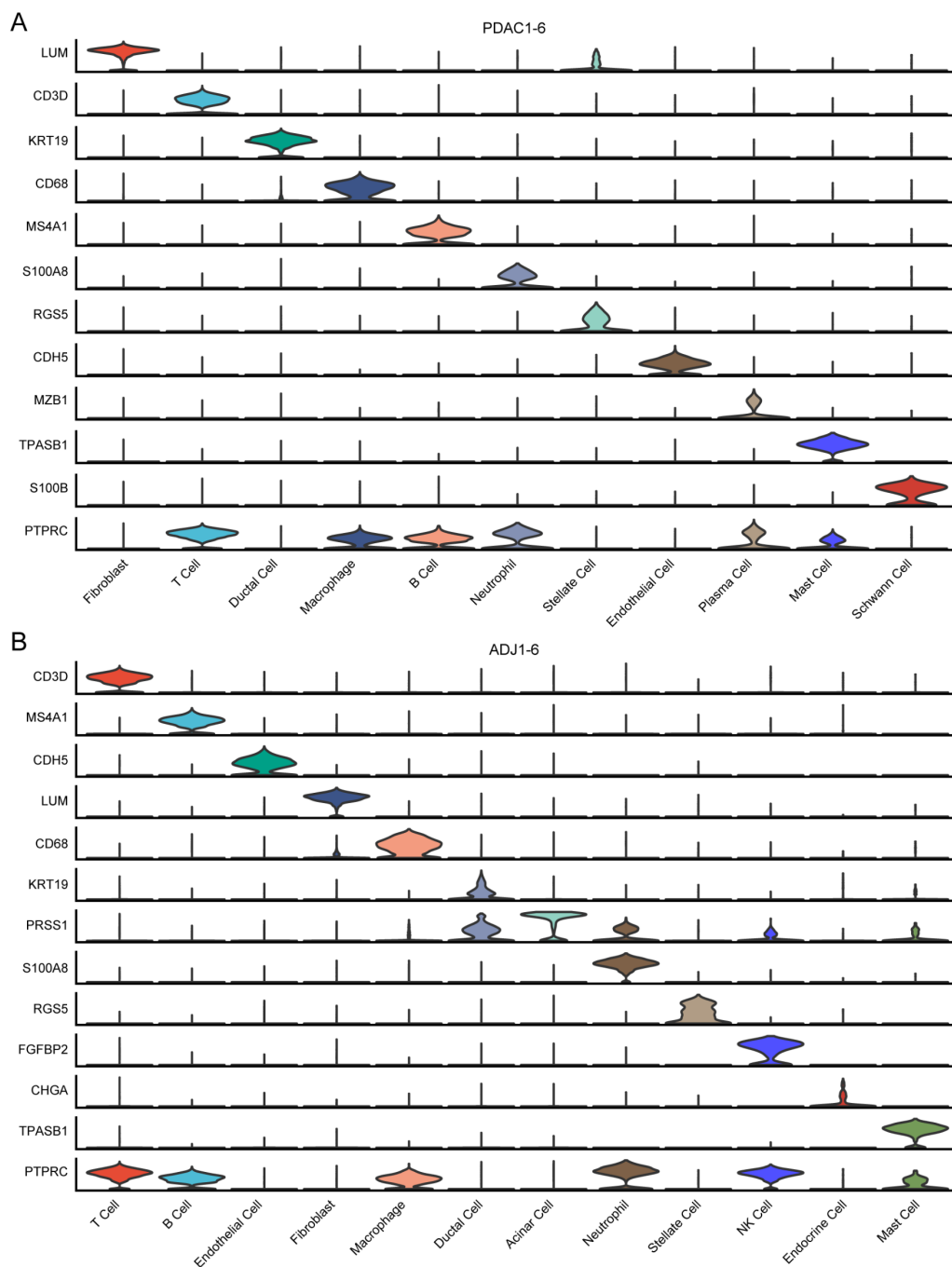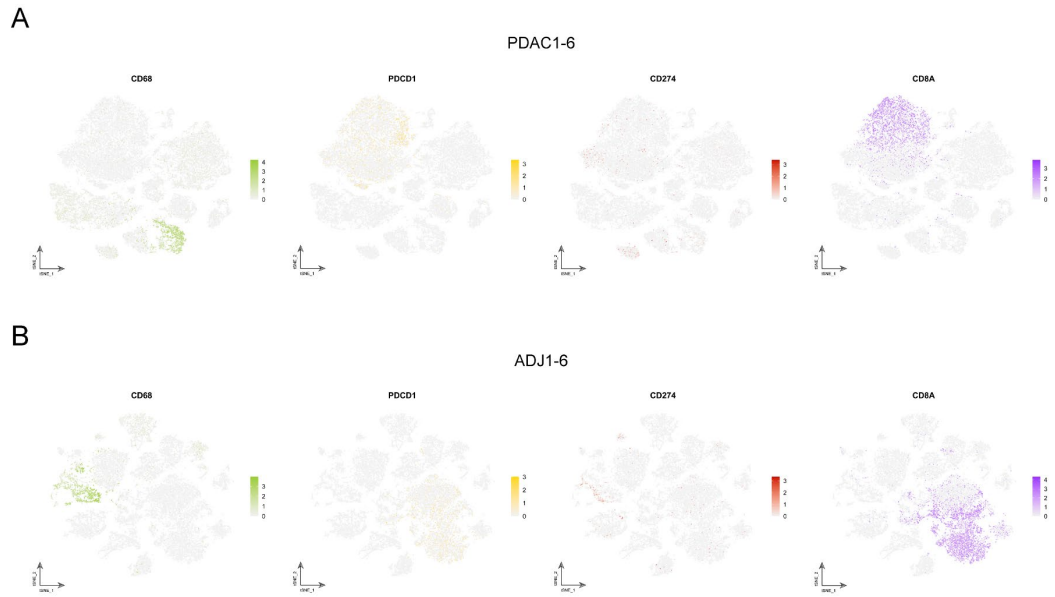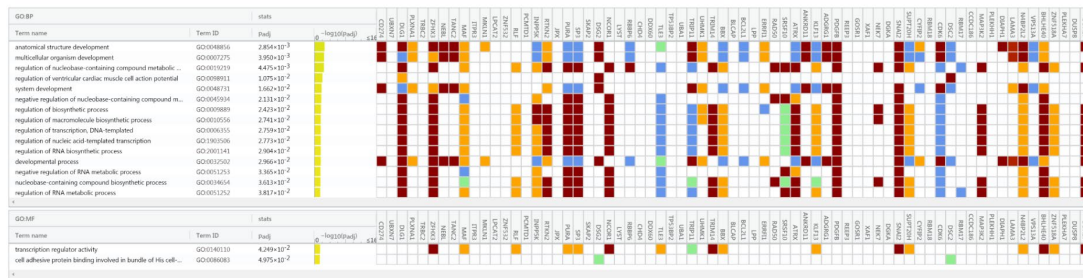# Supplemental Text and Figures

Fig.S1 Identification of cell types. (A-B) Violin plots showing the normalized expression levels of known signature genes of distinct cell populations in PDAC (A) and adjacent noncancerous tissues (B).

Fig.S2 Expression and distribution of immune markers. (A-B) The distribution of CD68+, PDCD1+ (PD1+), CD2741+ (PD-L1+), CD8A+ (CD8+) cells in PDAC (A) and adjacent noncancerous tissues (B). The intensity of colors (from white to specific colors) indicated the average expression level of immune markers.

Fig.S3 Gene annotation analysis of differentially expressed genes (DEGs) between PD-L1+ and PD-L1- tumor cells. Biological process (A), and Molecular function (B). Top GO terms were shown. Bar plots are colored according to their -log10P-values. Heatmaps showing the expression levels of top 80 DEGs.