Figure S1

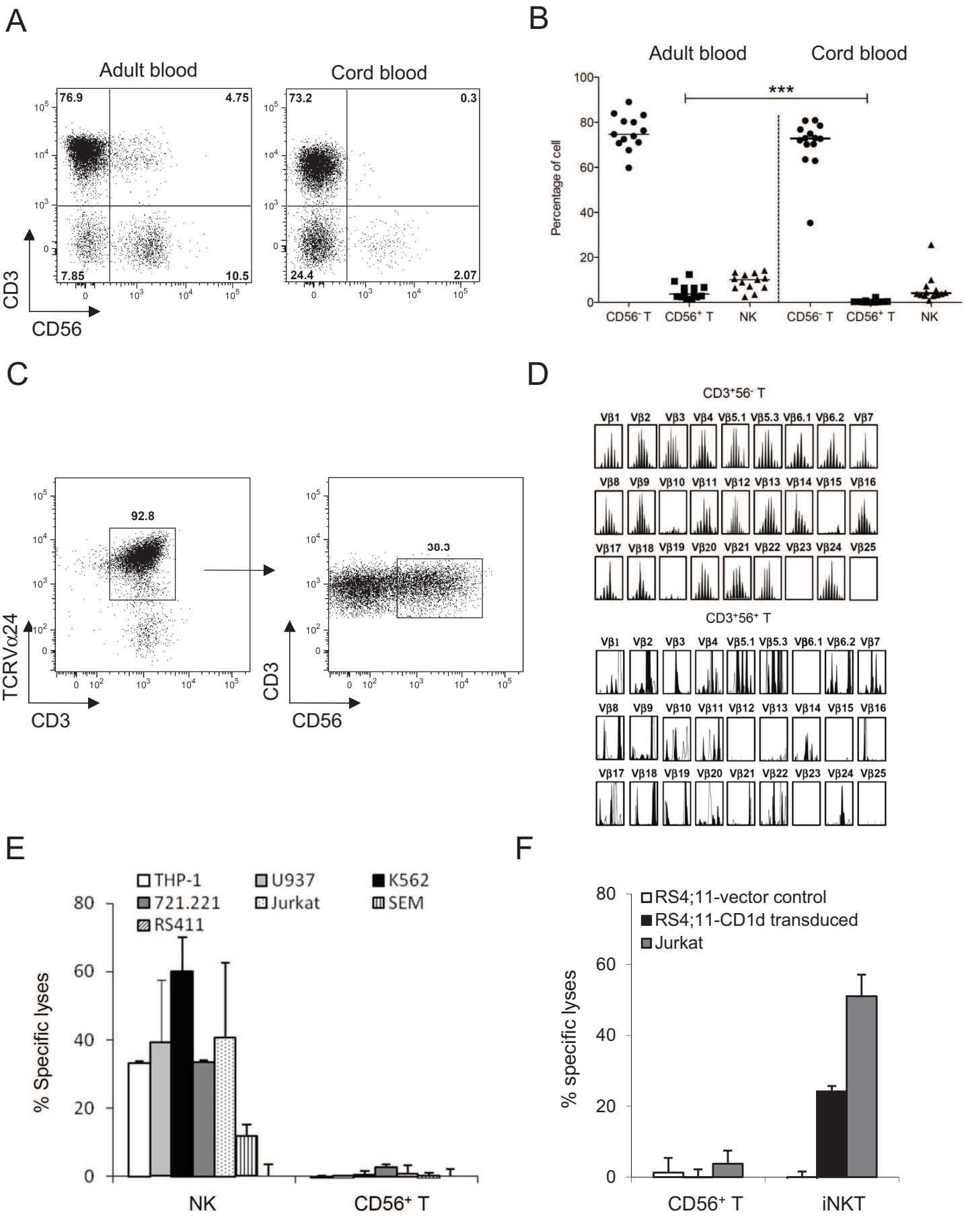
A
Adult blood
Cord blood
76.9
4.75
7.85
10.5
73.2
0.3
24.4
2.07
CD3
CD56
B
Adult blood
Cord blood
***
Percentage of cell
CD56⁻ T
CD56⁺ T
NK
CD56⁻ T
CD56⁺ T
NK
C
92.8
30.3
TCRVα24
CD3
CD3
CD56
D
CD3⁺56⁻ T
Vβ1 Vβ2 Vβ3 Vβ4 Vβ5.1 Vβ5.3 Vβ6.1 Vβ6.2 Vβ7
Vβ8 Vβ9 Vβ10 Vβ11 Vβ12 Vβ13 Vβ14 Vβ15 Vβ16
Vβ17 Vβ18 Vβ19 Vβ20 Vβ21 Vβ22 Vβ23 Vβ24 Vβ25
CD3⁺56⁺ T
Vβ1 Vβ2 Vβ3 Vβ4 Vβ5.1 Vβ5.3 Vβ6.1 Vβ6.2 Vβ7
Vβ8 Vβ9 Vβ10 Vβ11 Vβ12 Vβ13 Vβ14 Vβ15 Vβ16
Vβ17 Vβ18 Vβ19 Vβ20 Vβ21 Vβ22 Vβ23 Vβ24 Vβ25
E
THP-1
U937
K562
721.221
Jurkat
SEM
RS411
% Specific lyses
NK
CD56⁺ T
F
RS4;11-vector control
RS4;11-CD1d transduced
Jurkat
% specific lyses
CD56⁺ T
iNKT

Figure S1

Figure S1 Frequency, phenotype and function of CD56$^+$ T cells. (*A*) Frequency of CD56$^+$ T cells in adult peripheral blood and cord blood. (*B*) Percentage of indicated cell types in adult peripheral blood and cord blood. The bars represent the median percentage in 13 adults and 14 cord blood units. (*C*) Expression of CD56 on TCRVα24$^+$Vβ11$^+$CD3$^+$ iNKT cells. Numbers indicate the percent of cells in each region. (*D*) CD56$^-$ T cells showed a diverse and Gaussian pattern. CD56$^+$ T cells showed less diverse and skewed TVRVβ usages. (*E*) Lack of cytotoxicity by resting CD56$^+$ T cells against leukemic cell lines. NK cells were used as positive control. (*F*) Lack of CD1d-restricted cytotoxicity. CD56$^+$ T cells were tested against αGC-loaded Jurkat cells or CD1d-expressing, NK-resistant RS4;11-CD1d transduced cells. iNKT cells were used as positive control. The results are mean and S.E.M. from three different experiments. The results shown are representative of five (*C-E*) and six (*F*) independent experiments. *** $p<0.001$

Figure S2

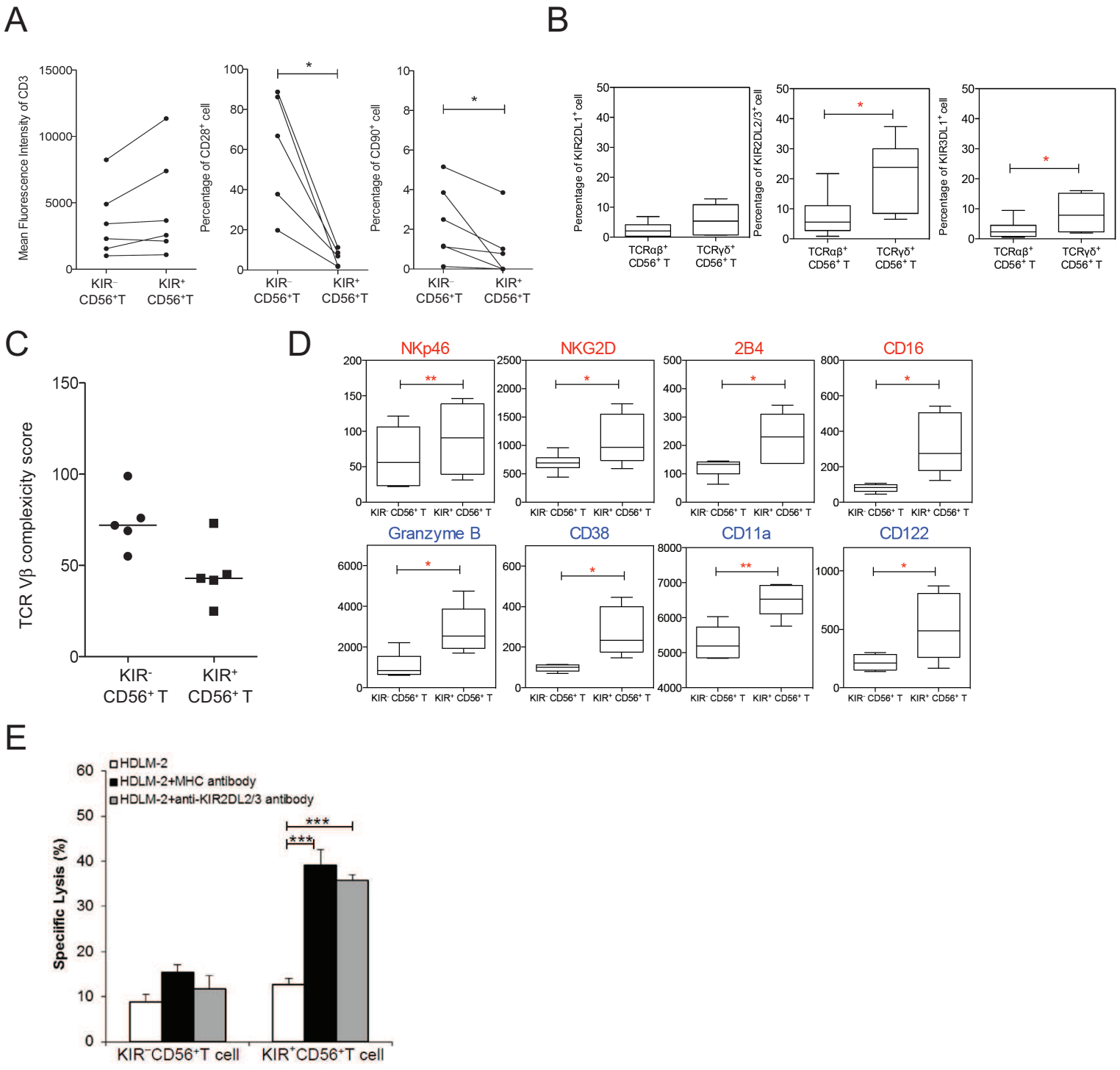

Figure S2 Phenotypes and functions of KIR$^+$ and KIR$^-$ CD56$^+$ T cells. (*A*) Surface expression density of CD3 and percentages of CD28$^+$ and CD90$^+$ on KIR$^-$ and KIR$^+$ CD56$^+$ T cells. (*B*) Box-plots comparing the expression of KIR2DL1, KIR2DL2/3 and KIR3DL1 on TCRαβ$^+$ and TCRγδ$^+$ CD56$^+$ T cells (n=5). (*C*) TCRVβ usage diversity in KIR$^-$ and KIR$^+$ subsets of CD56$^+$ T cells as shown by complexity score. The bars in the plot indicate the median (n=6). (*D*) Box-plots compare the expressions of NK, NK/T and T cell receptors on KIR$^+$ and KIR$^-$ subsets of CD56$^+$ T cells (n=5). (*E*) Cytotoxicity of KIR$^-$ and KIR$^+$CD56$^+$ T cells against HDLM-2 cells with or without pan-MHCI antibody (10 μg/mL) or anti-KIR2DL2/3 antibody (10 μg/mL). Effector-to-target ratio was 20:1. Data are from 3 independent experiments. *p<0.05; **p<0.01; ***p<0.001