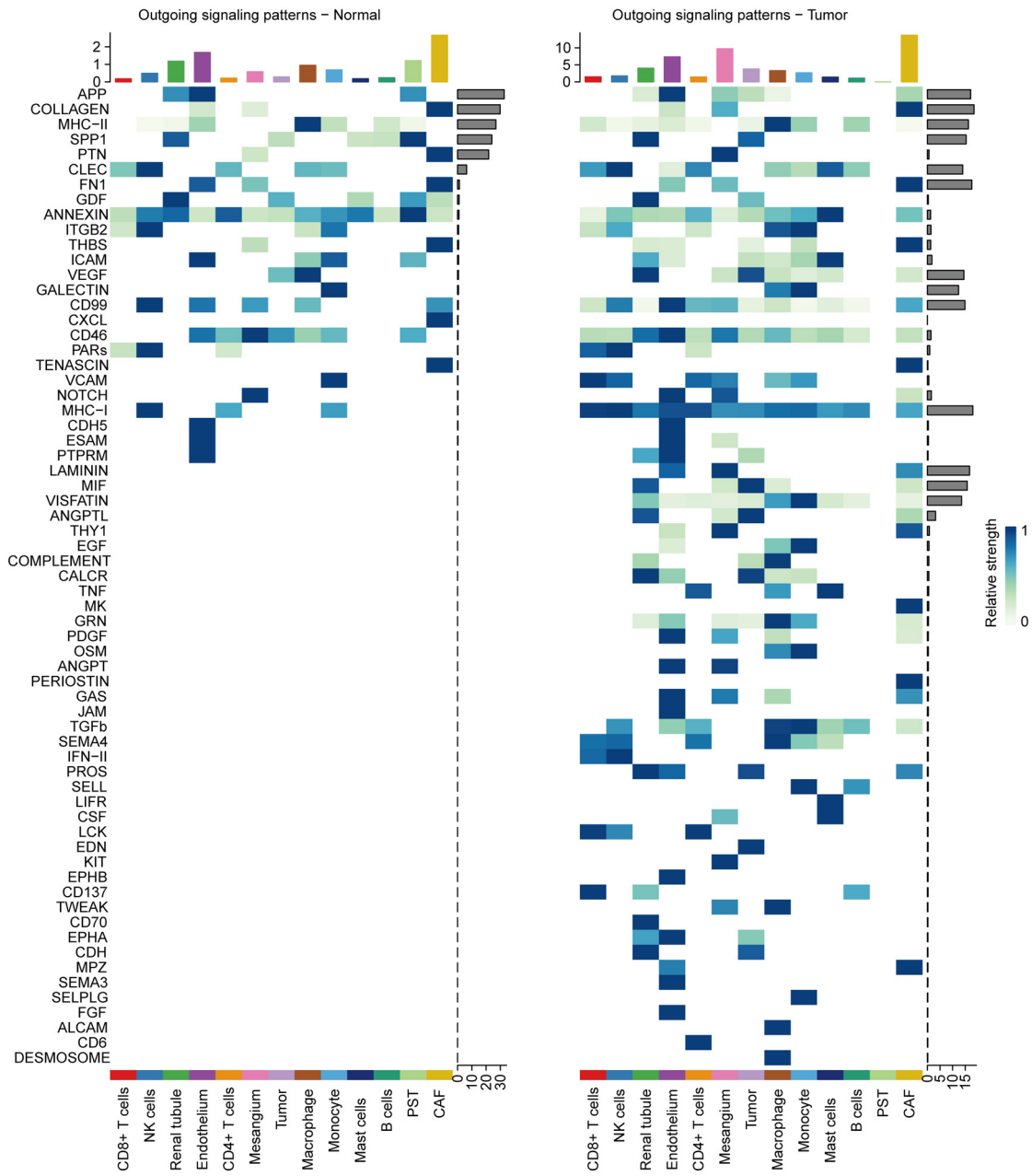
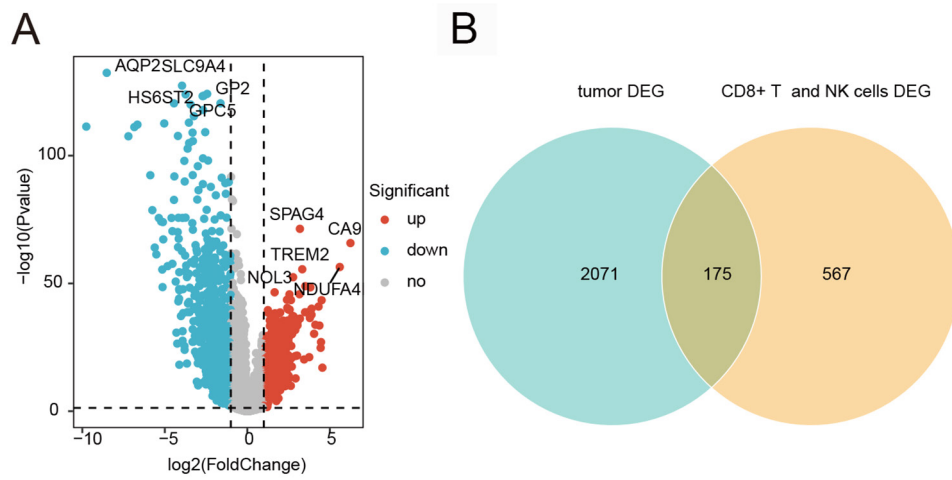


**Figure S1** Heat map depicting the incoming signaling patterns of cell types in the control and ccRCC groups. ccRCC, clear cell renal cell carcinoma.



**Figure S2** Heat map depicting the outgoing signaling patterns of cell types in the control and ccRCC groups. ccRCC, clear cell renal cell carcinoma.



**Figure S3** Selection of differentially expressed genes. (A) Volcano map showing genes that are significantly differentially expressed between the ccRCC group and the control group. (B) Intersection genes showed by Venn diagram. ccRCC, clear cell renal cell carcinoma.