

Description of Additional Supplementary Files

Supplementary Data 1: Antibodies used in CyTOF experiments.

Supplementary Data 2: Differentially expressed genes within CD8/CD4 clusters.

Supplementary Data 3: Gene expression in Ly6ahigh/negative T cells by single cell RNA-seq.

Supplementary Data 4: High-resolution mass spectrometry proteomic analysis of CD8+ T cells post anti-Ly6a antibody or IgG treatment in the presence or absence of melanoma cells.