Gated on CD8+ T cells

Studies performed in mice have shown that a substantial proportion of memory CD8 T cells persisting after the clearance of antigen (Ag) have the ability to secrete IL-2 in addition to IFN-γ—the type of the pathogen in human virus infections (3). In the present study we have studied memory CD8 T cells responses after different Ag persistence: complete Ag clearance (Flu), repetitive Ag exposure (EBV and CMV chronic infections) and Ag persistence (HIV-1).

HIV-1 negative subjects. Cells were stained with mAbs to CD8, CD69, IFN-γ, CMV, and CD8 and CD45RA and CCR7 were evaluated. CD69 and CCR7 were used as markers of Ag response and memory marker, respectively. Ag-specific CD8+ T cells were identified as IFN-γ+ and CCR7+ (effector memory cells).

HIV-1-specific IFN-γ+IL-2 secreting cells were absent in HIV-1-specific proliferating CD8+ T cells in three representative (out of five) LTNP showed variable intensities of the response to the different pools (Fig. 2B). HIV-1-specific IFN-γ+IL-2 secreting CD8+ T cells in LTNP (n=5) were significantly different (*p < 0.05) from HIV-1-specific proliferating CD8+ T cells (Fig. 2). These observations are consistent with the absence of a type 1 memory in HIV-1-specific IFN-γ+IL-2 secreting CD8+ T cells, which are in the majority in healthy donors. CD8+ T cells were detected by flow cytometry in our experiment.

HIV-1 pool 1

In contrast, within controls the type 1 CD8+ T cells were observed in low amounts (Fig. 2A). In the present study, we have demonstrated that HIV-1-specific IFN-γ+IL-2 secreting CD8+ T cells are present in healthy donors and are absent in HIV-1-infected individuals. This proliferation was not due to contaminating CD4 T cells since they were almost absent (0.6%) in the depleted population.

HIV-1 pool 2

These observations suggest that HIV-1-specific IFN-γ+IL-2 secreting CD8+ T cells are absent in HIV-1-infected individuals and are present in healthy donors. This proliferation was not due to contaminating CD4 T cells since they were almost absent (0.6%) in the depleted population.

HIV-1 pool 5

HIV-1-specific IFN-γ+IL-2 secreting CD8+ T cells were absent in HIV-1-infected individuals and are present in healthy donors. This proliferation was not due to contaminating CD4 T cells since they were almost absent (0.6%) in the depleted population.

HIV-1 pool 6

These observations suggest that HIV-1-specific IFN-γ+IL-2 secreting CD8+ T cells are absent in HIV-1-infected individuals and are present in healthy donors. This proliferation was not due to contaminating CD4 T cells since they were almost absent (0.6%) in the depleted population.