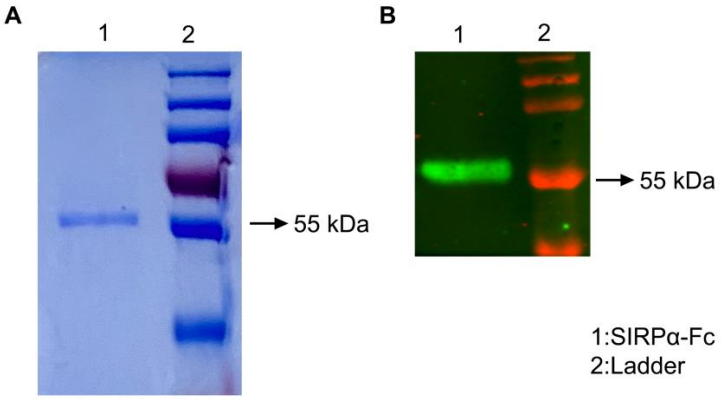
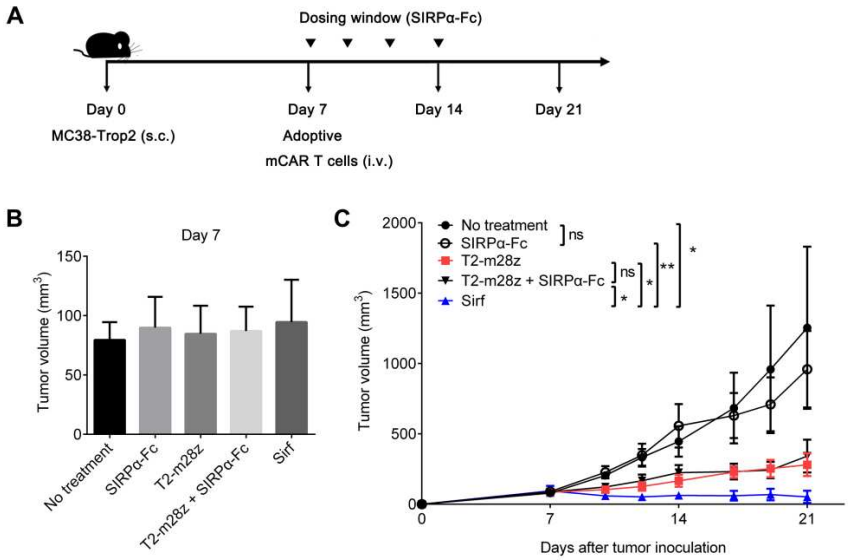
Online Supplemental Figures

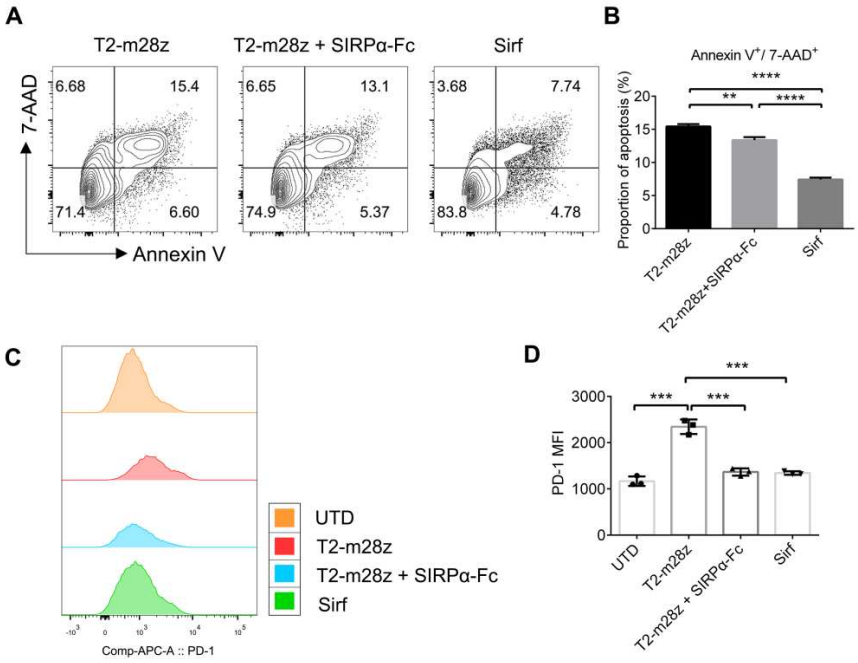


Online supplemental figure S1. The production of SIRPα-Fc protein.

Staining purified SIRPα-Fc fusion protein in SDS-PAGE with Coomassie-Brilliant Blue **(A)**. Western blotting analysis of purified SIRPα-Fc fusion protein stained with anti-HIS mAb **(B)**.



Online supplemental figure S2. In vivo therapeutic effects of CAR-T cells. Schematic representation of the animal experiment. MC38-Trop2^{+} (1×10^{6}) tumor cells were subcutaneously injected into C57BL/6 mice and allowed to establish for 7 days **(A)**. Mice were assigned to five experimental groups based on the tumor volume on Day 7 as indicated **(B)**, and treated with SIRPα-Fc protein only, T2-m28z CAR-T cells only, T2-m28z CAR-T cells with SIRPα-Fc protein, and Sirf CAR-T cells. Tumor-bearing mice were administered intravenously with SIRPα-Fc protein (0.5 mg/kg) for four times (indicated by the arrowheads). CAR-T cells were adoptively transferred i.v. on day 7. Tumor growth curve of mice **(C)**. N=6 mice/group. All data are presented as mean ± SEM from experiments. * $p < 0.05$, ** $p < 0.01$.



Online supplemental figure S3. SIRPα-Fc enhances CAR-T cell immunity. The level of CAR T cells apoptosis was analyzed by flow cytometry after co-cultured with MC38-Trop2^{+} for 24 h without cytokine addition *in vitro.* SIRPα-Fc was used as 5 μg/mL. 7-AAD dye / Annexin V-staining of CAR-T cells **(A-B)**. The expression of CAR-T cells exhaustion marker PD-1 was analyzed by flow cytometry **(C-D)**. All data are presented as mean ± SEM from experiments, N=3. *** $p < 0.001$, **** $p < 0.0001$.