Supplementary

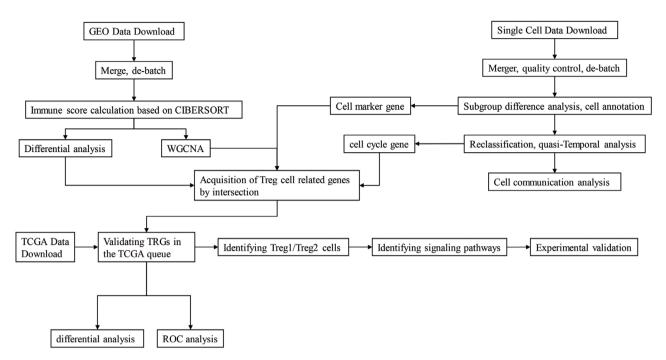


Figure S1 Flowchart. GEO, Gene Expression Omnibus; WGCNA, weighted gene co-expression network analysis; TCGA, The Cancer Genome Atlas; TRG, portal vein tumor thrombus formation-related gene; ROC, receiver operating characteristic.

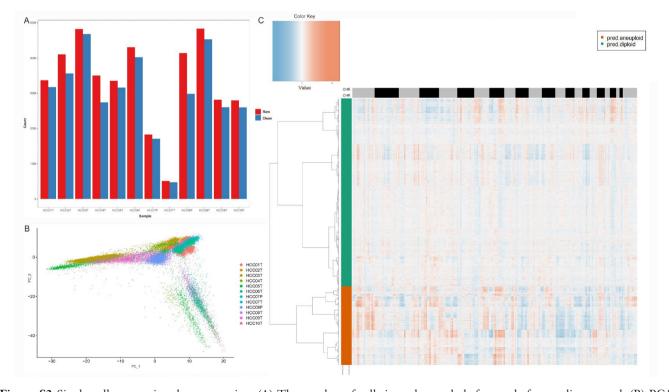


Figure S2 Single-cell sequencing data processing. (A) The number of cells in each sample before and after quality control. (B) PCA dimension reduction diagram. (C) Heatmap of Copykat recognition results. The black and gray on the upper horizontal axis represent different chromosomes. PCA, principal component analysis.