

Supplementary Table 1. Summary of donor T cells used for CAR T cell generation and response to anti-PD1 antibody treatment *in vitro* and *in vivo*.

Donor	T cell source	Manufacturing methods ¹	CAR	CD4:CD8	PD1 ⁺ /CD8 ²	PD-L1>1%	CAR constructs ³	Cytotoxicity +/-PD ₄ (<i>P</i> values)	In vivo activity +/-PD ₅ (<i>P</i> values)
Patient 1-1 (ATC)	PBMC	Tissue culture	18%	71:24	96%	yes	RR	Yes (<i>P</i> < 0.001)	n.d.
Patient 1-2 (ATC)	PBMC	Tissue culture	20%	71:24	96%	yes	RR	Yes (<i>P</i> < 0.001)	n.d.
Patient 2 (ATC)	PBMC	Tissue culture	64%	59:39	99%	yes	mAS	No (<i>P</i> > 0.5)	n.d.
Patient 3-1 (PDTC)	PBMC	Tissue culture	61%	77:20	40%	no	mAS	No (<i>P</i> > 0.5)	n.d.
Patient 3-2 (PDTC)	PBMC	Tissue culture	56%	77:20	40%	no	RR	No (<i>P</i> > 0.5)	n.d.
Patient 4 (WDPTC)	PBMC	Tissue culture	55%	65:26	16%	no	RR	Yes (<i>P</i> < 0.05)	n.d.
Healthy 1	Leukopak	Prodigy (CAR T-1)	75%	85:12	41%	n.a.	mAS	Yes (<i>P</i> < 0.05)	Yes (<i>P</i> < 0.01)
Healthy 2	Leukopak	Prodigy (CAR T-2)	81%	45:51	24%	n.a.	mAS	No (<i>P</i> > 0.5)	No (<i>P</i> > 0.5)
Healthy 3	Leukopak	Prodigy (CAR T-3)	71%	42:53	26%	n.a.	mAS	No (<i>P</i> > 0.5)	No (<i>P</i> > 0.5)

1. Two different manufacturing methods. Refer to Methods for details.

2. Refer to Figures 2 and 4A

3. RR denotes R6.5 scFv based CAR design (1), and mAS denotes CAR design with LFA-1 I domain with F292A mutation (2).

4. Determined against 8505C cell line at 50% cell death. Refer to Fig. 3C.

5. Determined by the tumor burden reduction at weeks 3-4 post-xenograft.

n.a. = not applicable; n.d. = not determined.