

## Supplementary Information

### TRIM2 Facilitates Macrophage Mediated Anti-tumour Immunity in Renal Cell Carcinoma through Enhancing SIRPA Ubiquitination and Degradation

#### This PDF file includes:

Supplementary Text

Figures S1 to S2

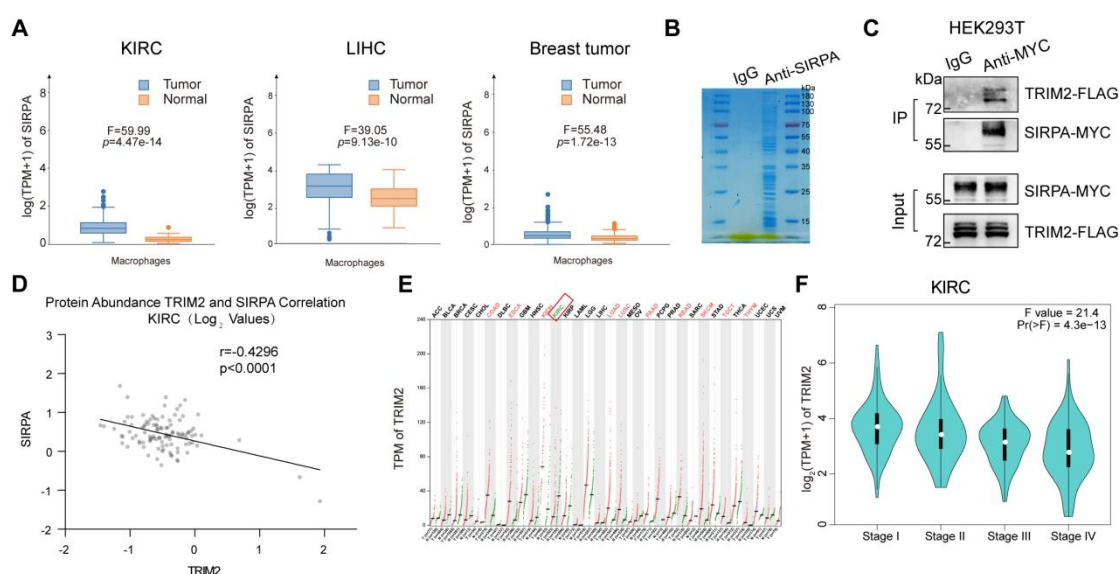


Fig. S1 A Sirpa mRNA levels in macrophages from KIRC, LIHC and Breast tumors along with paired normal tissues were analyzed using GEPIA. B Coomassie-stained protein gel image. Co-IP was performed with a SIRPA-antibody in MOLT4 cell lysates, mouse or rabbit normal IgG was used as a negative control. C Co-IP was performed with a Myc-antibody in HEK293T cell lysates, mouse or rabbit normal IgG was used as a negative control. Immunoblotting (IB) was performed using indicated antibodies. D The correlation between SIRPA and TRIM2 protein levels in KIRC was analyzed via the CPTAC website. E Based on data obtained from GEPIA, TRIM2 expression across various tumor types is shown. The data of pancreatic cancer samples were obtained from the TCGA database. The data of normal samples were sourced GTEX database. F TRIM2 expression in different pathological stage of KIRC patients analyzed using GEPIA.

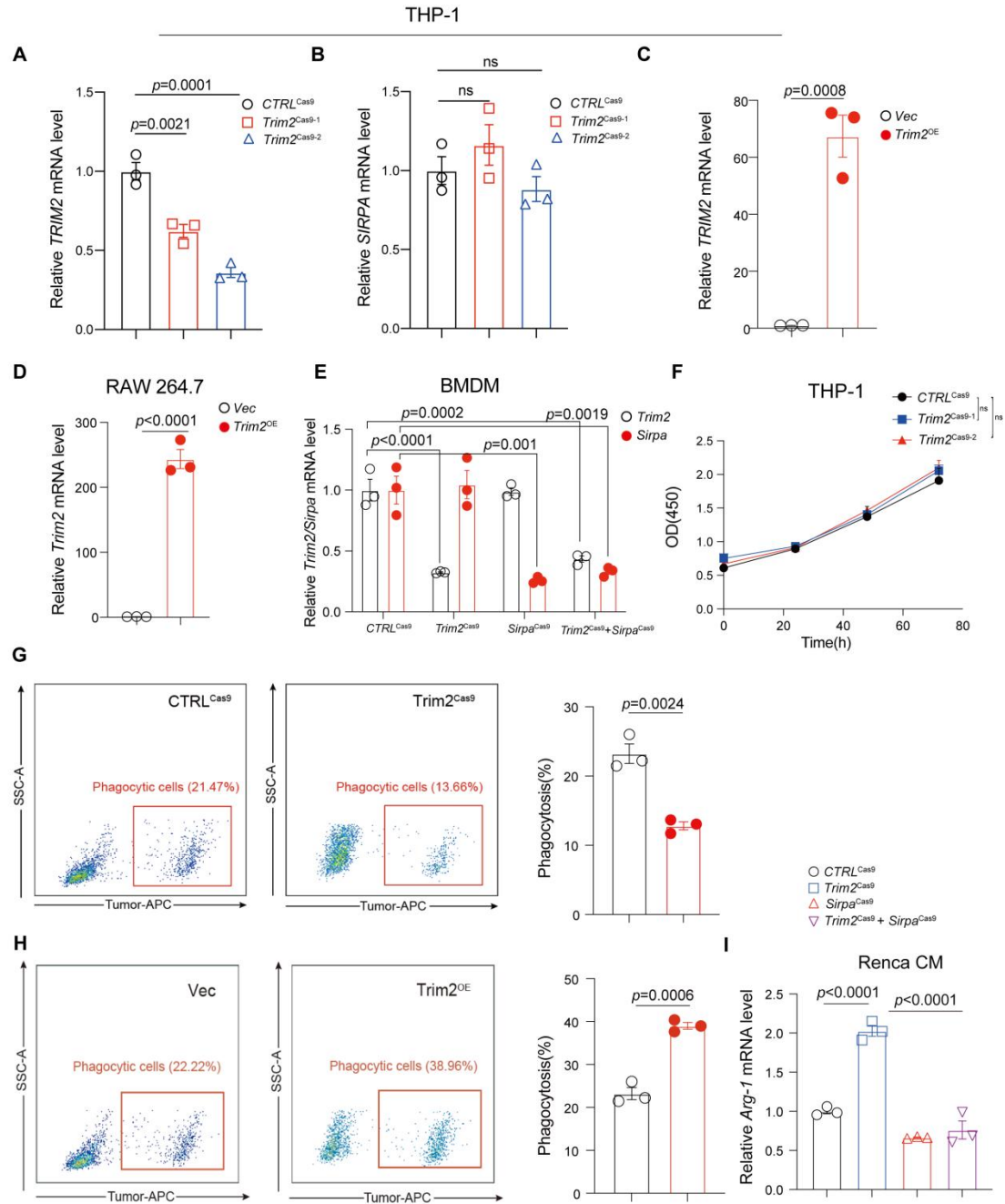


Fig. S2 Total RNA was extracted and qRT-PCR analysis of *TRIM2* (A, C, E) and *SIRPA* (B) expression was performed in THP-1 cells. D qPCR analysis of *TRIM2* was performed in RAW264.7 cells. F The proliferation curve of THP-1 with or without *Trim2* knockout was assayed by CCK experiments. G, H Flow-cytometric phagocytosis assay: macrophages that had engulfed RFP-overexpressing 4T1 cells (double-positive for a macrophage marker and APC) were identified, and the phagocytic rate was calculated as the percentage of these double-positive macrophages relative to the total macrophage population. Quantified data are presented as the means  $\pm$  SEM.

(I) BMDMs were co-cultured with Renca CM for 48 h. Total RNA was then extracted, and qRT-PCR analysis of Arg-1 was performed. Quantified data are presented as means  $\pm$  SEM. Statistical significance was calculated by Student's t tests (A-H), one-way ANOVA with Tukey's multiple comparison tests (I). ns, not significant.