

Figure S1. Anti-CD70 antibodies specifically stain CD70-positive but not negative cell lines. **A,** Anti-CD70 antibodies, clones 3, 17, and 23, stained cell lines endogenously expressing CD70 as compared to the isotype control (grey) by flowcytometry. **B,** Cell lines in which CD70 was knocked out (786-O CD70 KO and ACHN CD70 KO) or lack expression (293T) were not stained by anti-CD70 antibodies as compared to the isotype control by flow cytometry. **C,** CD70-positive 786-O and ACHN cells but not CD70-negative 786-O CD70 KO and ACHN CD70 KO cell were eliminated by CAR T cells in a short-term cytotoxicity assay. CAR T cells and luciferase-labeled tumor cells were co-cultured at an effector to target ration of 3:1 for 72 hours. Tumor cell viability was determined by ONE-Glo luminescent measurement. Data are shown as mean ± SD for one CAR T cell donor against triplicate tumor samples.