

Supplementary Figures Legends:

Supplementary Figure 1 TRPV1 expression in GSE781.

Supplementary Figure 2 Subgroup analysis of TRPV1 expression in ccRCC. (A) Grouped by stages in GSE6344. Grouped by grades (B) and stages (C) in tissue chip (BC07014a).

Supplementary Figure 3. Correlation of immune cells infiltration and survival in ccRCC. (A) 1 year; (B) 3 years; (C) 5 years; (D) 10 years. The red line represents high infiltration of immune cells, while the blue represents low infiltration.

Supplementary Figure 4. Correlations between TRPV1 expression and cumulative survival in each ccRCC immune subsets. (A) 1 year; (B) 3 years; (C) 5 years; (D) 10 years. The red line represents high expression of TRPV1, while the blue represents low expression.

Supplementary Figure 5. Correlation of TRPV1 expression with other key molecules of different pathways.

GSE781

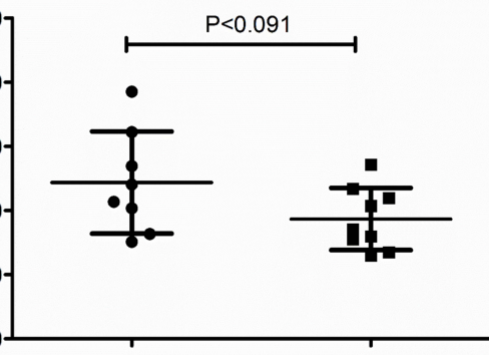
Relative TRPV1 mRNA Expression

500
400
300
200
100
0

$P < 0.091$

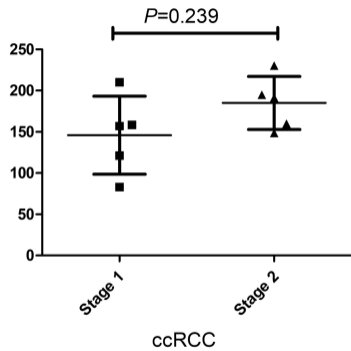
NT

ccRCC

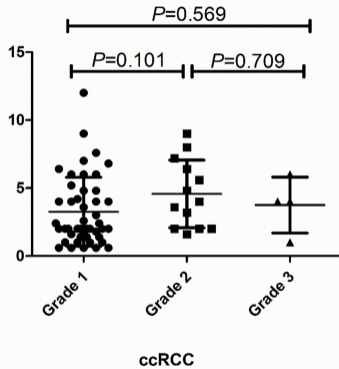


GSE6344

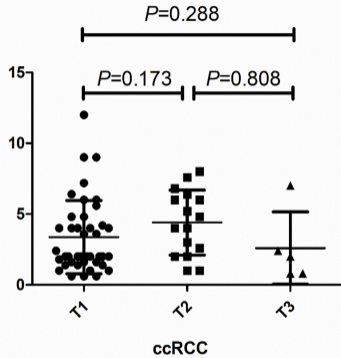
TRPV1 mRNA Expression

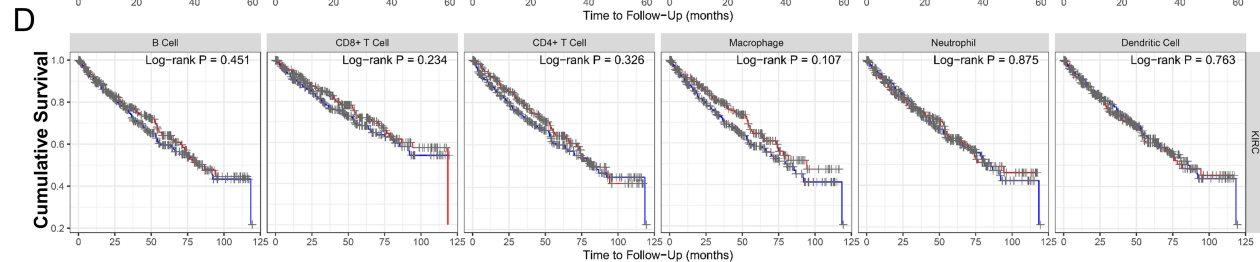
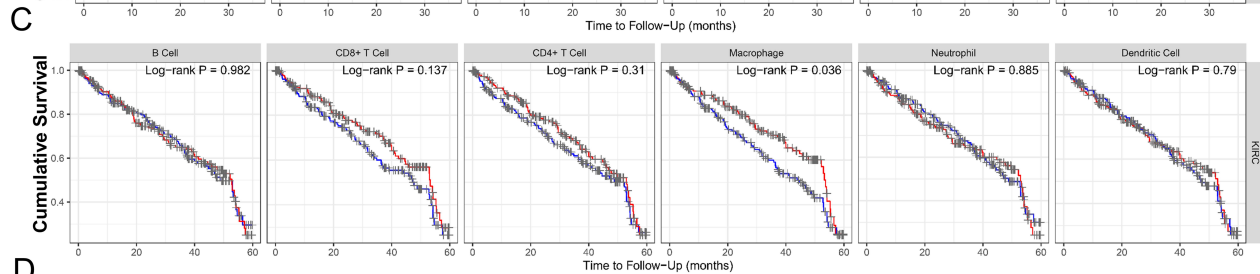
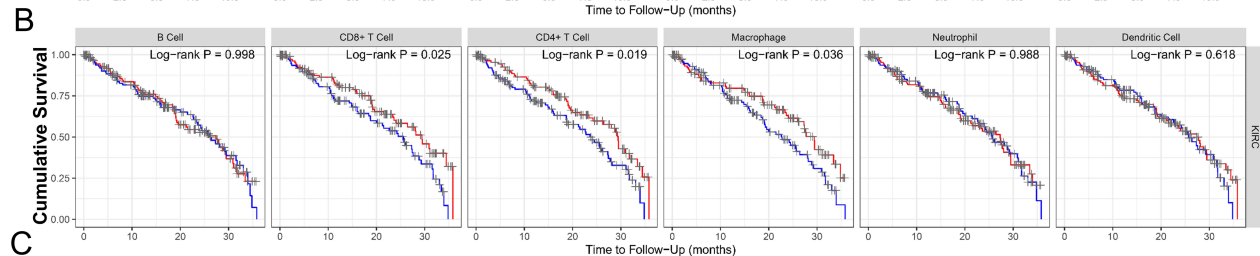
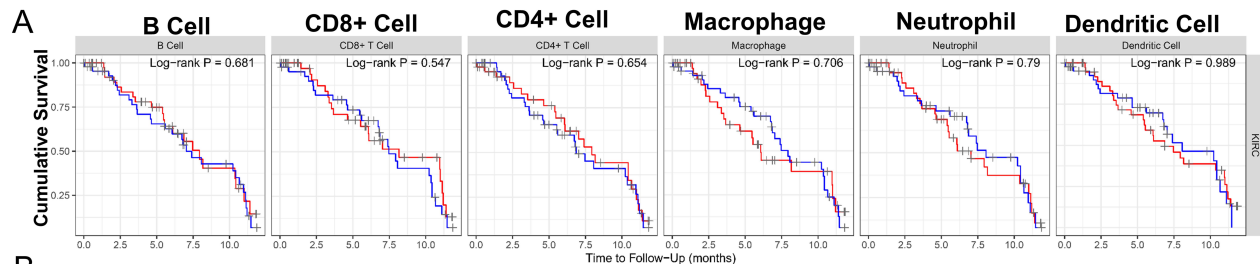
**A**

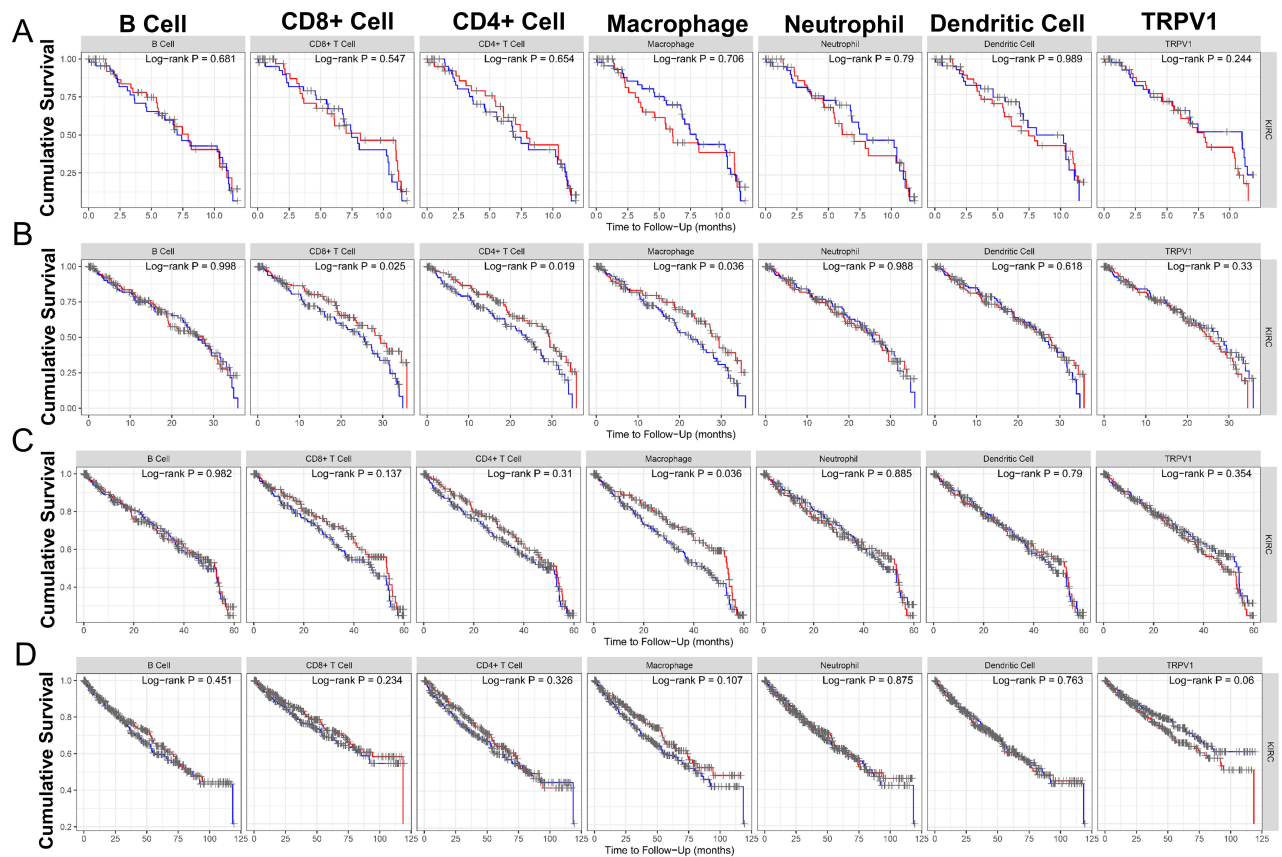
TRPV1 IHC Score

**B**

TRPV1 IHC Score

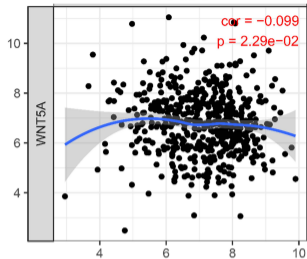
**C**



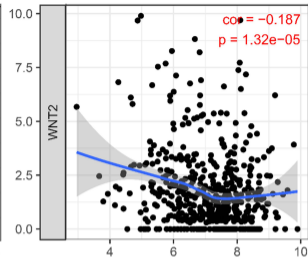


Gene Expression Level (log2 RSEM)

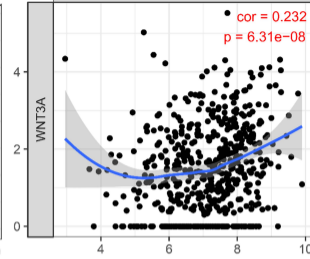
WNT5A



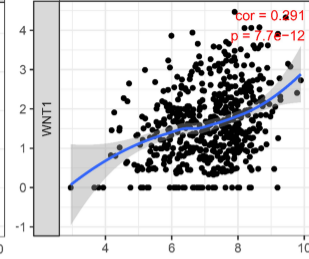
WNT2



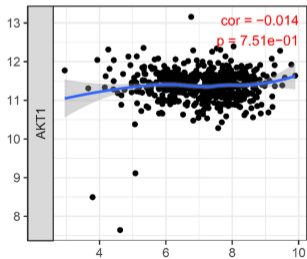
WNT3A



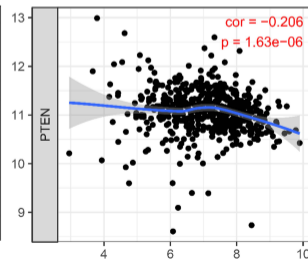
WNT1



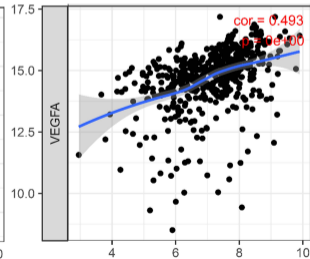
AKT1



PTEN



VEGFA



TRPV1 Expression Level (log2 RSEM)