

Supplemental Table 1: Recovery of IgG from Rectal Swab Samples

Animal ID	22-11	31-11	46-11	47-11	60-11
Recovered IgG	in µg/mL				
wk 25	26.2	20.4	2.4	8.9	10.1
wk 29	1.0	1.4	4.3	34.0	1.8
wk 53	14.6	0.22	0.001	2.0	4.6
wk 55	28.3	ND	0.087	0.038	11.3

ND = not detected.

Supplemental Table 2: Number of Memory B Cells Analyzed for Each Sorted Tissue by Sorting Antigen

	Sorting Antigen								
	gp120 _{M.ConS}			gp120 _{AE.A244}			AE.A244 V1V2 tags		
Animal ID	22-11	46-11	60-11	22-11	46-11	60-11	22-11	46-11	60-11
PBMC	10,319	26,282	12,135	16,720	25,412	29,254	16,610	41,143	21,945
Spleen	11,113	119,667	44,752	11,099	116,256	187,774	10,013	51,693	112,167
Inguinal LN	22,949	63,289	126,785	22,559	58,253	330,558	22,082	110,000	184,674
Anterior Pelvic LN	33,930	31,457	41,018	34,801	39,122	283,781	34,355	76,731	244,177
Posterior Pelvic LN	17,504	56,066	32,170	17,595	69,203	126,415	16,951	85,425	137,000
Periaortic LN	19,604	3,701	33,614	41,376	5,577	130,073	165,736	5,497	130,000
Mesenteric LN	305,000	43,438	224,269	458,292	40,056	276,228	336,000	37,212	239,000
Terminal Ileum	246,173	63,550	401,484	343,559	83,273	553,751	224,000	21,972	415,865

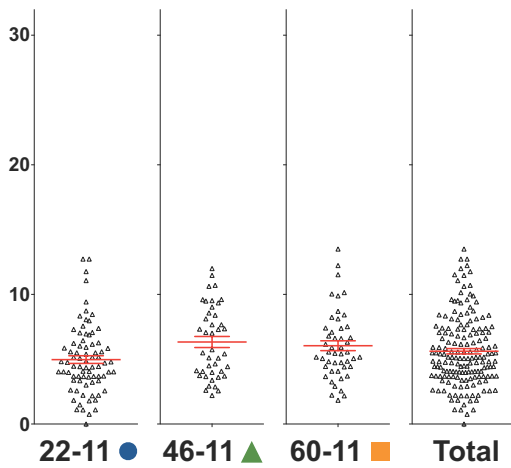
Supplemental Table 3: Monoclonal Antibodies for Each Sorted Tissue by Sorting Antigen

	Sorting Antigen								
	gp120 _{M.ConS}			gp120 _{AE.A244}			AE.A244 V1V2 tags		
Animal ID	22-11	46-11	60-11	22-11	46-11	60-11	22-11	46-11	60-11
PBMC	19 / 20	94 / 112	ND	47 / 47	90 / 118	50 / 53	10 / 10	8 / 8	ND
Spleen	ND	26 / 51	ND	ND	95 / 119	182 / 229	ND	2 / 4	ND
Inguinal LN	ND	47 / 70	ND	ND	77 / 97	62 / 66	ND	5 / 5	ND
Anterior Pelvic LN	ND	29 / 41	ND	ND	51 / 64	49 / 70	ND	0 / 7	ND
Posterior Pelvic LN	ND	0 / 0	ND	ND	98 / 114	51 / 54	ND	4 / 4	ND
Periaortic LN	ND	5 / 10	ND	ND	0 / 0	70 / 74	ND	0 / 0	ND
Mesenteric LN	ND	9 / 14	ND	ND	2 / 3	52 / 64	ND	1 / 1	ND
Terminal Ileum	ND	3 / 5	ND	ND	3 / 6	0 / 1	ND	0 / 0	ND

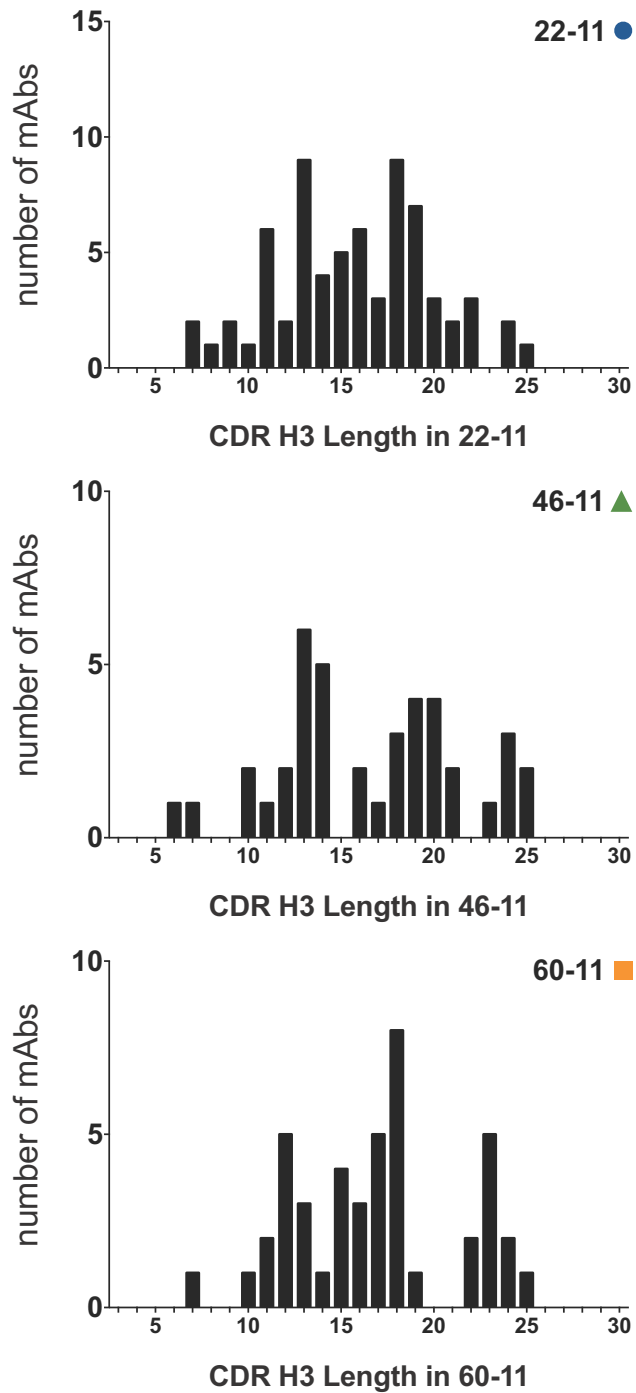
Data shown as # of Env-reactive mAbs / # of mAbs isolated.

ND = not done.

A: HC Mutation Frequency



B: HCDR3 Length



Supplemental Figure 1. Analysis of week 25 mAbs.

A: Heavy chain mutation frequencies were similar among the Env-reactive mAbs from each animal; the overall mean mutation frequency was 5.1%. The mutation frequency of mAbs isolated at week 25 was lower than that observed at week 55 (**Fig. 4F**; *t*-test, $p < 0.0001$ for each animal).

B: HCDR3 length was similar among the animals and was similar to the distribution observed at week 55 (**Fig. 5B**). The distributions for each animal were not statistically different at the two time points (Kolmogorov-Smirnov test).