

Supplementary Materials for

Disassembly of HIV envelope glycoprotein trimer immunogens is driven by antibodies elicited via immunization

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Figs. S1 to S17

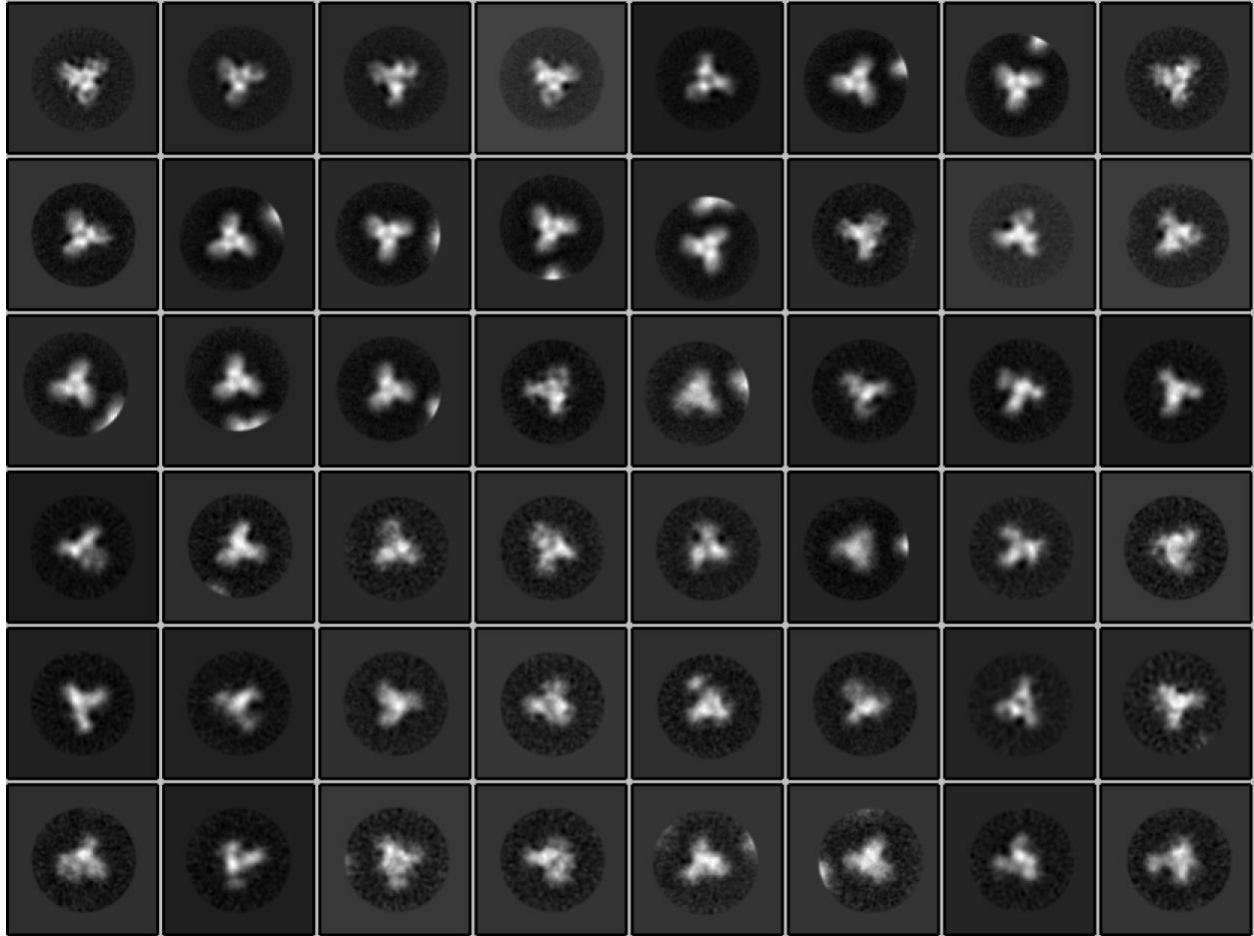


Fig. S1. 2D classes of unliganded MT145KdV5 SOSIP.664 trimer. There are primarily top views due to orientation bias that we typically observe in the absence of bound Fabs.

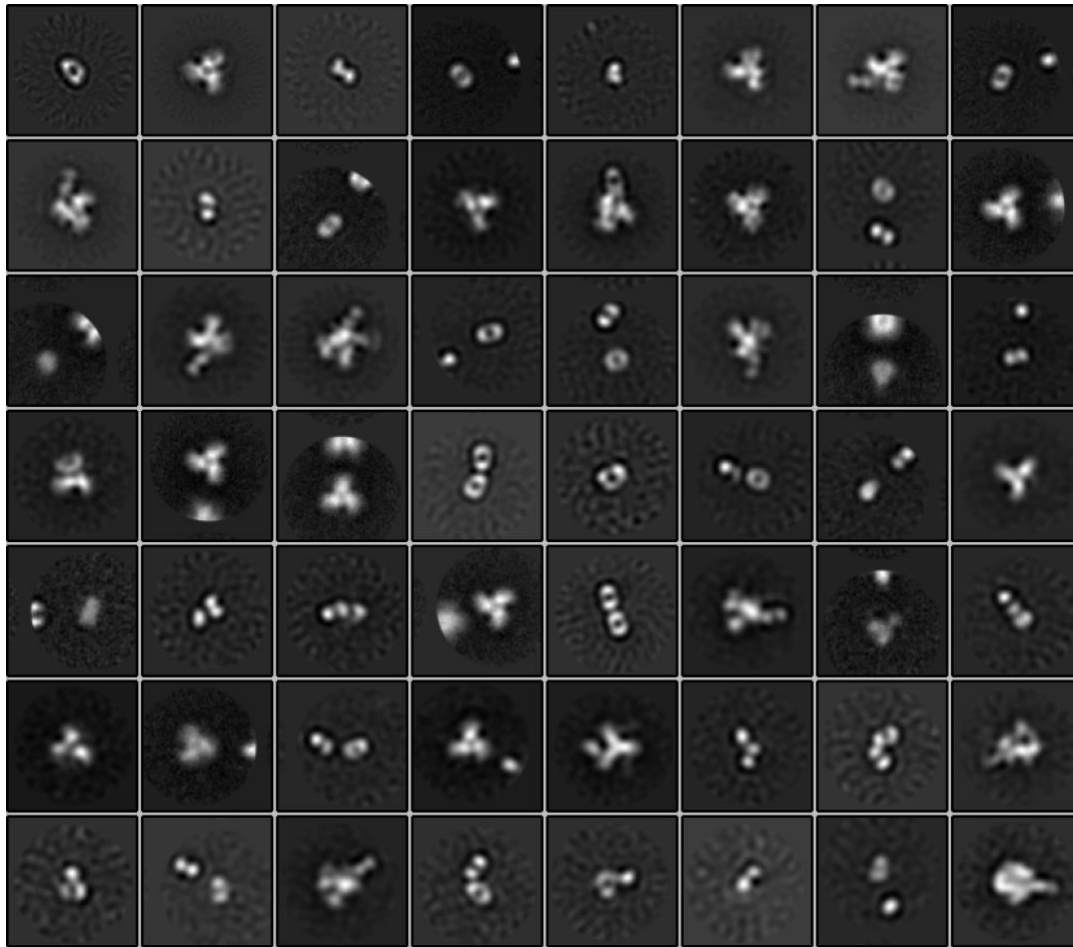


Fig. S2. 2D classes of rhesus macaque 2688 serum in complex with MT145KdV5 SOSIP.664, incubated for 30 minutes. Initial 2D classes of rhesus macaque 2688 polyclonal fab from 10 weeks after immunization with pSer-MT145KdV5 SOSIP.664. Polyclonal Fab in complex with MT145KdV5 SOSIP.664 and incubated for 30 minutes before being added to nsEM grid.

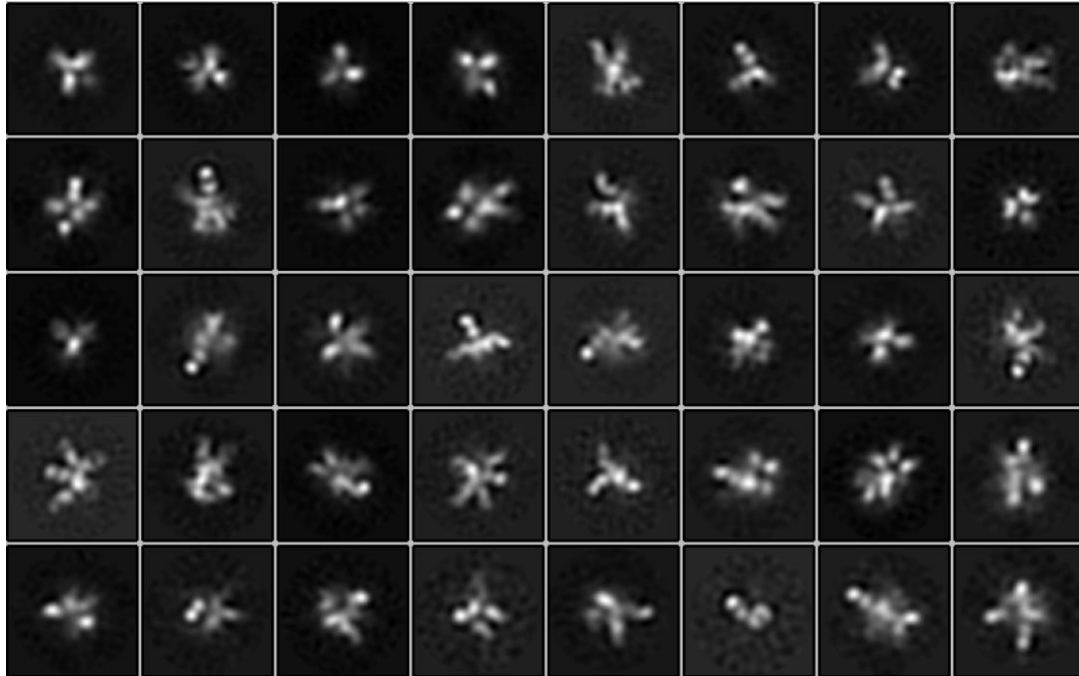


Fig. S3. 2D classes of rhesus macaque 2688 serum in complex with MT145KdV5 SOSIP.664. Initial 2D classes of rhesus macaque 2688 polyclonal Fab from 10 weeks after immunization with pSer-MT145KdV5 SOSIP.664. Polyclonal Fab in complex with MT145KdV5 SOSIP.664 and incubated overnight.

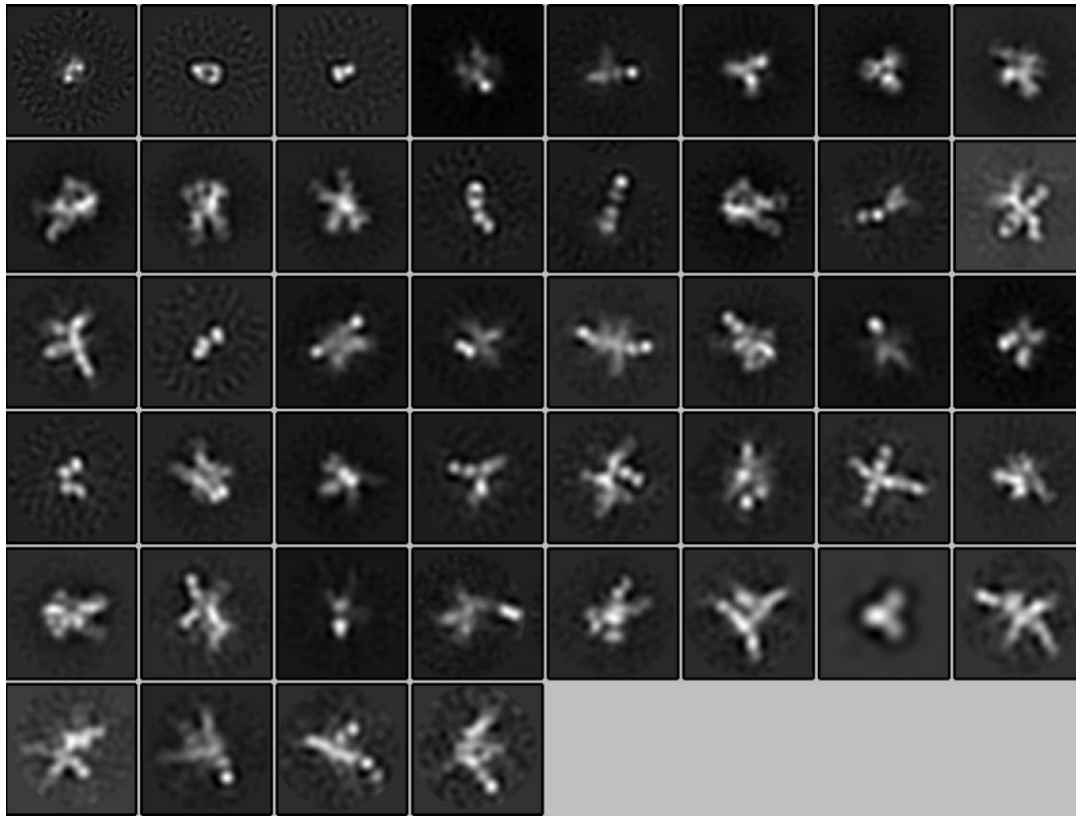


Fig. S4. 2D classes of rhesus macaque BK89 serum in complex with MT145KdV5 SOSIP.664.
 Initial 2D classes of rhesus macaque BK89 polyclonal Fab in complex with MT145KdV5
 SOSIP.664, 10 weeks after immunization with MT145KdV5 SOSIP.664.

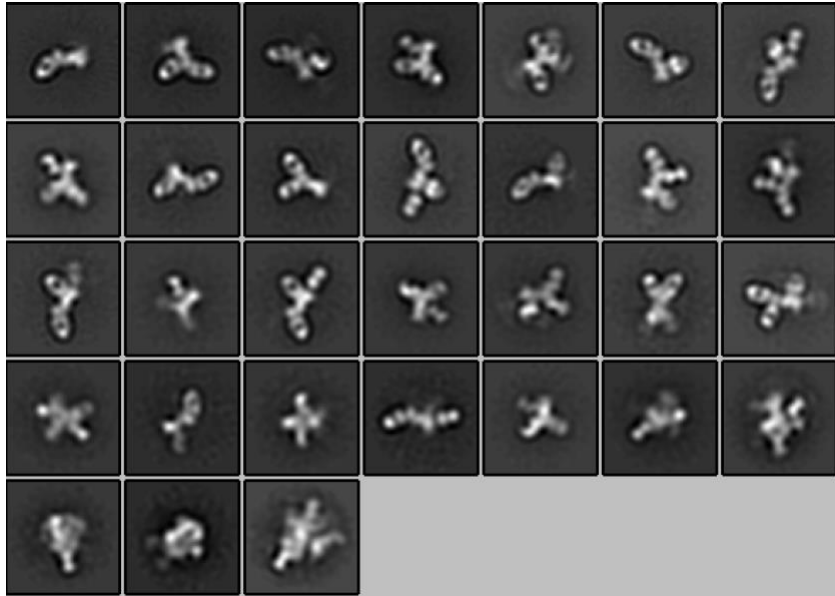


Fig. S5. 2D classes of rabbit K3 serum post 26 weeks immunization. Initial 2D classes of rabbit K3 polyclonal Fab after 26 weeks of immunization with BG505-CRF250V1V2-grafter trimer. Fab serum in complex with CRF250 SOSIP.664 Env trimer.

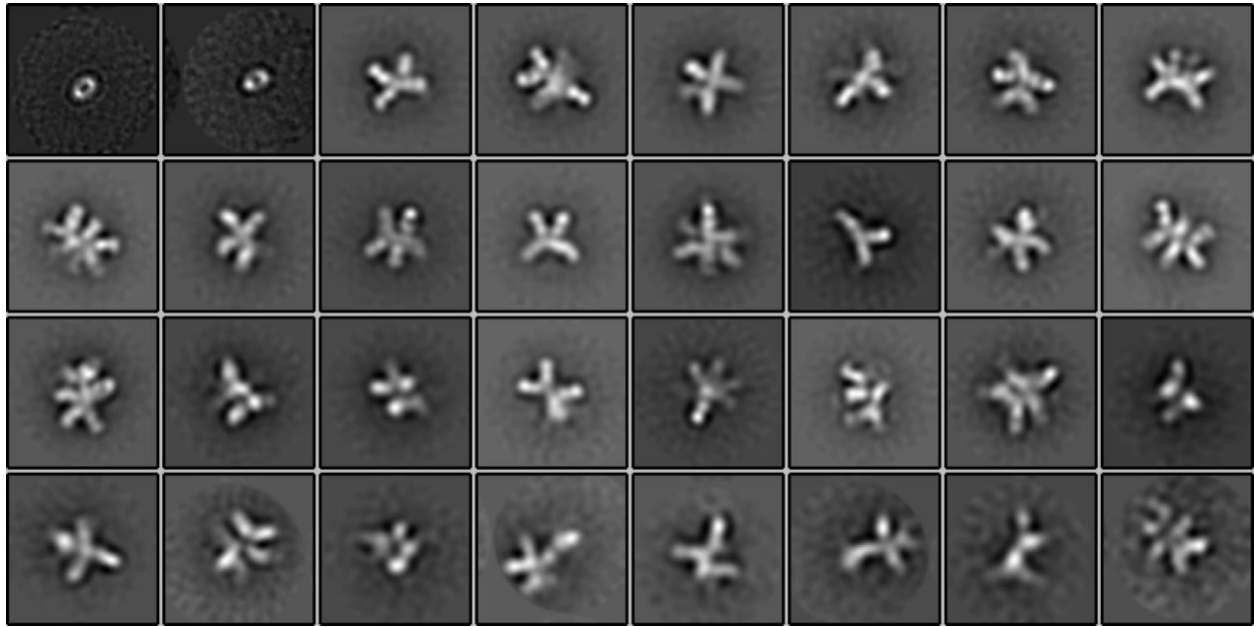


Fig. S6. 2D classes of rabbit 2382 serum immunized with ConM SOSIP.664.v7. Initial 2D classes of rabbit 2382 polyclonal Fab in complex with ConM SOSIP.664.v7, 22 weeks post prime with ConM SOSIP.664.v7 and 2 weeks after boost 2.

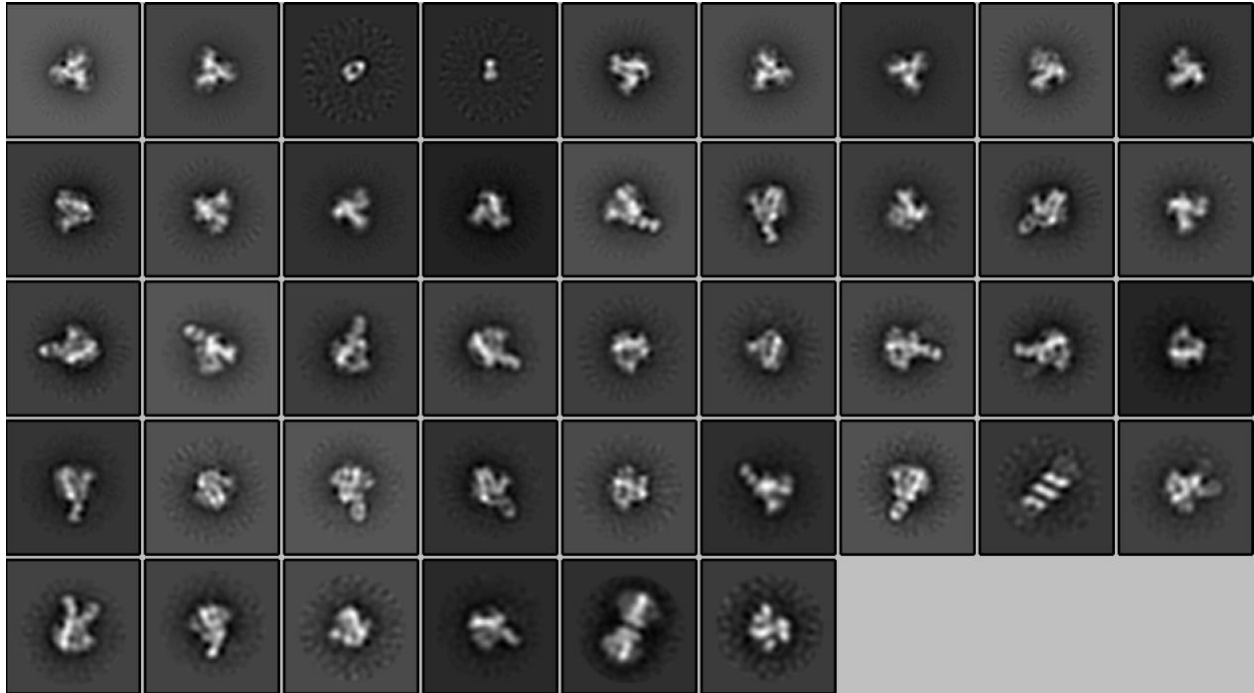


Fig. S7. 2D classes of rabbit 3417 serum two weeks post prime immunization. Initial 2D classes of rabbit 3417 polyclonal Fab two weeks after prime immunization of 20ug BG505 SOSIP.664 liposome i.d. Fab serum in complex with BG505 SOSIP.664.

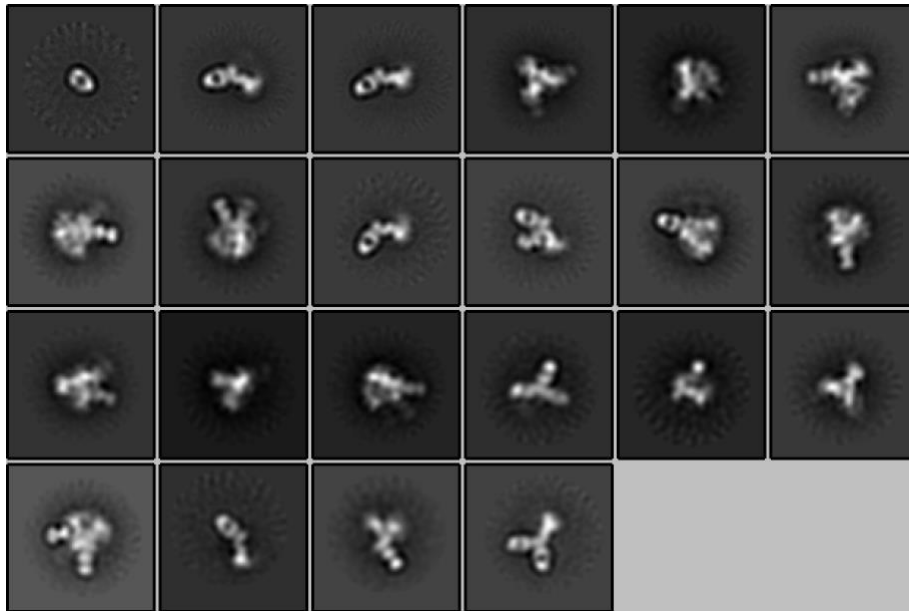


Fig. S8. 2D classes of Rabbit 3417 after boost 1. Initial 2D classes of rabbit 3417 polyclonal Fab 2 weeks after 20ug boost 1 via i.m. and 6 weeks after 20ug prime immunization of BG505 SOSIP.664 liposome i.d. Fab serum in complex with BG505 SOSIP.664.

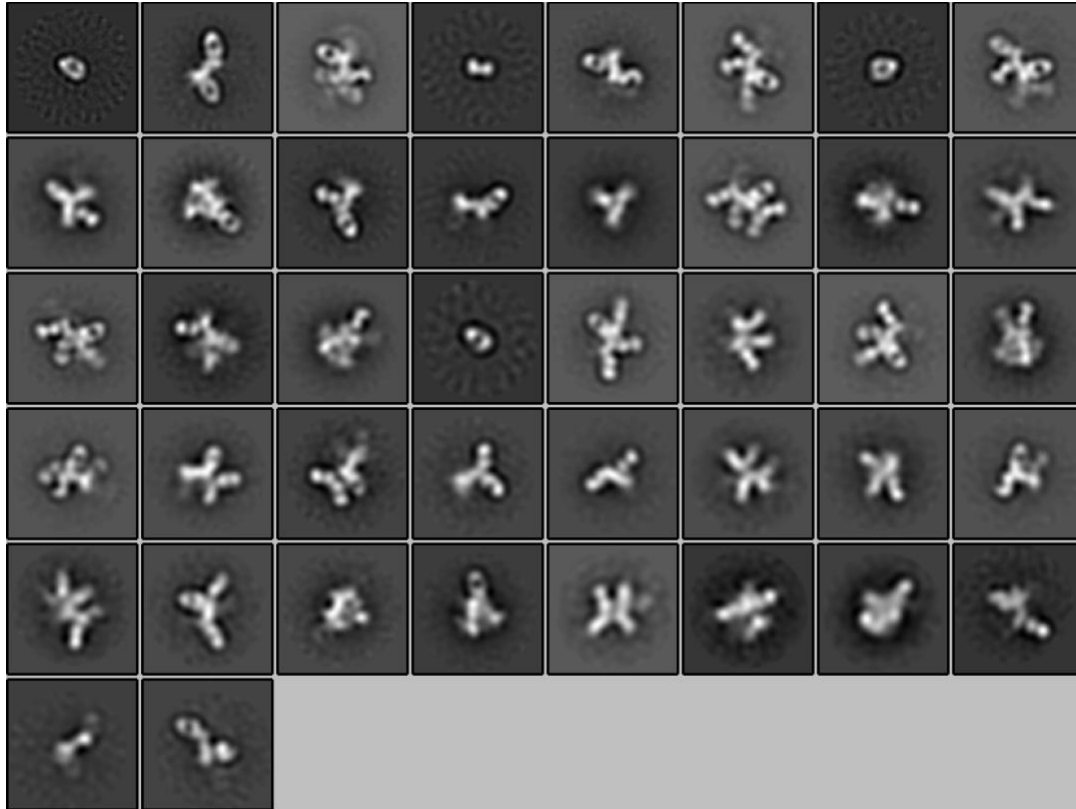


Fig. S9. 2D classes of rabbit M3 serum 26 weeks after immunization with V1V2-grafted CRF250. Initial 2D classes of rabbit M3 polyclonal Fab in complex with CRF250, 26 weeks after being primed with BG505 CRF250V1V2-grafted trimer and two weeks after boost 2 with ZM179-ZM233V1V2 SOSIP.

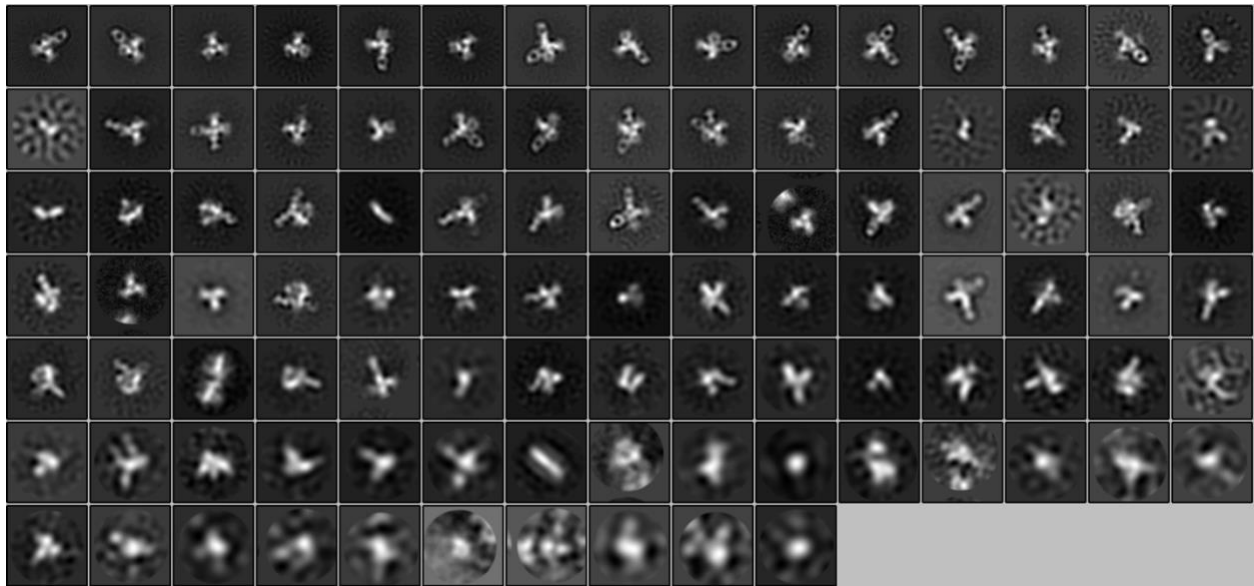


Fig. S10. 2D classes of Rabbit 2382 serum 4 weeks post prime in complex with ConM SOSIP.v7. Initial 2D classes of polyclonal Fab in complex with ConM SOSIP.v7. Complex was incubated overnight and SEC purified before adding to nsEM grid.

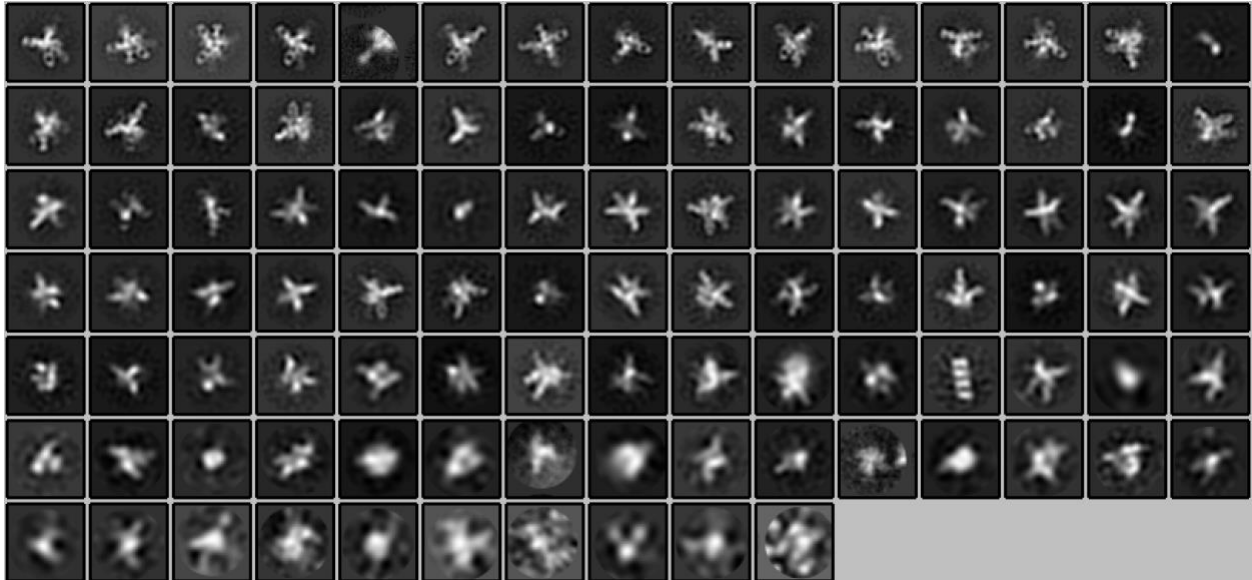


Fig. S11. Rabbit 2382 serum 8 weeks post prime and 2 weeks post boost 1 in complex with ConM SOSIP.v7. Initial 2D classes of polyclonal Fab in complex with ConM SOSIP.v7. Complex was incubated overnight and SEC purified before adding to nsEM grid.

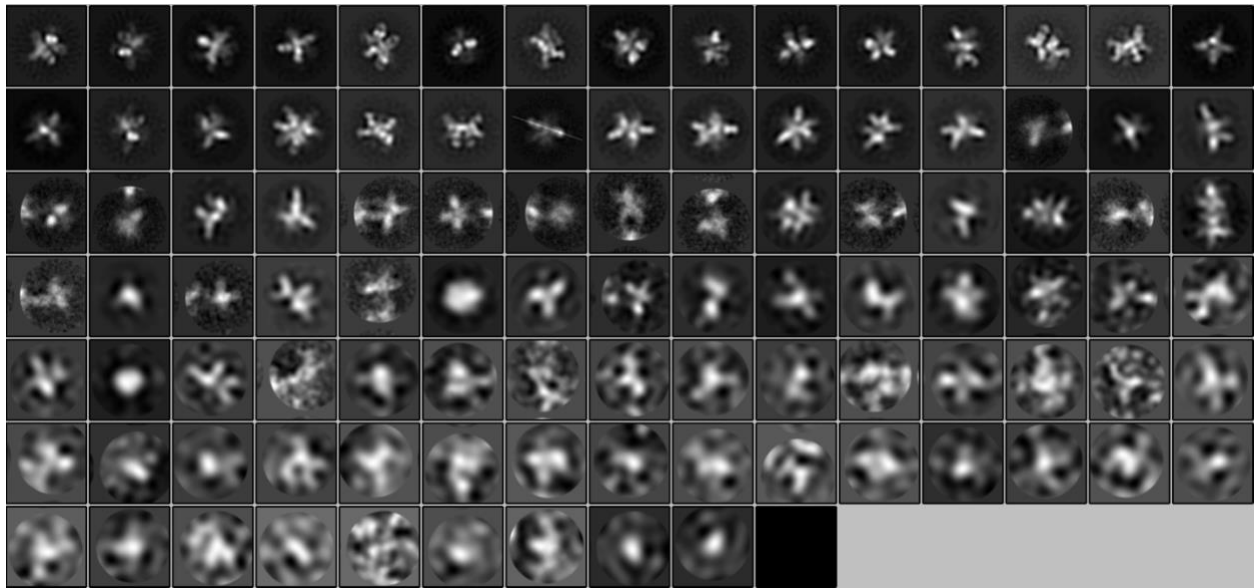


Fig. S12. Rabbit 2382 serum 22 weeks post prime and 2 weeks post boost 2 in complex with ConM SOSIP.v7. Initial 2D classes of polyclonal Fab in complex with ConM SOSIP.v7. Complex was incubated overnight and SEC purified before adding to nsEM grid.

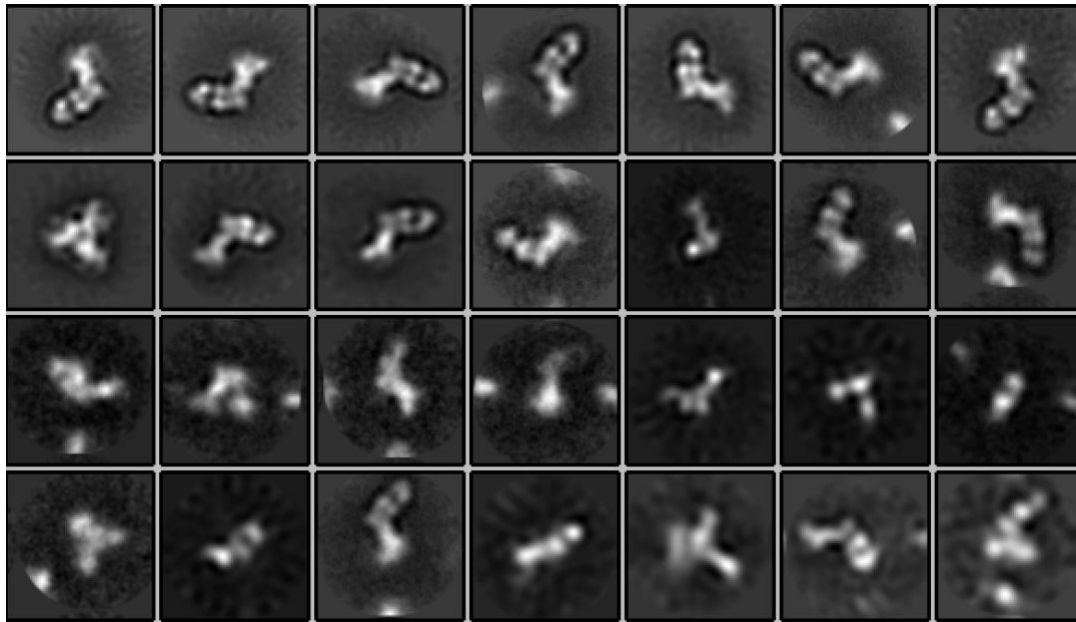


Fig. S13. 2D classes of RM20C in complex with BG505v3. Initial 2D classes of RM20C fab in complex with version 3 of BG505 SOSIP.664. Complex was incubated overnight and placed on a nsEM grid.

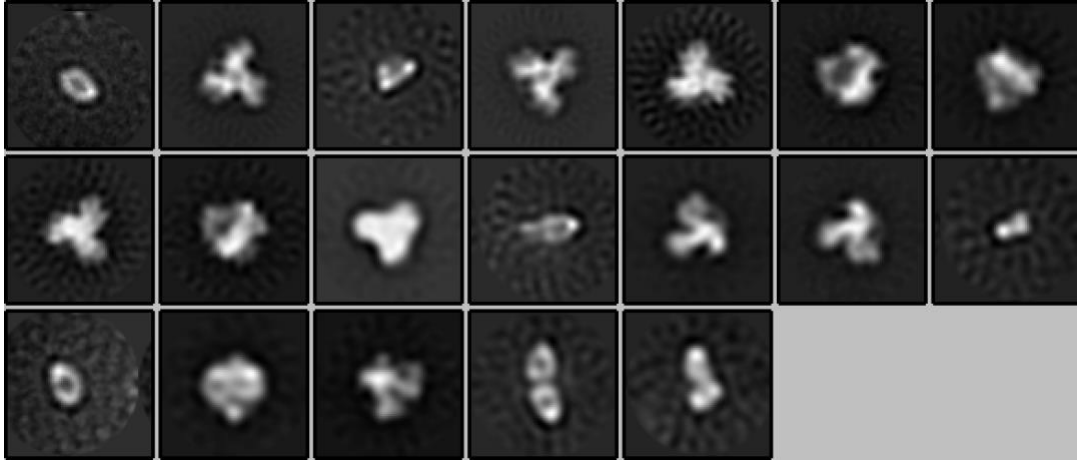


Fig. S14. 2D classes of RM20C in complex with BG505v5.2 CC2. Initial 2D classes of RM20C fab in complex with BG505 SOSIP.664 CC2. Complex was incubated overnight and placed on a nsEM grid.

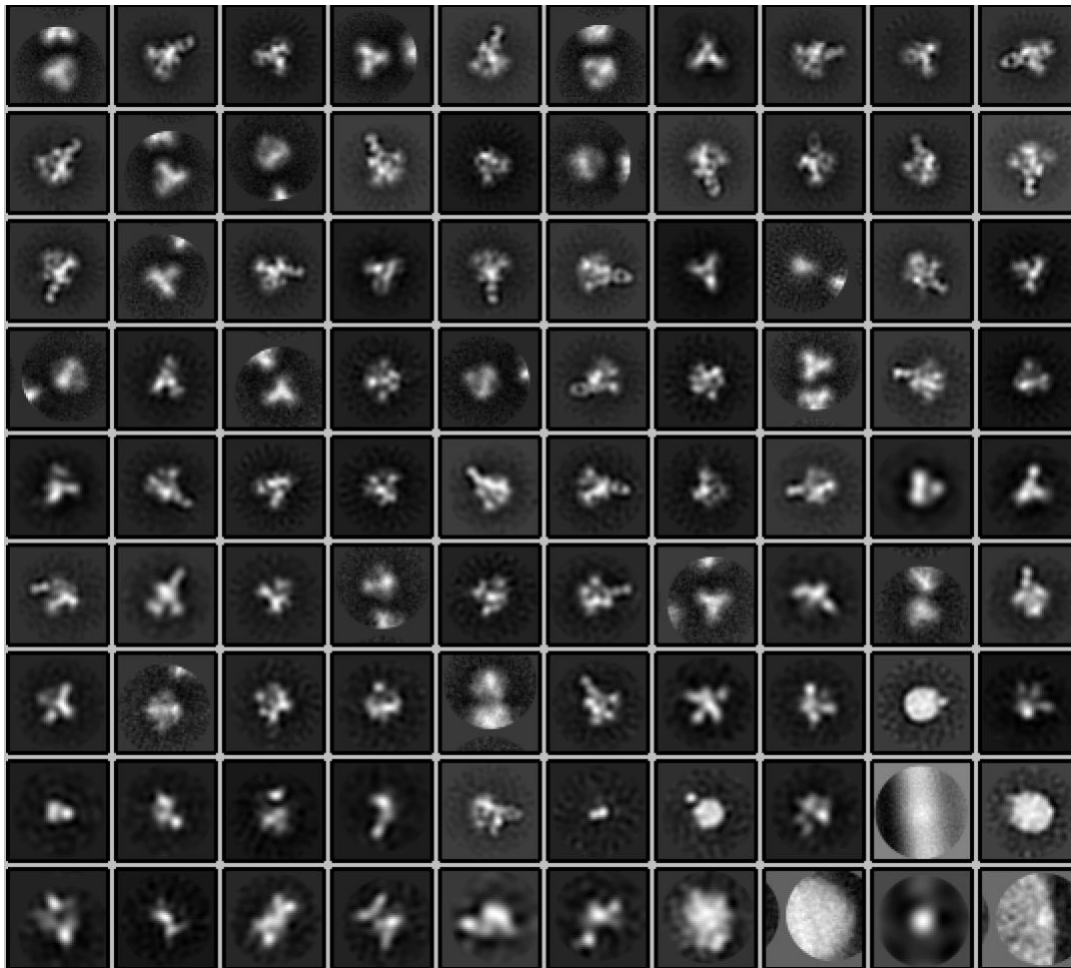


Fig. S15. 2D classes of RM20C in complex with EDC BG505 SOSIP.664. Initial 2D classes of RM20C fab in complex with chemical crosslinked (edc) BG505 SOSIP.664. Complex was incubated overnight and placed on a nsEM grid.

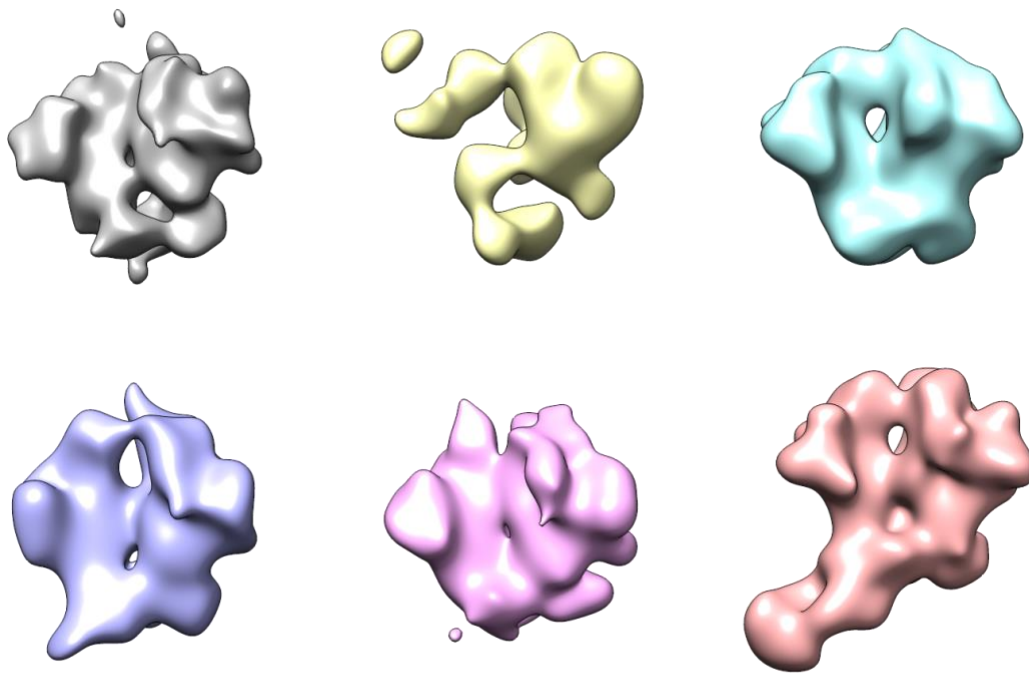


Fig. S16. 3D classes of RM20C in complex with EDC BG505 SOSIP.664. Particles from Class 6 (salmon colored) were selected for 3D refinement (EMD-23373).

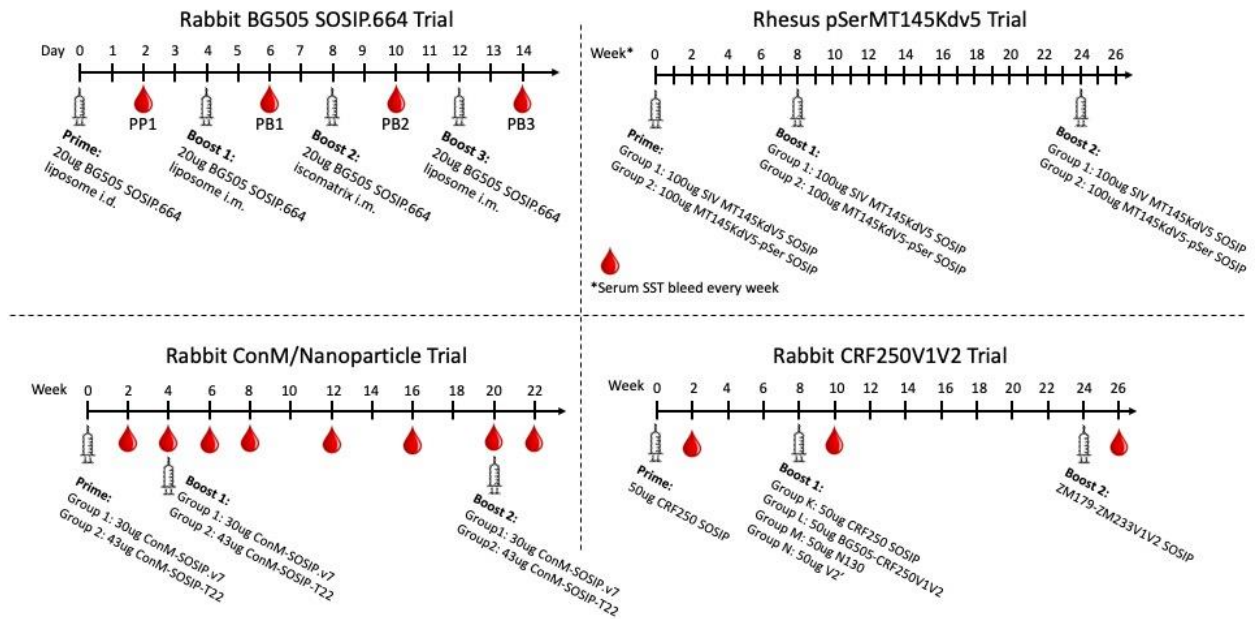


Fig. S17 Immunization schedules for samples described. The serum samples used in this paper came from different animal immunization experiments. Longitudinal studies were conducted from rabbits in ConM/Nanoparticle and BG505 SOSIP.664 Env trimer trials.