

Fig.S1. Distribution of T cell phenotypes in different breast cancer subtypes.
 A: The CD4⁺ T cell subsets in the normal controls(n=19) and breast cancers(n=70). B:
 The CD4⁺ T cell percentage in the biologic subtype: Luminal A(n=16), Luminal
 B(n=26), Her2+(n=20), TNBC(n=6).C: The CD4⁺T_{EM} percentage in ER
 negative(n=17) and ER positive(n=53) groups. The data were presented as mean±SD.
 *P<0.05; ** P<0.01.

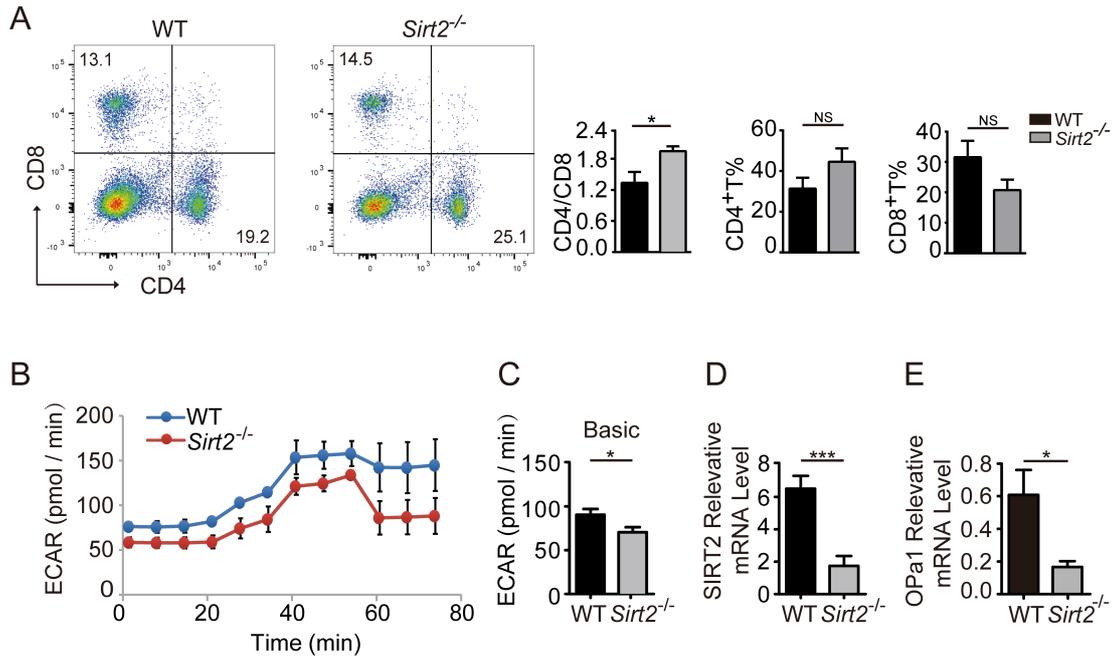


Fig.S2. A: The CD4⁺ and CD8⁺ T percentage in the homologous mouse: wildtype mice (n=11) and *Sirt2*^{-/-} (n=9). B.C: ECAR of wild-type (n=6) and *Sirt2*^{-/-} (n=6) CD8⁺ T cells in real time after the addition of oligomycin, 2,4-dinitrophenol (DNP) and retene. D.E. OPA1 demonstrated a significant decrease in *Sirt2*^{-/-} CD8⁺ T cells. The data were presented as mean±SD. *P<0.05; ** P<0.01; *** P<0.005.