



*High dose of Atezolizumab by *i.v.* injection:

10 mg/kg at first dose and 5 mg/kg twice a week throughout the duration of the experiment

B

PBS	n=7
Non-transduced T cells (3 M T cells)	n=7
Non-transduced T cells plus Atezo (3 M T cells)	n=7
HER2 CAR (3 M CAR-T cells)	n=7
HER2 CAR plus Atezo (3 M CAR-T cells)	n=7
HER2 CAR (1 M CAR-T cells)	n=7
HER2 CAR plus Atezo (1 M CAR-T cells)	n=7
cRB-340-1 (3 M CAR-T cells)	n=7
cRB-340-1 plus Atezo (3 M CAR-T cells)	n=7
cRB-340-1 (1 M CAR-T cells)	n=7
cRB-340-1 plus Atezo (1 M CAR-T cells)	n=7
RB-340-1 (3 M CAR-T cells)	n=7
RB-340-1 (1 M CAR-T cells)	n=8

C

PBS	n=9	Tumor only
Non-transduced T cells (1 M T cells)	n=9	NT
HER2 CAR (1 M CAR-T cells)	n=9	Single-sorted for tNGFR ⁺
HER2 CAR plus Atezo (1 M CAR-T cells)	n=9	Single-sorted for tNGFR ⁺
cRB-340-1 (1 M CAR-T cells)	n=9	Double-sorted for tNGFR ⁺ /Q8 ⁺
cRB-340-1 plus Atezo (1 M CAR-T cells)	n=9	Double-sorted for tNGFR ⁺ /Q8 ⁺
RB-340-1 (1 M CAR-T cells)	n=9	Double-sorted for tNGFR ⁺ /Q8 ⁺
RB-340-1ss_2M (2 M CAR-T cells)	n=9	Single-sorted for tNGFR ⁺
RB-340-1ss_1M (1 M CAR-T cells)	n=9	Single-sorted for tNGFR ⁺

Figure S5, related to Figure 5 and 6.

(A) Systemic administration model and study design.

(B-C) Experimental set up – All treatment groups included seven mice (in B, for Figure 5) or nine mice (in C, for Figure 6) receiving subcutaneous implantation of 0.5 million FaDu cells followed by adoptive transfer of CAR-T cells at day 10. Atezolizumab (10 mg/kg) was administered intravenously in the relevant groups the day before adoptive transfer (day 9) and subsequently dosed at 5 mg/kg twice a week.