



**Supp. Figure 2.** AKT-resistant form of PGC-1 $\alpha$  (A) and NT-PGC-1 $\alpha$  (B) increase the glycolytic capacity of human CAR T cells *in vitro*. (C) Overexpression of PGC-1 $\alpha^{S571A}$  was sufficient to induce enhanced respiratory capacity on a CAR-T cell with a CD28 co-stimulatory domain. (D) PGC-1 $\alpha^{S571A}$ -overexpressing CAR-T cells have a higher metabolic rate for fatty acids (specifically palmitate). (E) Overexpression of PGC-1 $\alpha^{S571A}$  retained the mitochondrial benefit even after 6 days of culture at 1.5% hypoxia.