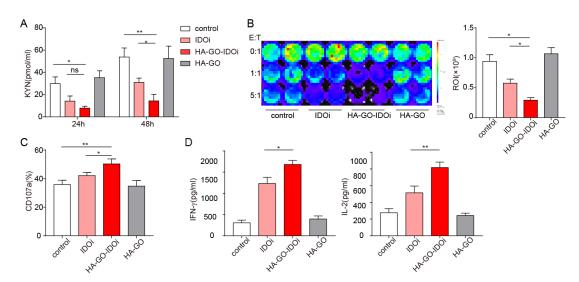
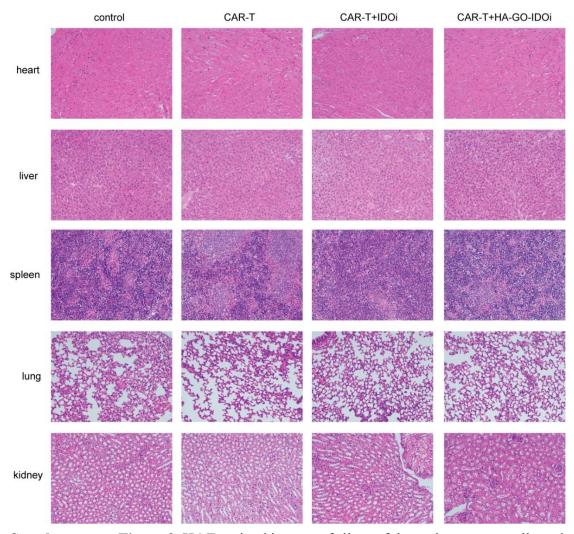


**Supplementary Figure 1** IDO1 mRNA levels, measured using qPCR. ESCC cell lines were cultured in the absence or presence of 50 U/mL exogenous IFN- $\gamma$  for 24 h.



**Supplementary Figure 2.** (A) KYN production of EC109 cells cultured with or without IDO1 inhibitor. (B) After 24h treaded with or without IDO1 inhibitor, Luc-EC109 cells were cocultured with CAR-T cells at different ratios, Luminescence was used to determine percentage tumor cell death. (C) CD107a expression by CAR-T cells cocultured with IDO1 inhibitor-treated EC109 cells. (D) IFN- $\gamma$  and IL-2 secretion of CAR-T cells cocultured with IDO1 inhibitor-treated EC109 cells., detected via ELISA. \*P < 0.05, \*\*P < 0.01, \*\*\*P < 0.001 (repeated-measures one-way ANOVA or Student's *t*-test)



**Supplementary Figure 3.** H&E-stained images of slices of the major organs, collected from treated mice 7 d post-injection.