Anti-cancer inhibitor could have dual effect

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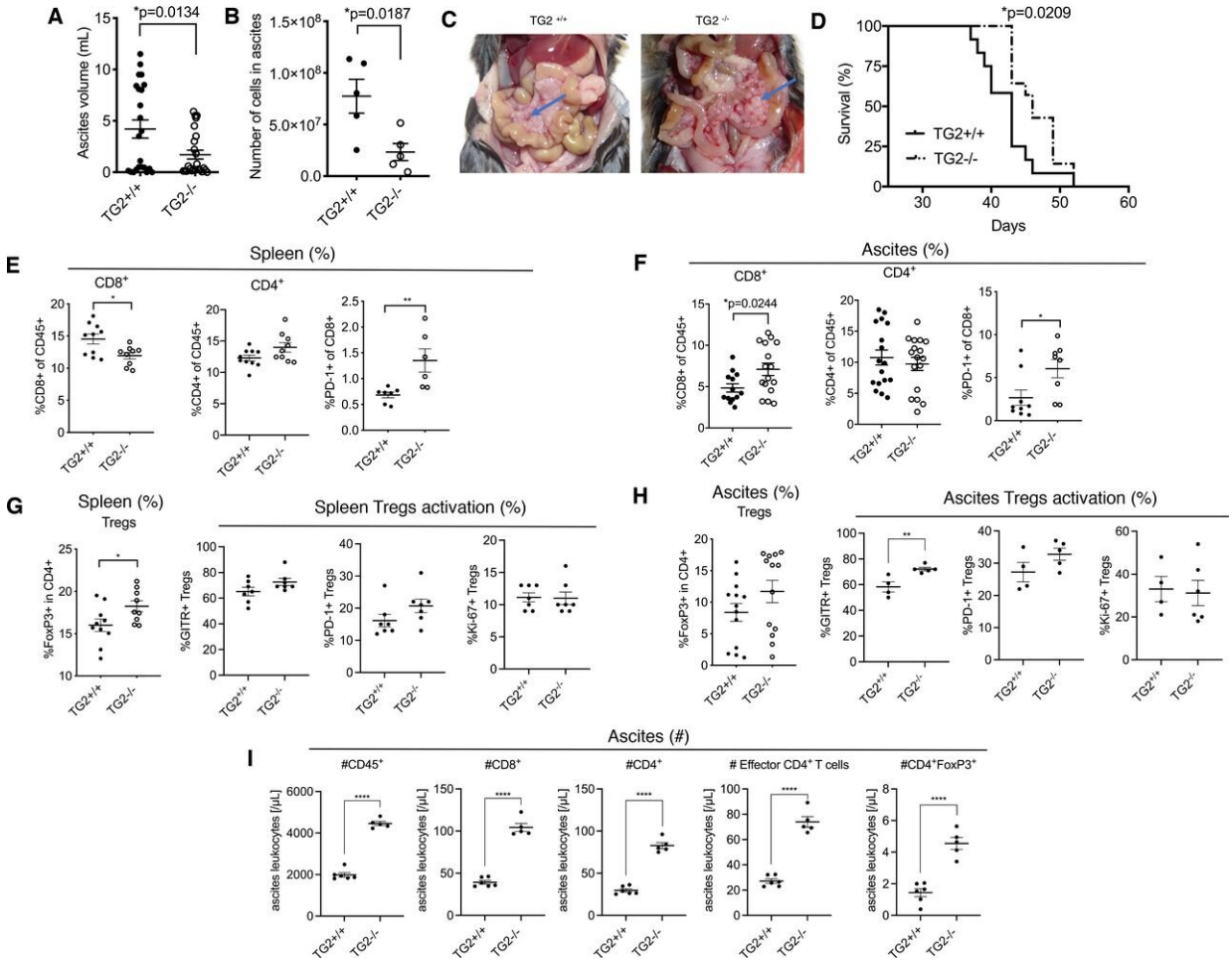

Figure 1. Tissue transglutaminase (TG2) promotes peritoneal tumor growth in a syngeneic ovarian cancer (OC) mouse model by preventing CD8+ T cell infiltration into ascites. (A, B) Volume of peritoneal ascites (mean±SEM, n=23 per group, cumulative data from four independent experiments are shown) (A), and numbers of cells in ascites (mean±SEM, n=5 per group, data from one representative experiment out of two performed are shown) (B) in C57BL/6 (TG2+/+) and TG2 knockout (TG2-/-) female mice 6 weeks after intraperitoneal

injection of ID8 cells. Shown are t-test p values. (C) Images of peritoneal metastases in TG2+/+ and TG2-/- abdominal cavities. Tumor implants are indicated by blue arrows. (D) Kaplan-Meier survival analysis of TG2+/+ (n=12) and TG2-/- (n=14) mice injected intraperitoneally with ID8 cells. Graph represents data from one experiment out of two performed. (E–H) Measurements by flow cytometry of percentages of immune cells in TG2+/+ and TG2-/- mice-bearing tumors induced by intraperitoneal inoculation of ID8 cells. (E) CD8+ and CD4+ T cells in spleens (TG2+/+, n=10; TG2-/-, n=9; data from two experiments). (F) CD8+ and CD4+ T cells in abdominal ascites (TG2+/+, n=13; TG2-/-, n=16; data from four experiments). (E, F) Programmed cell death protein 1 (PD-1) expressing CD8+ T cells in spleen (n=7 per group; data from one representative experiment) and ascites (n=9 per group; data pooled from three experiments). Values are means ± SEM (*p