**Supplemental Figure Legends**

**Supplemental Fgiure 1. TIGIT expression associates with up-regulation of multiple inhibitory receptors.**

Flow cytometry analysis of expression of PD-1, CD160, 2B4, BTLA, TIM-3, and LAG3 on TIGIT- vs. TIGIT+ CD8+ T cells from AML patients (n=22-24). (A-F) Representative histograms display the expression of above receptors on TIGIT- vs. TIGIT+ cells (gated with CD8+ T cells). Percentage of cells expressing each receptor is shown. Panels on right are plots of expression of each receptor on TIGIT- vs. TIGIT+ CD8+ T cells from AML patients (n=22-24). *P* values were obtained by unpaired t test (PD-1, CD160, PD-1) or Mann-Whitney U test (BTLA, TIM-3, LAG-3). (G-L) Correlative analysis of TIGIT and expression of above receptors are shown. \*\*\**P*<0.001.

**Supplemental Figure 2. TIGIT+ CD8+ T cells from AML patients retain capacity of proliferation and cytotoxicity.**

(A) Representative flow data (left) and a plot (right) of ki-67 expression on TIGIT- vs. TIGIT+ CD8+ T cells from AML patients (n=20). *P* values were obtained by Wilcoxon matched-pairs signed rank test. (B) Representative flow data (left) and a plot (right) of proliferation analysis by CFSE assay on TIGIT- or TIGIT+ CD8+ T cells from AML patients (n=5). *P* values were obtained by 2-tailed, paired t tests. (C) Representative flow data (left) and a plot perforin expression on TIGIT- or TIGIT+ CD8+ T cells from AML patients (n=18). *P* values were obtained by 2-tailed, paired t tests.