

**Table S1.** Statistical results<sup>§</sup> for all comparisons between groups with and without bnAb.

Assay	Note	group1	group2	week	variable	unadjusted.p	FDR_p
BAMA	Antigen = bama_1086c_gp140	Env only	Env+bnAb	2	bama_1086c_gp140	0.1746	1.00
BAMA	Antigen = bama_1086c_gp140	Env only	Env+bnAb	8	bama_1086c_gp140	0.2222	1.00
BAMA	Antigen = bama_1086c_gp140	Env only	Env+bnAb	14	bama_1086c_gp140	0.5476	1.00
BAMA	Antigen = bama_1086c_gp140	MVA/Env	MVA/Env+bnAb	2	bama_1086c_gp140	0.9603	1.00
BAMA	Antigen = bama_1086c_gp140	MVA/Env	MVA/Env+bnAb	8	bama_1086c_gp140	0.6905	1.00
BAMA	Antigen = bama_1086c_gp140	MVA/Env	MVA/Env+bnAb	14	bama_1086c_gp140	0.2222	1.00
Neutralization	Virus = MW965.26.LucR.T2A.ecto	Env only	Env+bnAb	2	point_ic50	0.2063	1.00
Neutralization	Virus = MW965.26.LucR.T2A.ecto	Env only	Env+bnAb	8	point_ic50	0.6905	1.00
Neutralization	Virus = MW965.26.LucR.T2A.ecto	Env only	Env+bnAb	14	point_ic50	0.0952	1.00
Neutralization	Virus = MW965.26.LucR.T2A.ecto	MVA/Env	MVA/Env+bnAb	2	point_ic50	1.0000	1.00
Neutralization	Virus = MW965.26.LucR.T2A.ecto	MVA/Env	MVA/Env+bnAb	8	point_ic50	0.5476	1.00
Neutralization	Virus = MW965.26.LucR.T2A.ecto	MVA/Env	MVA/Env+bnAb	14	point_ic50	0.8413	1.00
Infected Cell Binding	Against 1086C	Env only	Env+bnAb	2	Inf1086CMFI	0.6984	1.00
Infected Cell Binding	Against 1086C	Env only	Env+bnAb	8	Inf1086CMFI	0.8413	1.00
Infected Cell Binding	Against 1086C	Env only	Env+bnAb	14	Inf1086CMFI	1.0000	1.00
Infected Cell Binding	Against 1086C	MVA/Env	MVA/Env+bnAb	2	Inf1086CMFI	0.8730	1.00
Infected Cell Binding	Against 1086C	MVA/Env	MVA/Env+bnAb	8	Inf1086CMFI	0.8413	1.00
Infected Cell Binding	Against 1086C	MVA/Env	MVA/Env+bnAb	14	Inf1086CMFI	0.4206	1.00
ADCC	Titer	Env only	Env+bnAb	2	Titer	1.0000	1.00
ADCC	Titer	Env only	Env+bnAb	8	Titer	0.6905	1.00
ADCC	Titer	Env only	Env+bnAb	14	Titer	0.6905	1.00
ADCC	Titer	MVA/Env	MVA/Env+bnAb	2	Titer	1.0000	1.00
ADCC	Titer	MVA/Env	MVA/Env+bnAb	8	Titer	0.8413	1.00
ADCC	Titer	MVA/Env	MVA/Env+bnAb	14	Titer	0.5476	1.00
sCD4 Blocking	Percent CD4 Blocking	Env only	Env+bnAb	1	Percentage_CD4_B	1.0000	1.00
sCD4 Blocking	Percent CD4 Blocking	Env only	Env+bnAb	2	Percentage_CD4_B	1.0000	1.00
sCD4 Blocking	Percent CD4 Blocking	Env only	Env+bnAb	8	Percentage_CD4_B	0.3095	1.00
sCD4 Blocking	Percent CD4 Blocking	Env only	Env+bnAb	14	Percentage_CD4_B	0.6905	1.00
sCD4 Blocking	Percent CD4 Blocking	MVA/Env	MVA/Env+bnAb	1	Percentage_CD4_B	1.0000	1.00
sCD4 Blocking	Percent CD4 Blocking	MVA/Env	MVA/Env+bnAb	2	Percentage_CD4_B	1.0000	1.00
sCD4 Blocking	Percent CD4 Blocking	MVA/Env	MVA/Env+bnAb	8	Percentage_CD4_B	0.0317	1.00
sCD4 Blocking	Percent CD4 Blocking	MVA/Env	MVA/Env+bnAb	14	Percentage_CD4_B	0.8413	1.00

Elisa	Antigen = 1086.c.gp120 NHP IgG	Env only	Env+bnAb	2 conc_binding_abs	0.1111	1.00
Elisa	Antigen = 1086.c.gp120 NHP IgG	Env only	Env+bnAb	8 conc_binding_abs	0.8413	1.00
Elisa	Antigen = 1086.c.gp120 NHP IgG	Env only	Env+bnAb	14 conc_binding_abs	0.2222	1.00
Elisa	Antigen = 1086.c.gp120 NHP IgG	MVA/Env	MVA/Env+bnAb	2 conc_binding_abs	0.9048	1.00
Elisa	Antigen = 1086.c.gp120 NHP IgG	MVA/Env	MVA/Env+bnAb	8 conc_binding_abs	0.8413	1.00
Elisa	Antigen = 1086.c.gp120 NHP IgG	MVA/Env	MVA/Env+bnAb	14 conc_binding_abs	1.0000	1.00
BAMA	Antigen = gp140_mean	Env only	Env+bnAb	2 gp140_mean	0.2143	1.00
BAMA	Antigen = gp140_mean	Env only	Env+bnAb	8 gp140_mean	0.2222	1.00
BAMA	Antigen = gp140_mean	Env only	Env+bnAb	14 gp140_mean	1.0000	1.00
BAMA	Antigen = gp140_mean	MVA/Env	MVA/Env+bnAb	2 gp140_mean	0.9762	1.00
BAMA	Antigen = gp140_mean	MVA/Env	MVA/Env+bnAb	8 gp140_mean	0.8413	1.00
BAMA	Antigen = gp140_mean	MVA/Env	MVA/Env+bnAb	14 gp140_mean	0.6905	1.00
BAMA	Antigen = gp120_mean	Env only	Env+bnAb	2 gp120_mean	0.5556	1.00
BAMA	Antigen = gp120_mean	Env only	Env+bnAb	8 gp120_mean	0.6905	1.00
BAMA	Antigen = gp120_mean	Env only	Env+bnAb	14 gp120_mean	0.8413	1.00
BAMA	Antigen = gp120_mean	MVA/Env	MVA/Env+bnAb	2 gp120_mean	0.9048	1.00
BAMA	Antigen = gp120_mean	MVA/Env	MVA/Env+bnAb	8 gp120_mean	1.0000	1.00
BAMA	Antigen = gp120_mean	MVA/Env	MVA/Env+bnAb	14 gp120_mean	0.2222	1.00
BAMA	Antigen = V1V2_mean	Env only	Env+bnAb	2 V1V2_mean	0.2857	1.00
BAMA	Antigen = V1V2_mean	Env only	Env+bnAb	8 V1V2_mean	0.3095	1.00
BAMA	Antigen = V1V2_mean	Env only	Env+bnAb	14 V1V2_mean	0.4206	1.00
BAMA	Antigen = V1V2_mean	MVA/Env	MVA/Env+bnAb	2 V1V2_mean	1.0000	1.00
BAMA	Antigen = V1V2_mean	MVA/Env	MVA/Env+bnAb	8 V1V2_mean	1.0000	1.00
BAMA	Antigen = V1V2_mean	MVA/Env	MVA/Env+bnAb	14 V1V2_mean	0.6905	1.00
BAMA	Antigen = V3_mean	Env only	Env+bnAb	2 V3_mean	0.1905	1.00
BAMA	Antigen = V3_mean	Env only	Env+bnAb	8 V3_mean	0.1508	1.00
BAMA	Antigen = V3_mean	Env only	Env+bnAb	14 V3_mean	0.4206	1.00
BAMA	Antigen = V3_mean	MVA/Env	MVA/Env+bnAb	2 V3_mean	0.9048	1.00
BAMA	Antigen = V3_mean	MVA/Env	MVA/Env+bnAb	8 V3_mean	1.0000	1.00
BAMA	Antigen = V3_mean	MVA/Env	MVA/Env+bnAb	14 V3_mean	0.4206	1.00
BAMA	Antigen = bio_v2_b	Env only	Env+bnAb	2 bio_v2_b	0.0397	1.00
BAMA	Antigen = bio_v2_b	Env only	Env+bnAb	8 bio_v2_b	1.0000	1.00
BAMA	Antigen = bio_v2_b	Env only	Env+bnAb	14 bio_v2_b	0.4206	1.00
BAMA	Antigen = bio_v2_b	MVA/Env	MVA/Env+bnAb	2 bio_v2_b	0.9048	1.00

BAMA	Antigen = bio_v2_b	MVA/Env	MVA/Env+bnAb	8 bio_v2_b	0.5476	1.00
BAMA	Antigen = bio_v2_b	MVA/Env	MVA/Env+bnAb	14 bio_v2_b	1.0000	1.00
BAMA	Antigen = c5_c	Env only	Env+bnAb	2 c5_c	0.3651	1.00
BAMA	Antigen = c5_c	Env only	Env+bnAb	8 c5_c	1.0000	1.00
BAMA	Antigen = c5_c	Env only	Env+bnAb	14 c5_c	0.6905	1.00
BAMA	Antigen = c5_c	MVA/Env	MVA/Env+bnAb	2 c5_c	1.0000	1.00
BAMA	Antigen = c5_c	MVA/Env	MVA/Env+bnAb	8 c5_c	0.8413	1.00
BAMA	Antigen = c5_c	MVA/Env	MVA/Env+bnAb	14 c5_c	0.6905	1.00
BAMA	Antigen = c1_biotin	Env only	Env+bnAb	2 c1_biotin	0.1111	1.00
BAMA	Antigen = c1_biotin	Env only	Env+bnAb	8 c1_biotin	1.0000	1.00
BAMA	Antigen = c1_biotin	Env only	Env+bnAb	14 c1_biotin	0.6905	1.00
BAMA	Antigen = c1_biotin	MVA/Env	MVA/Env+bnAb	2 c1_biotin	0.7778	1.00
BAMA	Antigen = c1_biotin	MVA/Env	MVA/Env+bnAb	8 c1_biotin	0.3095	1.00
BAMA	Antigen = c1_biotin	MVA/Env	MVA/Env+bnAb	14 c1_biotin	0.4206	1.00
Epitope Mapping	Epitope = C1.1_34-36	Env only	Env+bnAb	2 Signal	0.7222	1.00
Epitope Mapping	Epitope = C1.1_34-36	Env only	Env+bnAb	8 Signal	0.2063	1.00
Epitope Mapping	Epitope = C1.1_34-36	MVA/Env	MVA/Env+bnAb	2 Signal	0.1667	1.00
Epitope Mapping	Epitope = C1.1_34-36	MVA/Env	MVA/Env+bnAb	8 Signal	0.3810	1.00
Epitope Mapping	Epitope = V2_53-55	Env only	Env+bnAb	2 Signal	0.1667	1.00
Epitope Mapping	Epitope = V2_53-55	Env only	Env+bnAb	8 Signal	0.2857	1.00
Epitope Mapping	Epitope = V2_53-55	MVA/Env	MVA/Env+bnAb	2 Signal	1.0000	1.00
Epitope Mapping	Epitope = V2_53-55	MVA/Env	MVA/Env+bnAb	8 Signal	0.1429	1.00
Epitope Mapping	Epitope = C2.1_65-67	Env only	Env+bnAb	2 Signal	0.7222	1.00
Epitope Mapping	Epitope = C2.1_65-67	Env only	Env+bnAb	8 Signal	0.4048	1.00
Epitope Mapping	Epitope = C2.1_65-67	MVA/Env	MVA/Env+bnAb	2 Signal	0.4444	1.00
Epitope Mapping	Epitope = C2.1_65-67	MVA/Env	MVA/Env+bnAb	8 Signal	1.0000	1.00
Epitope Mapping	Epitope = C2.2_70-73	Env only	Env+bnAb	2 Signal	0.4048	1.00
Epitope Mapping	Epitope = C2.2_70-73	Env only	Env+bnAb	8 Signal	0.0635	1.00
Epitope Mapping	Epitope = C2.2_70-73	MVA/Env	MVA/Env+bnAb	2 Signal	0.8413	1.00
Epitope Mapping	Epitope = C2.2_70-73	MVA/Env	MVA/Env+bnAb	8 Signal	0.4921	1.00
Epitope Mapping	Epitope = C2.4_88-89	Env only	Env+bnAb	2 Signal	1.0000	1.00
Epitope Mapping	Epitope = C2.4_88-89	Env only	Env+bnAb	8 Signal	1.0000	1.00
Epitope Mapping	Epitope = C2.4_88-89	MVA/Env	MVA/Env+bnAb	2 Signal	1.0000	1.00
Epitope Mapping	Epitope = C2.4_88-89	MVA/Env	MVA/Env+bnAb	8 Signal	1.0000	1.00

Epitope Mapping	Epitope = V3_99-102	Env only	Env+bnAb	2 Signal	0.3095	1.00
Epitope Mapping	Epitope = V3_99-102	Env only	Env+bnAb	8 Signal	0.3095	1.00
Epitope Mapping	Epitope = V3_99-102	MVA/Env	MVA/Env+bnAb	2 Signal	0.9762	1.00
Epitope Mapping	Epitope = V3_99-102	MVA/Env	MVA/Env+bnAb	8 Signal	0.4206	1.00
Epitope Mapping	Epitope = C3_112-114	Env only	Env+bnAb	2 Signal	0.4444	1.00
Epitope Mapping	Epitope = C3_112-114	Env only	Env+bnAb	8 Signal	1.0000	1.00
Epitope Mapping	Epitope = C3_112-114	MVA/Env	MVA/Env+bnAb	2 Signal	1.0000	1.00
Epitope Mapping	Epitope = C3_112-114	MVA/Env	MVA/Env+bnAb	8 Signal	0.9365	1.00
Epitope Mapping	Epitope = C3.2_116-117	Env only	Env+bnAb	2 Signal	0.7222	1.00
Epitope Mapping	Epitope = C3.2_116-117	Env only	Env+bnAb	8 Signal	1.0000	1.00
Epitope Mapping	Epitope = C3.2_116-117	MVA/Env	MVA/Env+bnAb	2 Signal	1.0000	1.00
Epitope Mapping	Epitope = C3.2_116-117	MVA/Env	MVA/Env+bnAb	8 Signal	0.0476	1.00
Epitope Mapping	Epitope = V5_146-149	Env only	Env+bnAb	2 Signal	0.4048	1.00
Epitope Mapping	Epitope = V5_146-149	Env only	Env+bnAb	8 Signal	0.4603	1.00
Epitope Mapping	Epitope = V5_146-149	MVA/Env	MVA/Env+bnAb	2 Signal	1.0000	1.00
Epitope Mapping	Epitope = V5_146-149	MVA/Env	MVA/Env+bnAb	8 Signal	0.5476	1.00
Epitope Mapping	Epitope = C5.1_152-153	Env only	Env+bnAb	2 Signal	1.0000	1.00
Epitope Mapping	Epitope = C5.1_152-153	Env only	Env+bnAb	8 Signal	0.5873	1.00
Epitope Mapping	Epitope = C5.1_152-153	MVA/Env	MVA/Env+bnAb	2 Signal	0.4444	1.00
Epitope Mapping	Epitope = C5.1_152-153	MVA/Env	MVA/Env+bnAb	8 Signal	0.4921	1.00
Epitope Mapping	Epitope = C5.2_159-161	Env only	Env+bnAb	2 Signal	0.7937	1.00
Epitope Mapping	Epitope = C5.2_159-161	Env only	Env+bnAb	8 Signal	0.0317	1.00
Epitope Mapping	Epitope = C5.2_159-161	MVA/Env	MVA/Env+bnAb	2 Signal	0.9206	1.00
Epitope Mapping	Epitope = C5.2_159-161	MVA/Env	MVA/Env+bnAb	8 Signal	0.9683	1.00
Neutralization	Virus = SO032_A2.8-1	Env only	Env+bnAb	14 point_ic50	0.0952	1.00
Neutralization	Virus = SO032_A2.8-1	MVA/Env	MVA/Env+bnAb	14 point_ic50	0.5476	1.00
Infected Cell Binding	Against CM235	Env only	Env+bnAb	2 InfCM235MFI	0.7222	1.00
Infected Cell Binding	Against CM235	Env only	Env+bnAb	8 InfCM235MFI	0.6905	1.00
Infected Cell Binding	Against CM235	Env only	Env+bnAb	14 InfCM235MFI	0.0317	1.00
Infected Cell Binding	Against CM235	MVA/Env	MVA/Env+bnAb	2 InfCM235MFI	0.1667	1.00
Infected Cell Binding	Against CM235	MVA/Env	MVA/Env+bnAb	8 InfCM235MFI	1.0000	1.00
Infected Cell Binding	Against CM235	MVA/Env	MVA/Env+bnAb	14 InfCM235MFI	0.1508	1.00
Infected Cell Binding	Against WITO	Env only	Env+bnAb	2 InfWITOMFI	0.5238	1.00
Infected Cell Binding	Against WITO	Env only	Env+bnAb	8 InfWITOMFI	0.8889	1.00

Infected Cell Binding	Against WITO	Env only	Env+bnAb	14	InfWITOMFI	0.6905	1.00
Infected Cell Binding	Against WITO	MVA/Env	MVA/Env+bnAb	2	InfWITOMFI	1.0000	1.00
Infected Cell Binding	Against WITO	MVA/Env	MVA/Env+bnAb	8	InfWITOMFI	1.0000	1.00
Infected Cell Binding	Against WITO	MVA/Env	MVA/Env+bnAb	14	InfWITOMFI	0.4206	1.00
ADCC	Peak activity	Env only	Env+bnAb	2	Peak	0.9048	1.00
ADCC	Peak activity	Env only	Env+bnAb	8	Peak	0.6905	1.00
ADCC	Peak activity	Env only	Env+bnAb	14	Peak	0.3095	1.00
ADCC	Peak activity	MVA/Env	MVA/Env+bnAb	2	Peak	0.9762	1.00
ADCC	Peak activity	MVA/Env	MVA/Env+bnAb	8	Peak	0.5476	1.00
ADCC	Peak activity	MVA/Env	MVA/Env+bnAb	14	Peak	1.0000	1.00
Avidity	koff, Antigen = SHIV-1157ipd3N4 deli	Env only	Env+bnAb	8	ant1_koff	1.0000	1.00
Avidity	koff, Antigen = SHIV-1157ipd3N4 deli	Env only	Env+bnAb	14	ant1_koff	0.1508	1.00
Avidity	koff, Antigen = SHIV-1157ipd3N4 deli	MVA/Env	MVA/Env+bnAb	8	ant1_koff	0.2222	1.00
Avidity	koff, Antigen = SHIV-1157ipd3N4 deli	MVA/Env	MVA/Env+bnAb	14	ant1_koff	0.4206	1.00
Avidity	koff, Antigen = 1086D7gp120K160N	Env only	Env+bnAb	8	ant3_koff	0.4524	1.00
Avidity	koff, Antigen = 1086D7gp120K160N	Env only	Env+bnAb	14	ant3_koff	0.4206	1.00
Avidity	koff, Antigen = 1086D7gp120K160N	MVA/Env	MVA/Env+bnAb	8	ant3_koff	0.5476	1.00
Avidity	koff, Antigen = 1086D7gp120K160N	MVA/Env	MVA/Env+bnAb	14	ant3_koff	0.6905	1.00
Avidity	koff, Antigen = gp70-B.CaseA2 V1V2/	Env only	Env+bnAb	14	ant5_koff	0.7000	1.00
Avidity	koff, Antigen = gp70-B.CaseA2 V1V2/	MVA/Env	MVA/Env+bnAb	8	ant5_koff	0.6667	1.00
Avidity	koff, Antigen = gp70-B.CaseA2 V1V2/	MVA/Env	MVA/Env+bnAb	14	ant5_koff	1.0000	1.00
Avidity	koff, Antigen = gp70ConC_V3tags	Env only	Env+bnAb	8	ant6_koff	0.2222	1.00
Avidity	koff, Antigen = gp70ConC_V3tags	Env only	Env+bnAb	14	ant6_koff	0.8413	1.00
Avidity	koff, Antigen = gp70ConC_V3tags	MVA/Env	MVA/Env+bnAb	8	ant6_koff	0.9048	1.00
Avidity	koff, Antigen = gp70ConC_V3tags	MVA/Env	MVA/Env+bnAb	14	ant6_koff	0.0556	1.00
Avidity	koff, Antigen = C.1086C V1V2 Tag	Env only	Env+bnAb	8	ant4_koff	0.5000	1.00
Avidity	koff, Antigen = C.1086C V1V2 Tag	Env only	Env+bnAb	14	ant4_koff	0.0714	1.00
Avidity	koff, Antigen = C.1086C V1V2 Tag	MVA/Env	MVA/Env+bnAb	8	ant4_koff	1.0000	1.00
Avidity	koff, Antigen = C.1086C V1V2 Tag	MVA/Env	MVA/Env+bnAb	14	ant4_koff	0.9048	1.00
Avidity	koff, Antigen = Bio-V2-1086.C	Env only	Env+bnAb	14	ant7_koff	0.5000	1.00
Avidity	koff, Antigen = Bio-V2-1086.C	MVA/Env	MVA/Env+bnAb	14	ant7_koff	1.0000	1.00
Avidity	koff, Antigen = Bio-V3.C	Env only	Env+bnAb	14	ant8_koff	1.0000	1.00
Avidity	koff, Antigen = Bio-V3.C	MVA/Env	MVA/Env+bnAb	14	ant8_koff	0.5000	1.00
Infected Cell Binding	Against 1086C	Env only	Env+bnAb	2	Inf1086CPctFITCP	0.4444	1.00

Infected Cell Binding	Against 1086C	Env only	Env+bnAb	8	Inf1086CPctFITCP	0.8413	1.00
Infected Cell Binding	Against 1086C	Env only	Env+bnAb	14	Inf1086CPctFITCP	1.0000	1.00
Infected Cell Binding	Against 1086C	MVA/Env	MVA/Env+bnAb	2	Inf1086CPctFITCP	0.2460	1.00
Infected Cell Binding	Against 1086C	MVA/Env	MVA/Env+bnAb	8	Inf1086CPctFITCP	0.8413	1.00
Infected Cell Binding	Against 1086C	MVA/Env	MVA/Env+bnAb	14	Inf1086CPctFITCP	0.4206	1.00
Infected Cell Binding	Against CM235	Env only	Env+bnAb	2	InfCM235PctFITCP	0.1349	1.00
Infected Cell Binding	Against CM235	Env only	Env+bnAb	8	InfCM235PctFITCP	1.0000	1.00
Infected Cell Binding	Against CM235	Env only	Env+bnAb	14	InfCM235PctFITCP	0.0317	1.00
Infected Cell Binding	Against CM235	MVA/Env	MVA/Env+bnAb	2	InfCM235PctFITCP	0.4921	1.00
Infected Cell Binding	Against CM235	MVA/Env	MVA/Env+bnAb	8	InfCM235PctFITCP	1.0000	1.00
Infected Cell Binding	Against CM235	MVA/Env	MVA/Env+bnAb	14	InfCM235PctFITCP	0.2222	1.00
Infected Cell Binding	Against WITO	Env only	Env+bnAb	2	InfWITOPctFITCPo	0.3889	1.00
Infected Cell Binding	Against WITO	Env only	Env+bnAb	8	InfWITOPctFITCPo	1.0000	1.00
Infected Cell Binding	Against WITO	Env only	Env+bnAb	14	InfWITOPctFITCPo	1.0000	1.00
Infected Cell Binding	Against WITO	MVA/Env	MVA/Env+bnAb	2	InfWITOPctFITCPo	0.3889	1.00
Infected Cell Binding	Against WITO	MVA/Env	MVA/Env+bnAb	8	InfWITOPctFITCPo	0.8413	1.00
Infected Cell Binding	Against WITO	MVA/Env	MVA/Env+bnAb	14	InfWITOPctFITCPo	0.4206	1.00
Avidity	avidity, Antigen = SHIV-1157ipd3N4 c	Env only	Env+bnAb	8	ant1_avidity	0.5476	1.00
Avidity	avidity, Antigen = SHIV-1157ipd3N4 c	Env only	Env+bnAb	14	ant1_avidity	0.3095	1.00
Avidity	avidity, Antigen = SHIV-1157ipd3N4 c	MVA/Env	MVA/Env+bnAb	8	ant1_avidity	0.5476	1.00
Avidity	avidity, Antigen = SHIV-1157ipd3N4 c	MVA/Env	MVA/Env+bnAb	14	ant1_avidity	0.6905	1.00
Avidity	avidity, Antigen = 1086D7gp120K160	Env only	Env+bnAb	8	ant3_avidity	0.5476	1.00
Avidity	avidity, Antigen = 1086D7gp120K160	Env only	Env+bnAb	14	ant3_avidity	0.4206	1.00
Avidity	avidity, Antigen = 1086D7gp120K160	MVA/Env	MVA/Env+bnAb	8	ant3_avidity	0.8413	1.00
Avidity	avidity, Antigen = 1086D7gp120K160	MVA/Env	MVA/Env+bnAb	14	ant3_avidity	0.6905	1.00
Avidity	avidity, Antigen = gp70-B.CaseA2 V1\	Env only	Env+bnAb	14	ant5_avidity	1.0000	1.00
Avidity	avidity, Antigen = gp70-B.CaseA2 V1\	MVA/Env	MVA/Env+bnAb	8	ant5_avidity	0.6667	1.00
Avidity	avidity, Antigen = gp70-B.CaseA2 V1\	MVA/Env	MVA/Env+bnAb	14	ant5_avidity	1.0000	1.00
Avidity	avidity, Antigen = gp70ConC_V3tags	Env only	Env+bnAb	8	ant6_avidity	0.2222	1.00
Avidity	avidity, Antigen = gp70ConC_V3tags	Env only	Env+bnAb	14	ant6_avidity	0.8413	1.00
Avidity	avidity, Antigen = gp70ConC_V3tags	MVA/Env	MVA/Env+bnAb	8	ant6_avidity	0.9048	1.00
Avidity	avidity, Antigen = gp70ConC_V3tags	MVA/Env	MVA/Env+bnAb	14	ant6_avidity	0.0556	1.00
Avidity	avidity, Antigen = C.1086C V1V2 Tag	Env only	Env+bnAb	8	ant4_avidity	0.5000	1.00
Avidity	avidity, Antigen = C.1086C V1V2 Tag	Env only	Env+bnAb	14	ant4_avidity	0.2500	1.00

Avidity	avidity, Antigen = C.1086C V1V2 Tag	MVA/Env	MVA/Env+bnAb	8	ant4_avidity	0.8000	1.00
Avidity	avidity, Antigen = C.1086C V1V2 Tag	MVA/Env	MVA/Env+bnAb	14	ant4_avidity	0.9048	1.00
Avidity	avidity, Antigen = Bio-V2-1086.C	Env only	Env+bnAb	14	ant7_avidity	0.5000	1.00
Avidity	avidity, Antigen = Bio-V2-1086.C	MVA/Env	MVA/Env+bnAb	14	ant7_avidity	0.8000	1.00
Avidity	avidity, Antigen = Bio-V3.C	Env only	Env+bnAb	14	ant8_avidity	0.4000	1.00
Avidity	avidity, Antigen = Bio-V3.C	MVA/Env	MVA/Env+bnAb	14	ant8_avidity	0.4000	1.00

<sup>§</sup> Unadjusted p values are Wilcoxon rank sum tests exact p-values. FDR\_p values are the p values adjusted for multiple comparisons using the Benjamini–Hochberg (BH) procedure.

**Table S2.** Statistical results<sup>§</sup> for all comparisons between paired groups with Env only versus MVA/Env immunogens.

Assay	Note	group1	group2	week	variable	unadjusted.p	FDR_p
BAMA	Antigen = bama_1086c_gp140	Env only	MVA/Env	2	bama_1086c_gp140	0.1429	0.9422
BAMA	Antigen = bama_1086c_gp140	Env only	MVA/Env	8	bama_1086c_gp140	0.1508	0.9422
BAMA	Antigen = bama_1086c_gp140	Env only	MVA/Env	14	bama_1086c_gp140	1.0000	1.0000
BAMA	Antigen = bama_1086c_gp140	Env+bnAb	MVA/Env+bnAb	2	bama_1086c_gp140	1.0000	1.0000
BAMA	Antigen = bama_1086c_gp140	Env+bnAb	MVA/Env+bnAb	8	bama_1086c_gp140	0.8413	1.0000
BAMA	Antigen = bama_1086c_gp140	Env+bnAb	MVA/Env+bnAb	14	bama_1086c_gp140	0.4206	0.9693
Neutralization	Virus = MW965.26.LucR.T2A.ecto	Env only	MVA/Env	2	point_ic50	1.0000	1.0000
Neutralization	Virus = MW965.26.LucR.T2A.ecto	Env only	MVA/Env	8	point_ic50	0.5476	1.0000
Neutralization	Virus = MW965.26.LucR.T2A.ecto	Env only	MVA/Env	14	point_ic50	0.6905	1.0000
Neutralization	Virus = MW965.26.LucR.T2A.ecto	Env+bnAb	MVA/Env+bnAb	2	point_ic50	0.0635	0.8833
Neutralization	Virus = MW965.26.LucR.T2A.ecto	Env+bnAb	MVA/Env+bnAb	8	point_ic50	0.3095	0.9422
Neutralization	Virus = MW965.26.LucR.T2A.ecto	Env+bnAb	MVA/Env+bnAb	14	point_ic50	0.2222	0.9422
Infected Cell Binding	Against 1086C	Env only	MVA/Env	2	Inf1086CMFI	0.8286	1.0000
Infected Cell Binding	Against 1086C	Env only	MVA/Env	8	Inf1086CMFI	0.3095	0.9422
Infected Cell Binding	Against 1086C	Env only	MVA/Env	14	Inf1086CMFI	0.6905	1.0000
Infected Cell Binding	Against 1086C	Env+bnAb	MVA/Env+bnAb	2	Inf1086CMFI	0.3810	0.9693
Infected Cell Binding	Against 1086C	Env+bnAb	MVA/Env+bnAb	8	Inf1086CMFI	0.8413	1.0000
Infected Cell Binding	Against 1086C	Env+bnAb	MVA/Env+bnAb	14	Inf1086CMFI	0.3333	0.9422
ADCC	Titer	Env only	MVA/Env	2	Titer	1.0000	1.0000
ADCC	Titer	Env only	MVA/Env	8	Titer	0.8413	1.0000
ADCC	Titer	Env only	MVA/Env	14	Titer	0.4206	0.9693
ADCC	Titer	Env+bnAb	MVA/Env+bnAb	2	Titer	1.0000	1.0000
ADCC	Titer	Env+bnAb	MVA/Env+bnAb	8	Titer	1.0000	1.0000

ADCC	Titer	Env+bnAb	MVA/Env+bnAb	14 Titer	1.0000	1.0000
sCD4 Blocking	Percent CD4 Blocking	Env only	MVA/Env	1 Percentage_CD4_B	1.0000	1.0000
sCD4 Blocking	Percent CD4 Blocking	Env only	MVA/Env	2 Percentage_CD4_B	1.0000	1.0000
sCD4 Blocking	Percent CD4 Blocking	Env only	MVA/Env	8 Percentage_CD4_B	0.2222	0.9422
sCD4 Blocking	Percent CD4 Blocking	Env only	MVA/Env	14 Percentage_CD4_B	0.3095	0.9422
sCD4 Blocking	Percent CD4 Blocking	Env+bnAb	MVA/Env+bnAb	1 Percentage_CD4_B	1.0000	1.0000
sCD4 Blocking	Percent CD4 Blocking	Env+bnAb	MVA/Env+bnAb	2 Percentage_CD4_B	1.0000	1.0000
sCD4 Blocking	Percent CD4 Blocking	Env+bnAb	MVA/Env+bnAb	8 Percentage_CD4_B	0.0317	0.8413
sCD4 Blocking	Percent CD4 Blocking	Env+bnAb	MVA/Env+bnAb	14 Percentage_CD4_B	1.0000	1.0000
Elisa	Antigen = 1086.c.gp120 Human IgG	Env+bnAb	MVA/Env+bnAb	0.1 conc_binding_abs	0.3095	0.9422
Elisa	Antigen = 1086.c.gp120 Human IgG	Env+bnAb	MVA/Env+bnAb	0.4 conc_binding_abs	0.0079	0.8413
Elisa	Antigen = 1086.c.gp120 Human IgG	Env+bnAb	MVA/Env+bnAb	1 conc_binding_abs	0.1111	0.9319
Elisa	Antigen = 1086.c.gp120 Human IgG	Env+bnAb	MVA/Env+bnAb	2 conc_binding_abs	0.7222	1.0000
Elisa	Antigen = 1086.c.gp120 NHP IgG	Env only	MVA/Env	2 conc_binding_abs	0.1143	0.9319
Elisa	Antigen = 1086.c.gp120 NHP IgG	Env only	MVA/Env	8 conc_binding_abs	0.6905	1.0000
Elisa	Antigen = 1086.c.gp120 NHP IgG	Env only	MVA/Env	14 conc_binding_abs	0.0079	0.8413
Elisa	Antigen = 1086.c.gp120 NHP IgG	Env+bnAb	MVA/Env+bnAb	2 conc_binding_abs	0.5476	1.0000
Elisa	Antigen = 1086.c.gp120 NHP IgG	Env+bnAb	MVA/Env+bnAb	8 conc_binding_abs	0.5476	1.0000
Elisa	Antigen = 1086.c.gp120 NHP IgG	Env+bnAb	MVA/Env+bnAb	14 conc_binding_abs	1.0000	1.0000
BAMA	Antigen = gp140_mean	Env only	MVA/Env	2 gp140_mean	0.3143	0.9422
BAMA	Antigen = gp140_mean	Env only	MVA/Env	8 gp140_mean	0.2222	0.9422
BAMA	Antigen = gp140_mean	Env only	MVA/Env	14 gp140_mean	0.6905	1.0000
BAMA	Antigen = gp140_mean	Env+bnAb	MVA/Env+bnAb	2 gp140_mean	0.7460	1.0000
BAMA	Antigen = gp140_mean	Env+bnAb	MVA/Env+bnAb	8 gp140_mean	1.0000	1.0000
BAMA	Antigen = gp140_mean	Env+bnAb	MVA/Env+bnAb	14 gp140_mean	0.8413	1.0000
BAMA	Antigen = gp120_mean	Env only	MVA/Env	2 gp120_mean	0.2000	0.9422
BAMA	Antigen = gp120_mean	Env only	MVA/Env	8 gp120_mean	0.2222	0.9422
BAMA	Antigen = gp120_mean	Env only	MVA/Env	14 gp120_mean	0.3095	0.9422
BAMA	Antigen = gp120_mean	Env+bnAb	MVA/Env+bnAb	2 gp120_mean	0.8413	1.0000
BAMA	Antigen = gp120_mean	Env+bnAb	MVA/Env+bnAb	8 gp120_mean	1.0000	1.0000
BAMA	Antigen = gp120_mean	Env+bnAb	MVA/Env+bnAb	14 gp120_mean	0.8413	1.0000
BAMA	Antigen = V1V2_mean	Env only	MVA/Env	2 V1V2_mean	0.6857	1.0000
BAMA	Antigen = V1V2_mean	Env only	MVA/Env	8 V1V2_mean	0.2222	0.9422
BAMA	Antigen = V1V2_mean	Env only	MVA/Env	14 V1V2_mean	0.6905	1.0000



BAMA	Antigen = V1V2_mean	Env+bnAb	MVA/Env+bnAb	2 V1V2_mean	1.0000	1.0000
BAMA	Antigen = V1V2_mean	Env+bnAb	MVA/Env+bnAb	8 V1V2_mean	1.0000	1.0000
BAMA	Antigen = V1V2_mean	Env+bnAb	MVA/Env+bnAb	14 V1V2_mean	0.8413	1.0000
BAMA	Antigen = V3_mean	Env only	MVA/Env	2 V3_mean	0.0286	0.8413
BAMA	Antigen = V3_mean	Env only	MVA/Env	8 V3_mean	0.0952	0.8833
BAMA	Antigen = V3_mean	Env only	MVA/Env	14 V3_mean	0.6905	1.0000
BAMA	Antigen = V3_mean	Env+bnAb	MVA/Env+bnAb	2 V3_mean	1.0000	1.0000
BAMA	Antigen = V3_mean	Env+bnAb	MVA/Env+bnAb	8 V3_mean	0.8413	1.0000
BAMA	Antigen = V3_mean	Env+bnAb	MVA/Env+bnAb	14 V3_mean	0.4206	0.9693
BAMA	Antigen = bio_v2_b	Env only	MVA/Env	2 bio_v2_b	0.0286	0.8413
BAMA	Antigen = bio_v2_b	Env only	MVA/Env	8 bio_v2_b	0.6905	1.0000
BAMA	Antigen = bio_v2_b	Env only	MVA/Env	14 bio_v2_b	1.0000	1.0000
BAMA	Antigen = bio_v2_b	Env+bnAb	MVA/Env+bnAb	2 bio_v2_b	1.0000	1.0000
BAMA	Antigen = bio_v2_b	Env+bnAb	MVA/Env+bnAb	8 bio_v2_b	0.3095	0.9422
BAMA	Antigen = bio_v2_b	Env+bnAb	MVA/Env+bnAb	14 bio_v2_b	0.2222	0.9422
BAMA	Antigen = c5_c	Env only	MVA/Env	2 c5_c	0.4286	0.9770
BAMA	Antigen = c5_c	Env only	MVA/Env	8 c5_c	0.3095	0.9422
BAMA	Antigen = c5_c	Env only	MVA/Env	14 c5_c	0.6905	1.0000
BAMA	Antigen = c5_c	Env+bnAb	MVA/Env+bnAb	2 c5_c	1.0000	1.0000
BAMA	Antigen = c5_c	Env+bnAb	MVA/Env+bnAb	8 c5_c	0.4206	0.9693
BAMA	Antigen = c5_c	Env+bnAb	MVA/Env+bnAb	14 c5_c	0.8413	1.0000
BAMA	Antigen = c1_biotin	Env only	MVA/Env	2 c1_biotin	0.3429	0.9564
BAMA	Antigen = c1_biotin	Env only	MVA/Env	8 c1_biotin	0.4206	0.9693
BAMA	Antigen = c1_biotin	Env only	MVA/Env	14 c1_biotin	0.8413	1.0000
BAMA	Antigen = c1_biotin	Env+bnAb	MVA/Env+bnAb	2 c1_biotin	0.4603	1.0000
BAMA	Antigen = c1_biotin	Env+bnAb	MVA/Env+bnAb	8 c1_biotin	0.6905	1.0000
BAMA	Antigen = c1_biotin	Env+bnAb	MVA/Env+bnAb	14 c1_biotin	0.6905	1.0000
Epitope Mapping	Epitope = C1.1_34-36	Env only	MVA/Env	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C1.1_34-36	Env only	MVA/Env	8 Signal	0.0556	0.8833
Epitope Mapping	Epitope = C1.1_34-36	Env+bnAb	MVA/Env+bnAb	2 Signal	0.1667	0.9422
Epitope Mapping	Epitope = C1.1_34-36	Env+bnAb	MVA/Env+bnAb	8 Signal	0.6349	1.0000
Epitope Mapping	Epitope = V2_53-55	Env only	MVA/Env	2 Signal	0.6571	1.0000
Epitope Mapping	Epitope = V2_53-55	Env only	MVA/Env	8 Signal	0.0952	0.8833
Epitope Mapping	Epitope = V2_53-55	Env+bnAb	MVA/Env+bnAb	2 Signal	0.4444	0.9918

Epitope Mapping	Epitope = V2_53-55	Env+bnAb	MVA/Env+bnAb	8 Signal	0.6349	1.0000
Epitope Mapping	Epitope = C2.1_65-67	Env only	MVA/Env	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C2.1_65-67	Env only	MVA/Env	8 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C2.1_65-67	Env+bnAb	MVA/Env+bnAb	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C2.1_65-67	Env+bnAb	MVA/Env+bnAb	8 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C2.2_70-73	Env only	MVA/Env	2 Signal	0.7143	1.0000
Epitope Mapping	Epitope = C2.2_70-73	Env only	MVA/Env	8 Signal	0.2143	0.9422
Epitope Mapping	Epitope = C2.2_70-73	Env+bnAb	MVA/Env+bnAb	2 Signal	0.7222	1.0000
Epitope Mapping	Epitope = C2.2_70-73	Env+bnAb	MVA/Env+bnAb	8 Signal	0.2857	0.9422
Epitope Mapping	Epitope = C2.4_88-89	Env only	MVA/Env	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C2.4_88-89	Env only	MVA/Env	8 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C2.4_88-89	Env+bnAb	MVA/Env+bnAb	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C2.4_88-89	Env+bnAb	MVA/Env+bnAb	8 Signal	1.0000	1.0000
Epitope Mapping	Epitope = V3_99-102	Env only	MVA/Env	2 Signal	0.7714	1.0000
Epitope Mapping	Epitope = V3_99-102	Env only	MVA/Env	8 Signal	0.0952	0.8833
Epitope Mapping	Epitope = V3_99-102	Env+bnAb	MVA/Env+bnAb	2 Signal	0.3333	0.9422
Epitope Mapping	Epitope = V3_99-102	Env+bnAb	MVA/Env+bnAb	8 Signal	0.3095	0.9422
Epitope Mapping	Epitope = C3_112-114	Env only	MVA/Env	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C3_112-114	Env only	MVA/Env	8 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C3_112-114	Env+bnAb	MVA/Env+bnAb	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C3_112-114	Env+bnAb	MVA/Env+bnAb	8 Signal	0.6905	1.0000
Epitope Mapping	Epitope = C3.2_116-117	Env only	MVA/Env	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C3.2_116-117	Env only	MVA/Env	8 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C3.2_116-117	Env+bnAb	MVA/Env+bnAb	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C3.2_116-117	Env+bnAb	MVA/Env+bnAb	8 Signal	0.0476	0.8833
Epitope Mapping	Epitope = V5_146-149	Env only	MVA/Env	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = V5_146-149	Env only	MVA/Env	8 Signal	0.7460	1.0000
Epitope Mapping	Epitope = V5_146-149	Env+bnAb	MVA/Env+bnAb	2 Signal	0.7222	1.0000
Epitope Mapping	Epitope = V5_146-149	Env+bnAb	MVA/Env+bnAb	8 Signal	0.3095	0.9422
Epitope Mapping	Epitope = C5.1_152-153	Env only	MVA/Env	2 Signal	1.0000	1.0000
Epitope Mapping	Epitope = C5.1_152-153	Env only	MVA/Env	8 Signal	0.8333	1.0000
Epitope Mapping	Epitope = C5.1_152-153	Env+bnAb	MVA/Env+bnAb	2 Signal	0.7222	1.0000
Epitope Mapping	Epitope = C5.1_152-153	Env+bnAb	MVA/Env+bnAb	8 Signal	0.3016	0.9422
Epitope Mapping	Epitope = C5.2_159-161	Env only	MVA/Env	2 Signal	0.3143	0.9422

Epitope Mapping	Epitope = C5.2_159-161	Env only	MVA/Env	8 Signal	0.6429	1.0000
Epitope Mapping	Epitope = C5.2_159-161	Env+bnAb	MVA/Env+bnAb	2 Signal	0.4444	0.9918
Epitope Mapping	Epitope = C5.2_159-161	Env+bnAb	MVA/Env+bnAb	8 Signal	0.6905	1.0000
Neutralization	Virus = SO032_A2.8-1	Env only	MVA/Env	14 point_ic50	0.0952	0.8833
Neutralization	Virus = SO032_A2.8-1	Env+bnAb	MVA/Env+bnAb	14 point_ic50	0.4206	0.9693
Infected Cell Binding	Against CM235	Env only	MVA/Env	2 InfCM235MFI	1.0000	1.0000
Infected Cell Binding	Against CM235	Env only	MVA/Env	8 InfCM235MFI	0.3095	0.9422
Infected Cell Binding	Against CM235	Env only	MVA/Env	14 InfCM235MFI	0.0952	0.8833
Infected Cell Binding	Against CM235	Env+bnAb	MVA/Env+bnAb	2 InfCM235MFI	0.1667	0.9422
Infected Cell Binding	Against CM235	Env+bnAb	MVA/Env+bnAb	8 InfCM235MFI	0.0952	0.8833
Infected Cell Binding	Against CM235	Env+bnAb	MVA/Env+bnAb	14 InfCM235MFI	0.0317	0.8413
Infected Cell Binding	Against WITO	Env only	MVA/Env	2 InfWITOMFI	0.8286	1.0000
Infected Cell Binding	Against WITO	Env only	MVA/Env	8 InfWITOMFI	0.2222	0.9422
Infected Cell Binding	Against WITO	Env only	MVA/Env	14 InfWITOMFI	0.5476	1.0000
Infected Cell Binding	Against WITO	Env+bnAb	MVA/Env+bnAb	2 InfWITOMFI	0.2857	0.9422
Infected Cell Binding	Against WITO	Env+bnAb	MVA/Env+bnAb	8 InfWITOMFI	0.8413	1.0000
Infected Cell Binding	Against WITO	Env+bnAb	MVA/Env+bnAb	14 InfWITOMFI	1.0000	1.0000
ADCC	Peak acitivity	Env only	MVA/Env	2 Peak	0.6571	1.0000
ADCC	Peak acitivity	Env only	MVA/Env	8 Peak	0.5476	1.0000
ADCC	Peak acitivity	Env only	MVA/Env	14 Peak	0.3095	0.9422
ADCC	Peak acitivity	Env+bnAb	MVA/Env+bnAb	2 Peak	0.4603	1.0000
ADCC	Peak acitivity	Env+bnAb	MVA/Env+bnAb	8 Peak	0.2222	0.9422
ADCC	Peak acitivity	Env+bnAb	MVA/Env+bnAb	14 Peak	0.2222	0.9422
Avidity	koff, Antigen = SHIV-1157ipd3N4 deli	Env only	MVA/Env	8 ant1_koff	0.6905	1.0000
Avidity	koff, Antigen = SHIV-1157ipd3N4 deli	Env only	MVA/Env	14 ant1_koff	0.3095	0.9422
Avidity	koff, Antigen = SHIV-1157ipd3N4 deli	Env+bnAb	MVA/Env+bnAb	8 ant1_koff	0.0952	0.8833
Avidity	koff, Antigen = SHIV-1157ipd3N4 deli	Env+bnAb	MVA/Env+bnAb	14 ant1_koff	0.2222	0.9422
Avidity	koff, Antigen = 1086D7gp120K160N	Env only	MVA/Env	8 ant3_koff	1.0000	1.0000
Avidity	koff, Antigen = 1086D7gp120K160N	Env only	MVA/Env	14 ant3_koff	1.0000	1.0000
Avidity	koff, Antigen = 1086D7gp120K160N	Env+bnAb	MVA/Env+bnAb	8 ant3_koff	0.4206	0.9693
Avidity	koff, Antigen = 1086D7gp120K160N	Env+bnAb	MVA/Env+bnAb	14 ant3_koff	0.5476	1.0000
Avidity	koff, Antigen = gp70-B.CaseA2 V1V2/	Env only	MVA/Env	14 ant5_koff	1.0000	1.0000
Avidity	koff, Antigen = gp70-B.CaseA2 V1V2/	Env+bnAb	MVA/Env+bnAb	8 ant5_koff	0.3333	0.9422
Avidity	koff, Antigen = gp70-B.CaseA2 V1V2/	Env+bnAb	MVA/Env+bnAb	14 ant5_koff	0.4000	0.9693

Avidity	koff, Antigen = gp70ConC_V3tags	Env only	MVA/Env	8 ant6_koff	0.0317	0.8413
Avidity	koff, Antigen = gp70ConC_V3tags	Env only	MVA/Env	14 ant6_koff	0.2222	0.9422
Avidity	koff, Antigen = gp70ConC_V3tags	Env+bnAb	MVA/Env+bnAb	8 ant6_koff	0.7302	1.0000
Avidity	koff, Antigen = gp70ConC_V3tags	Env+bnAb	MVA/Env+bnAb	14 ant6_koff	0.3095	0.9422
Avidity	koff, Antigen = C.1086C V1V2 Tag	Env only	MVA/Env	8 ant4_koff	0.5000	1.0000
Avidity	koff, Antigen = C.1086C V1V2 Tag	Env only	MVA/Env	14 ant4_koff	0.4000	0.9693
Avidity	koff, Antigen = C.1086C V1V2 Tag	Env+bnAb	MVA/Env+bnAb	8 ant4_koff	1.0000	1.0000
Avidity	koff, Antigen = C.1086C V1V2 Tag	Env+bnAb	MVA/Env+bnAb	14 ant4_koff	0.8413	1.0000
Avidity	koff, Antigen = Bio-V2-1086.C	Env only	MVA/Env	14 ant7_koff	0.6667	1.0000
Avidity	koff, Antigen = Bio-V2-1086.C	Env+bnAb	MVA/Env+bnAb	14 ant7_koff	0.1000	0.8833
Avidity	koff, Antigen = Bio-V3.C	Env only	MVA/Env	14 ant8_koff	0.2000	0.9422
Avidity	koff, Antigen = Bio-V3.C	Env+bnAb	MVA/Env+bnAb	14 ant8_koff	0.1000	0.8833
Infected Cell Binding	Against 1086C	Env only	MVA/Env	2 Inf1086CPctFITCP	0.1429	0.9422
Infected Cell Binding	Against 1086C	Env only	MVA/Env	8 Inf1086CPctFITCP	0.3333	0.9422
Infected Cell Binding	Against 1086C	Env only	MVA/Env	14 Inf1086CPctFITCP	0.5476	1.0000
Infected Cell Binding	Against 1086C	Env+bnAb	MVA/Env+bnAb	2 Inf1086CPctFITCP	0.6825	1.0000
Infected Cell Binding	Against 1086C	Env+bnAb	MVA/Env+bnAb	8 Inf1086CPctFITCP	0.6905	1.0000
Infected Cell Binding	Against 1086C	Env+bnAb	MVA/Env+bnAb	14 Inf1086CPctFITCP	0.2222	0.9422
Infected Cell Binding	Against CM235	Env only	MVA/Env	2 InfCM235PctFITCP	0.3143	0.9422
Infected Cell Binding	Against CM235	Env only	MVA/Env	8 InfCM235PctFITCP	0.4206	0.9693
Infected Cell Binding	Against CM235	Env only	MVA/Env	14 InfCM235PctFITCP	0.0952	0.8833
Infected Cell Binding	Against CM235	Env+bnAb	MVA/Env+bnAb	2 InfCM235PctFITCP	0.2857	0.9422
Infected Cell Binding	Against CM235	Env+bnAb	MVA/Env+bnAb	8 InfCM235PctFITCP	0.0952	0.8833
Infected Cell Binding	Against CM235	Env+bnAb	MVA/Env+bnAb	14 InfCM235PctFITCP	0.0317	0.8413
Infected Cell Binding	Against WITO	Env only	MVA/Env	2 InfWITOPctFITCPo	0.9714	1.0000
Infected Cell Binding	Against WITO	Env only	MVA/Env	8 InfWITOPctFITCPo	0.3095	0.9422
Infected Cell Binding	Against WITO	Env only	MVA/Env	14 InfWITOPctFITCPo	0.5476	1.0000
Infected Cell Binding	Against WITO	Env+bnAb	MVA/Env+bnAb	2 InfWITOPctFITCPo	0.4921	1.0000
Infected Cell Binding	Against WITO	Env+bnAb	MVA/Env+bnAb	8 InfWITOPctFITCPo	0.8413	1.0000
Infected Cell Binding	Against WITO	Env+bnAb	MVA/Env+bnAb	14 InfWITOPctFITCPo	1.0000	1.0000
Avidity	avidity, Antigen = SHIV-1157ipd3N4 c	Env only	MVA/Env	8 ant1_avidity	0.8413	1.0000
Avidity	avidity, Antigen = SHIV-1157ipd3N4 c	Env only	MVA/Env	14 ant1_avidity	0.5476	1.0000
Avidity	avidity, Antigen = SHIV-1157ipd3N4 c	Env+bnAb	MVA/Env+bnAb	8 ant1_avidity	0.3095	0.9422
Avidity	avidity, Antigen = SHIV-1157ipd3N4 c	Env+bnAb	MVA/Env+bnAb	14 ant1_avidity	0.0952	0.8833

Avidity	avidity, Antigen = 1086D7gp120K160 Env only	MVA/Env	8	ant3_avidity	1.0000	1.0000
Avidity	avidity, Antigen = 1086D7gp120K160 Env only	MVA/Env	14	ant3_avidity	0.6905	1.0000
Avidity	avidity, Antigen = 1086D7gp120K160 Env+bnAb	MVA/Env+bnAb	8	ant3_avidity	1.0000	1.0000
Avidity	avidity, Antigen = 1086D7gp120K160 Env+bnAb	MVA/Env+bnAb	14	ant3_avidity	0.4206	0.9693
Avidity	avidity, Antigen = gp70-B.CaseA2 V1\ Env only	MVA/Env	14	ant5_avidity	1.0000	1.0000
Avidity	avidity, Antigen = gp70-B.CaseA2 V1\ Env+bnAb	MVA/Env+bnAb	8	ant5_avidity	0.3333	0.9422
Avidity	avidity, Antigen = gp70-B.CaseA2 V1\ Env+bnAb	MVA/Env+bnAb	14	ant5_avidity	0.4000	0.9693
Avidity	avidity, Antigen = gp70ConC_V3tags Env only	MVA/Env	8	ant6_avidity	0.1508	0.9422
Avidity	avidity, Antigen = gp70ConC_V3tags Env only	MVA/Env	14	ant6_avidity	1.0000	1.0000
Avidity	avidity, Antigen = gp70ConC_V3tags Env+bnAb	MVA/Env+bnAb	8	ant6_avidity	0.9048	1.0000
Avidity	avidity, Antigen = gp70ConC_V3tags Env+bnAb	MVA/Env+bnAb	14	ant6_avidity	0.4206	0.9693
Avidity	avidity, Antigen = C.1086C V1V2 Tag Env only	MVA/Env	8	ant4_avidity	0.5000	1.0000
Avidity	avidity, Antigen = C.1086C V1V2 Tag Env only	MVA/Env	14	ant4_avidity	0.4000	0.9693
Avidity	avidity, Antigen = C.1086C V1V2 Tag Env+bnAb	MVA/Env+bnAb	8	ant4_avidity	0.4000	0.9693
Avidity	avidity, Antigen = C.1086C V1V2 Tag Env+bnAb	MVA/Env+bnAb	14	ant4_avidity	0.8413	1.0000
Avidity	avidity, Antigen = Bio-V2-1086.C Env only	MVA/Env	14	ant7_avidity	0.6667	1.0000
Avidity	avidity, Antigen = Bio-V2-1086.C Env+bnAb	MVA/Env+bnAb	14	ant7_avidity	0.1000	0.8833
Avidity	avidity, Antigen = Bio-V3.C Env only	MVA/Env	14	ant8_avidity	0.2000	0.9422
Avidity	avidity, Antigen = Bio-V3.C Env+bnAb	MVA/Env+bnAb	14	ant8_avidity	0.7000	1.0000

<sup>5</sup> Unadjusted p values are Wilcoxon rank sum tests exact p-values. FDR\_p values are the p values adjusted for multiple comparisons using the Benjamini–Hochberg (BH) procedure.