.20 | 0.88 | 1.07 | 1.18 | 0.85 | 0.86 | 0.78 | 1.19 |
| ZNF174 | 4.70 | 4.09 | 3.70 | 4.05 | 3.92 | 4.29 | 3.83 | 4.42 |
| ZNF175 | 2.11 | 1.97 | 2.48 | 2.15 | 2.67 | 2.48 | 2.50 | 1.87 |
| ZNF18 | -0.11 | -0.02 | -0.10 | -0.20 | 0.16 | -0.17 | 0.08 | -0.10 |
| ZNF180 | 3.10 | 2.74 | 2.84 | 2.91 | 2.83 | 2.63 | 2.92 | 2.57 |
| ZNF181 | 3.33 | 3.06 | 2.68 | 3.13 | 3.83 | 3.41 | 3.35 | 3.12 |
| ZNF182 | 2.33 | 2.40 | 2.85 | 2.26 | 2.63 | 2.32 | 2.86 | 2.17 |
| ZNF184 | 3.32 | 2.91 | 2.93 | 2.97 | 2.89 | 3.41 | 3.12 | 3.33 |
| ZNF185 | 4.59 | 4.70 | 5.62 | 4.22 | 4.38 | 4.89 | 5.36 | 4.84 |
| ZNF189 | 4.14 | 3.94 | 3.69 | 3.93 | 3.83 | 3.81 | 4.43 | 3.61 |
| ZNF19 | 1.12 | 1.33 | 1.64 | 0.97 | 1.03 | 1.10 | 1.03 | 1.06 |
| ZNF192P1 | 0.71 | 0.08 | 0.25 | 0.29 | 0.08 | 0.41 | 0.29 | 0.04 |
| ZNF195 | 4.49 | 4.57 | 4.76 | 4.80 | 4.80 | 4.42 | 4.69 | 4.10 |
| ZNF197 | 3.71 | 3.59 | 3.40 | 3.61 | 3.67 | 3.67 | 3.91 | 3.09 |
| ZNF197-AS1 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ZNF2 | 1.90 | 1.89 | 1.76 | 1.45 | 1.74 | 1.66 | 1.63 | 1.67 |
| ZNF20 | 0.17 | 0.18 | 0.35 | 0.25 | 0.64 | 0.26 | 0.24 | 0.26 |
| ZNF200 | 3.94 | 3.16 | 3.08 | 3.42 | 2.90 | 3.49 | 3.36 | 3.46 |
| ZNF202 | 2.20 | 2.14 | 2.27 | 2.22 | 2.14 | 1.98 | 2.10 | 2.34 |
| ZNF204P | 3.25 | 3.45 | 3.63 | 3.51 | 3.47 | 4.08 | 3.95 | 2.91 |
| ZNF205 | 3.96 | 3.71 | 3.22 | 3.61 | 3.44 | 3.63 | 3.77 | 3.82 |
| ZNF207 | 7.16 | 7.05 | 7.52 | 7.04 | 7.38 | 7.50 | 7.26 | 7.65 |
| ZNF208 | -2.07 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| ZNF211 | 2.00 | 1.58 | 1.99 | 1.60 | 2.09 | 1.76 | 1.66 | 1.90 |
| ZNF212 | 2.11 | 2.37 | 2.75 | 2.43 | 2.59 | 2.48 | 2.71 | 2.69 |
| ZNF213 | 3.07 | 2.68 | 3.17 | 2.91 | 2.56 | 2.89 | 2.85 | 2.96 |
| ZNF213-AS1 | 3.45 | 2.05 | 2.72 | 2.89 | 2.36 | 2.59 | 2.83 | 2.63 |
| ZNF214 | 1.40 | 1.68 | 1.91 | 1.38 | 1.28 | 1.70 | 1.79 | 1.47 |
| ZNF215 | 2.80 | 2.54 | 2.34 | 2.79 | 2.61 | 2.63 | 2.57 | 2.77 |
| ZNF217 | 5.43 | 4.95 | 5.62 | 4.71 | 5.39 | 5.48 | 5.56 | 5.84 |
| ZNF219 | 3.20 | 4.19 | 3.25 | 4.01 | 3.80 | 2.87 | 4.03 | 3.64 |
| ZNF22 | 5.22 | 5.12 | 4.01 | 5.08 | 5.93 | 4.48 | 3.80 | 3.77 |
| ZNF221 | 0.28 | -0.01 | 0.10 | -0.02 | 0.07 | 0.17 | 0.19 | 0.13 |
| ZNF222 | 2.46 | 1.74 | 1.72 | 1.80 | 1.76 | 1.87 | 1.72 | 1.65 |
| ZNF224 | 3.87 | 2.95 | 3.74 | 3.34 | 3.38 | 3.23 | 3.79 | 3.37 |
| ZNF225 | 1.14 | 1.53 | 1.36 | 1.24 | 1.15 | 1.31 | 1.29 | 1.29 |
| ZNF226 | 5.81 | 5.42 | 4.99 | 5.21 | 5.65 | 5.51 | 5.34 | 5.31 |
| ZNF227 | 3.09 | 3.16 | 2.85 | 2.93 | 2.75 | 3.04 | 2.98 | 3.31 |
| ZNF229 | 2.66 | 1.57 | 1.79 | 1.44 | 1.56 | 1.67 | 1.92 | 1.87 |
| ZNF23 | -1.33 | -1.19 | -1.18 | -1.33 | -1.22 | -1.34 | -1.14 | -1.29 |
| ZNF230 | 2.50 | 1.92 | 2.20 | 2.29 | 2.33 | 2.24 | 1.94 | 2.22 |
| ZNF232 | 3.16 | 2.58 | 2.85 | 2.68 | 2.93 | 2.70 | 2.57 | 2.05 |
| ZNF233 | -0.28 | -0.62 | -0.52 | -0.56 | -0.59 | -0.48 | -0.56 | -0.65 |
| ZNF234 | 2.86 | 2.26 | 2.48 | 2.32 | 2.72 | 2.63 | 2.60 | 2.48 |
| ZNF235 | 0.79 | 0.66 | 0.77 | 0.81 | 0.73 | 0.71 | 0.64 | 0.64 |
| ZNF236 | 3.29 | 3.69 | 3.60 | 3.51 | 3.58 | 3.16 | 3.79 | 2.88 |
| ZNF236-DT | -1.16 | -1.08 | -1.00 | -1.17 | -1.12 | -1.17 | -0.97 | -1.18 |
| ZNF239 | 1.99 | 1.64 | 1.65 | 1.64 | 1.85 | 1.50 | 1.51 | 1.34 |
| ZNF24 | 6.10 | 6.06 | 6.63 | 5.99 | 6.30 | 6.91 | 6.82 | 5.80 |
| ZNF248 | 2.37 | 2.22 | 2.87 | 2.87 | 2.84 | 2.85 | 3.03 | 2.50 |
| ZNF25 | 1.00 | 1.25 | 1.31 | 1.21 | 1.25 | 1.34 | 1.68 | 1.11 |
| ZNF250 | 2.80 | 2.65 | 3.20 | 2.46 | 2.94 | 2.89 | 2.54 | 2.40 |
| ZNF251 | 2.97 | 2.08 | 2.83 | 2.55 | 2.99 | 2.86 | 2.33 | 3.09 |
| ZNF252P | 3.71 | 3.63 | 4.31 | 4.10 | 4.19 | 3.75 | 4.41 | 3.98 |
| ZNF252P-AS1 | -1.43 | -1.36 | -1.47 | -1.49 | -1.37 | -1.44 | -1.44 | -1.46 |
| ZNF253 | 2.42 | 2.06 | 2.55 | 1.98 | 2.14 | 2.35 | 2.41 | 1.60 |
| ZNF254 | 2.33 | 2.45 | 2.59 | 2.76 | 2.29 | 2.82 | 3.63 | 2.77 |
| ZNF256 | 1.41 | 0.77 | 1.32 | 0.82 | 0.77 | 0.80 | 1.20 | 0.82 |
| ZNF257 | -0.74 | -0.74 | -0.72 | -0.66 | -0.69 | -0.75 | -0.45 | -0.76 |
| ZNF259P1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.30 | -2.31 |
| ZNF26 | 2.96 | 3.52 | 3.68 | 3.57 | 2.87 | 3.33 | 3.50 | 3.06 |
| ZNF260 | 4.34 | 3.75 | 4.03 | 3.90 | 3.72 | 4.15 | 3.72 | 3.63 |
| ZNF263 | 4.58 | 4.11 | 4.37 | 4.09 | 3.73 | 3.94 | 3.98 | 4.54 |
| ZNF264 | 4.27 | 4.00 | 4.28 | 4.13 | 4.13 | 4.14 | 4.92 | 4.05 |
| ZNF266 | 2.56 | 2.49 | 3.41 | 2.81 | 2.62 | 2.97 | 3.30 | 2.42 |
| ZNF267 | 4.37 | 4.75 | 4.50 | 4.81 | 4.73 | 4.77 | 4.83 | 4.99 |
| ZNF268 | 3.13 | 3.59 | 3.75 | 3.55 | 2.88 | 3.51 | 3.73 | 3.04 |
| ZNF271P | 5.66 | 4.94 | 5.07 | 4.86 | 5.10 | 5.64 | 5.51 | 4.15 |
| ZNF274 | 4.69 | 4.26 | 3.36 | 3.97 | 3.42 | 4.23 | 4.11 | 4.29 |
| ZNF275 | 3.20 | 3.29 | 3.48 | 3.23 | 3.02 | 3.38 | 3.25 | 3.51 |
| ZNF276 | 3.08 | 3.41 | 3.47 | 4.20 | 3.26 | 3.54 | 3.30 | 3.16 |
| ZNF277 | 4.29 | 4.82 | 4.60 | 5.10 | 5.83 | 4.99 | 4.76 | 5.11 |
| ZNF28 | 4.39 | 3.48 | 3.36 | 3.61 | 2.71 | 4.06 | 4.01 | 4.10 |
| ZNF280A | -0.03 | -0.27 | -0.29 | 0.18 | -0.49 | -0.47 | -0.50 | -0.46 |

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|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ZNF280B | 3.23 | 2.48 | 2.34 | 1.87 | 2.02 | 1.83 | 2.13 | 1.72 |
| ZNF280C | 2.71 | 2.60 | 2.42 | 2.50 | 2.75 | 2.66 | 2.57 | 2.82 |
| ZNF280D | 3.91 | 4.47 | 3.41 | 4.35 | 4.14 | 4.07 | 4.24 | 4.21 |
| ZNF281 | 5.17 | 5.74 | 5.57 | 5.04 | 5.13 | 5.59 | 5.50 | 5.92 |
| ZNF282 | 3.62 | 4.22 | 4.29 | 4.25 | 4.07 | 3.97 | 3.98 | 3.44 |
| ZNF283 | 3.07 | 2.63 | 2.80 | 2.57 | 2.30 | 2.50 | 2.73 | 2.49 |
| ZNF284 | 1.68 | 1.25 | 1.36 | 1.46 | 1.17 | 1.29 | 1.26 | 1.33 |
| ZNF285 | 0.00 | -0.14 | -0.03 | -0.15 | -0.06 | -0.03 | 0.04 | 0.00 |
| ZNF286A | 1.60 | 1.20 | 1.38 | 1.23 | 1.49 | 1.32 | 1.53 | 1.18 |
| ZNF286B | -1.69 | -1.73 | -1.73 | -1.70 | -1.71 | -1.72 | -1.65 | -1.71 |
| ZNF287 | 3.49 | 2.08 | 2.68 | 2.02 | 3.31 | 1.93 | 3.16 | 2.49 |
| ZNF292 | 5.80 | 5.16 | 6.85 | 5.02 | 5.55 | 6.25 | 7.14 | 5.25 |
| ZNF296 | 4.56 | 3.27 | 3.27 | 3.38 | 3.79 | 3.31 | 2.85 | 3.00 |
| ZNF3 | 4.02 | 3.99 | 4.04 | 3.84 | 4.23 | 4.19 | 4.06 | 4.01 |
| ZNF30 | 1.87 | 1.71 | 1.51 | 1.64 | 1.44 | 1.59 | 1.51 | 1.22 |
| ZNF30-AS1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.19 |
| ZNF300 | 1.54 | 1.82 | 1.70 | 2.00 | 1.27 | 1.77 | 1.89 | 1.41 |
| ZNF300P1 | 0.17 | -0.11 | -0.19 | 0.02 | -0.20 | -0.22 | 0.01 | -0.23 |
| ZNF302 | 4.72 | 4.29 | 4.42 | 3.96 | 4.15 | 3.89 | 3.88 | 3.78 |
| ZNF311 | 1.53 | 1.25 | 1.54 | 0.92 | 1.56 | 1.23 | 1.20 | 1.70 |
| ZNF316 | 3.97 | 4.03 | 4.20 | 3.67 | 3.99 | 4.07 | 4.08 | 3.84 |
| ZNF317 | 3.43 | 3.98 | 3.95 | 3.84 | 4.57 | 4.17 | 4.21 | 3.59 |
| ZNF318 | 3.79 | 4.08 | 3.89 | 4.05 | 3.59 | 4.71 | 4.23 | 3.54 |
| ZNF319 | 2.73 | 2.57 | 2.37 | 2.47 | 2.21 | 2.34 | 2.26 | 2.32 |
| ZNF32 | 5.34 | 4.84 | 4.08 | 5.07 | 4.88 | 4.58 | 4.41 | 4.26 |
| ZNF32-AS1 | -1.85 | -1.89 | -1.84 | -1.86 | -1.87 | -1.90 | -1.82 | -1.91 |
| ZNF32-AS2 | -2.15 | -2.15 | -2.14 | -2.15 | -2.11 | -2.15 | -2.10 | -2.16 |
| ZNF32-AS3 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 |
| ZNF320 | -1.17 | -1.23 | -1.15 | -1.24 | -1.23 | -1.16 | -1.24 | -1.14 |
| ZNF321P | 1.46 | 1.57 | 2.25 | 1.45 | 1.32 | 2.16 | 2.51 | 1.94 |
| ZNF322 | 2.56 | 1.83 | 2.18 | 2.44 | 2.03 | 2.16 | 2.42 | 2.48 |
| ZNF324 | 2.86 | 2.90 | 2.86 | 2.70 | 2.75 | 2.46 | 2.72 | 2.77 |
| ZNF324B | 1.30 | 0.94 | 0.92 | 1.11 | 0.91 | 0.93 | 1.31 | 0.90 |
| ZNF326 | 6.01 | 6.00 | 5.80 | 5.94 | 5.73 | 5.91 | 5.81 | 5.09 |
| ZNF329 | 2.60 | 1.90 | 2.01 | 2.11 | 2.06 | 2.22 | 2.51 | 2.32 |
| ZNF330 | 5.27 | 5.71 | 5.10 | 5.76 | 5.66 | 5.77 | 5.43 | 5.86 |
| ZNF331 | 4.20 | 2.27 | 4.08 | 2.42 | 3.55 | 2.34 | 3.27 | 3.81 |
| ZNF333 | 1.41 | 1.50 | 1.24 | 1.13 | 1.62 | 1.31 | 1.30 | 1.16 |
| ZNF334 | 2.60 | 1.86 | 3.24 | 1.88 | 2.04 | 2.36 | 2.45 | 1.86 |
| ZNF335 | 3.45 | 3.32 | 3.46 | 2.91 | 2.86 | 2.99 | 3.20 | 3.36 |
| ZNF337 | 3.09 | 2.85 | 3.02 | 2.85 | 3.19 | 2.66 | 3.24 | 2.87 |
| ZNF337-AS1 | 2.39 | 2.09 | 2.01 | 1.92 | 2.26 | 2.10 | 2.17 | 2.27 |
| ZNF33A | 4.88 | 5.54 | 4.72 | 5.57 | 5.87 | 5.60 | 6.04 | 5.24 |
| ZNF33B | 4.10 | 4.24 | 4.43 | 4.55 | 3.97 | 3.81 | 4.29 | 3.35 |
| ZNF33BP1 | -2.05 | -2.04 | -2.04 | -2.05 | -2.03 | -2.00 | -2.05 | -2.06 |
| ZNF34 | 1.78 | 1.50 | 2.08 | 1.76 | 1.75 | 1.79 | 1.75 | 1.75 |
| ZNF341 | 2.29 | 1.83 | 2.00 | 2.07 | 2.14 | 2.22 | 1.94 | 2.53 |
| ZNF341-AS1 | -0.39 | -0.54 | -0.28 | -0.54 | -0.42 | -0.36 | -0.48 | -0.02 |
| ZNF343 | 2.76 | 2.17 | 2.75 | 2.42 | 2.73 | 2.15 | 2.01 | 2.04 |
| ZNF345 | 1.07 | 0.65 | 0.76 | 0.77 | 0.81 | 0.78 | 1.19 | 0.59 |
| ZNF346 | 2.40 | 2.53 | 3.01 | 3.32 | 2.87 | 2.77 | 2.91 | 2.63 |
| ZNF346-IT1 | -1.22 | -1.14 | -1.05 | -0.94 | -1.14 | -1.20 | -1.22 | -1.24 |
| ZNF347 | 3.02 | 1.98 | 3.14 | 1.89 | 1.73 | 1.72 | 2.71 | 2.95 |
| ZNF35 | 3.34 | 2.80 | 2.69 | 3.14 | 3.19 | 2.89 | 2.87 | 2.95 |
| ZNF350 | 3.93 | 2.33 | 2.72 | 2.13 | 2.16 | 2.94 | 2.90 | 3.51 |
| ZNF354A | 3.07 | 3.13 | 3.50 | 2.72 | 3.37 | 3.21 | 3.08 | 3.25 |
| ZNF354B | 3.43 | 2.88 | 3.34 | 3.32 | 3.64 | 3.22 | 3.62 | 3.28 |
| ZNF354C | 1.85 | 2.43 | 2.65 | 1.88 | 1.60 | 2.38 | 2.39 | 1.46 |
| ZNF358 | 4.57 | 4.66 | 4.40 | 5.09 | 4.61 | 4.28 | 4.39 | 4.37 |
| ZNF362 | 1.95 | 2.19 | 2.16 | 2.37 | 2.49 | 2.84 | 2.40 | 2.40 |
| ZNF365 | 1.43 | 1.87 | 1.42 | 1.40 | 1.07 | 2.29 | 1.06 | 1.31 |
| ZNF367 | 3.99 | 3.41 | 3.07 | 3.26 | 2.73 | 3.29 | 3.91 | 2.63 |
| ZNF37A | 3.61 | 4.92 | 4.55 | 4.66 | 4.79 | 4.37 | 5.43 | 3.75 |
| ZNF37BP | 3.09 | 3.02 | 3.81 | 3.76 | 3.51 | 3.30 | 4.27 | 2.76 |
| ZNF382 | -0.02 | -0.01 | 0.16 | -0.02 | -0.01 | 0.29 | 0.13 | 0.14 |
| ZNF383 | 2.97 | 2.80 | 2.49 | 2.45 | 2.62 | 2.67 | 3.26 | 2.85 |
| ZNF384 | 2.93 | 3.52 | 3.34 | 3.10 | 2.78 | 2.63 | 3.05 | 2.91 |
| ZNF385A | 3.78 | 3.07 | 3.74 | 3.20 | 3.60 | 3.30 | 3.02 | 2.88 |
| ZNF385C | 0.63 | 0.05 | 0.15 | 0.19 | 0.17 | 0.22 | 0.03 | 0.14 |
| ZNF385D | -0.52 | -0.51 | -0.41 | -0.44 | -0.47 | -0.53 | -0.30 | -0.55 |
| ZNF391 | 0.83 | 0.37 | 0.32 | 0.41 | 0.39 | 0.41 | 0.19 | 0.28 |
| ZNF394 | 4.22 | 4.09 | 3.70 | 4.29 | 4.54 | 4.14 | 3.99 | 4.36 |
| ZNF395 | 3.61 | 4.30 | 5.26 | 3.91 | 3.70 | 3.90 | 4.83 | 3.53 |
| ZNF396 | 0.48 | 0.57 | 0.59 | 0.67 | 0.87 | 0.69 | 0.93 | 0.55 |
| ZNF397 | 3.93 | 3.62 | 4.96 | 3.82 | 4.22 | 4.50 | 4.63 | 3.31 |
| ZNF398 | 3.36 | 3.64 | 3.34 | 3.25 | 3.26 | 3.17 | 3.41 | 3.06 |
| ZNF402P | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| ZNF404 | 1.15 | 0.88 | 1.24 | 0.77 | 0.88 | 1.28 | 1.46 | 1.07 |
| ZNF407 | 2.97 | 3.03 | 3.61 | 3.03 | 2.33 | 2.79 | 3.67 | 2.80 |
| ZNF408 | 4.69 | 3.95 | 3.73 | 4.05 | 4.82 | 4.27 | 3.81 | 4.70 |
| ZNF41 | 1.91 | 2.09 | 2.27 | 2.23 | 2.29 | 1.78 | 1.96 | 1.71 |
| ZNF410 | -1.30 | -1.30 | -1.22 | -1.18 | -1.23 | -1.23 | -1.19 | -1.21 |
| ZNF414 | 3.69 | 3.51 | 3.98 | 3.64 | 4.20 | 3.80 | 4.10 | 3.68 |
| ZNF415 | 2.46 | 1.33 | 1.95 | 1.36 | 1.32 | 1.33 | 2.03 | 1.40 |
| ZNF415P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ZNF416 | 1.94 | 1.83 | 1.63 | 1.86 | 1.86 | 1.63 | 1.44 | 1.66 |
| ZNF417 | 1.90 | 1.26 | 1.55 | 1.51 | 1.40 | 1.48 | 1.66 | 1.53 |
| ZNF418 | 0.52 | 0.35 | 0.84 | 0.33 | 0.31 | 0.24 | 0.47 | 0.57 |
| ZNF419 | 3.79 | 2.27 | 2.69 | 2.67 | 2.87 | 3.00 | 2.39 | 4.25 |
| ZNF420 | 2.91 | 2.65 | 2.74 | 2.56 | 2.50 | 2.46 | 3.10 | 2.16 |
| ZNF423 | -1.19 | -1.11 | -1.25 | -1.28 | -1.19 | -1.25 | -1.06 | -1.23 |
| ZNF425 | 0.71 | 0.96 | 0.85 | 1.05 | 0.84 | 0.81 | 0.97 | 1.16 |
| ZNF426 | 3.31 | 3.43 | 4.14 | 3.26 | 3.55 | 3.93 | 3.96 | 3.63 |
| ZNF426-DT | 0.84 | 0.26 | 0.65 | 0.44 | 0.34 | 0.47 | 0.24 | 0.64 |

| | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ZNF428 | 5.81 | 5.95 | 5.46 | 6.43 | 6.27 | 5.86 | 5.78 | 5.22 |
| ZNF429 | 2.77 | 2.17 | 3.74 | 2.11 | 2.65 | 2.39 | 2.81 | 2.82 |
| ZNF43 | 2.42 | 2.06 | 3.58 | 1.91 | 1.84 | 1.67 | 3.51 | 1.70 |
| ZNF430 | 2.98 | 3.45 | 3.90 | 3.54 | 3.34 | 4.29 | 4.32 | 4.22 |
| ZNF431 | 3.64 | 4.62 | 5.08 | 4.52 | 3.75 | 4.89 | 4.72 | 4.79 |
| ZNF432 | 2.57 | 2.47 | 3.05 | 2.53 | 2.42 | 2.42 | 2.97 | 2.37 |
| ZNF433 | 2.24 | 1.43 | 1.65 | 1.47 | 1.90 | 2.27 | 2.25 | 1.51 |
| ZNF433-AS1 | 3.00 | 2.21 | 2.64 | 2.13 | 3.52 | 3.37 | 2.60 | 2.84 |
| ZNF436 | 2.28 | 2.33 | 1.93 | 1.74 | 1.98 | 2.27 | 2.03 | 1.94 |
| ZNF436-AS1 | 1.46 | 1.09 | 1.37 | 1.27 | 1.72 | 1.43 | 1.25 | 1.58 |
| ZNF438 | 2.22 | 2.27 | 2.34 | 2.70 | 2.57 | 2.29 | 2.63 | 2.13 |
| ZNF439 | 0.85 | 0.52 | 1.34 | 0.58 | 0.60 | 0.84 | 1.07 | 0.59 |
| ZNF44 | 2.73 | 2.95 | 3.04 | 2.42 | 2.86 | 2.76 | 3.28 | 2.92 |
| ZNF440 | 2.78 | 3.15 | 3.29 | 3.29 | 2.94 | 3.29 | 3.60 | 2.68 |
| ZNF441 | 1.06 | 0.93 | 1.19 | 0.96 | 1.00 | 1.09 | 1.29 | 0.96 |
| ZNF442 | -0.58 | -0.77 | -0.61 | -0.77 | -0.65 | -0.68 | -0.77 | -0.79 |
| ZNF443 | 1.30 | 1.39 | 1.37 | 1.27 | 1.26 | 1.42 | 1.51 | 1.17 |
| ZNF444 | 5.11 | 4.97 | 4.84 | 5.35 | 5.45 | 4.59 | 4.41 | 4.51 |
| ZNF444P1 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 | -2.31 |
| ZNF445 | 3.85 | 3.47 | 4.19 | 3.39 | 3.52 | 3.39 | 4.20 | 3.35 |
| ZNF446 | 3.21 | 3.06 | 2.90 | 3.13 | 3.33 | 2.97 | 3.27 | 3.35 |
| ZNF449 | 1.92 | 2.02 | 2.01 | 1.93 | 2.21 | 2.21 | 2.18 | 2.09 |
| ZNF45 | 2.33 | 2.18 | 2.19 | 2.15 | 2.11 | 2.07 | 2.51 | 2.17 |
| ZNF451 | 5.66 | 5.75 | 5.38 | 5.40 | 5.17 | 5.42 | 6.12 | 6.10 |
| ZNF451-AS1 | -1.80 | -1.84 | -1.83 | -1.80 | -1.84 | -1.83 | -1.84 | -1.86 |
| ZNF454 | 0.34 | -0.01 | 0.01 | -0.02 | 0.04 | -0.03 | 0.40 | -0.04 |
| ZNF460 | 2.30 | 2.13 | 2.02 | 2.44 | 2.09 | 2.04 | 2.41 | 2.44 |
| ZNF460-AS1 | 0.20 | -0.01 | 0.32 | -0.10 | 0.02 | 0.00 | 0.04 | -0.06 |
| ZNF461 | 1.83 | 1.24 | 1.82 | 1.37 | 1.35 | 1.46 | 1.56 | 1.39 |
| ZNF462 | 4.00 | 5.02 | 5.29 | 4.54 | 4.05 | 4.94 | 5.44 | 3.70 |
| ZNF467 | 3.16 | 3.71 | 2.95 | 3.37 | 4.04 | 2.61 | 3.84 | 3.78 |
| ZNF468 | 3.23 | 3.48 | 3.62 | 2.89 | 2.43 | 3.54 | 3.39 | 3.56 |
| ZNF469 | 0.30 | 0.18 | 0.18 | 0.41 | 0.24 | 0.09 | 0.21 | 0.44 |
| ZNF470 | 1.87 | 1.32 | 1.10 | 1.04 | 1.27 | 1.35 | 1.68 | 0.98 |
| ZNF471 | 0.06 | -0.53 | -0.52 | -0.54 | -0.53 | -0.54 | -0.32 | -0.56 |
| ZNF473 | 2.39 | 2.14 | 2.37 | 2.62 | 2.78 | 2.43 | 2.13 | 2.45 |
| ZNF474 | -2.25 | -2.25 | -2.25 | -2.23 | -2.25 | -2.26 | -2.24 | -2.26 |
| ZNF479 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ZNF48 | 4.62 | 4.10 | 4.10 | 4.28 | 4.00 | 3.70 | 3.78 | 3.59 |
| ZNF480 | 4.99 | 4.17 | 4.84 | 4.27 | 4.84 | 4.03 | 4.86 | 4.65 |
| ZNF483 | 0.11 | -0.04 | 0.07 | -0.05 | 0.00 | 0.19 | 0.09 | -0.01 |
| ZNF484 | 2.86 | 2.58 | 1.99 | 2.81 | 2.22 | 2.38 | 2.62 | 2.45 |
| ZNF485 | 2.51 | 2.14 | 1.85 | 1.71 | 2.39 | 2.14 | 2.11 | 1.71 |
| ZNF486 | 2.22 | 1.36 | 2.54 | 1.41 | 1.49 | 1.30 | 2.51 | 1.24 |
| ZNF487 | 2.37 | 2.03 | 1.67 | 2.18 | 2.45 | 2.09 | 2.02 | 1.96 |
| ZNF488 | 3.67 | 3.93 | 3.81 | 4.10 | 3.40 | 3.21 | 3.41 | 3.97 |
| ZNF490 | 1.78 | 1.67 | 1.97 | 2.06 | 2.08 | 1.99 | 1.81 | 2.34 |
| ZNF491 | -1.69 | -1.68 | -1.68 | -1.64 | -1.64 | -1.67 | -1.64 | -1.66 |
| ZNF492 | -2.15 | -2.15 | -2.09 | -2.15 | -2.15 | -2.15 | -2.10 | -2.16 |
| ZNF493 | 2.54 | 2.65 | 3.95 | 2.50 | 2.35 | 3.34 | 3.31 | 2.93 |
| ZNF496 | 2.89 | 3.01 | 2.90 | 2.70 | 3.03 | 3.02 | 2.66 | 2.90 |
| ZNF497 | -0.44 | -0.27 | -0.16 | -0.37 | -0.31 | -0.25 | -0.29 | -0.40 |
| ZNF500 | 3.44 | 3.20 | 3.52 | 3.44 | 2.77 | 2.99 | 3.34 | 2.98 |
| ZNF501 | 1.89 | 1.38 | 1.10 | 1.34 | 1.71 | 1.52 | 1.12 | 1.39 |
| ZNF502 | 2.42 | 1.74 | 2.53 | 1.62 | 1.54 | 2.07 | 2.04 | 1.68 |
| ZNF503 | 5.22 | 5.91 | 5.46 | 5.08 | 4.45 | 4.67 | 6.45 | 5.55 |
| ZNF503-AS1 | 1.17 | 1.08 | 0.75 | 1.09 | 0.62 | 0.54 | 0.91 | 0.65 |
| ZNF503-AS2 | 2.50 | 2.53 | 2.24 | 2.45 | 2.22 | 2.11 | 2.73 | 2.91 |
| ZNF506 | 3.64 | 2.92 | 4.24 | 3.31 | 2.64 | 3.36 | 4.26 | 3.91 |
| ZNF507 | 4.17 | 3.99 | 3.74 | 4.30 | 3.86 | 4.01 | 4.19 | 3.69 |
| ZNF510 | 2.28 | 2.53 | 2.47 | 2.35 | 2.62 | 2.65 | 2.91 | 2.44 |
| ZNF511 | 6.95 | 6.25 | 6.07 | 6.26 | 6.86 | 6.26 | 6.03 | 5.43 |
| ZNF512 | 2.61 | 3.19 | 3.01 | 3.08 | 2.60 | 2.71 | 2.98 | 2.66 |
| ZNF512B | 3.72 | 3.21 | 3.74 | 3.19 | 3.11 | 3.40 | 3.66 | 3.30 |
| ZNF513 | 4.65 | 3.72 | 4.09 | 4.23 | 4.06 | 4.08 | 4.50 | 4.64 |
| ZNF514 | 4.02 | 3.36 | 3.95 | 3.01 | 3.77 | 3.38 | 4.04 | 3.52 |
| ZNF516 | 2.93 | 3.55 | 3.88 | 3.57 | 3.22 | 3.28 | 3.34 | 3.29 |
| ZNF517 | 0.96 | 0.85 | 1.19 | 0.87 | 1.02 | 0.91 | 0.74 | 0.97 |
| ZNF518A | 6.16 | 6.75 | 5.80 | 6.82 | 5.99 | 6.09 | 6.72 | 5.86 |
| ZNF518B | 1.95 | 1.98 | 3.02 | 2.15 | 1.97 | 2.89 | 3.35 | 1.95 |
| ZNF519 | 2.64 | 2.33 | 2.92 | 2.50 | 2.63 | 2.70 | 2.57 | 3.48 |
| ZNF521 | -2.36 | -2.36 | -2.35 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 |
| ZNF524 | 4.88 | 5.19 | 4.85 | 5.32 | 5.71 | 4.99 | 5.15 | 5.37 |
| ZNF525 | 2.27 | 2.15 | 2.99 | 2.09 | 1.69 | 2.23 | 2.61 | 2.24 |
| ZNF526 | 3.60 | 3.15 | 3.51 | 3.57 | 3.35 | 3.20 | 3.05 | 3.13 |
| ZNF527 | 1.47 | 1.12 | 1.21 | 1.23 | 1.14 | 1.25 | 1.38 | 1.06 |
| ZNF528 | 2.88 | 1.76 | 3.25 | 1.71 | 1.75 | 1.89 | 2.61 | 3.38 |
| ZNF528-AS1 | 2.48 | 1.50 | 3.20 | 1.45 | 1.45 | 1.45 | 1.66 | 2.47 |
| ZNF529 | 2.37 | 2.22 | 2.50 | 2.04 | 2.33 | 2.51 | 2.57 | 2.10 |
| ZNF529-AS1 | 3.99 | 2.31 | 3.25 | 2.59 | 2.99 | 3.22 | 2.99 | 2.85 |
| ZNF530 | 2.97 | 1.73 | 1.94 | 1.62 | 2.09 | 2.24 | 2.09 | 2.14 |
| ZNF532 | 2.30 | 3.37 | 3.45 | 3.27 | 2.47 | 2.79 | 2.80 | 3.14 |
| ZNF534 | -2.04 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.02 | -2.03 |
| ZNF536 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.35 |
| ZNF540 | -0.89 | -0.88 | -0.79 | -0.89 | -0.77 | -0.80 | -0.82 | -0.84 |
| ZNF542P | 3.89 | 2.05 | 2.02 | 1.97 | 1.99 | 1.92 | 2.80 | 2.08 |
| ZNF543 | 2.20 | 1.63 | 1.91 | 1.72 | 1.87 | 1.81 | 1.76 | 2.02 |
| ZNF544 | 4.39 | 3.55 | 3.86 | 3.76 | 2.64 | 3.62 | 4.24 | 3.28 |
| ZNF546 | 0.76 | 0.70 | 0.72 | 0.88 | 0.81 | 0.72 | 0.94 | 0.62 |
| ZNF547 | 1.15 | 0.96 | 1.09 | 0.71 | 0.74 | 0.82 | 0.85 | 0.99 |
| ZNF548 | 2.17 | 1.92 | 2.04 | 1.74 | 1.71 | 2.04 | 1.90 | 2.12 |
| ZNF549 | 1.40 | 0.90 | 1.16 | 0.79 | 0.93 | 0.77 | 1.31 | 1.33 |
| ZNF550 | 3.46 | 2.94 | 3.14 | 2.78 | 3.26 | 3.38 | 2.91 | 3.27 |
| ZNF551 | 2.51 | 2.20 | 2.44 | 2.18 | 2.11 | 2.24 | 2.05 | 2.30 |

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|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ZNF552 | 2.79 | 2.63 | 3.21 | 3.29 | 2.76 | 3.04 | 3.45 | 2.85 |
| ZNF554 | 1.49 | 1.29 | 1.26 | 1.24 | 1.45 | 1.39 | 1.24 | 1.24 |
| ZNF555 | 2.11 | 1.99 | 2.12 | 1.59 | 2.33 | 2.09 | 2.18 | 2.22 |
| ZNF556 | -1.39 | -1.44 | -1.37 | -1.27 | -1.44 | -1.46 | -1.21 | -1.46 |
| ZNF557 | 3.13 | 3.80 | 3.42 | 3.95 | 3.70 | 3.62 | 3.16 | 3.31 |
| ZNF558 | 2.53 | 2.51 | 2.67 | 2.47 | 2.66 | 2.48 | 2.78 | 2.30 |
| ZNF559 | 2.15 | 2.30 | 2.14 | 2.06 | 1.94 | 2.54 | 2.42 | 2.26 |
| ZNF559-ZNF177 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.31 |
| ZNF560 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 |
| ZNF561 | 3.36 | 3.68 | 3.65 | 3.59 | 3.63 | 3.82 | 4.01 | 3.54 |
| ZNF561-AS1 | 3.38 | 3.12 | 3.19 | 2.61 | 2.89 | 3.67 | 3.63 | 3.19 |
| ZNF562 | 4.21 | 5.05 | 4.70 | 4.67 | 4.15 | 4.48 | 4.89 | 4.04 |
| ZNF563 | 1.37 | 1.01 | 1.30 | 1.06 | 1.34 | 1.57 | 1.50 | 1.43 |
| ZNF564 | -0.21 | -0.12 | -0.19 | 0.00 | -0.12 | -0.08 | 0.12 | -0.11 |
| ZNF565 | 2.33 | 2.13 | 1.86 | 2.45 | 2.71 | 2.08 | 2.13 | 1.93 |
| ZNF566 | 3.47 | 2.96 | 2.74 | 2.85 | 2.79 | 2.82 | 3.26 | 2.63 |
| ZNF567 | 4.00 | 2.54 | 3.32 | 3.21 | 3.09 | 3.40 | 3.18 | 2.99 |
| ZNF568 | 2.63 | 1.70 | 1.99 | 1.78 | 1.70 | 2.10 | 2.61 | 1.61 |
| ZNF569 | 1.46 | 0.85 | 0.88 | 0.90 | 1.01 | 1.22 | 1.15 | 0.97 |
| ZNF57 | 2.46 | 2.86 | 2.91 | 2.65 | 3.12 | 3.28 | 3.38 | 2.99 |
| ZNF570 | 3.03 | 1.87 | 2.17 | 2.04 | 2.10 | 2.64 | 2.85 | 1.88 |
| ZNF571 | 1.83 | 1.48 | 1.79 | 1.63 | 1.62 | 1.68 | 1.86 | 1.28 |
| ZNF571-AS1 | -2.02 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| ZNF572 | 0.05 | -0.02 | 0.81 | 0.18 | 0.10 | 0.02 | -0.04 | -0.08 |
| ZNF573 | 1.68 | 1.18 | 1.41 | 1.27 | 1.35 | 1.26 | 1.50 | 1.33 |
| ZNF574 | 4.06 | 3.68 | 3.65 | 3.85 | 4.02 | 3.46 | 3.25 | 3.77 |
| ZNF575 | 1.03 | 0.99 | 0.80 | 1.11 | 1.00 | 0.85 | 0.86 | 1.15 |
| ZNF576 | 4.91 | 4.82 | 4.25 | 4.98 | 4.88 | 4.59 | 4.08 | 4.50 |
| ZNF577 | 2.24 | 1.62 | 2.32 | 1.43 | 1.87 | 2.26 | 2.18 | 1.97 |
| ZNF578 | 0.06 | -0.64 | -0.53 | -0.65 | -0.60 | -0.66 | -0.65 | -0.67 |
| ZNF579 | 4.06 | 3.45 | 4.19 | 3.81 | 4.36 | 4.03 | 4.02 | 3.98 |
| ZNF580 | 5.13 | 4.68 | 4.39 | 4.70 | 5.21 | 4.92 | 4.18 | 4.24 |
| ZNF581 | 5.28 | 4.94 | 4.28 | 4.98 | 5.23 | 4.89 | 4.37 | 4.74 |
| ZNF582 | 1.38 | 0.67 | 1.05 | 0.73 | 0.76 | 0.67 | 1.06 | 0.67 |
| ZNF582-AS1 | -0.27 | -0.50 | -0.39 | -0.50 | -0.50 | -0.48 | -0.43 | -0.46 |
| ZNF583 | 2.02 | 1.26 | 1.85 | 1.14 | 1.29 | 1.81 | 1.82 | 1.49 |
| ZNF584 | 3.11 | 2.94 | 2.76 | 3.26 | 3.52 | 2.93 | 3.01 | 2.93 |
| ZNF585A | 2.50 | 2.10 | 2.94 | 1.97 | 1.95 | 2.66 | 2.76 | 2.09 |
| ZNF585B | 2.52 | 2.03 | 2.35 | 2.08 | 1.78 | 2.34 | 2.38 | 2.12 |
| ZNF586 | 2.19 | 1.99 | 1.72 | 1.71 | 2.72 | 2.14 | 2.15 | 2.55 |
| ZNF587 | 3.60 | 3.62 | 3.90 | 3.60 | 3.77 | 3.77 | 3.88 | 3.98 |
| ZNF587B | 2.95 | 2.60 | 2.72 | 2.55 | 3.02 | 2.41 | 2.88 | 2.93 |
| ZNF589 | 1.72 | 1.59 | 1.54 | 1.66 | 1.83 | 1.63 | 1.88 | 1.38 |
| ZNF592 | 3.65 | 3.62 | 3.91 | 3.71 | 3.50 | 3.45 | 3.47 | 3.34 |
| ZNF593 | 5.84 | 5.66 | 5.67 | 5.84 | 6.62 | 6.20 | 5.39 | 5.81 |
| ZNF594 | 1.14 | 0.77 | 0.85 | 0.82 | 0.84 | 0.84 | 0.99 | 0.69 |
| ZNF595 | 3.20 | 2.73 | 2.82 | 2.57 | 2.52 | 3.10 | 2.76 | 3.19 |
| ZNF596 | 0.27 | 0.24 | 0.01 | 0.14 | 0.16 | 0.11 | 0.20 | 0.02 |
| ZNF597 | 2.39 | 2.14 | 2.40 | 2.52 | 2.21 | 2.40 | 2.22 | 3.08 |
| ZNF598 | 4.98 | 4.83 | 4.97 | 4.85 | 4.17 | 4.58 | 4.77 | 4.81 |
| ZNF599 | 4.03 | 3.02 | 2.97 | 3.06 | 4.43 | 3.52 | 3.30 | 3.06 |
| ZNF600 | 3.20 | 2.81 | 2.93 | 2.37 | 2.44 | 2.86 | 3.67 | 3.25 |
| ZNF603P | -2.20 | -2.20 | -2.19 | -2.18 | -2.20 | -2.19 | -2.18 | -2.21 |
| ZNF605 | 3.26 | 3.72 | 3.60 | 3.76 | 3.40 | 3.60 | 4.29 | 3.78 |
| ZNF606 | 2.58 | 2.41 | 2.78 | 2.51 | 2.38 | 2.54 | 2.69 | 2.69 |
| ZNF607 | 1.51 | 1.68 | 1.93 | 1.69 | 1.50 | 1.88 | 2.03 | 1.49 |
| ZNF608 | 2.86 | 3.98 | 4.02 | 3.81 | 4.05 | 3.55 | 3.97 | 2.65 |
| ZNF609 | 4.91 | 4.81 | 5.77 | 5.03 | 4.95 | 4.94 | 4.96 | 4.81 |
| ZNF610 | 0.67 | 0.28 | 0.57 | 0.35 | 0.36 | 0.29 | 0.26 | 0.23 |
| ZNF611 | 2.82 | 2.72 | 3.20 | 2.42 | 2.26 | 2.70 | 3.07 | 2.64 |
| ZNF613 | 1.82 | 1.58 | 1.79 | 1.32 | 1.77 | 1.58 | 1.56 | 1.88 |
| ZNF614 | 2.63 | 2.06 | 2.67 | 2.07 | 2.43 | 2.62 | 2.72 | 2.57 |
| ZNF615 | 2.14 | 1.62 | 1.85 | 1.42 | 1.63 | 1.92 | 2.30 | 1.78 |
| ZNF616 | 3.47 | 2.26 | 3.48 | 2.63 | 3.15 | 2.79 | 3.03 | 3.10 |
| ZNF618 | 2.58 | 2.34 | 2.22 | 2.04 | 2.15 | 1.98 | 2.64 | 1.97 |
| ZNF619 | 1.46 | 1.37 | 1.62 | 1.46 | 1.28 | 1.25 | 1.37 | 1.16 |
| ZNF620 | 3.17 | 2.34 | 2.38 | 3.07 | 2.89 | 2.55 | 2.56 | 1.94 |
| ZNF621 | 3.54 | 3.69 | 3.91 | 3.68 | 3.47 | 3.59 | 4.34 | 3.47 |
| ZNF622 | 6.47 | 5.89 | 5.83 | 5.80 | 6.18 | 5.67 | 5.31 | 6.00 |
| ZNF623 | 3.79 | 3.74 | 4.14 | 3.48 | 3.61 | 3.83 | 3.95 | 4.14 |
| ZNF624 | 1.43 | 1.31 | 1.30 | 1.42 | 1.38 | 1.31 | 1.21 | 1.41 |
| ZNF626 | 3.00 | 2.12 | 3.80 | 1.90 | 2.12 | 2.00 | 3.11 | 1.84 |
| ZNF627 | 2.06 | 2.36 | 2.43 | 2.34 | 2.46 | 2.39 | 2.37 | 2.25 |
| ZNF628 | 2.62 | 2.77 | 3.03 | 2.62 | 2.45 | 2.72 | 2.64 | 2.67 |
| ZNF629 | 4.65 | 4.56 | 4.68 | 4.51 | 4.23 | 4.32 | 4.30 | 4.29 |
| ZNF630 | 0.70 | 0.92 | 0.88 | 0.88 | 0.72 | 0.71 | 0.81 | 0.68 |
| ZNF638 | 5.92 | 6.18 | 6.28 | 6.16 | 6.54 | 6.00 | 6.59 | 5.77 |
| ZNF639 | 5.66 | 4.98 | 5.26 | 5.27 | 5.30 | 4.59 | 4.74 | 5.81 |
| ZNF641 | 2.57 | 2.67 | 2.66 | 2.82 | 2.44 | 2.60 | 2.60 | 2.68 |
| ZNF644 | 6.36 | 6.27 | 6.04 | 6.30 | 6.01 | 6.27 | 6.23 | 6.10 |
| ZNF646 | 3.43 | 3.28 | 3.50 | 2.95 | 3.11 | 3.14 | 3.12 | 3.50 |
| ZNF649 | 3.36 | 2.38 | 3.24 | 2.29 | 2.53 | 3.02 | 3.26 | 3.41 |
| ZNF649-AS1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| ZNF652 | 5.93 | 6.17 | 5.68 | 5.97 | 5.88 | 5.58 | 6.24 | 6.22 |
| ZNF653 | 1.73 | 1.88 | 1.90 | 2.27 | 1.78 | 1.84 | 2.06 | 1.72 |
| ZNF654 | 3.42 | 4.50 | 4.35 | 3.93 | 3.91 | 3.85 | 4.25 | 3.96 |
| ZNF655 | 4.69 | 4.99 | 4.38 | 5.02 | 5.73 | 5.18 | 5.35 | 5.14 |
| ZNF658 | 0.35 | 0.58 | 0.32 | 0.47 | 0.36 | 0.41 | 0.53 | 0.23 |
| ZNF658B | -1.09 | -1.16 | -1.15 | -1.17 | -0.98 | -1.05 | -1.10 | -1.18 |
| ZNF66 | 0.19 | -0.10 | 0.19 | -0.04 | -0.10 | 0.08 | 0.30 | -0.13 |
| ZNF660 | -0.75 | -1.14 | -1.06 | -1.15 | -1.07 | -1.16 | -1.16 | -1.17 |
| ZNF662 | 1.91 | 1.57 | 1.42 | 1.39 | 2.08 | 1.46 | 1.29 | 1.22 |
| ZNF663P | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 | -2.31 |
| ZNF664 | 5.45 | 5.97 | 6.51 | 6.09 | 6.04 | 5.78 | 6.35 | 6.08 |

| | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ZNF665 | 1.04 | 0.24 | 0.89 | 0.31 | 0.24 | 0.50 | 0.22 | 0.68 |
| ZNF667 | -1.38 | -1.44 | -1.43 | -1.45 | -1.41 | -1.46 | -1.39 | -1.46 |
| ZNF667-AS1 | -0.46 | -0.45 | -0.44 | -0.39 | -0.45 | -0.43 | -0.25 | -0.42 |
| ZNF668 | 4.01 | 4.15 | 3.42 | 3.83 | 3.73 | 3.58 | 3.05 | 4.10 |
| ZNF669 | 2.19 | 1.97 | 1.85 | 1.91 | 2.04 | 2.55 | 1.95 | 1.97 |
| ZNF670 | 2.41 | 1.75 | 1.63 | 1.74 | 1.99 | 2.19 | 1.74 | 1.96 |
| ZNF670-ZNF695 | -1.79 | -1.78 | -1.78 | -1.79 | -1.79 | -1.80 | -1.79 | -1.81 |
| ZNF671 | 0.74 | 0.12 | 0.14 | 0.11 | 0.16 | 0.17 | 0.32 | 0.08 |
| ZNF672 | 4.72 | 4.54 | 4.09 | 4.43 | 4.70 | 4.03 | 4.31 | 4.24 |
| ZNF674 | 1.16 | 1.12 | 1.21 | 1.09 | 1.23 | 1.10 | 1.20 | 1.31 |
| ZNF674-AS1 | 2.24 | 1.89 | 2.24 | 2.36 | 2.64 | 2.19 | 2.00 | 2.18 |
| ZNF675 | 2.99 | 2.87 | 3.12 | 2.97 | 2.60 | 3.20 | 3.47 | 3.37 |
| ZNF676 | -2.01 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| ZNF677 | 3.97 | 1.87 | 3.58 | 1.81 | 1.98 | 1.91 | 2.42 | 1.87 |
| ZNF678 | 3.09 | 2.99 | 3.09 | 2.86 | 2.81 | 3.07 | 3.28 | 2.78 |
| ZNF680 | 4.30 | 3.80 | 4.08 | 3.48 | 3.59 | 3.73 | 4.56 | 4.46 |
| ZNF680P1 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ZNF681 | 2.08 | 1.42 | 2.37 | 1.30 | 1.50 | 1.31 | 2.32 | 1.87 |
| ZNF682 | 1.71 | 0.90 | 1.64 | 0.79 | 0.89 | 0.81 | 1.57 | 0.87 |
| ZNF684 | 2.55 | 2.62 | 2.10 | 2.80 | 3.35 | 2.65 | 2.77 | 2.67 |
| ZNF687 | 2.92 | 2.66 | 3.16 | 2.80 | 2.97 | 3.12 | 2.82 | 3.10 |
| ZNF687-AS1 | 3.00 | 2.35 | 2.37 | 2.02 | 3.00 | 2.37 | 2.19 | 3.27 |
| ZNF688 | 4.40 | 4.68 | 4.54 | 4.63 | 4.73 | 4.21 | 4.25 | 4.28 |
| ZNF689 | 2.81 | 3.26 | 3.13 | 3.03 | 3.02 | 2.72 | 3.66 | 2.80 |
| ZNF69 | 2.19 | 1.62 | 2.43 | 1.92 | 2.15 | 2.62 | 2.65 | 2.13 |
| ZNF691 | 3.04 | 3.36 | 2.91 | 2.90 | 3.36 | 2.99 | 2.78 | 2.96 |
| ZNF692 | 4.01 | 3.69 | 3.67 | 3.97 | 4.15 | 3.91 | 4.69 | 4.07 |
| ZNF695 | 1.22 | 0.68 | 0.63 | 0.55 | 0.42 | 0.85 | 0.48 | 0.62 |
| ZNF696 | 1.91 | 1.70 | 2.35 | 1.83 | 2.01 | 1.90 | 1.76 | 1.79 |
| ZNF697 | 1.83 | 1.92 | 1.65 | 1.60 | 1.68 | 2.64 | 1.53 | 1.65 |
| ZNF699 | 1.24 | 0.78 | 1.11 | 1.10 | 0.96 | 1.27 | 1.00 | 1.17 |
| ZNF7 | 4.66 | 4.07 | 4.53 | 4.44 | 4.47 | 4.43 | 4.40 | 4.50 |
| ZNF70 | 1.78 | 1.79 | 1.90 | 1.76 | 1.72 | 1.67 | 1.71 | 1.84 |
| ZNF700 | 2.54 | 2.36 | 2.65 | 2.66 | 2.65 | 2.73 | 3.18 | 2.75 |
| ZNF701 | 3.42 | 2.68 | 3.86 | 2.76 | 2.42 | 2.77 | 3.62 | 2.56 |
| ZNF702P | 1.17 | 1.11 | 2.23 | 1.08 | 1.11 | 1.98 | 1.68 | 1.81 |
| ZNF703 | 6.75 | 7.83 | 6.22 | 7.65 | 5.01 | 6.98 | 5.17 | 6.07 |
| ZNF704 | 3.34 | 3.94 | 4.86 | 3.75 | 4.55 | 2.85 | 5.34 | 3.43 |
| ZNF705E | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.29 | -2.30 | -2.31 |
| ZNF706 | 8.07 | 7.31 | 7.79 | 7.60 | 8.02 | 8.20 | 7.32 | 7.77 |
| ZNF707 | 1.51 | 1.47 | 1.86 | 1.74 | 1.63 | 1.93 | 1.78 | 1.84 |
| ZNF708 | 2.21 | 2.15 | 2.77 | 2.13 | 2.07 | 2.72 | 2.87 | 2.44 |
| ZNF709 | -1.25 | -1.24 | -1.23 | -1.25 | -1.24 | -1.16 | -1.06 | -1.26 |
| ZNF71 | 3.21 | 1.86 | 1.84 | 1.57 | 1.65 | 2.37 | 2.34 | 1.73 |
| ZNF710 | 3.02 | 2.74 | 3.32 | 3.05 | 3.08 | 3.00 | 3.11 | 3.39 |
| ZNF710-AS1 | 0.71 | 0.81 | 1.04 | 0.62 | 0.80 | 0.92 | 1.18 | 0.93 |
| ZNF711 | 0.17 | 0.18 | 0.67 | 0.24 | 0.48 | 0.53 | 0.24 | 0.32 |
| ZNF713 | 0.29 | 0.38 | 0.37 | 0.32 | 0.33 | 0.38 | 0.46 | 0.53 |
| ZNF714 | 3.49 | 4.24 | 4.51 | 4.35 | 3.68 | 4.71 | 4.49 | 4.22 |
| ZNF716 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ZNF717 | 3.18 | 3.21 | 3.49 | 2.98 | 2.51 | 3.13 | 3.29 | 2.69 |
| ZNF718 | 2.40 | 2.50 | 2.60 | 2.08 | 1.85 | 2.25 | 2.96 | 1.87 |
| ZNF720 | 4.54 | 4.70 | 4.63 | 4.82 | 5.05 | 5.03 | 5.19 | 5.33 |
| ZNF721 | 3.75 | 4.66 | 4.70 | 4.66 | 4.15 | 4.66 | 5.26 | 4.97 |
| ZNF723 | -2.25 | -2.25 | -2.25 | -2.25 | -2.25 | -2.26 | -2.25 | -2.26 |
| ZNF724 | 0.62 | 0.47 | 0.80 | 0.45 | 0.51 | 1.13 | 1.18 | 0.65 |
| ZNF726 | 1.37 | 0.70 | 0.72 | 0.68 | 0.74 | 0.66 | 1.08 | 0.82 |
| ZNF727 | -2.25 | -2.25 | -2.23 | -2.25 | -2.25 | -2.26 | -2.23 | -2.26 |
| ZNF732 | -1.54 | -1.53 | -1.52 | -1.48 | -1.53 | -1.55 | -1.25 | -1.56 |
| ZNF736 | 2.65 | 1.90 | 2.66 | 1.70 | 1.99 | 2.22 | 2.52 | 2.17 |
| ZNF736P9Y | -0.92 | -0.99 | -0.98 | -1.00 | -0.99 | -1.00 | -1.00 | -1.01 |
| ZNF738 | 2.39 | 2.38 | 3.45 | 2.13 | 2.26 | 3.14 | 2.86 | 2.70 |
| ZNF74 | 2.82 | 2.51 | 2.59 | 2.60 | 2.31 | 2.39 | 2.45 | 2.72 |
| ZNF740 | 3.66 | 3.43 | 4.21 | 3.82 | 3.38 | 3.93 | 3.71 | 3.83 |
| ZNF746 | 3.91 | 4.15 | 3.95 | 4.21 | 3.98 | 3.75 | 4.01 | 3.57 |
| ZNF747 | 2.68 | 2.96 | 2.84 | 2.94 | 2.71 | 2.64 | 2.91 | 2.86 |
| ZNF749 | 0.81 | 0.70 | 0.88 | 0.60 | 0.66 | 0.78 | 0.66 | 0.48 |
| ZNF750 | -2.20 | -2.18 | -2.19 | -2.20 | -2.19 | -2.20 | -2.20 | -2.19 |
| ZNF75A | 4.75 | 3.89 | 3.84 | 4.58 | 3.23 | 3.62 | 3.71 | 2.99 |
| ZNF75D | 2.48 | 2.44 | 2.89 | 2.25 | 2.30 | 2.93 | 2.71 | 3.02 |
| ZNF76 | 3.57 | 3.32 | 3.72 | 3.46 | 3.00 | 3.78 | 3.40 | 3.94 |
| ZNF761 | 2.86 | 2.49 | 2.61 | 2.48 | 1.96 | 2.51 | 2.80 | 2.54 |
| ZNF763 | -1.08 | -1.07 | -0.99 | -1.16 | -1.11 | -1.10 | -1.16 | -1.11 |
| ZNF764 | 2.69 | 2.48 | 2.40 | 2.44 | 2.58 | 2.28 | 2.12 | 2.48 |
| ZNF765 | 3.30 | 2.94 | 3.32 | 3.09 | 3.29 | 2.95 | 3.54 | 2.96 |
| ZNF766 | 4.99 | 4.02 | 4.39 | 4.01 | 4.46 | 4.33 | 4.24 | 4.70 |
| ZNF767P | 0.75 | 0.62 | 0.87 | 0.86 | 0.84 | 0.76 | 1.12 | 0.67 |
| ZNF768 | 5.08 | 5.04 | 5.42 | 4.82 | 4.61 | 4.74 | 4.70 | 4.75 |
| ZNF77 | 2.56 | 1.79 | 1.92 | 2.11 | 2.36 | 2.44 | 2.16 | 2.64 |
| ZNF770 | 6.15 | 6.11 | 5.76 | 5.97 | 5.98 | 5.78 | 6.01 | 6.20 |
| ZNF771 | 4.74 | 3.83 | 3.32 | 3.87 | 3.68 | 3.78 | 3.40 | 3.41 |
| ZNF772 | 2.18 | 1.77 | 1.90 | 1.87 | 1.80 | 1.63 | 2.12 | 2.01 |
| ZNF773 | 2.32 | 1.66 | 2.02 | 1.54 | 1.76 | 1.86 | 1.85 | 2.19 |
| ZNF774 | 2.54 | 1.86 | 2.22 | 2.06 | 2.20 | 2.07 | 2.37 | 1.64 |
| ZNF775 | 2.98 | 2.38 | 2.49 | 2.44 | 2.91 | 2.81 | 2.37 | 2.35 |
| ZNF776 | 2.67 | 2.40 | 3.05 | 2.27 | 2.59 | 2.56 | 2.74 | 2.42 |
| ZNF777 | 2.88 | 3.65 | 3.48 | 3.44 | 3.61 | 3.34 | 3.54 | 3.45 |
| ZNF778 | 2.81 | 2.30 | 2.50 | 2.29 | 2.74 | 2.55 | 2.51 | 2.68 |
| ZNF780A | 3.92 | 3.82 | 3.60 | 3.45 | 4.43 | 3.82 | 4.01 | 3.58 |
| ZNF780B | 3.51 | 3.00 | 3.56 | 3.24 | 3.39 | 2.83 | 3.18 | 2.64 |
| ZNF781 | -1.72 | -1.80 | -1.83 | -1.84 | -1.84 | -1.85 | -1.76 | -1.86 |
| ZNF782 | 1.57 | 1.90 | 1.66 | 1.86 | 1.46 | 1.53 | 1.71 | 1.75 |
| ZNF783 | 1.07 | 1.85 | 1.24 | 1.49 | 1.28 | 1.16 | 1.07 | 1.11 |
| ZNF784 | 2.81 | 2.55 | 2.71 | 2.57 | 2.65 | 2.42 | 2.79 | 2.28 |

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|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| ZNF785 | 1.94 | 2.52 | 2.42 | 2.76 | 2.47 | 2.39 | 2.53 | 2.53 |
| ZNF786 | 2.14 | 2.45 | 1.95 | 1.89 | 2.31 | 2.21 | 1.78 | 2.08 |
| ZNF787 | 5.75 | 5.19 | 4.75 | 5.39 | 5.64 | 4.72 | 4.82 | 5.18 |
| ZNF788P | -2.01 | -2.04 | -2.04 | -2.05 | -2.04 | -2.05 | -2.05 | -2.06 |
| ZNF789 | 3.16 | 2.50 | 2.64 | 2.98 | 2.99 | 2.45 | 2.92 | 2.28 |
| ZNF79 | 2.06 | 1.93 | 1.54 | 1.92 | 1.53 | 1.72 | 1.38 | 1.23 |
| ZNF790 | 2.95 | 2.09 | 2.73 | 1.95 | 2.12 | 2.73 | 2.78 | 2.01 |
| ZNF790-AS1 | 3.06 | 2.08 | 2.49 | 1.80 | 2.00 | 1.87 | 2.10 | 1.85 |
| ZNF791 | 4.37 | 4.47 | 5.10 | 4.34 | 4.54 | 4.62 | 5.24 | 4.52 |
| ZNF792 | 1.43 | 1.63 | 1.29 | 1.39 | 1.51 | 1.36 | 1.79 | 1.29 |
| ZNF793 | 1.77 | 1.37 | 1.32 | 1.39 | 1.32 | 1.32 | 2.04 | 1.23 |
| ZNF793-AS1 | 1.00 | 0.43 | 0.36 | 0.41 | 0.39 | 0.39 | 0.47 | 0.43 |
| ZNF799 | 1.79 | 1.72 | 2.00 | 1.67 | 1.68 | 1.61 | 1.75 | 1.52 |
| ZNF8 | 3.21 | 3.08 | 3.10 | 2.61 | 2.93 | 2.82 | 2.82 | 3.26 |
| ZNF800 | 4.60 | 5.40 | 5.06 | 5.47 | 5.36 | 5.07 | 5.54 | 5.32 |
| ZNF805 | 2.62 | 1.98 | 1.98 | 2.04 | 2.37 | 2.09 | 2.02 | 2.53 |
| ZNF807 | -2.30 | -2.30 | -2.30 | -2.30 | -2.29 | -2.31 | -2.31 | -2.31 |
| ZNF808 | 3.01 | 2.96 | 2.84 | 2.51 | 2.16 | 2.57 | 3.32 | 2.90 |
| ZNF81 | 2.76 | 2.28 | 2.25 | 1.98 | 2.01 | 2.04 | 2.03 | 1.84 |
| ZNF813 | 2.74 | 2.18 | 2.52 | 1.83 | 1.92 | 1.85 | 2.91 | 3.17 |
| ZNF814 | 2.45 | 2.12 | 2.46 | 2.11 | 2.59 | 2.02 | 2.89 | 2.66 |
| ZNF815P | -0.41 | -0.39 | -0.46 | -0.33 | -0.17 | -0.45 | -0.34 | -0.08 |
| ZNF816 | 2.57 | 2.22 | 2.30 | 1.97 | 1.79 | 2.57 | 2.27 | 2.70 |
| ZNF821 | 2.46 | 2.79 | 2.66 | 2.24 | 2.76 | 2.77 | 2.83 | 2.62 |
| ZNF823 | 2.71 | 2.22 | 2.65 | 2.75 | 2.76 | 2.73 | 2.72 | 2.11 |
| ZNF826P | 3.10 | 2.14 | 3.55 | 2.09 | 2.11 | 3.10 | 2.96 | 2.05 |
| ZNF827 | 3.57 | 4.96 | 4.69 | 4.73 | 3.16 | 4.86 | 4.16 | 5.01 |
| ZNF829 | 2.32 | 1.52 | 1.50 | 1.32 | 1.44 | 1.43 | 2.02 | 1.24 |
| ZNF83 | 4.43 | 2.97 | 4.61 | 2.92 | 3.34 | 3.44 | 4.55 | 4.36 |
| ZNF830 | 5.35 | 5.47 | 4.90 | 5.33 | 5.34 | 5.27 | 4.98 | 5.08 |
| ZNF835 | -2.20 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.18 | -2.21 |
| ZNF836 | 1.50 | 1.41 | 1.86 | 1.15 | 1.82 | 1.50 | 1.48 | 1.31 |
| ZNF837 | 2.53 | 2.34 | 2.23 | 2.44 | 2.88 | 2.63 | 2.77 | 2.86 |
| ZNF839 | 2.25 | 2.77 | 3.06 | 2.63 | 2.98 | 3.09 | 3.47 | 2.59 |
| ZNF839P1 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| ZNF84 | 3.37 | 3.81 | 4.34 | 3.49 | 3.53 | 3.70 | 4.13 | 3.35 |
| ZNF841 | 2.06 | 1.69 | 1.95 | 1.57 | 1.98 | 1.94 | 2.13 | 2.19 |
| ZNF843 | -1.51 | -1.50 | -1.49 | -1.45 | -1.50 | -1.49 | -1.45 | -1.47 |
| ZNF844 | 0.29 | 0.22 | 0.23 | 0.36 | 0.22 | 0.55 | 0.42 | 0.24 |
| ZNF845 | 2.58 | 2.05 | 2.73 | 2.40 | 2.18 | 2.31 | 2.69 | 2.34 |
| ZNF846 | 2.71 | 2.61 | 2.39 | 2.96 | 3.45 | 2.82 | 2.60 | 2.87 |
| ZNF85 | 2.05 | 1.37 | 2.27 | 1.34 | 1.41 | 2.05 | 1.85 | 1.92 |
| ZNF850 | 2.73 | 1.74 | 2.07 | 1.52 | 1.87 | 2.05 | 1.99 | 1.72 |
| ZNF852 | 1.10 | 0.92 | 0.86 | 1.08 | 1.14 | 0.89 | 0.88 | 1.04 |
| ZNF853 | 0.53 | -0.03 | 0.07 | 0.19 | 0.01 | -0.02 | -0.05 | -0.01 |
| ZNF860 | 1.57 | 1.40 | 1.60 | 1.92 | 1.00 | 1.31 | 0.93 | 1.21 |
| ZNF862 | 1.75 | 1.97 | 2.10 | 1.85 | 1.73 | 1.77 | 2.04 | 1.96 |
| ZNF863P | -2.30 | -2.30 | -2.29 | -2.30 | -2.30 | -2.31 | -2.31 | -2.31 |
| ZNF865 | 1.80 | 2.13 | 2.37 | 1.94 | 2.06 | 1.98 | 2.18 | 2.18 |
| ZNF875 | 3.20 | 3.02 | 2.56 | 2.71 | 2.79 | 3.17 | 3.66 | 3.02 |
| ZNF876P | -0.04 | -0.11 | 0.00 | -0.21 | -0.15 | -0.01 | 0.36 | -0.04 |
| ZNF878 | -1.45 | -1.39 | -1.44 | -1.46 | -1.39 | -1.38 | -1.29 | -1.47 |
| ZNF879 | 0.94 | 1.01 | 0.98 | 0.96 | 0.69 | 0.78 | 1.09 | 0.59 |
| ZNF880 | 5.11 | 3.15 | 5.15 | 3.43 | 2.92 | 4.69 | 4.98 | 4.25 |
| ZNF887P | -0.97 | -1.10 | -1.08 | -1.04 | -0.99 | -0.92 | -1.04 | -1.06 |
| ZNF888 | 2.15 | 2.32 | 2.60 | 1.99 | 1.94 | 2.76 | 3.12 | 2.70 |
| ZNF890P | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.36 | -2.36 |
| ZNF891 | 2.42 | 2.22 | 2.44 | 2.38 | 2.09 | 2.11 | 2.40 | 1.93 |
| ZNF90 | 1.85 | 1.17 | 1.77 | 1.13 | 1.19 | 1.22 | 1.58 | 0.91 |
| ZNF91 | 3.96 | 3.49 | 4.72 | 3.27 | 2.86 | 4.32 | 4.96 | 4.06 |
| ZNF92 | 4.22 | 3.77 | 3.76 | 3.53 | 4.19 | 3.95 | 4.23 | 4.00 |
| ZNF93 | 1.97 | 1.26 | 2.38 | 1.23 | 1.37 | 2.32 | 1.71 | 1.16 |
| ZNF98 | -2.30 | -2.30 | -2.30 | -2.30 | -2.30 | -2.31 | -2.29 | -2.31 |
| ZNFX1 | 6.50 | 5.48 | 6.13 | 5.41 | 5.21 | 5.72 | 5.86 | 5.64 |
| ZNHIT1 | 8.25 | 8.70 | 7.78 | 8.98 | 9.01 | 8.51 | 8.59 | 9.17 |
| ZNHIT1P1 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| ZNHIT2 | 5.12 | 4.33 | 4.84 | 4.28 | 4.92 | 5.09 | 4.33 | 5.41 |
| ZNHIT3 | 7.12 | 6.06 | 5.99 | 6.24 | 6.98 | 6.80 | 5.95 | 7.19 |
| ZNHIT6 | 4.94 | 4.88 | 4.31 | 4.91 | 4.91 | 4.88 | 4.35 | 4.26 |
| ZNRD1 | 6.23 | 5.39 | 5.69 | 5.37 | 6.53 | 6.75 | 5.50 | 6.92 |
| ZNRD1ASP | 2.20 | 1.90 | 1.95 | 1.80 | 1.75 | 2.12 | 2.07 | 2.09 |
| ZNRD2 | 6.54 | 5.22 | 6.17 | 5.38 | 6.67 | 6.25 | 5.63 | 7.09 |
| ZNRF1 | 6.03 | 6.02 | 6.12 | 6.19 | 6.79 | 6.60 | 5.66 | 6.49 |
| ZNRF2 | 4.53 | 4.41 | 3.92 | 4.35 | 4.40 | 3.94 | 4.13 | 4.35 |
| ZNRF2P1 | -0.96 | -0.95 | -0.87 | -1.03 | -0.92 | -0.94 | -1.03 | -0.93 |
| ZNRF2P2 | -2.10 | -2.09 | -2.09 | -2.10 | -2.09 | -2.10 | -2.10 | -2.11 |
| ZNRF3 | 4.87 | 5.00 | 4.09 | 4.23 | 4.29 | 4.43 | 5.55 | 4.10 |
| ZNRF3-AS1 | 1.78 | 1.43 | 1.23 | 1.35 | 1.17 | 1.29 | 1.11 | 1.38 |
| ZNRF3-IT1 | -2.20 | -2.20 | -2.19 | -2.20 | -2.18 | -2.19 | -2.20 | -2.21 |
| ZP3 | 1.45 | 1.40 | 1.28 | 1.52 | 1.53 | 1.59 | 1.47 | 1.58 |
| ZPBP | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.36 | -2.35 | -2.36 |
| ZPBP2 | -2.30 | -2.29 | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 |
| ZPLD1 | -0.38 | -0.37 | -0.36 | -0.38 | -0.28 | -0.39 | -0.31 | -0.40 |
| ZPR1 | 6.44 | 5.86 | 5.80 | 5.83 | 6.57 | 6.01 | 5.41 | 6.39 |
| ZRANB1 | 4.91 | 4.62 | 4.78 | 4.59 | 5.04 | 5.06 | 4.90 | 4.78 |
| ZRANB2 | 6.68 | 6.96 | 6.69 | 7.10 | 7.14 | 6.86 | 7.06 | 6.94 |
| ZRANB2-AS1 | -2.10 | -2.09 | -2.09 | -2.10 | -2.07 | -2.09 | -2.10 | -2.11 |
| ZRANB2-AS2 | -1.22 | -1.21 | -1.06 | -1.22 | -1.22 | -1.11 | -1.23 | -1.02 |
| ZRANB3 | 2.79 | 2.84 | 2.60 | 2.76 | 2.76 | 2.97 | 2.78 | 2.79 |
| ZRSR2 | 5.79 | 4.92 | 5.60 | 4.99 | 5.16 | 4.79 | 5.16 | 4.20 |
| ZSCAN12 | 2.13 | 1.72 | 1.76 | 1.67 | 1.89 | 2.01 | 2.12 | 1.88 |
| ZSCAN12P1 | -0.96 | -1.04 | -0.94 | -1.05 | -1.00 | -0.86 | -0.97 | -1.06 |
| ZSCAN16 | 4.16 | 3.27 | 3.09 | 3.54 | 3.35 | 3.95 | 3.23 | 3.56 |
| ZSCAN16-AS1 | 4.43 | 3.83 | 3.51 | 4.06 | 4.53 | 4.92 | 3.57 | 4.12 |

| | | | | | | | | |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| ZSCAN18 | 3.36 | 1.76 | 1.82 | 1.98 | 1.75 | 1.83 | 2.22 | 1.72 |
| ZSCAN2 | 2.67 | 2.17 | 2.54 | 2.15 | 2.61 | 2.51 | 2.39 | 2.46 |
| ZSCAN20 | 0.33 | 0.49 | 0.81 | 0.40 | 0.53 | 0.58 | 0.70 | 0.47 |
| ZSCAN21 | 3.22 | 2.88 | 3.08 | 2.99 | 3.74 | 2.97 | 2.92 | 2.94 |
| ZSCAN22 | 1.11 | 1.02 | 1.31 | 0.98 | 1.19 | 1.11 | 0.98 | 1.02 |
| ZSCAN23 | -1.06 | -1.21 | -1.19 | -1.22 | -1.13 | -1.23 | -1.22 | -1.23 |
| ZSCAN25 | 2.31 | 2.46 | 2.32 | 2.22 | 2.60 | 2.37 | 2.54 | 2.39 |
| ZSCAN26 | 2.04 | 1.49 | 1.74 | 1.89 | 1.85 | 1.73 | 1.52 | 1.69 |
| ZSCAN29 | 3.64 | 3.35 | 3.80 | 3.52 | 3.71 | 3.57 | 3.90 | 3.80 |
| ZSCAN30 | 2.27 | 2.25 | 2.70 | 2.16 | 2.56 | 2.95 | 2.94 | 2.22 |
| ZSCAN31 | 2.07 | 1.63 | 1.67 | 2.20 | 1.83 | 1.77 | 1.56 | 3.10 |
| ZSCAN32 | 3.81 | 3.25 | 3.30 | 3.56 | 3.25 | 3.35 | 3.19 | 3.92 |
| ZSCAN4 | -2.18 | -2.20 | -2.19 | -2.20 | -2.20 | -2.20 | -2.20 | -2.19 |
| ZSCAN5A | 2.52 | 2.21 | 2.31 | 2.48 | 2.32 | 2.10 | 2.20 | 2.07 |
| ZSCAN5B | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 | -2.35 | -2.36 | -2.36 |
| ZSCAN9 | 2.86 | 2.46 | 2.29 | 2.48 | 2.25 | 2.92 | 2.36 | 3.34 |
| ZSWIM1 | 4.21 | 3.49 | 3.59 | 3.71 | 3.55 | 3.56 | 3.80 | 3.27 |
| ZSWIM3 | 1.60 | 1.15 | 1.39 | 1.32 | 1.26 | 1.15 | 1.41 | 1.45 |
| ZSWIM4 | 2.98 | 2.76 | 3.77 | 2.40 | 2.99 | 2.82 | 3.21 | 3.31 |
| ZSWIM5 | 0.17 | -0.03 | -0.01 | 0.30 | 0.24 | 0.15 | 0.03 | 0.00 |
| ZSWIM6 | 3.69 | 4.70 | 5.09 | 4.55 | 4.73 | 4.51 | 5.26 | 4.10 |
| ZSWIM7 | 5.80 | 4.79 | 4.55 | 4.73 | 5.38 | 5.03 | 5.11 | 4.54 |
| ZSWIM8 | 3.88 | 4.42 | 4.65 | 4.38 | 4.23 | 4.09 | 4.66 | 3.78 |
| ZSWIM9 | 3.82 | 3.51 | 4.30 | 3.66 | 3.97 | 3.60 | 3.64 | 3.60 |
| ZUP1 | 4.71 | 3.92 | 3.84 | 3.85 | 4.02 | 4.26 | 4.36 | 4.26 |
| ZW10 | 3.77 | 3.86 | 4.18 | 3.80 | 3.79 | 3.66 | 4.14 | 3.96 |
| ZWILCH | 5.62 | 5.59 | 5.33 | 5.56 | 4.63 | 5.36 | 5.35 | 5.17 |
| ZWINT | 6.97 | 6.39 | 6.43 | 6.57 | 6.16 | 6.70 | 6.12 | 5.80 |
| ZXDA | -0.38 | -0.29 | -0.02 | -0.30 | -0.14 | -0.11 | -0.38 | -0.40 |
| ZXDB | 2.26 | 2.75 | 3.00 | 2.92 | 2.46 | 2.82 | 2.68 | 2.47 |
| ZXDC | 3.95 | 2.99 | 3.95 | 3.00 | 3.70 | 3.47 | 3.84 | 4.11 |
| ZYG11A | -2.30 | -2.30 | -2.30 | -2.31 | -2.30 | -2.31 | -2.31 | -2.31 |
| ZYG11B | 4.13 | 5.20 | 5.22 | 4.92 | 4.38 | 4.88 | 5.65 | 4.23 |
| ZYX | 6.19 | 6.31 | 6.77 | 6.40 | 6.82 | 6.60 | 6.44 | 7.73 |
| ZZEF1 | 3.40 | 3.72 | 4.21 | 3.78 | 3.49 | 3.42 | 4.35 | 3.61 |

STable 6 *Primer sequences, sgRNAs, Antibodies, murine cell lines*

| sgRNA | | |
|---------------------|--------------------------|---|
| Name | sgRNA without PAM | Target |
| sgRNA_1_KO | TCGAGTGTGCTACTCAACTC | human NOXA (PMAIP1) |
| sgRNA_2_KO | TGTAATTGAGAGGAATGTGA | human NOXA (PMAIP1) |
| sgRNA_1_KO | TTGCGCAGCCCGAGTCTTGG | murine Noxa (Pmaip1) |
| sgRNA_2_KO | ACGCGCCAGTGAACCCAACG | murine Noxa (Pmaip1) |
| sgRNA_CRISPRa | AAAGCGTGGTCTCTGGCG | murine Noxa (Pmaip1) |
| sgRNA_1_KO | GAGCCCAGGCAAGATGAGCG | human RUNX1 |
| sgRNA_2_KO | GCCATCTGGAACATCCCCTA | human RUNX1 |
| sgRNA_1_KO | TGGCTGGATAGTGCATTCGT | human RUNX2 |
| sgRNA_2_KO | ATATTGAAATTCCTCAGCAG | human RUNX2 |
| sgRNA_1_KO | AATTCTCGCCTTCTTCAGAG | human RUNX3 |
| sgRNA_2_KO | TGCGCACGAGCTCGCCTGCG | human RUNX3 |
| sgRNA_1_KO | GGAAATAAGCCACTCTGAAT | human dBS1 |
| sgRNA_2_KO | AGTCATTGGATTTGTGCCA | human dBS1 |
| PCR Primer | | |
| KO/WT Check primers | Sequence | Target |
| FWD | CACTAGTGTGGCGTATTAGG | human NOXA (PMAIP1) |
| REV | GATGTATTCCATCTTCCGTTTCC | human NOXA (PMAIP1) |
| Internal_REV | GTTCAGTTTGTCTCCAAATCTCC | human NOXA (PMAIP1) |
| FWD | GGATTCCAGCGCTGGTGCTG | murine Noxa (Pmaip1) |
| REV | TGCAGGCGCGTACATTCTAGCCC | murine Noxa (Pmaip1) |
| Internal_REV | TCAGAAACGCCGCGCGATCT | murine Noxa (Pmaip1) |
| FWD | CCGTAGATGCCAGCACGAGC | human RUNX1 |
| REV | TGGGTTTGTGCCATGAAACG | human RUNX1 |
| Internal_FWD | GTTATCATTGCTATTCCTCTGC | human RUNX1 |
| FWD | GGTGCTTCAGAACTGGGCCCT | human RUNX2 |
| REV | GTAGATAGCTAATCGATATAC | human RUNX2 |
| Internal_REV | TGGCAGGTAGGTGTGGTAGTG | human RUNX2 |
| FWD | CAACAGCCAACCAAGTGAATCC | human RUNX3 |
| REV | CCTTGAAGGCGACGGGCAGC | human RUNX3 |
| Internal_FWD | CAGTGGAGGGACGTGGTCCG | human RUNX3 |
| FWD | AAGCTTGGTCAGTTACTGCTACTT | human dBS1 |
| REV | ACCCCTTTTATGTTTGTTTTGGG | human dBS1 |
| Internal_FWD | CACCTGACAAGACCACACTTTG | human dBS1 |
| FWD | AAAGCGTGGTCTCTGGCG | lentsgRNA(MS2)_puro backbone carry NOXA sgRNA |
| REV_MS2_puro | CCACTCCTTTCAAGACCTAGAAG | lentsgRNA(MS2)_puro backbone carry NOXA sgRNA |
| FWD_Cas9 | CCAAAGAGGTGCTGGACG | lenti dCAS9-VP64_Blast |
| REV_Blast | GCTCTTTCAATGAGGGTGGA | lenti dCAS9-VP64_Blast |
| FWD_Hygrp | GACGGCAATTCGATGATG | lenti MS2-P65_HSF1_Hygro |
| REV_pBluescript | TCGAGGTCGACGGTATC | lenti MS2-P65_HSF1_Hygro |
| qPCR Primer | | |
| Target | Sequence | Orientation |
| human NOXA (PMAIP1) | CGGAGATGCCTGGGAAGAA | FWD |
| human NOXA (PMAIP1) | CCAAATCTCCTGAGTTGAGTAGCA | REV |
| human RUNX1 | AACTTCCTCTGCTCCGTGCTG | FWD |
| human RUNX1 | TCACAGTGACCAGAGTGCCATC | REV |
| human RUNX2 | ATTCTGCTGAGCTCCGGAATGC | FWD |
| human RUNX2 | TGGGGAGGATTTGTGAAGACGGT | REV |
| human RUNX3 | GTGGCCAGGTTCAACGACCTTC | FWD |
| human RUNX3 | GGTGGGGTTGGTGAACACAGTG | REV |
| human Actin | CCTCGCCTTTGCCGATCC | FWD |
| human Actin | CGCGGCGATATCATCATCC | REV |

| | | | |
|--|--|-------------------|----------|
| <i>murine Noxa (Pmaip1)</i> | GAGTGCACCGGACATAACTG | FWD | |
| <i>murine Noxa (Pmaip1)</i> | CTCGTCCTTCAAGTCTGCTG | REV | |
| <i>murine Actin</i> | GTCGAGTCGCGTCCACC | FWD | |
| <i>murine Actin</i> | GTCATCCATGGCGAACTGGT | REV | |
| qChIP Primer | | | |
| Target | Sequence | Name | |
| <i>Human NOXA negative region</i> | AGGCAGCTATTTTACCATCTGG | ChIP_hNXUTR_FWD | |
| <i>Human NOXA negative region</i> | GTTTACTGCCACAGTATCAACTTTT | ChIP_hNXUTR_REV | |
| <i>Human NOXA promoter</i> | GACGACGTCCAGCGTTTG | ChIP_hNXBS5_FWD | |
| <i>Human NOXA promoter</i> | GCCCCGAAATTACTTCCTTAC | ChIP_hNXBS5_REV | |
| <i>Human NOXA dBS1</i> | CTGAGTAGCTAGGATTACAGGCAC | ChIP_hNX_dBS1_FWD | |
| <i>Human NOXA dBS1</i> | ATGTGGTCACACTGTACTCTACAGA | ChIP_hNX_dBS1_REV | |
| 4C Primer | | | |
| Target | Sequence | | |
| <i>NOXApromotor_p5</i> | ATCGTAAGTTTTTCAGGCCAGC | | |
| <i>NOXApromotor_p7</i> | GCGAGCTGAACACGAACAGT | | |
| <i>Illumina_p5_adapter</i> | AATGATACGGCGACCAACCACTCTTCCCTACACGACGCTCTTCCGATCT | | |
| <i>Illumina_p7_adapter</i> | CAAGCAGAAGACGGCATACGA | | |
| murine PDAC cell lines | | | |
| cell line | genotype | | |
| PPT-06 | <i>Pdx1-Cre;LSL-Kras^{G12D/+}</i> | | |
| PPT-95 | <i>Pdx1-Cre;LSL-Kras^{G12D/+}</i> | | |
| PPT-5123 | <i>Ptf1a^{Cre/+};LSL-Kras^{G12D/+}</i> | | |
| PPT-5436 | <i>Ptf1a^{Cre/+};LSL-Kras^{G12D/+};LSL-p53^{R172H/R172H};R26^{LSL-TVA-LacZ/LSL-TVA-LacZ}</i> | | |
| PPT-6554 | <i>Ptf1a^{Cre/+};LSL-Kras^{G12D/+};p53^{loxP/loxP};R26^{LSL-TVA-LacZ/+}</i> | | |
| PPT-W22 | <i>Ptf1a^{Cre/+};LSL-Kras^{G12D/+};p53^{loxP/loxP};R26^{LSL-TVA-LacZ/+}</i> | | |
| PPT-F3641 | <i>Pdx1-Flp;FSF-Kras^{G12D/+};FSF-Trp53^{defflt};R26^{CAG-FSF-CreERT2/+};Hdac1^{loxP/loxP};Hdac2^{loxP/+};Hdac3^{loxP/+}</i> | | |
| PPT-F1648 | <i>Pdx1-Flp;FSF-Kras^{G12D/+};FSF-Trp53^{del/+};R26^{CAG-FSF-CreERT2/+};Pdk1^{loxP/+};Hdac2^{loxP/loxP}</i> | | |
| Antibodies | | | |
| Antibody | Company | Cat. Number | Dilution |
| NOXA Antibody (114C307.1) | Enzo Lifescience | ALX-804-408-C100 | 1:500 |
| RUNX1 | Santa Cruz | sc-365644 | 1:500 |
| MCL1 antibody | Biorad | VMA00507 | 1:1000 |
| MCL1 antibody | BD Bioscience | 559027 | 1:1000 |
| Vinculin (E1E9V) | Cell signaling | 13901S | 1:10000 |
| b-Actin | Sigma-Aldrich | A5316 | 1:10000 |
| GAPDH | Abcam | ab128915 | 1:5000 |
| b-Tubulin (E7) | Hybridoma Bank | E7 | 1:1000 |
| HDAC1 | Cell signaling | 34589 | 1:500 |
| HDAC2 | Cell signaling | 5113 | 1:500 |
| HDAC3 | Abcam | ab32369 | 1:500 |
| CBFb | Invitrogen | PA5-28505 | 1:1000 |
| Cleaved PARP (Asp214) (D64E10) XP | Cell signaling | 5625 | 1:1000 |
| BIM | Cell signaling | 2819 | 1:1000 |
| BID | Cell signaling | 2002 | 1:1000 |
| BAX | Cell signaling | 2772 | 1:750 |
| BAK (D4E4) | Cell signaling | 12105 | 1:750 |
| BCL2 | Cell signaling | 2872 | 1:750 |
| BCL-xL | Cell signaling | 2768 | 1:1000 |
| p53 (DO-1) | Santa Cruz | sc-126 | 1:500 |
| p53 (1C12) | Cell signaling | 2524 | 1:500 |
| p63a (C-12) | Santa Cruz | sc-5301 | 1:500 |
| Anti-mouse IgG (H+L) (DyLight™ 800 4X PEG Conjugate) | Cell Signaling | 5257S | 1:5000 |
| Anti-mouse IgG (H+L) (DyLight™ 680 Conjugate) | Cell Signaling | 5470S | 1:5000 |

Supplementary Materials and Methods

Cell culture

Cell lines were cultured in Dulbecco's Modified Eagle's Medium (Thermo Fisher Scientific, #41965062) or Roswell Park Memorial Institute (RPMI) 1640 Medium (Thermo Fisher Scientific, #21875091) supplemented with 10% FBS (Thermo Fisher Scientific, #10270106) and 1% P/S (Thermo Fisher Scientific, #15070063). They were passaged up to 14 times in a 1:10 dilution every 3 days. Murine PDAC cell lines were generated from *Kras*^{G12D} driven mouse models as described (1). Genotypes of murine cell lines harboring the dual recombinase system (2) - PPT-F1648: *FSF-Kras*^{G12D/+}, *FSF-Trp53*^{del/+}, *Pdx1-Flp*, *R26*^{CAG-FSF-CreERT2/+}, *Pdk1*^{loxP/+}, *Hdac2*^{loxP/loxP}; PPT-F3641: *FSF-Kras*^{G12D/+}, *FSF-Trp53*^{del/frt}, *Pdx1-Flp*, *R26*^{CAG-FSF-CreERT2/+}, *Hdac1*^{loxP/loxP}, *Hdac2*^{loxP/+}, *Hdac3*^{loxP/+}. PPT-F1648 and PPT-F3641 cells were treated with indicated concentrations of 4-hydroxytamoxifen (4-OHT) over time to activate the Cre mediated excision of *floxed Hdac* alleles. PCR-based mycoplasma tests (3) were performed at regular intervals. Cell lines were authenticated by genotyping PCR or by fragment length analysis of short-tandem repeats by either capillary electrophoresis or by microfluidic electrophoresis as described (4).

Cell viability assay

Cells were seeded onto 96-well plates (4x10³ cells/well), grown for 24 h and drug-treated. After 72 h of treatment, 10 μ l of MTT reagent (Sigma-Aldrich, #M5655) was added and plates were incubated 4 h at 37°C in the dark. Medium was discarded and MTT crystals were dissolved with 100 μ l of a 1:1 DMSO:ethanol solution. Absorbance was measured at 570 nm on a CLARIOstar microplate reader (BMG Labtech, Ortenberg).

Drug screening

Two libraries were used for manual high throughput drug screening (FDA approved drug screening library L1300; Cherry pick library L2000, Selleckchem) covering a total of 1842 drugs. The screen was conducted in isogenic human (MiaPaCa-2, PSN1) and murine (PPT-06, PPT-95) cells edited for *NOXA* state. Libraries were provided as individual single-screw-cap compounds in 96-well format dissolved in DMSO at a final concentration of 10 mM. For the drug screening a final concentration of 600 nM was used as previously described(5, 6). Cell viability and readout were done according to previous section. The OD₅₉₅ of vehicle-treated (DMSO) cells was arbitrarily set to 100% and the dose-response was calculated as relative viability. For hit selection, the inhibitors that differentially reduced viability in parental cell lines up to 10% more in comparison to *NOXA*^{ko} cells were overlapped and those present exclusively in all parental cell lines (*NOXA*^{high} subtype) were further investigated.

Dose response assay

Cells were seeded onto 96-well plates (4x10³ cells/well), grown for 24 h, and then treated with the indicated compounds at seven concentrations (0, 18.75, 37.5, 75, 150, 300, 600 and 1200 nM). Cell viability was analyzed by MTT assay 72 h later. The optical density (OD) of vehicle-treated (DMSO) cells was measured at 570 nm, and arbitrarily set to 100% and the dose-response was calculated as relative viability. GraphPad Prism 8/9 was used to estimate the half-maximal growth inhibitory concentration (GI₅₀) modelled as a non-linear regression and tested for statistical significance by comparing best-fit values of each curve.

Colony formation assay

Cells were seeded in 6-well dishes at a density of 2x10³ cells/well. After 24 h, medium was exchanged for medium with vehicle (DMSO) or 400 nM AI-10-49 (Biozol, #DL000337516). Medium with drug was refreshed every 3 days. After 2-3 weeks of treatment, the wells were washed with PBS, fixed with methanol for 1 h and stained with Giemsa (Sigma-Aldrich, #GS500) overnight. Plates were scanned and colonies counted with Image J. Percentage of colonies in treatments was normalized against the vehicle control.

Patient derived organoid culture and viability assay

PDAC biopsies and tissues were received from endoscopy punctures or surgical resection. 3D organoids were collected, propagated, and analyzed in agreement with the declaration of Helsinki and were approved by the ethical committee of TUM (Project 207/15). Written informed consent from the patients for research use of tumor material was obtained prior to the use. Cellular viability of human patient derived organoids (PDO) was determined using the CellTiter-Glo 3D ATP viability assay according to manufacturer's protocol. Briefly, 1000 cells/well were plated in 80µl of PDO medium [PDO medium components: AdDMEM/F12 medium (Life Technologies) supplemented with 10mM HEPES (Life Technologies), 1x GlutaMax (Life Technologies), 1x B27 (Life Technologies), 100µg/ml Primocin (InvivoGen), 1.25 mM N-acetyl-L-cysteine (MilliporeSigma), 100ng/ml rcWnt3a protein (R&D Systems), 500ng/ml rcR-Spondin 1 protein (R&D Systems), 100 ng/mL mNoggin (Preprotech), 50 ng/mL EGF (Life Technologies), 10 nM Gastrin (MilliporeSigma), 100 ng/mL FGF10 (Preprotech), 10 mM Nicotinamide (MilliporeSigma), 10 µM Y-27632 (MilliporeSigma) and 0.5 µM A83-01 (Tocris)] and 10µl Matrigel (Corning) in a Matrigel:PBS-coated (ratio 1:3 – 1:4) 96 well plate (Corning, Cat.-Nr. 3610) as described (7). 24h after plating of PDOs, a 7-point dilution of A1-10-49 was added and viability was determined by measuring luminescence FLUOstar microplate reader (BMG Labtech, Ortenberg), after 3 days of treatment.

Western blotting

Cells were seeded at a density of 2×10^6 in 10 cm dishes. The following day, dishes were washed with PBS and medium replaced with medium plus corresponding treatment. At the indicated time points cells were harvested in RIPA buffer with the final concentration: 150 mM NaCl, 1% IGEPAL CA-630, 0.5% sodium deoxycholate (DOC), 0.1% SDS, 50 mM Tris, pH 8.0. For protein lysis, RIPA buffer was supplemented with 1x protease inhibitor (1 pill of Roche cOmplete™, Mini, EDTA-free Protease Inhibitor Cocktail in 10 ml of buffer) and 1x phosphatase inhibitors (1 pill of Sigma PhosSTOP™ in 10 ml of buffer). Protein concentration was determined by a Bradford colorimetric assay dye (Bio-Rad, #500-0006) with BSA as a standard. Absorbance was measured at 595 nm on a CLARIOstar microplate reader (BMG Labtech, Ortenberg).

Proteins were resolved by SDS-PAGE using gradient gel (10-20%), transferred to PVDF membrane 0.2 µm (Thermo Fisher Scientific) and incubated with specific primary antibodies at 4°C overnight. For ECL measurements, membranes were incubated for 1 h at room temperature with HRP-conjugated secondary antibodies and Kit ECL Prime detection reagent (GE Healthcare, #RPN2232) was used as HRP substrate. For ECL visualization ChemoStar PLUS Imager (Intas, science imaging) was used. Housekeeping antibodies were visualized with ChemoStar PLUS Imager with corresponding fluorescent conjugated antibodies. Quantification was done with Image J software.

Co-Immunoprecipitation

Cell lysates were generated as described in the section "Western Blotting" and subsequently precleared with protein G magnetic beads (Cell Signaling) for 60 min at 4°C and then incubated with 4µg RUNX1 (Abcam, STable 6), 4µg CBFβ (Invitrogen, STable 6) or 4µg IgG (Cell Signaling, STable 6) for 2h. Subsequently the cell lysate / antibody mixture was incubated with protein G magnetic beads (Cell Signaling) at 4°C for additional 1 h. Beads were washed for four times with RIPA buffer and boiled in 2x Laemmli buffer for 5 min before western blotting.

Apoptosis assay by FACS

For detection of apoptotic cell death, cells were stained with Annexin V/PI by flow cytometry. Briefly, 1×10^6 cells were centrifuged at 300 g for 5 min, resuspended in 300 µl 1X Annexin V binding buffer (BD Pharmingen, #8008652), added 4 µl Alexa Fluor®647 Annexin V (Biolegend, #640912) and 10 µg/ml PI (Sigma, P4864) and incubated for 15 min at 4°C in the dark. Cells

were analyzed by flow cytometry with Cytoflex S (Beckman Coulter). Annexin V staining was quantified as early apoptotic (Annexin V+, PI-) and apoptotic-dead cells (Annexin V+, PI+). Analysis was performed using FlowJo v10.6.0.

Growth curves by Cell-Live imaging

Confluency was determined by monitoring cells in real time with a confluency image mask, which was filtered for each cell line specifically. Cell counts were quantified by 2019B Rev2 version of the Incucyte S3 software.

sgRNA design and CRISPR/Cas9 mediated knockout

Single guide RNAs (sgRNAs) were designed by means of the online tool Benchling retrieved from <https://benchling.com>. The most efficient guide combination was picked according to the scoring system previously described(8). Cloning of sgRNAs was done into a modified px330 plasmid kindly provided by Prof. Rada-Iglesias lab. The sgRNAs were tested in pairs and the most efficient combination was kept for further knockout. 1 µg in total of plasmids was transfected into target cells with Lipofectamine 2000 (Thermo Fisher Scientific) and efficiency was assessed 24 h later by GFP signal. Presence of the knockout was assessed in the bulk via PCR and cells were cultured as single cell in 96-well plate. Single cells were left to grow for approximately 2 weeks until a visible colony was formed and screened via PCR for knockout/wildtype with flanking primers. Knockout efficiency was confirmed via western blot. Absence of wildtype allele was assessed by internal controls within the knockout region. Primer sequences are listed in supplementary table 5.

Lentivirus production CRISPR mediated overexpression

Lentivirus production was performed as described by Joung and collaborators (9). Briefly, 3×10^6 HEK293T cells were seeded in 10 cm dishes at day 0. At day 1 cells were transfected as described previously (9). Virus was collected and filtered through 0.45 µm membrane every 12 h after 24 h of transfection for 3 days. Spinfection was performed at 32°C, 1000 g for 2 h with a final concentration of 5×10^5 cells and 8 µg/ml polybrene. CRISPR stable overexpression was performed with lenti dCAS9-VP64_Blast, lenti MS2-P65_HSF1_Hygro and the sgRNA was cloned in lenti sgRNA(MS2)_puro backbone as described previously (10). lenti dCAS-VP64_Blast was a gift from Feng Zhang (Addgene plasmid #61425); lenti sgRNA(MS2)_puro backbone was a gift from Feng Zhang (Addgene plasmid #73795 ; <http://n2t.net/addgene:73795> ; RRID:Addgene_73795) and lenti MS2-P65-HSF1_Hygro was a gift from Feng Zhang (Addgene plasmid #61426; <http://n2t.net/addgene:61426>; RRID:Addgene_61426). sgRNA was designed as described in the previous section. Cells were selected with appropriate antibiotic 24 h after spinfection until no viable cells remained in the negative control. Presence of the transgene was assessed with primers listed in supplementary table 5.

RNA interference

For siRNA experiments, endoribonuclease-prepared siRNAs (esiRNAs) against RUNX1 (Sigma Aldrich, EH124231) and against EGFP (Sigma Aldrich, EHUEGFP) were used as controls. The siRNAs were introduced into MiaPaCa-2, Panc1, and AsPC1 cells with Lipofectamine 2000 according to the manufacturer's recommendation. To generate stably expressing MiaPaCa-2 *RUNX1*^{ko} cells with shRNAs against NOXA and a control shRNA, the lentiviral shRNA constructs were introduced according to the lentivirus-based transduction described above. The shRNA constructs were a gift from Georg Häcker and have been previously published (11).

RNA isolation and quantitative RT-PCR

Cells were seeded at day 0 in 6-well dishes at a density of 5×10^5 cells/well. At day 1 cells were treated with vehicle (DMSO) or AI-10-49 (3 µM) for 6 h. Cells were lysed and RNA isolated

with Qiagen RNeasy Isolation kit. 1 µg of RNA was retro transcribed with MMLV kit according to manufacturer's recommendations and 10 ng of random primers. Quantitative PCR was performed with 5 nM primers diluted in 20 µl final volume of SYBR Green Standard Buffer 2X (Thermo Fisher Scientific, #K0223). qRT-PCRs were done as follows: 95°C for 10 min, 40 cycles of 95°C for 15 s and 60°C for 1 min and a final melting curve stage in StepOne Plus System (Applied Biosystems).

Expression levels of target genes were determined with the $2^{-\Delta\Delta CT}$ method from technical triplicates and normalized to *ACTB* mRNA. Relative expression (fold change) was calculated with control samples arbitrarily set as 1.

In vivo drug efficacy analysis in mice

Xenograft assays were performed by EPO (Experimental Pharmacology and Oncology, Berlin-Buch). All animal experiments were approved by the local responsible authorities and performed in accordance with the German Animal Protection law. Subcutaneous MiaPaCa-2 xenograft experiments were performed in *NSG (NOD.Cg-Prkdcscid Il2rgtm1Wjl/SzJ, NOD scid gamma)* mice. Tumor growth was monitored daily by measurement with a caliper. Once the tumor volume reached 0.2 cm³ mice were treated with vehicle (2% DMSO+30% PEG300+5% Tween 80+ddH₂O) or AI-10-49 (200mg/kg daily) for 9 days. Xenograft tumors were harvested, formalin fixed and paraffin embedded after a total of 12 days. Immunohistochemistry (IHC) of tumor sections was performed on 2 µm-thick paraffin sections. IHC analysis was performed using a Ki67 antibody (DakoCytomation, Glostrup, Denmark; 1:50) and a cleaved Caspase 3 (CC3) antibody (Cell Signaling, 9661, 1:100). Slides were scanned using the Aperio digital whole slide imaging (Leica Biosystems, Germany). Analysis of positive stained cells has been performed using the Positive Pixel Count algorithm (standard settings with col. sat. threshold = 0.15) to quantify the amount of a specific stain present in the respective scanned slide images.

Quantitative Chromatin immunoprecipitation (qChIP)

MiaPaCa-2 cells were seeded in 15 cm dishes at a density of 3×10^6 . After 24 h, they were treated with vehicle (DMSO) or AI-10-49 (3 µM) for 6 h. Cells were cross-linked in 1% formaldehyde for 10 min and quenched in 0,125 M Glycine for 20 min. Posterior lysis and harvesting was performed using SimpleChIP Enzymatic Chromatin IP Kit (Cell Signaling Technology, #9003) according to manufacturer's recommendations. 1-10 µg of antibodies of interest were used to pull down the chromatin (Supplementary Table 4) Immunoprecipitated DNA was analyzed by qPCR on a StepOne Plus as described (12). Chromatin occupancy (ChIP-qPCR) for each sample was calculated as % of input.

Chromatin immunoprecipitation DNA-Sequencing (ChIPseq) analysis, identification of conserved RUNX1 binding sites and motif discovery

Cells were prepared as described for qChIP. 10 ng of immunoprecipitated DNA was used for library preparation. ChIP-Sequencing was performed on an Illumina HiSeq2500 sequencer after sample preparation with the ThruPLEX V2 DNA protocol (Takara Bio). The targeting depth was set to 20 million reads. The generated reads were single-end unstranded reads with 50 bp length. FastQC was used for quality inspection of the raw sequencing files (v0.11.9, <http://www.bioinformatics.bbsrc.ac.uk/projects/fastqc>). The `bbduk.sh` script (BBTools, <https://sourceforge.net/projects/bbmap/>) was used for adapter clipping at the 3'-end of the reads with the "adapter.fa" file (included in the BBTools suite) providing adapter sequences. The same tool was used for quality trimming of both the 5'- and 3'-end (`k=23, mink=11, hdist=1, qtrim=rl, trimq=10, minlen=30`). Alignment with bowtie2 (v2.4.4) (13) to the GRCh38 reference genome (Ensembl release 97, July 2019, primary assembly) followed using default parameters. The resulting output in SAM format was converted to BAM format, sorted and indexed using SAMtools (v1.12) (14). Bigwig coverage files were created using BAMtools from the deepTools2 suite (15) (`--normalizeUsing RPKM, --binSize 30, --smoothLength 300, --`

extendReads 200). The plotFingerprint, as well as the multiBamSummary followed by the plotCorrelation functions from the deepTools suite were run on the sorted BAM files to assess experiment quality (SFig 5A-B)

Prior to peak calling duplicates were filtered out with macs2 filterdup and fragment length was predicted with macs2 predicted to be on average at 301 base pairs in length (16). Peaks were called separately for each replicate using macs2 callpeak with an input control (--nomodel --extsize 301). ENCODE Blacklisted regions (v3) (17, 18) were removed after peak calling from the resulting narrowPeak and treatment pileup bedgraph files. The pileup file was sorted to remove non-primary scaffolds and replicates belonging to the same condition were summarized for visualization purposes with wiggletools mean. The computeMatrix and plotHeatmap tools (deepTools) were then used to create a heatmap and aggregate plots around the transcription start sites of all annotated genes.

Sample quality was further assessed with the ChIPQC package using narrowPeak files as input. The DiffBind package was used for differential peak calling (dba.analyze with method=DBA_DESEQ2). Genomic visualizations were performed with pyGenomeTracks tool of the deepTools suite and IGV (19). Note that RUNX1 ChIPseqs were of poor quality, probably due to poor RUNX1 binding or other as yet unidentified factors. Conserved RUNX1 consensus sequences have been analyzed using ConTra v3 (20) using stringency setting of core = 0.9, similarity matrix = 0.75 of the RUNX1 binding motifs of the matrix IDs: MA0002.2 and M6457_1.02.

From the ATACseq and ChIPseq data, peaks were retrieved as listed in the respective passage and resulting BED files were used for motif discovery with Trawler (21, 22). The following parameters were used: Motif_DB: vertebrates; min. motif length: 6; percentage overlap: 70; occurrence: 10; wildcard: 2; no. of motifs: 200; no. of clusters: 0.

Chromosome Conformation Capture Coupled to High-Throughput Sequencing (4C-Seq)

Cells were treated with DMSO or AI-10-49 3 μ M for 6 h. The crosslinking was performed with 1% of formaldehyde for 20 min and quenched with 0.125 M Glycine for 10 min. The downstream processing of the samples, including the 4C-seq libraries, were generated from cross-linked cells as described previously (23). NlaIII (four-cutter) was used as primary restriction enzyme. DpnII was used as secondary restriction enzyme (four-cutter).

The cross-linked cells were washed with PBS and resuspended in lysis buffer (10 mM NaCl 250 mM Tris HCl (pH 8.0), 0.2% NP-40, 1X Protease inhibitor) for 10 min on ice. Afterwards, cells were centrifuged at 650 g for 5 min at 4°C, the nuclei were re-suspended in 0.5 ml of 1.2X NlaIII buffer and incubated at 37°C and 900 rpm for 1 h. Next, Triton X-100 was added to a final concentration of 2% followed by 1 h incubation at 37°C on a shaker at 900 rpm. The chromatin was then digested with 400 U of NlaIII overnight at 37°C and 900 rpm. NlaIII was inactivated by SDS addition in a final concentration of 1.6% and the mix at 65 °C for 20 min on a shaker at 900 rpm. The digested chromatin was transferred to 50 ml conical tubes and 6.125 ml of 1.15X ligation buffer was added together with Triton X-100 1%. The tubes were incubated on a shaker for 1 h at 37 °C. Subsequently, the digested chromatin was ligated with 100 U of T4 DNA ligase for 8 h at 16 °C followed by RNase A treatment for 45 min at 37 °C. Moreover, the chromatin was treated with 300 mg of Proteinase K and incubated at 65 °C overnight. The resulting DNA was then purified by standard phenol/chloroform extraction, precipitated with ethanol, and re-suspended in 100 ml of ddH₂O. At this point the digestion and ligation efficiencies were corroborated by analyzing a small fraction of the purified DNAs by gel electrophoresis as previously indicated (23). The remaining DNA was digested with 50 U of DpnII at 37°C overnight. The resulting DNA was then purified by standard phenol/chloroform extraction, precipitated with ethanol and re-suspended in 500 ml of ddH₂O. Afterwards, a second ligation was performed overnight at 16°C by adding 200 U of T4 DNA ligase into a final volume of 14 ml 1X ligation buffer (50 mM Tris HCl (pH 7.6), 10 mM MgCl₂, 1 mM ATP, 1 mM DTT). DNA samples were again purified by phenol/chloroform extraction, ethanol precipitation and re-suspended in 100 μ l dH₂O. This product was then purified with the commercial kit

QIAGEN PCR purification following manufacturer's instructions (Qiagen). For each sample a total of 1 µg of each library was amplified by inverse PCR with the Expand™ Long Template PCR System with 30 amplification cycles (94°C 2 min, 30x [94°C 10s, 60°C 1 min, 68°C 3 min], 68°C 5 min). The primers were designed samples specific following the public guidelines (23) targeting the selected viewpoint (*NOXA* promoter, STable 6). The purified libraries were measured by QuantiFluor® ONE dsDNA System and sequenced on a HiSeq 2500 (Illumina). The processing of the raw sequencing files was identical to the ChIP-Sequencing analysis

RNA sequencing and analysis

All samples were sent to Novogene (Cambridge, UK) where they were sequenced on a HiSeq2500 Illumina machine with a target read depth of min. 20 million reads. The sequencing was paired-end, unstranded, with 150 base pairs per read. The following analyses were performed inside a Bioconda environment (v4.10.1) (24). Quality control was performed using FastQC. The adapter sequence ("GATCGGAAGAGCACACGTCTGAACTCCAGTCAC"), was removed from the 3'-end of both the forward and the reverse reads using cutadapt (v3.4) (25), followed by quality trimming using Trimmomatic (v0.39, PE mode, MAXINFO:75:0.5) (26). Salmon (v1.5.2) (27) was used for transcript quantification. The reference transcriptome corresponded to GRCh38 (Ensembl release 97, July 2019) (28) with precomputed decoy sequences and was downloaded from a repository maintained by the developers of Salmon (https://drive.google.com/drive/folders/1MeM5BCyUjPD9UTzRUJpAWgl_q4zJj42n) and was additionally augmented with the ncRNA transcriptome from the same Ensembl release. GC-Bias and sequencing bias were accounted for using the --gcBias and --seqBias flags. The resulting "quant.sf" files were imported into an R (v4.0.4) programming environment and analyzed through an RStudio (v1.4.1106) user interface. A transcript to gene map was created with biomaRt. Tximport was utilized to create a count matrix of isoforms (countsFromAbundance = "dtuScaledTPM") and genes (countsFromAbundance = "lengthScaledTPM").

Differential gene / isoform expression analysis and microarray analysis

The analyses of differential gene and isoform expression differed only in the input count matrix and were otherwise identical. Normalization was performed with edgeR (v3.32.1) (29). Features (genes or isoforms) with low expression were removed via the filterByExpr function. Afterwards TMM- and library size normalization was performed with calcNormFactors. The model matrix along with the filtered and normalized count table were supplied to the voomWithQualityWeights function of the limma package (v3.46.0) (30-32). Differential expression was then called with lmFit, contrast.fit and eBayes. Bad chr values were removed and genes were sorted (high to low) for logFC. Expressed genes were subsequently filtered for an adjusted p-value $q < 0.05$.

Microarray data from 43 PDAC cell lines (Affymetrix, HG-U133-Plus-2.0) from CCLE (33) were processed as shown previously (5, 12). Hierarchical clustering using Pearson's correlation distance/complete linkage and squared Euclidean distance method has been performed using Morpheus (<https://software.broadinstitute.org/morpheus/>) and ClustVis (34).

Gene Set Enrichment Analysis (GSEA)

GSEA was performed using the fgsea (v.1.16.0) package. Genes were ranked according to the t-statistic as a measure of differential expression. The fgsea function was run using default parameters for the hallmark and curated (c2) genesets as defined in the Molecular Signatures Database v7.4 (35, 36). The ClusterProfiler and enrichplot packages were used for visualization purposes.

Omni-Assay for Transposase-Accessible Chromatin with sequencing (ATAC seq)

MiaPaCa-2 cells were treated with vehicle (DMSO) or AI-10-49 (3 µM) for 6 h and MiaPaCa-2 *RUNX1*^{ko} cells were harvested in 2 biological replicates. 5×10^4 cells were collected, washed

and snap frozen. Libraries were prepared according to the Omni-ATAC protocol and sequenced on an Illumina HiSeq 2500 sequencer. Paired-end reads were generated of 50 base-pairs in length. The processing of the raw sequencing files was identical to the ChIP-Sequencing analysis up until the creation of a sorted BAM file. The BAM files were then filtered to remove duplicate reads with MarkDuplicates from Picard Tools (v2.26.0). In addition, reads mapping to the mitochondrial genome, with a mapping quality score of <10 or not properly paired were discarded. A bigWig Coverage file was created from the filtered BAM file with the same parameters as in ChIP-Seq. Peaks were called with macs2 callpeak (--nomodel --shift -100 --extsize 200 --keep-dup all). The mean of replicates belonging to the same condition was calculated after scaling of the pileup file according to library size with wiggletools. Heatmaps and aggregate plots around transcription start sites was the created as in the ChIP-Seq analysis described above.

Statistical analysis

For survival analysis Simple Cox Regression models were constructed using the expression of all "classical BH3 family members". Genes with p-values < 0.1 were used to construct a multiple Cox regression model. For each dataset, normality was assessed by Shapiro-Wilk test and homoscedasticity of the residuals was tested by Levene's test. Analyses were done with Infostat statistical software or GraphPad Prism 8/9. For analysis of significant differences, Student's t-test, analysis of variance (ANOVA) test or Fisher's exact test was used as indicated in the figure legends. P value < 0.05 was taken as significant. *p<0.05, **p<0.01, ***p<0.001.

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