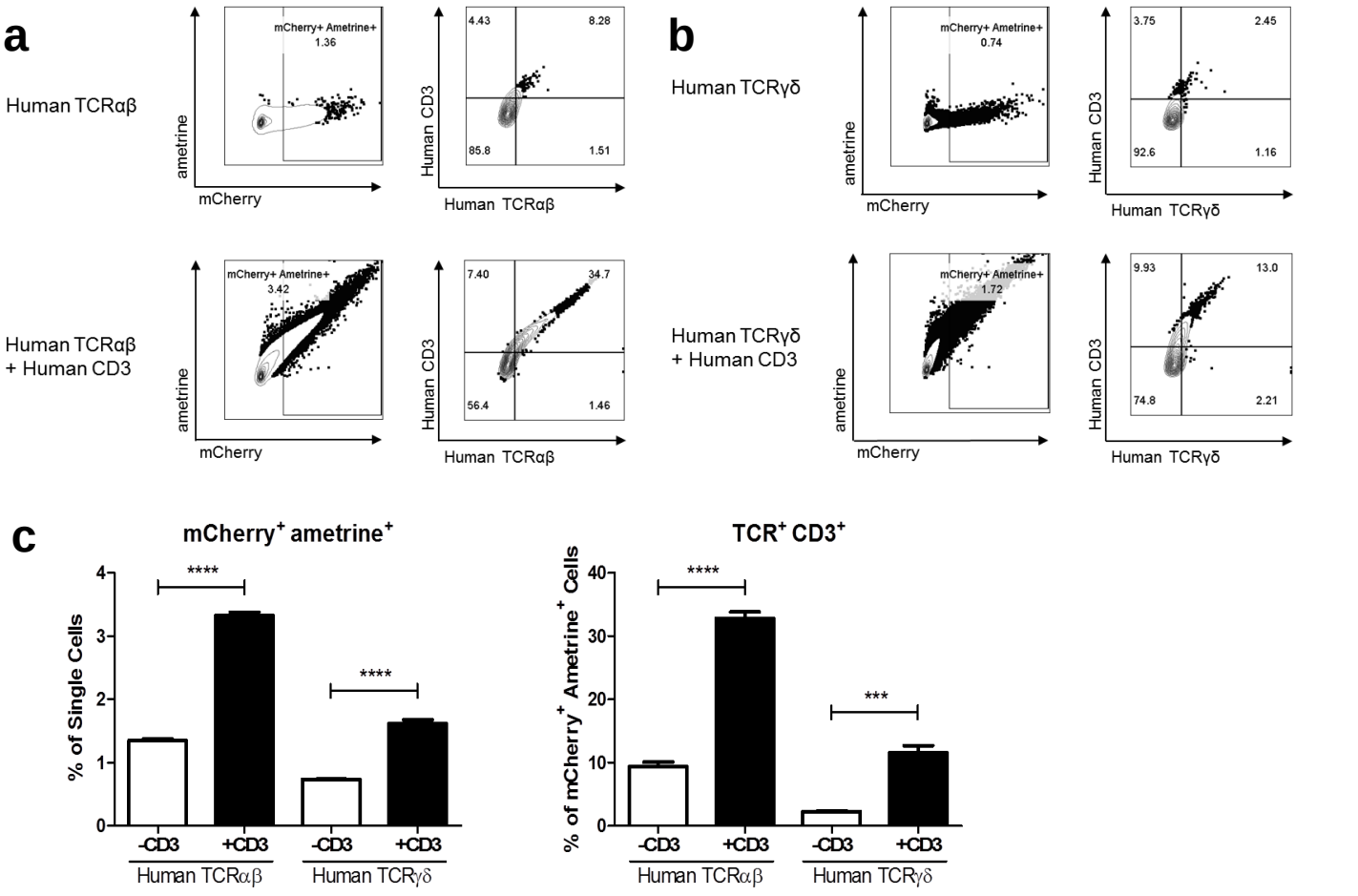
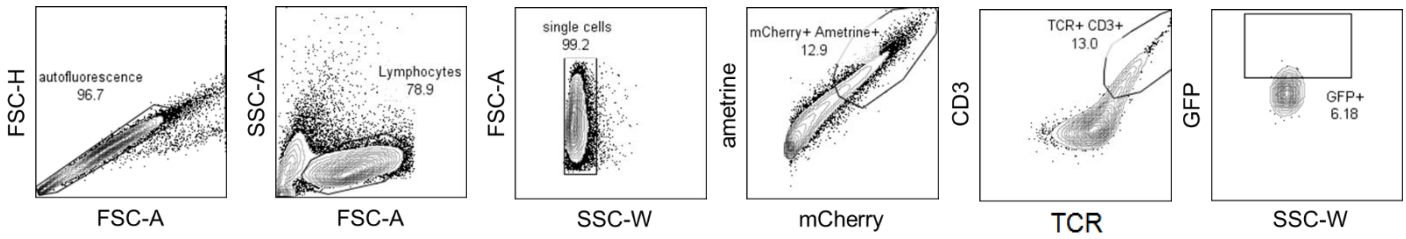
	Mean	Std. Deviation	Std. Error
TRGV9/ TRDV2	20.06	16.11	4.306
TRGV4/ TRDV1	12.71	15	4.008
TRGV8/ TRDV1	8.714	10.63	2.842
TRGV9/ TRDV3	8.357	21.25	5.68
TRGV2/ TRDV1	7.836	14.61	3.906
TRGV1/ TRDV2	4.643	13.51	3.61
TRGV3/ TRDV3	4.35	13.09	3.498
TRGV9/ TRDV1	4.279	8.702	2.326
TRGV4/ TRDV3	4.071	9.059	2.421
TRGV3/ TRDV1	4.029	5.646	1.509
TRGV2/ TRDV3	3.071	8.801	2.352
TRGV5/ TRDV3	2.643	6.744	1.802
TRGV8/ TRDV2	1.971	5.388	1.44
TRGV5/ TRDV1	1.871	3.633	0.9711
TRGV2/ TRDV2	1.871	3.633	0.9711
TRGV8/ TRDV3	1.643	4.557	1.218
TRGV2/ TRAV29 /DV5	1.492	4.706	1.305
TRGV3/ TRDV2	1.279	2.922	0.7808
TRGV10 /TRDV1	1.071	2.31	0.6175
TRGV9/ TRAV38 -2/DV8	0.3571	1.336	0.3571
TRGV4/ TRDV2	0.1857	0.6949	0.1857
TRGV9/ TRAV29 /DV5	0.1714	0.6414	0.1714

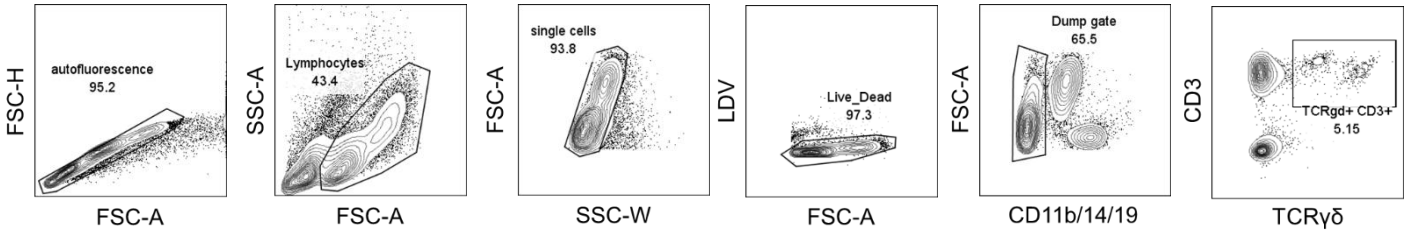
Supplemental Table S1. TRGV/TRDV repertoire among 14 human samples. The percentage of paired TRGV/TRDV usage was analyzed from the sequencing results of each 14 human PBMC samples. Average values, standard deviation and standard error were reported.



Supplemental Figure S1. Co-transfection of human CD3 can improve the expression of human TCR constructs. (a-b) Comparison of single transfection of human TCR constructs and co-transfection of human TCR constructs and human CD3. **(c)** Quantification of mCherry/ametrine and TCR/CD3 expression is shown. Statistical differences were determined by One-way ANOVA; $p < 0.05$ was considered statistically significant. Data are mean ± SEM of two independent experiments***$p < 0.001$, ****$p < 0.0001$.



Supplemental Figure S2. Gating strategy of TCR-transfected-NJ76 cells in flow cytometry. The data of TCR-transfected-NJ76 cells after stimulation in Figure 3 were analyzed by applying the gating strategy to all the samples. The gating is flowing "autofluorescence gate – lymphocytes gate – single cell gate – $mCherry^{+}Ametrine^{+}$ gate – $TCR^{+}CD3^{+}$ gate – GFP^{+} gate".



Supplemental Figure S3. Gating strategy of Human TCRγ/δ$^+$ CD3$^+$ cells single cell sorting. Single cell of human TCRγδ$^+$ CD3$^+$ cells from PBMC samples were sorted into 96-well plate by applying the gating strategy above. The gating is flowing "autofluorescence gate – lymphocytes gate – single cell gate – live/dead gate – dump gate (CD11b/14/19) – TCRγδ$^+$/CD3$^+$ gate".