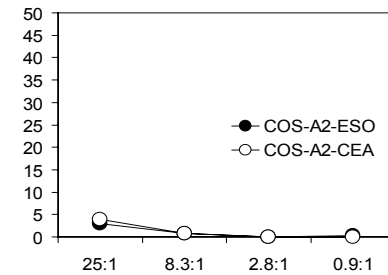
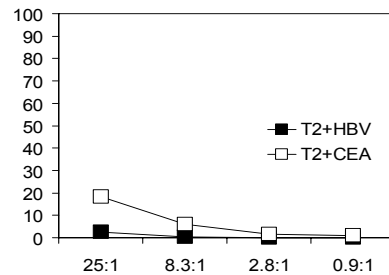
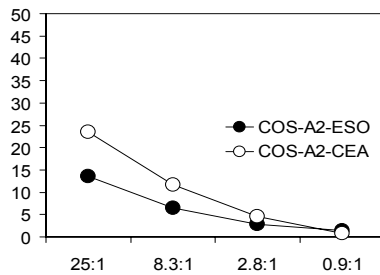
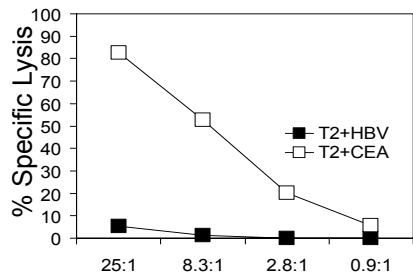


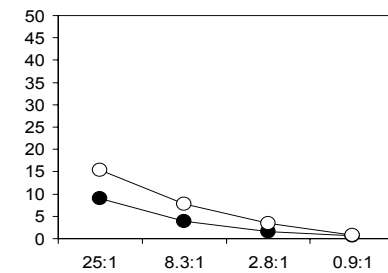
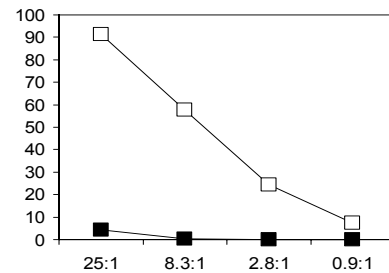
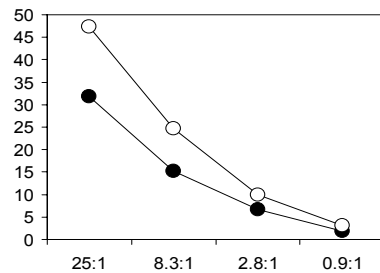
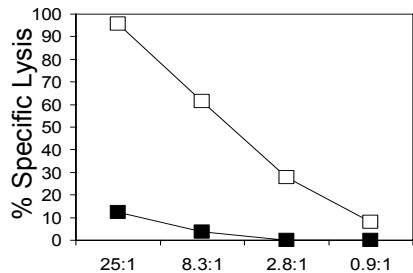
CD8⁺ T cells

CD4⁺ T cells

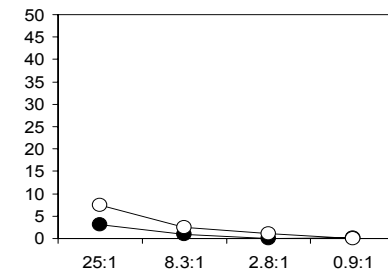
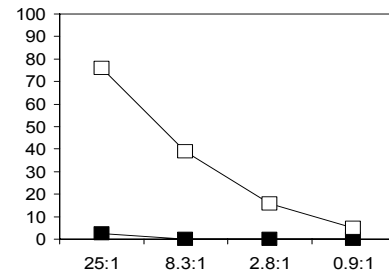
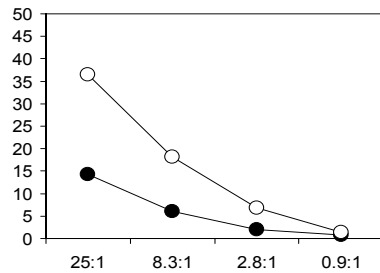
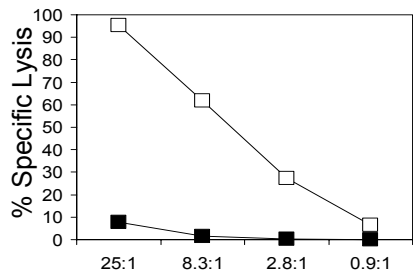
wt



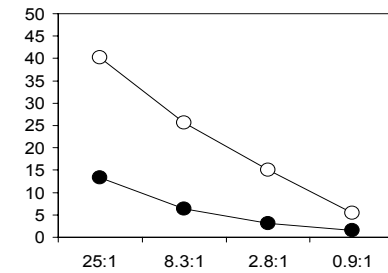
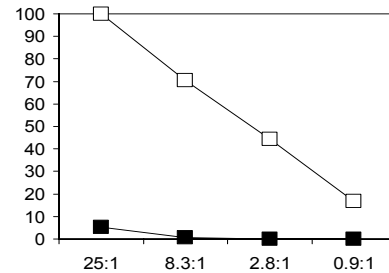
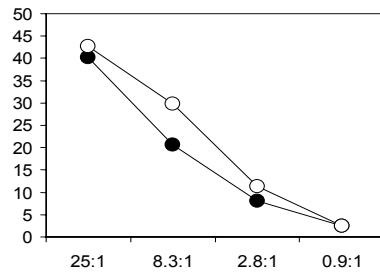
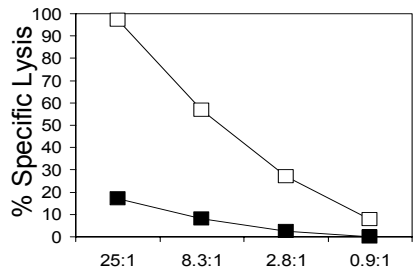
L110F



S112T



L110F
S112T



E:T Ratio

E:T Ratio

E:T Ratio

E:T Ratio

Supplemental Figure 5: Recognition of peptide and target cells expressing HLA-A2.1 and CEA by CD8+ and CD4+T cells transfected with RNAs encoding CEA:691-699 reactive TCR modified α chains and wild type (wt) β chains. RNAs encoding TCR amino-acid substituted α and wild type β chains were used to electroporate human CD8+ and CD4+ T cells previously stimulated to proliferate with anti-CD3 and IL-2. Approximately 24 hours later, T cell function was evaluated in a 4 hour ^{51}Cr release lysis assay in response to CEA:691-699 peptide-pulsed T2 cells and COS-7 cells genetically engineered to express HLA-A2.1 and full-length CEA.