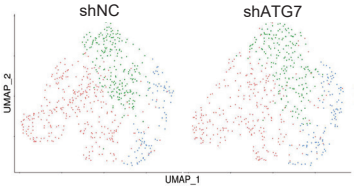


# Supplementary Figure S8

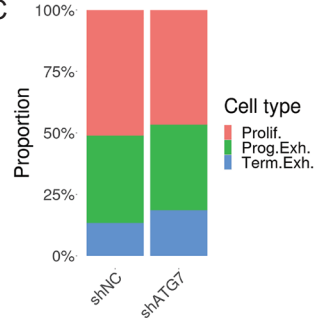
**A**



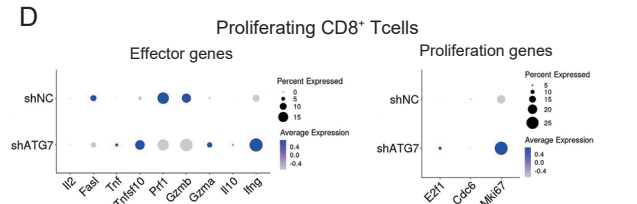
**B**



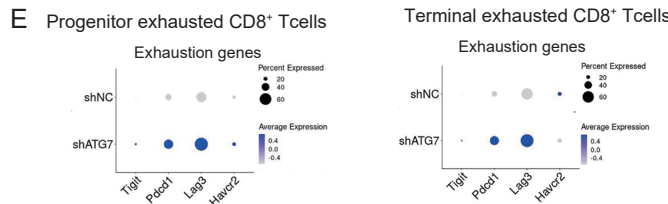
**C**



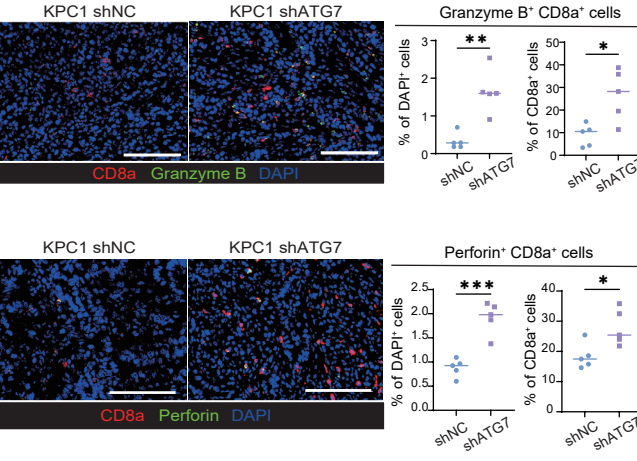
**D**



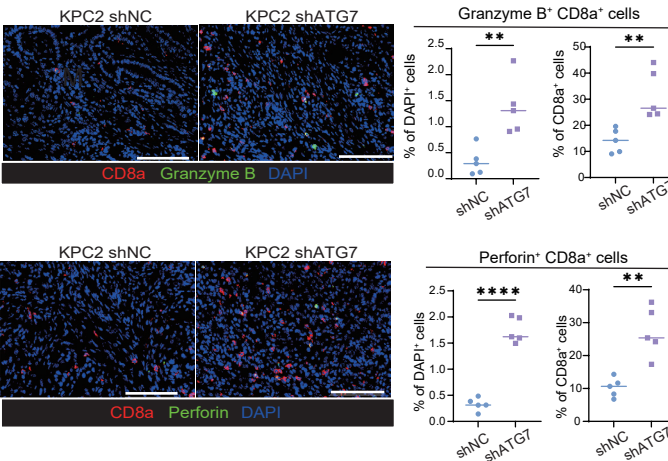
**E**



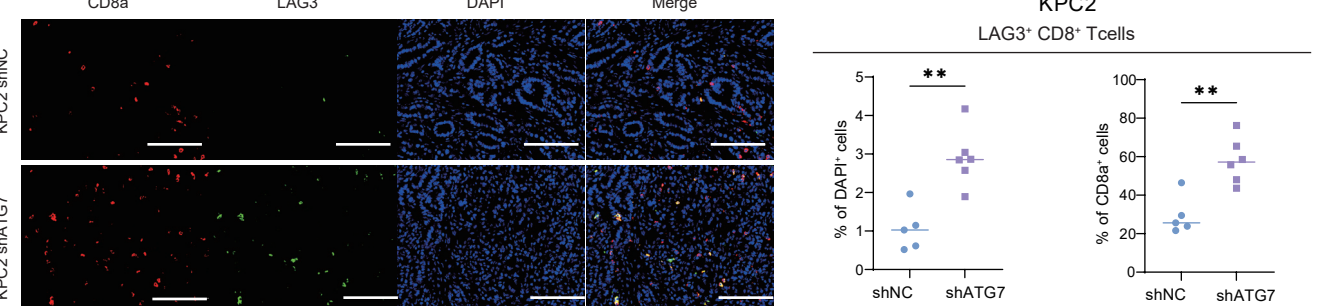
**F**



**G**



**H**



**Supplementary Fig. S8. scRNA-seq analysis and immunofluorescence images revealed that CD8<sup>+</sup> T cells in KPC-shATG7 tumors express high LAG3 levels**

**(A)** Heatmap of the top 10 differentially expressed genes (DEGs) in each of the CD8<sup>+</sup> T cell clusters identified in Fig. 5A.

**(B)** CD8<sup>+</sup> T cells were divided into cells derived from shNC tumors (left) and those derived from shATG7 tumors (right).

**(C)** The proportions of the three CD8<sup>+</sup> T cell clusters in the two tumor groups.

**(D, E)** The dot plots showed the gene sets used for the comparison of the two groups of tumors: “Effector signature score” and “Proliferation score” in Prolif.CD8<sup>+</sup> T cells (D), and “Exhaustion signature scores” in Prog.Exh.CD8<sup>+</sup> T cells and Term.Exh.CD8<sup>+</sup> T cells (E).

**(F, G)** Immunofluorescence analysis of orthotopic syngeneic KPC1 shNC/shATG7 tumors (Fig. 2A) and KPC2 shNC/shATG7 tumors (Supplementary Fig. S4B), showing cytotoxic CD8<sup>+</sup> T cells (expressing CD8a [red] and granzyme B [green] or perforin [green]). Representative images are shown. The graphs show the proportions of granzyme B<sup>+</sup> CD8a<sup>+</sup> cells/DAPI<sup>+</sup> cells (%) and perforin<sup>+</sup> CD8a<sup>+</sup> cells/DAPI<sup>+</sup> cells (%), and granzyme B<sup>+</sup> CD8a<sup>+</sup> cells/CD8a<sup>+</sup> cells (%) and perforin<sup>+</sup> CD8a<sup>+</sup> cells/CD8a<sup>+</sup> cells (%).

**(H)** Representative immunofluorescence images of orthotopic syngeneic KPC2 shNC and shATG7 tumors (Fig. S4B); CD8a (red) and LAG3 (green). Quantification of LAG3<sup>+</sup> CD8a<sup>+</sup> cells/DAPI<sup>+</sup> cells (%) and LAG3<sup>+</sup> CD8a<sup>+</sup> cells/CD8a<sup>+</sup> cells (%) is shown.

Scale bars, 100  $\mu$ m (F-H). Bars, median; Error bars, mean  $\pm$  SD; \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001; ns, not significant; analyzed using the Student's t-test.