

Supplemental Table 1. Sequences and molecular weights for the 5 epitopes conjugated to beads based on the overlapping peptide arrays.

PfSEA-1A epitope	Amino Acid sequence	Molecular weight
Epitope 1	NEDRGIYDELLENMCDLYN	2.43 kDa
Epitope 2	NNNMNDIAIGENVIYENDIHENNID	2.89 kDa
Epitope 3	YINNMQDDAMDDIVYDEEEIKSFLDK	3.54 kDa
Epitope 4	SYINNDENLQAFDLLDNFHMDDY	2.81 kDa
Epitope 5	IDERKDTECQTDFLLDVSNTNR	2.87 kDa

Supplemental Table 2. Summary of Representative Peptide Microarray Data for Epitope Sequence Determination. Data for Epitope 1 is shown. Row and Column numbers indicate the position of the peptide on the microarray. Sequence chosen for Epitope 1 synthesis is indicated in Bold. Values given for each non-human primate sera are relative fluorescence intensities.

Row	Column	Peptide Sequence	M1F	M3F	M4F	M6F	M7F	M13F
2	2	GSGSGSGNEDRGIYD	0.0	0.0	0.0	0.0	0.0	0.0
2	3	SGSGSGNEDRGIYDE	0.0	0.0	0.0	0.0	0.0	0.0
2	4	GSGSGNEDRGIYDEL	0.0	57.0	0.0	0.0	0.0	0.0
2	5	SGSGNEDRGIYDELL	0.0	2,873.0	4,601.3	5,892.5	0.0	1,613.0
2	6	GSGNEDRGIYDELLE	102.5	4,635.8	6,436.8	11,799.8	0.0	4,827.0
2	7	SGNEDRGIYDELLEN	0.0	2,086.5	1,928.0	5,043.3	0.0	1,070.0
2	8	GNEDRGIYDELLEND	0.0	1,365.3	1,281.8	2,158.8	0.0	550.5
2	9	NEDRGIYDELLENDM	12.0	2,339.5	1,266.8	2,187.5	0.0	756.5
2	10	EDRGIYDELLENDMC	65.8	1,948.0	2,357.3	2,525.8	0.0	1,119.5
2	11	DRGIYDELLENDMCD	0.0	1,465.5	1,828.5	2,575.3	0.0	901.0
2	12	RGIYDELLENDMCDL	0.0	2,305.3	1,802.3	4,661.3	0.0	609.5
2	13	GIYDELLENDMCDLY	0.0	530.3	636.0	2,400.0	0.0	901.0
2	14	IYDELLENDMCDLYN	0.0	382.0	1,194.0	1,161.3	0.0	1,990.8
2	15	YDELLENDMCDLYNL	0.0	0.0	0.0	0.0	0.0	0.0

Supplemental Table 3. Pearson correlation coefficients (R) between antibody responses to epitopes at 2 weeks. All P values were <0.0001.

	Epitope 1	Epitope 2	Epitope 3	Epitope 4	Epitope 5
Epitope 1	1.00	0.49	0.26	0.64	0.66
Epitope 2		1.00	0.24	0.66	0.64
Epitope 3			1.00	0.49	0.42
Epitope 4				1.00	0.77
Epitope 5					1.00