



**Supplementary Figure 1. Neutralization of SIVsm Env panel by SIV-infected pools and monoclonal antibodies.** Eight different reagents were serially diluted five-fold and tested for their neutralizing capacity against pseudoviruses expressing each SIVsm Env from the panel using the Tzm-bl assay, with luciferase activity as the readout. The reagents used were a mAb from an SIV-infected rhesus macaque that targets V3 (A, 3.11H), two mAbs from an HIV-2 infected patient that target the CD4bs (C, 6.10B) and a CD4i epitope (E, 1.4H), and a mAb from an immunized mouse that targets an undefined epitope on gp120 (G, anti-mac251 gp120), plasma pools from experimentally SIVmac239-infected (B, RM239) and SIVmac251-infected rhesus macaques and (D, RM251-1), a serum pool from a different set of experimentally SIVmac251-infected rhesus macaques (F, RM251-2), a plasma pool from naturally SIV-infected sooty mangabeys (H, SM). More details are provided for each reagent in Table 3. The reciprocal dilution of plasma/serum or reagent concentration is presented on the x-axis on a log<sub>10</sub> scale, and the percent viral infectivity relative to the absence of test plasma/serum or reagent (100%) is shown on the y-axis. The Env pseudoviruses are colored according to tier (tier 1a is black, tier 1b is gray, tier 2 is green, tier 3 is red). Each Env pseudovirus and reagent/serum/plasma combination was tested in duplicate wells in at least two independent experiments, and the standard error of the mean (SEM) is shown by error bars on the graphs.

Table S1. Immunized animals that were sampled for the serum pools for each vaccine trial

M11 - Week 13 Post-MVA				M12 - Week 13 Post-MVA				M2 - Week 2 Post-Protein boost				M15 - Week 2 Post-MVA			
Trial	Vaccination	Animal	Infected	Trial	Vaccination	Animal	Infected	Trial	Vaccination	Animal	Infected	Trial	Vaccination	Animal	Infected
M11	DDMM	RAw10	Yes	M12	DM/CD40L	GE04	Yes	M2	Protein+Alum	RSe8	Yes	M15	DDMM	VXW	Yes
M11	DDMM	RQw9	Yes	M12	DM/CD40L	RNd12	Yes	M2	Protein+Alum	RNe8	Yes	M15	DDMM	REb5	Yes
M11	DDMM	RDu10	Yes	M12	DM/CD40L	GL08	Yes	M2	Protein+Alum	Rlc4	Yes	M15	DDMM	RRo10	Yes
M11	DDMM	RJn11	Yes	M12	DM/CD40L	RGg11	Yes	M2	Protein+Alum	RWf5	Yes	M15	DDMM	RCp5	Yes
M11	DDMM	RTi10	Yes	M12	DM/CD40L	FR95	Yes	M2	Protein+Alum	RWv8	Yes	M15	DDMM	RSz10	Yes
M11	DDMM	RJf11	Yes	M12	DM/CD40L	GC66	Yes	M2	Protein+Alum	RKa7	Yes	M15	DgDgMM	RWk5	Yes
M11	DgDgMM	RTs10	Yes	M12	DM/CD40L	FP36	Yes	M2	Protein+Alum	RJg4	Yes	M15	DgDgMM	RQt5	Yes
M11	DgDgMM	RRa11	Yes	M12	DM/CD40L	FT75	Yes	M2	Protein+NP	RHe4	Yes	M15	DgDgMM	RPe8	Yes
M11	MMM	RQh11	Yes	M12	DM/CD40L	GM06	No	M2	Protein+NP	RPs6	Yes	M15	DgDgMM	RTq3	Yes
M11	MMM	RLk11	Yes	M12	DM/CD40L	RKb12	No	M2	Protein+NP	RMv5	Yes	M15	DgDgMM	RKq10	Yes
M11	MMM	RVc11	Yes	M12	DM/CD40L	RQk11	No	M2	Protein+NP	RUj5	Yes	M15	DgDgMM	RBc6	Yes
M11	MMM	RDb10	Yes	M12	DM/CD40L	GM99	No	M2	Protein+NP	RMj7	Yes	M15	DgDgMM	RAg10	Yes
M11	MMM	RLi10	Yes					M2	VLP+Alum	RKu9	Yes	M15	DDMM	RTv10	No
M11	MMM	RJI10	Yes					M2	VLP+Alum	RWt7	Yes	M15	DDMM	RGp11	No
M11	DDMM	RZp10	No					M2	VLP+Alum	RAC6	Yes	M15	DDMM	RWr4	No
M11	DDMM	RNI11	No					M2	VLP+Alum	RPk8	Yes	M15	DDMM	RNd7	No
M11	DgDgMM	RFm11	No					M2	VLP+Alum	RCi8	Yes	M15	DgDgMM	RWe10	No
M11	DgDgMM	RKk11	No					M2	VLP+Alum	RCj7	Yes	M15	DgDgMM	RZb10	No
M11	DgDgMM	RPv10	No					M2	VLP+NP	RBh9	Yes	M15	DgDgMM	RLq9	No
M11	DgDgMM	RWg11	No					M2	VLP+NP	REe8	Yes				
M11	DgDgMM	RLe11	No					M2	VLP+NP	RJe8	Yes				
M11	MMM	RUh11	No					M2	VLP+NP	Rij9	Yes				
M11	MMM	RKk10	No					M2	Protein+Alum	RZc5	No				
								M2	Protein+Alum	RVd8	No				
								M2	Protein+Alum	RNf7	No				
								M2	Protein+NP	RQm7	No				
								M2	Protein+NP	RQq8	No				
								M2	Protein+NP	RSp9	No				
								M2	Protein+NP	RSb9	No				
								M2	Protein+NP	RAj9	No				
								M2	VLP+Alum	RVo8	No				
								M2	VLP+Alum	RCv5	No				
								M2	VLP+NP	RRu5	No				
								M2	VLP+NP	RCb6	No				
								M2	VLP+NP	RQf6	No				
								M2	VLP+NP	RKf10	No				
								M2	VLP+NP	ROk9	No				

DDMM = two DNA primes followed by two MVA boosts

DgDgMM = two DNA primes adjuvanted with GM-CSF followed by two MVA boosts

DM/CD40L = two DNA primes adjuvanted with CD40 Ligand followed by two MVA boosts

NP = PLGA nanoparticles with TLR ligands MPL plus R848

VLP = virus like particles