

Supplementary Figure 1

Sequence alignment showing positions 510 to 580. The top row indicates positions 510, 520, 530, 540, 550, 560, 570, and 580. The bottom row shows the sequence alignment with color-coded bases: green for G/C, red for A/T, blue for C/G, and orange for T/A. The alignment highlights positions 540 (yellow box) and 560 (grey box). Strains ES8-43, ES38-5, ES38-9, ES40-24, CP4-2B, and CP6-2E are shown below the consensus sequence.

	510	520	530	540	550	560	570	580
CONSENSUS-B	CATGTTTCAGCATTATCAGAAGGAGCCACCCCCACAAGATTAAACACCATGCTAACACAGTGGGGGGACATCAAGCA							
ES8-43
ES38-5	A	.....	.....	.....	T	.....	T
ES38-9	A	.....	C	.....	T	.....	T
ES40-24	A	.....	.....	.....	G	.....	C
CP4-2B	A	.....	.....	.....	.....	.....	.....
CP6-2E	A	.....	.....	.....	TG	.....	A A

Supplementary Table 1

Prevalence of HLA*B57-restricted CTL escape mutations found in ES, VC, and CP described in this study.

	Gag					Nef						Int	
	ISW9		KF11	TW10		KF9			HW9		YY8	SW10	SW10
	A146P	I147L/R	A162N	T242N	G248A/R/T/N/D	K82S/Q/N	L85M/V/F/R/I	L87F/I	H116N	Y120F	Q125H	T124/A/S/N	T125/A/M
ES	0	40	0	0	60	20	40	20	20	40	0	40	0
VC	33	100	0	67	100	33	33	33	0	0	0	67	33
CP	70	80	20	100	70	10	60	40	80	20	20	70	70
p value (Chi Square Pearson)	<u>0.033</u>	0.132	0.407	<u>0.001</u>	0.461	0.619	0.627	0.741	<u>0.015</u>	0.407	0.407	0.52	<u>0.033</u>

Values express % of patients in each group harboring each mutation.

The p value describes the comparison among groups for each mutation. Underlined values are significant (<0.05)

Supplementary Table 2

HLA alleles of the human tissue used to reconstitute the mice . The HLA-A and HLA-B haplotypes for mice used in this study are listed as well as the corresponding HIV-1 isolate that was used for intravenous exposure

Mouse	HIV-1 isolate	HLA-A	HLA-B
6101	ES38-5	24,31	18,51
6102	ES38-5	24,31	18,51
6103	ES38-9	24,31	18,51
6105	ES38-9	24,31	18,51
6429	CP6-2E	02,68	40,48
6432	CP4-2B	02,68	40,48
6435	ES8-43	02,68	40,48
6438	ES8-43	02,68	40,48

Supplementary Figure 1. Gag sequence of HIV-1 that corresponds to the real-time PCR primers and Probes. The color highlighted region corresponds to the 5' primer, the orange highlighted region corresponds to the Taqman probe, and the blue highlighted region corresponds to the 3' primer.