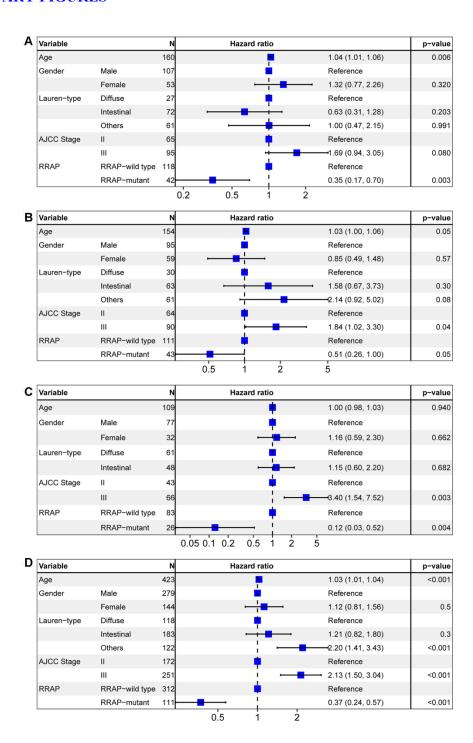
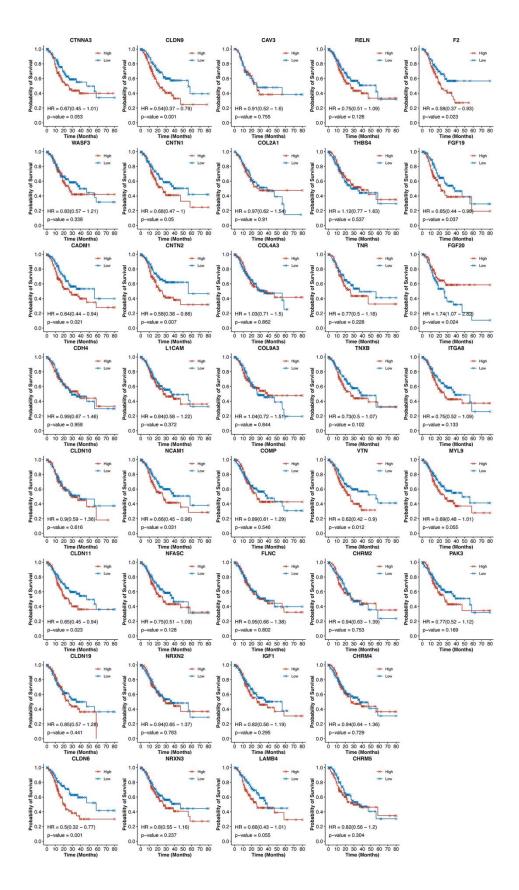
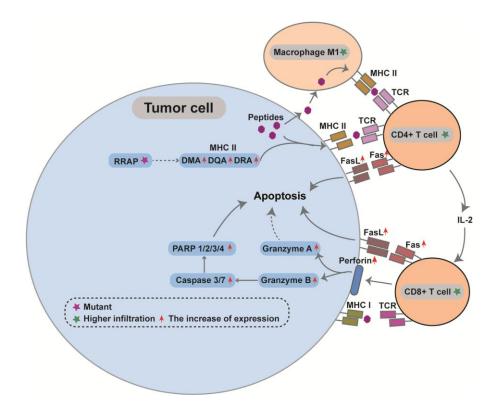
## **SUPPLEMENTARY FIGURES**



**Supplementary Figure 1.** Multivariate Cox model analysis, with age, gender, Lauren type, AJCC stage, and RRAP as confounding factors, performed on the TCGA training cohort (A), TCGA validation cohort (B), CGC cohort (C), and the overall cohort containing merged data from the three cohorts (D).



Supplementary Figure 2. Kaplan-Meier overall survival curves for patients with high and low expression of 39 differentially expressed genes of the 4 migration-related functions. P-values were estimated with the log-rank test, and hazard ratios were estimated with the Cox model.



Supplementary Figure 3. Diagram of the interaction of immune cells and tumor cells in the RRAP-mutant tumor microenvironment.