

Improved Killing of HIV-infected Cells Using Three Neutralizing and Non-neutralizing Antibodies. Supplemental Material.

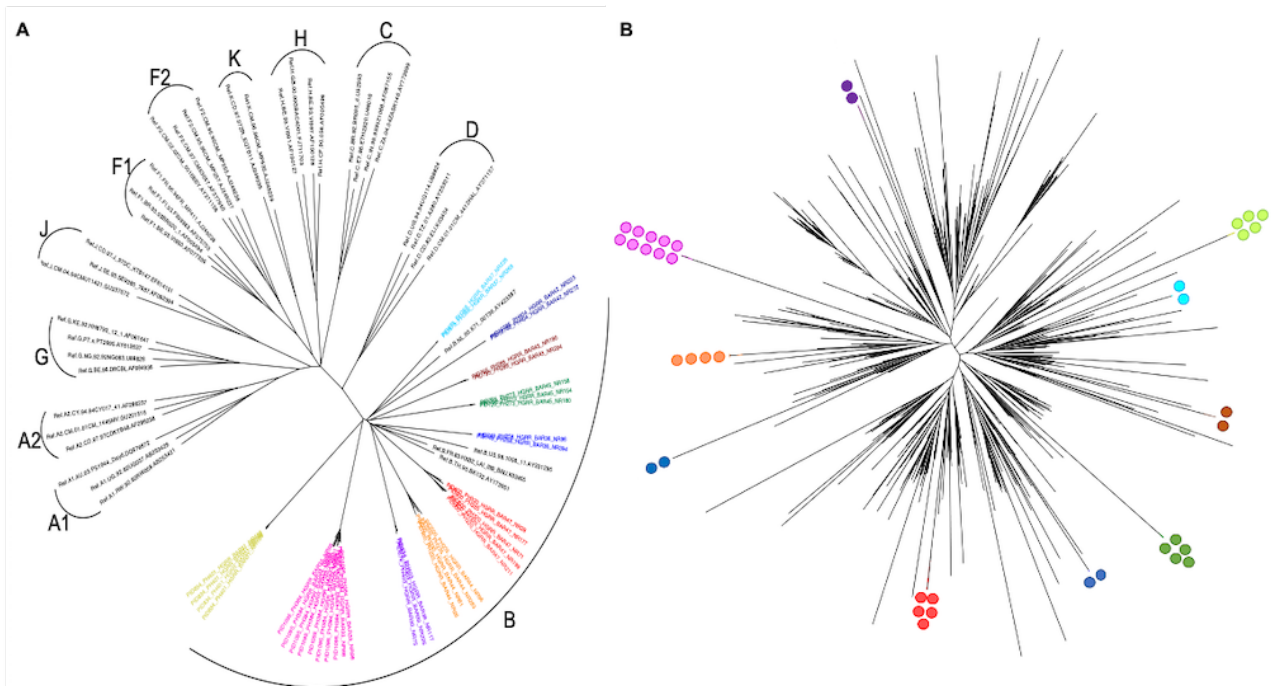


Figure S1. Phylogenetic analysis of LRV *env* sequences and infectivity. (A) Phylogenetic analysis of Latent Reservoir Virus (LRV) *env* sequences (in color) from ten individuals and representative isolates from other clades rooted to HXB2 indicate all LRVs are subtype B. (B) An unrooted maximum-likelihood tree of the LRV *env* sequences was constructed with 1916 filtered subtype B *env* sequences available on the Los Alamos National Laboratory database. LRV *env* sequences (in color as in (A)) positioned relative to other subtype B sequences. Sequences from each participant clustered together and were distributed throughout the tree.

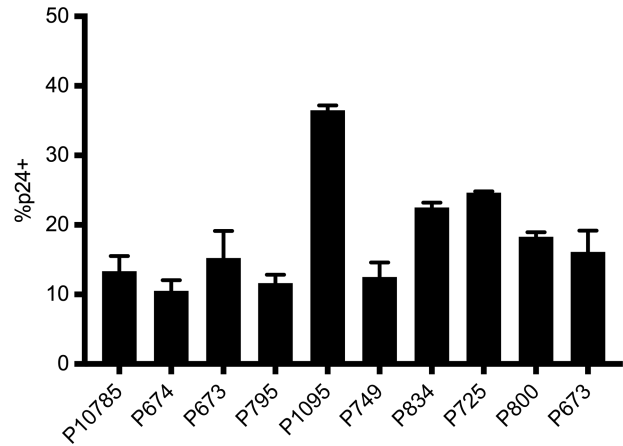


Figure S2. Infectivity of LRVs. Frequency of HIV *gag* p24 positive cells after 72 hours infection with LRVs from each of the ten chronically-infected individuals was measured using flow-cytometry based analysis. The graph represents the average of %p24+ cells $\pm$ SD from 2 to 4 independent experiments.

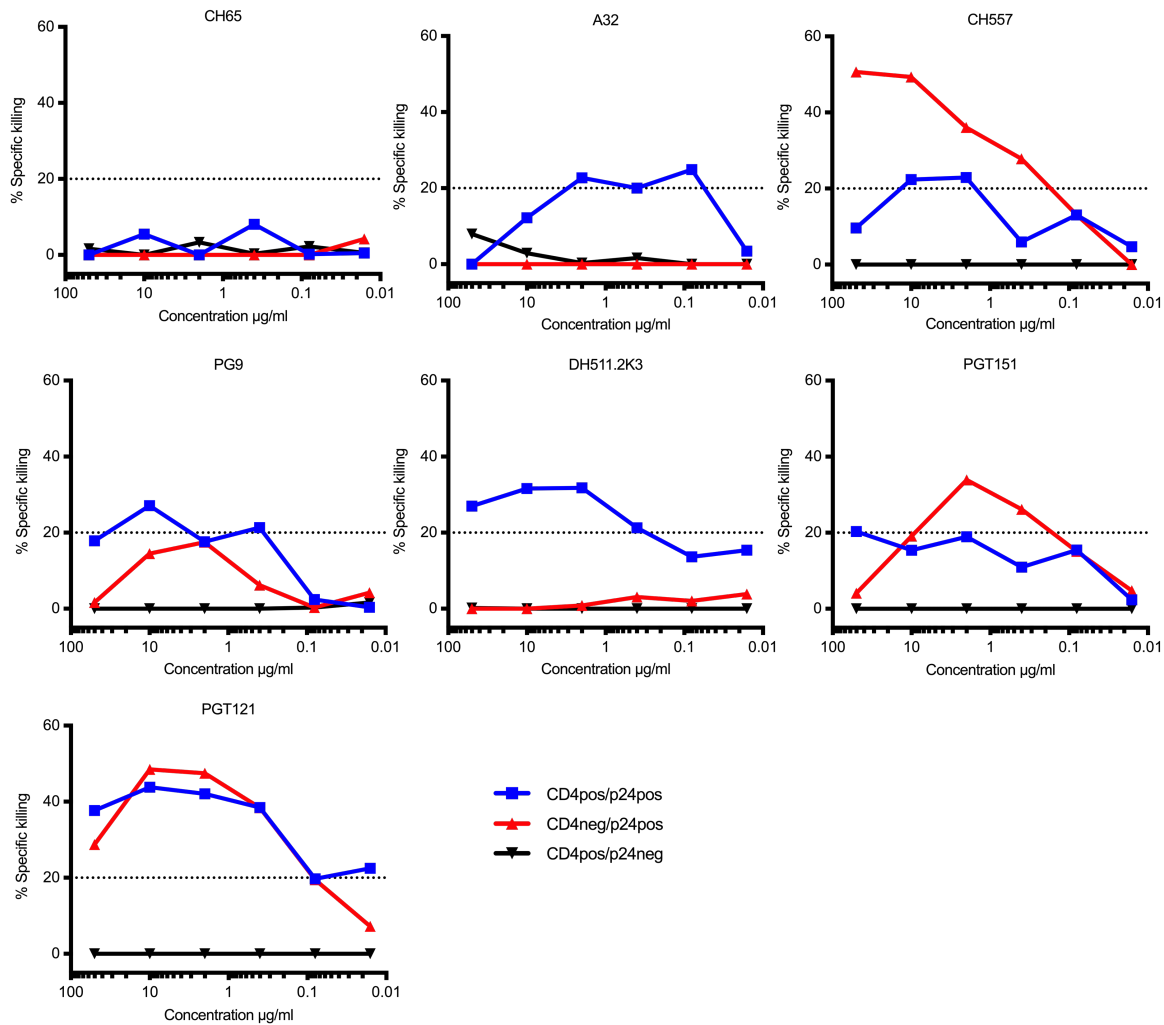


Figure S3. ADCC activity against HIV-1 infected cells in the presence and absence of CD4 downregulation. ADCC activity of each antibody was tested using a primary *in vitro* autologous model, where P1095 LRV-infected primary CD4+T cells were used as targets and autologous purified and activated NK cells as effectors, with an E:T ratio of 5:1. The % specific killing is reported on the y-axis and the mAb dilution on the x-axis. Blue lines represent killing of CD4pos/p24pos cells, red lines represent killing of CD4neg/p24pos cells, and black line represents killing of CD4pos/p24neg cells. CH65 (an anti-influenza monoclonal antibody) was used as negative control. The results are the average of two replicates from a single experiment.

36 **Table S1. Neutralization of WITO.IMC by individual mAbs.**

Antibody		Neutralizing activity	
		IC ₅₀ , µg/ml	IC ₈₀ , µg/ml
Non-HIV	CH65	>5	>5
Non-neutralizing	A32	>5	>5
	PG9	0.01	0.04
	DH511.2_K3	1.55	>5
	PGT121	>5	>5
Neutralizing	CH557	0.89	2.30
	PGT151	0.04	0.23

37 CH65 (an anti-influenza monoclonal antibody) was used as negative control.

38 **Table S2. Statistical analysis of all combinations.**

Rank	Antibody combination	No. Abs	ADCC score	No of strains recognized (>20% killing)
1	A32+DH511.2K3+PGT121	3	4.36	9
2	All 6	6	4.24	10
3	A32+PGT151+DH511.2K3+PGT121	4	3.66	10
4	PGT151+PG9+DH511.2K3	3	3.62	9
5	A32+PG9+DH511.2K3	3	3	9
6	A32+CH557+DH511.2K3+PGT121	4	2.98	9
7	A32+PG9+CH557+DH511.2K3+PGT121	5	2.88	9
8	A32+CH557+PGT121	3	2.84	9
9	A32+PG9+DH511.2K3+PGT121	4	2.84	9
10	PGT151+PG9+CH557+DH511.2K3+PGT121	5	2.8	10
11	DH511.2K3+PGT121	2	2.52	9
12	A32+CH557+DH511.2K3	3	2.32	9
13	A32+PG9+PGT121	3	2.16	8
14	PG9+CH557+DH511.2K3+PGT121	4	2.12	9
15	A32+PGT151+PGT121	3	2.04	9
16	A32+PGT151+DH511.2K3	3	1.86	9
17	CH557+DH511.2K3+PGT121	3	1.52	9
18	PGT151+CH557+DH511.2K3+PGT121	4	1.48	10
19	A32+PG9+CH557	3	1.46	8
20	A32+PG9+CH557+PGT121	4	1.42	8
21	PGT151+PG9+CH557+DH511.2K3	4	1.34	8
22	A32+PGT151+PG9+CH557+DH511.2K3	5	1.26	8
23	A32+PG9+CH557+DH511.2K3	4	1.04	9
24	CH557+PGT121	2	1.02	8
25	A32+PGT151+CH557+DH511.2K3	4	0.84	9
26	A32+PGT151+PG9+CH557+PGT121	5	0.8	8
27	PGT151+PG9+DH511.2K3+PGT121	4	0.76	8
28	CH557+DH511.2K3	2	0.66	7
29	A32+PGT151+PG9+DH511.2K3	4	0.64	8
30	PGT151+PG9+CH557	3	0.62	5
31	A32+PGT151+CH557+PGT121	4	0.6	8
32	A32+PGT151+PG9	3	0.5	7
33	PG9+CH557+DH511.2K3	3	0.44	8
34	A32+PGT151+CH557	3	0.42	7
35	PGT151+DH511.2K3+PGT121	3	0.26	7
36	PGT151+PG9+CH557+PGT121	4	0.18	7
37	PGT151+PGT121	2	0.1	8
38	PG9+PGT121	2	0.04	7
39	A32+PGT151+PG9+PGT121	4	0	7
40	PGT151+DH511.2K3	2	-0.1	6
41	A32+PGT121	2	-0.32	6
43	PG9+CH557	2	-0.58	5
44	A32+DH511.2K3	2	-0.6	6

45	PG9+CH557+PGT121	3	-0.68	7
46	PG9+DH511.2K3	2	-0.8	6
47	A32+PGT151+PG9+CH557	4	-0.9	6
48	PGT151+CH557+PGT121	3	-1.38	6
49	PGT151+CH557+DH511.2K3	3	-2.08	6
50	PGT151+PG9+PGT121	3	-2.6	5
51	PGT151+PG9	2	-2.76	5
52	PGT121	1	-2.82	4
53	PGT151+CH577	2	-2.98	4
54	DH511.2K3	1	-3.04	3
55	A32+CH557	2	-3.78	2
56	CH65	1	-3.78	3
57	A32+PG9	2	-4.14	1
58	A32+PGT151	2	-4.2	2
59	CH557	1	-5.84	1
60	PG9	1	-6.46	0
61	PGT151	1	-6.76	0
62	A32	1	-7	0

39

40