

Figure S1. Virus neutralization profiles of the vaccine-elicited V3 mAbs. The maximal virus entry inhibition (%) mediated by mAbs at 50 μ g/ml is displayed by bar graphs with standard error marked. Antibodies are grouped in three categories: cross-reactive tier 2 virus neutralizing mAbs (Cr-tier 2 Neut.), autologous tier 2 virus neutralizing mAbs (Au-tier 2 Neut.), as well as non-tier 2 virus neutralizing mAbs (Non-tier 2 Neut.). For each mAb, tier 1 virus neutralization plot is displayed on the left side, while that for tier 2 viruses on the right side.

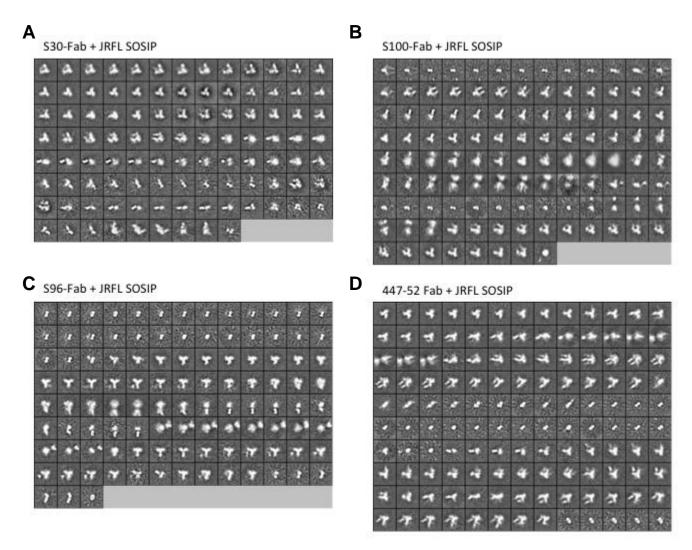


Figure S2. Negative stain EM of V3 mAb Fab and HIV JR-FL SOSIP.664 Env trimer complex. 2D classes of complex are shown. (**A**) S30-Fab + JRFL SOSIP, 9,996 particles were selected from 100 images, with 0-2 Fabs binding to SOSIP trimer. Unbound Fab also appeared in the class averages. (**B**) S96-Fab + JRFL SOSIP, 11,368 particles were selected from 107 images. Complexes with a single Fab bound and unliganded trimer appeared in the class averages. (**C**) S100-Fab + JRFL SOSIP, 12,492 particles were selected from 112 images. Trimers with 0-2 Fabs and unbound Fab appeared in the class averages. (**D**) 447-52D Fab + JRFL SOSIP, 16,855 particles were selected from 130 images. 0-3 Fabs were visible on trimers as well as unbound Fab. In all cases the unbound Fab was likely due to excess amount added during the complex formation process.