

# Supplementary Figure 3

mutant	region	C1-0440	C1-0269	C1-0534	C1-0175	C1-0219	C1-0457	C1-0536	C1-0763	C8-0258	39F (V3)	b12
JR-FL Parent		130	100	130	150	600	110	140	325	125	>30	0.01
I154A	V1	1,701	N.D.	1,515	N.D.	3,000	200	N.D.	1,600	1,542	0.1	0.002
N160A	V1	170	150	120	300	625	200	120	412	180	>20	0.009
I165A	V2	120	100	100	N.D.	400	50	120	295	100	>20	0.017
R166A	V2	232	N.D.	293	N.D.	290	<50	120	225	157	>20	N.D.
D167A	V2	122	N.D.	168	N.D.	800	55	N.D.	180	152	>20	0.01
D167N	V2	120	70	140	N.D.	550	70	130	300	120	>20	0.01
E168A	V2	163	N.D.	172	N.D.	557	220	N.D.	180	123	>20	N.D.
E168K	V2	120	N.D.	N.D.	N.D.	1,100	100	N.D.	250	175	>20	0.009
V169A	V2	185	N.D.	170	N.D.	600	130	N.D.	350	167	>20	0.009
Q170A	V2	964	266	963	N.D.	4,481	693	N.D.	2,461	949	>20	0.007
K171A	V2	230	N.D.	163	N.D.	440	80	100	180	225	>20	0.009
E172A	V2	344	N.D.	252	N.D.	470	80	140	400	260	2	N.D.
D180A	V2	5,000	N.D.	6,000	N.D.	2,000	700	N.D.	3,200	6,000	3.2	0.008
V182C	V2	122	N.D.	80	N.D.	1,000	85	N.D.	200	174	>20	0.009
I184A	V2	140	N.D.	200	N.D.	450	90	N.D.	350	240	>20	0.008
D185A	V2	120	N.D.	N.D.	N.D.	560	100	240	400	120	>20	0.008
D185N	V2	145	N.D.	N.D.	N.D.	900	110	160	600	127	>20	N.D.
N186C	V2	200	N.D.	320	N.D.	690	160	N.D.	450	280	>20	0.005
N187C	V2	160	N.D.	240	N.D.	450	80	N.D.	400	240	>20	0.006
S190C	V2	310	N.D.	N.D.	N.D.	2,000	320	N.D.	1,600	239	>20	0.003
S195C	V2	320	N.D.	N.D.	N.D.	830	116	N.D.	767	116	>20	0.003
D197K	V2	250	N.D.	400	N.D.	1,000	200	N.D.	800	420	>20	0.006
D197N	V2	645	N.D.	N.D.	N.D.	800	350	640	1,200	794	>20	0.004
T198S	V2	80	N.D.	140	N.D.	500	160	N.D.	200	100	>20	0.006
N276A	C2/V3 BASE	150	107	N.D.	N.D.	862	567	150	300	101	>20	N.D.
N295A	C2/V3 BASE	150	140	320	320	550	190	500	350	75	>20	N.D.
R304A	V3 N term	150	N.D.	N.D.	N.D.	176	84	N.D.	310	80	N.D.	0.01
E320A	V3 C term	132	N.D.	83	N.D.	400	65	90	110	220	>20	0.048
G323C	V3 C term	557	N.D.	210	N.D.	3,200	104	N.D.	55	236	>20	0.005
D324A	V3 C term	191	N.D.	106	N.D.	530	81	N.D.	40	390	>20	0.013
Q327A	V3 C term	130	N.D.	74	N.D.	630	70	80	200	281	>20	0.013
H329A	V3 C term	145	N.D.	358	N.D.	550	70	60	250	300	>20	0.023
N332A	C3	140	150	150	170	856	130	155	115	220	>20	N.D.
N339A	C3	130	75	90	55	600	117	130	400	110	>20	0.011
S375W	C3	120	N.D.	302		330	65	120	200	161	>20	0.014
Y384A	C3	1,500	N.D.	N.D.	N.D.	2,000	95	1,300	3,200	1,600	5	N.D.
N386A	C3	229	100	N.D.	N.D.	1,100	137	N.D.	438	188	>20	N.D.
N412A	V4	160	N.D.	N.D.	N.D.	600	80	N.D.	300	130	>20	0.006
T413A	V4	320	N.D.	N.D.	N.D.	800	320	N.D.	600	320	>20	0.002
R419A	C4	640	N.D.	N.D.	N.D.	900	120	N.D.	1200	380	>20	0.004
I420R	C4	N.D.	N.D.	N.D.	N.D.	1,600	480	1,000	3,200	N.D.	1.6	N.D.
K421A	C4	3,200	N.D.	N.D.	N.D.	6,400	1,600	N.D.	5,000	3,200	1.7	0.005
K432G	C4	N.D.	N.D.	N.D.	N.D.	350	110	N.D.	450	N.D.	>20	0.005
N463A	V5	N.D.	150	370	N.D.	700	100	400	600	320	>20	N.D.
D477A	C5	230	N.D.	N.D.	N.D.	800	140	N.D.	540	120	>20	0.009

**SOM Figure 3: Effects of gp120 point mutations on JR-FL neutralization.** The neutralizing titers of plasmas tested against a panel of viruses bearing trimers with gp120 mutants in the JR-FL SOS background. Mutants that resulted in a >50% reduction in plasma neutralization titer are shown in red. Those that resulted in a two-fold or more increase in neutralization titer are shown in lavender. For reference purposes, the sensitivity of each mutant to V3 mAbs 39F and b12 is shown. Amino acid numbering and coloring is as described in Figure 8.