

Figure S1. Monocytes do not affect CD3ζ expression. CD3ζ expression was evaluated by flow-cytometry on CD3+ T cells in PBMC, monocytes-depleted PBMC (PBMC-Mo), and PBMC+Mo at 1:1 ratio (PBMC+Mo 1:1) from one out of three representative HIV+ patient.

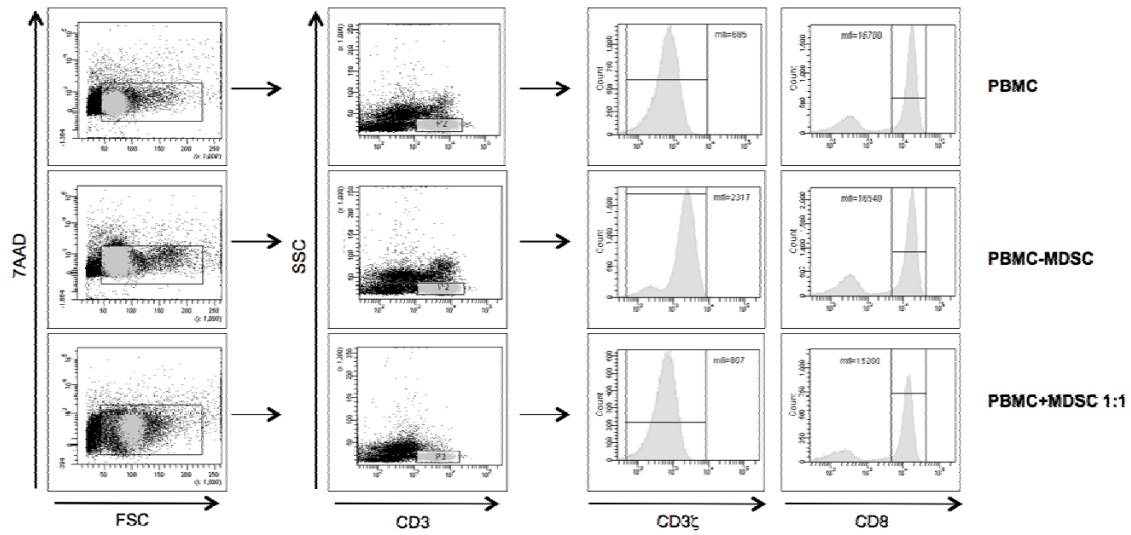


Figure S2. Gr-MDSC do not induce cell death and do not impair CD8 expression. CD3ζ and CD8 expression on 7AADneg cells were evaluated by flow-cytometry on CD3+ T cells in PBMC, Gr-MDSC depleted PBMC (PBMC-MDSC), and PBMC+MDSC at 1:1 ratio (PBMC+MDSC 1:1) from one out of three representative HIV+ patient.

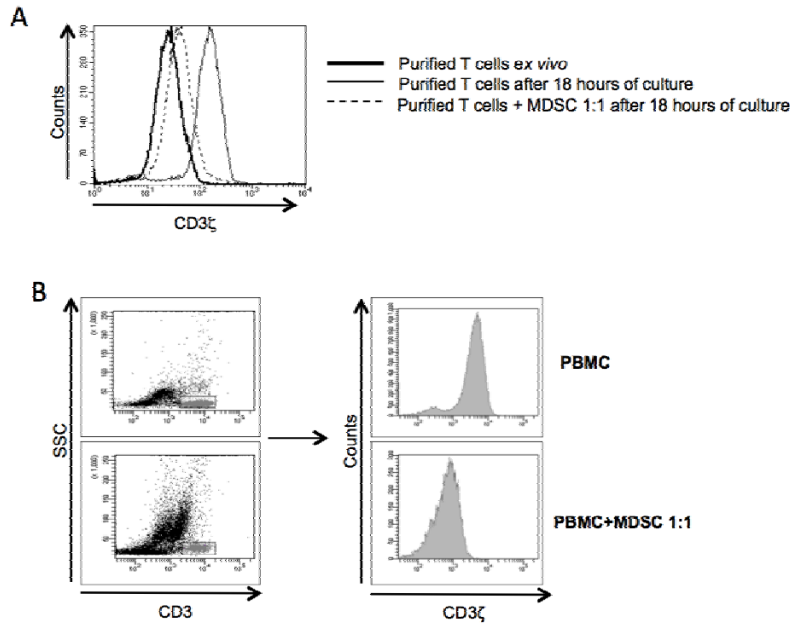


Figure S3. A Gr-MDSC effect on purified T cells. CD3 ζ expression on purified T cells from one HIV+ patient was evaluated by flow-cytometry on purified T cells soon after purification (purified T cells *ex vivo*), on purified T cells after 18 hour of culture, and on purified T cells cultured with Gr-MDSC (PBMC+MDSC 1:1) for 18 hours. One representative histogram plot is shown. **B Gr-MDSC from healthy donors down-regulate CD3 ζ .** CD3 ζ expression was evaluated on CD3+ cells in PBMC from one healthy donor (PBMC) and PBMC cultured with Gr-MDSC purified from the same donor (PBMC+MDSC 1:1) for 18 hours.

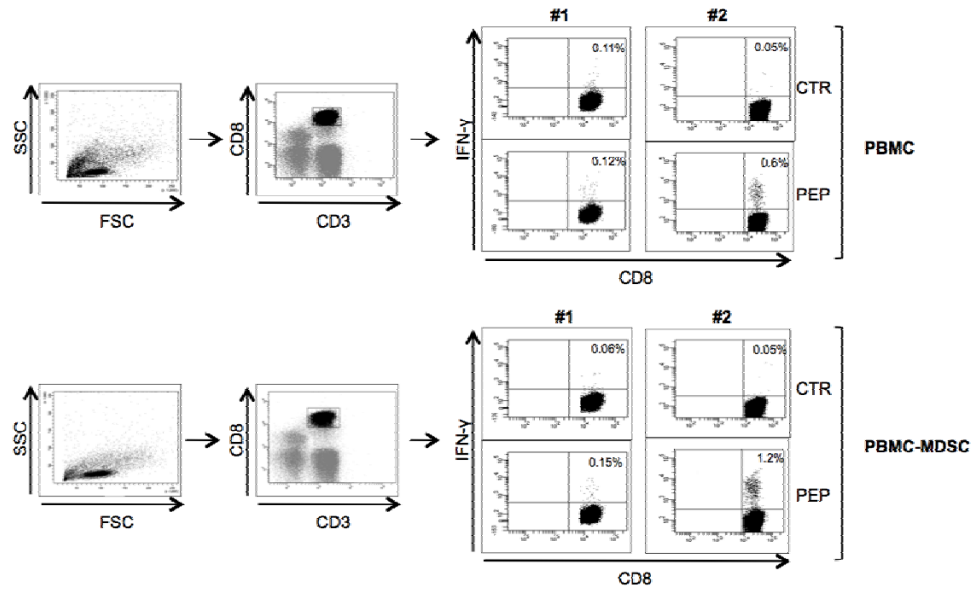


Figure S4. HIV-specific CD8 T cell response. Representative plots showing the gating strategy, negative control (CTR) and representative response to HIV peptides (PEP) of two representative HIV+ patients (#1, #2).

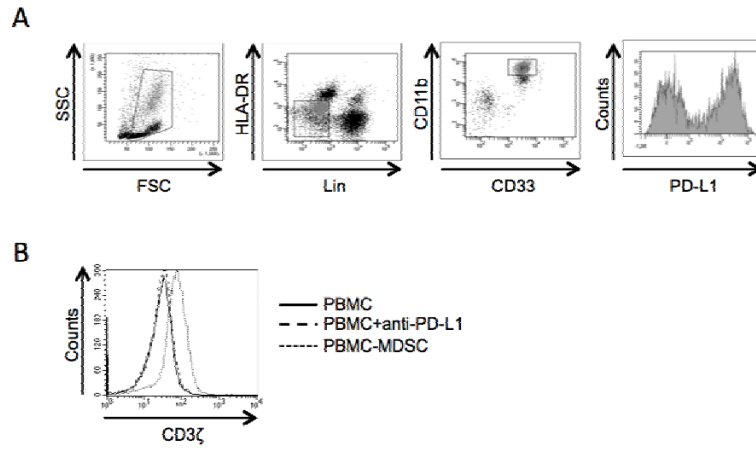


Figure S5. PD-L1 is not involved in CD3 ζ regulation. A PD-L1 expression on Gr-MDSC from one representative HIV+ patient. **B** CD3 ζ expression on T cells in PBMC from HIV patients, after treatment with neutralizing anti-PD-L1 (PBMC +anti-PD-L1), and Gr-MDSC depleted PBMC (PBMC-MDSC).

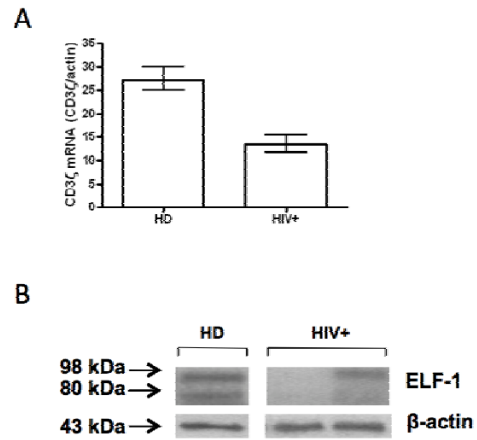


Figure S6. CD3 ζ mRNA and ELF-1 protein expression in purified T cells from HD and HIV+ patients. **A** CD3 ζ mRNA expression evaluated by RT-PCR of purified T cells soon after purification from 3 healthy donors (HD) and 3 HIV+ patients (HIV+). Results are shown as median and range. **B** ELF-1 expression evaluated by western blot in purified T cells from one representative healthy donor (HD) and 2 HIV+ patients (HIV+).

Table S1. Patients characteristics

Table 1

	cART (85)	no cART (20)	HD (16)
Median age (range)	47 (18-81)	37.5 (23-56)	41 (31-67)
Male number (%)	65 (76.5)	16 (80)	8 (50)
Median HIV RNA copies/ml (range)	<40 (<40-311695)	55984 (<40-2607565)	na
Median CD4 T cell count/ μ l (range)	687 (42-1853)	520 (15-1156)	na
co-morbidity	no	no	na
cART duration >1 year (%)	85 (100)	na	na

na: not applicable