

## **Supplementary Figure Legends**

**Supplementary Figure 1. The flow diagram of this study**

**Supplementary Figure 2. Translational validation of IRF4 using TMA.**

(A) IRF4 IHC staining in healthy colorectal and colorectal cancer (CRC) tissues. (B) Clinicopathological factors among patients with CRC: a multivariate survival analysis.

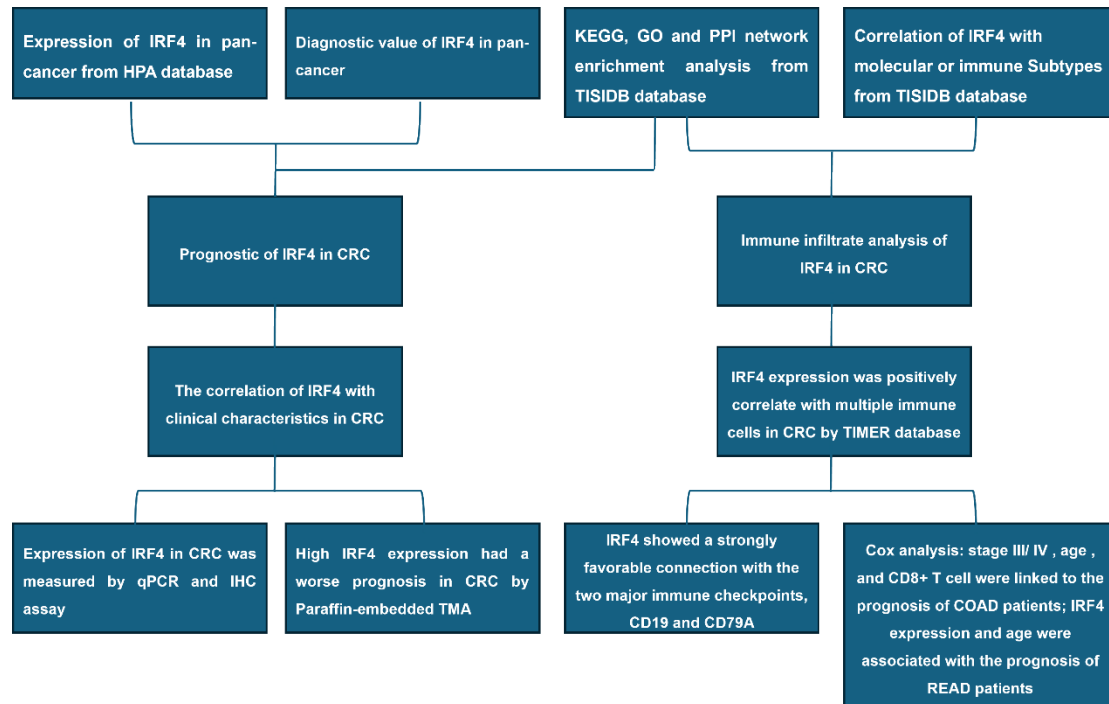
**Supplementary Figure 3. Analysis of immune infiltration using IRF4 in CRC.**

(A-C) IRF4 expression across a variety of immune cells from the HPA database. (D) The Human Protein Atlas reveals lymph node immune cell types' IRF4 single-cell RNA expression patterns. (E) HPA database immune cell type indicators and IRF4 relationship.

**Supplementary Figure 4. The differential expression of IRF4 in different cells and the correlation between expression and immune score**

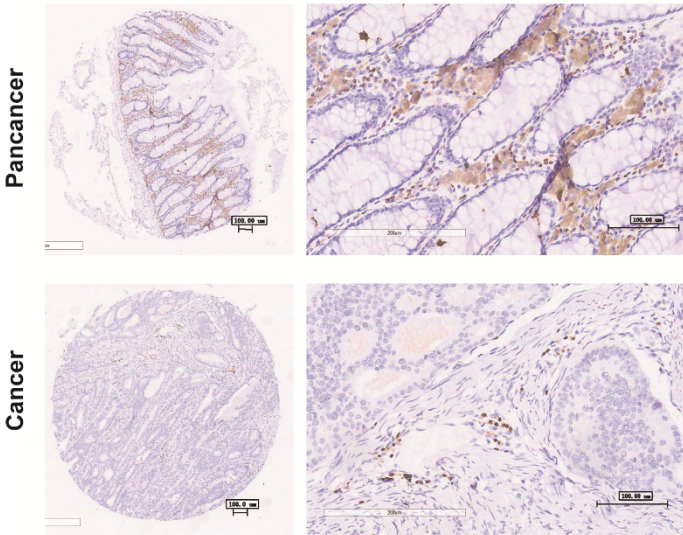
(A-B) The differential expression of IRF4 in different immune cells. (C) The correlation between IRF4 expression and immune scores themselves.

sFig.1

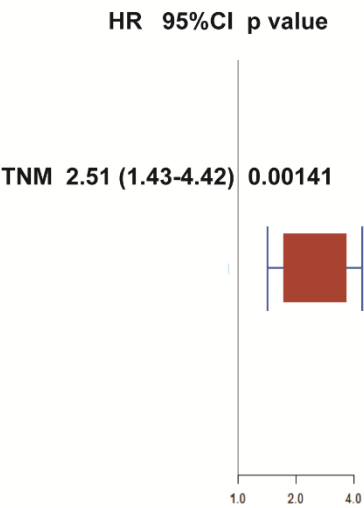


sFig.2

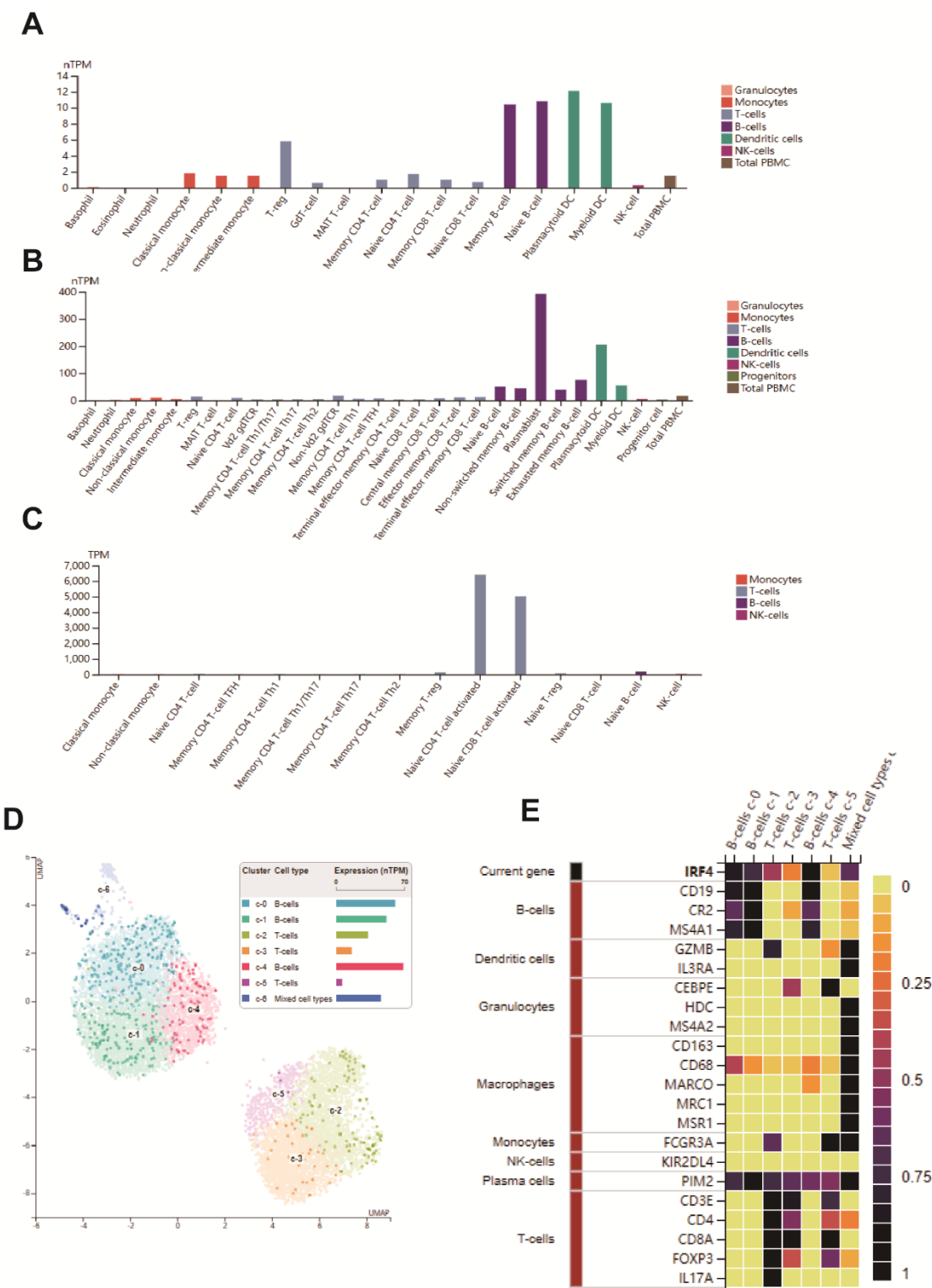
**A**



**B**



sFig.3



**C**

