

Supplementary Figure Legends.

Supplemental Figure 1. MesoCAR-transduced dgk ζ -deficient T cells demonstrate

resistance to multiple inhibitory stimuli. MesoCAR transduced wt or dgk ζ -deficient T cells were incubated with AE17meso target cells for 24 hours at a ratio of 40:1 in the presence or absence of indicated concentrations of (A) adenosine or (B) prostaglandin E2 (PGE2) and cytotoxicity or IFN γ production of target cells was assessed as in Figure 2.

Supplemental Figure 2. Enhanced expression of FasL and TRAIL in dgk-deficient

mesoCAR T cells. 2×10^6 MesoCAR T cells replete (wt) for or lacking the indicated isoform of dgks were stimulated with 2×10^6 mesothelin-coated beads for 18 hours in presence of IL2. FasL (A) and TRAIL (B) expression was determined by flow cytometry. One of two experimental iterations is shown, both experiments yielded similar data.

Supplemental Figure 3. Similar expression of Granzyme B and perforin in dgk-

deficient mesoCAR T cells. Under conditions identical to supplemental figure 2, wt or dgk-deficient mesoCAR T cells were incubated with mesothelin-coated beads and the expression of perforin (A) and granzyme B (B) was determined by flow cytometry using an intracellular staining protocol recommended by the manufacturer.