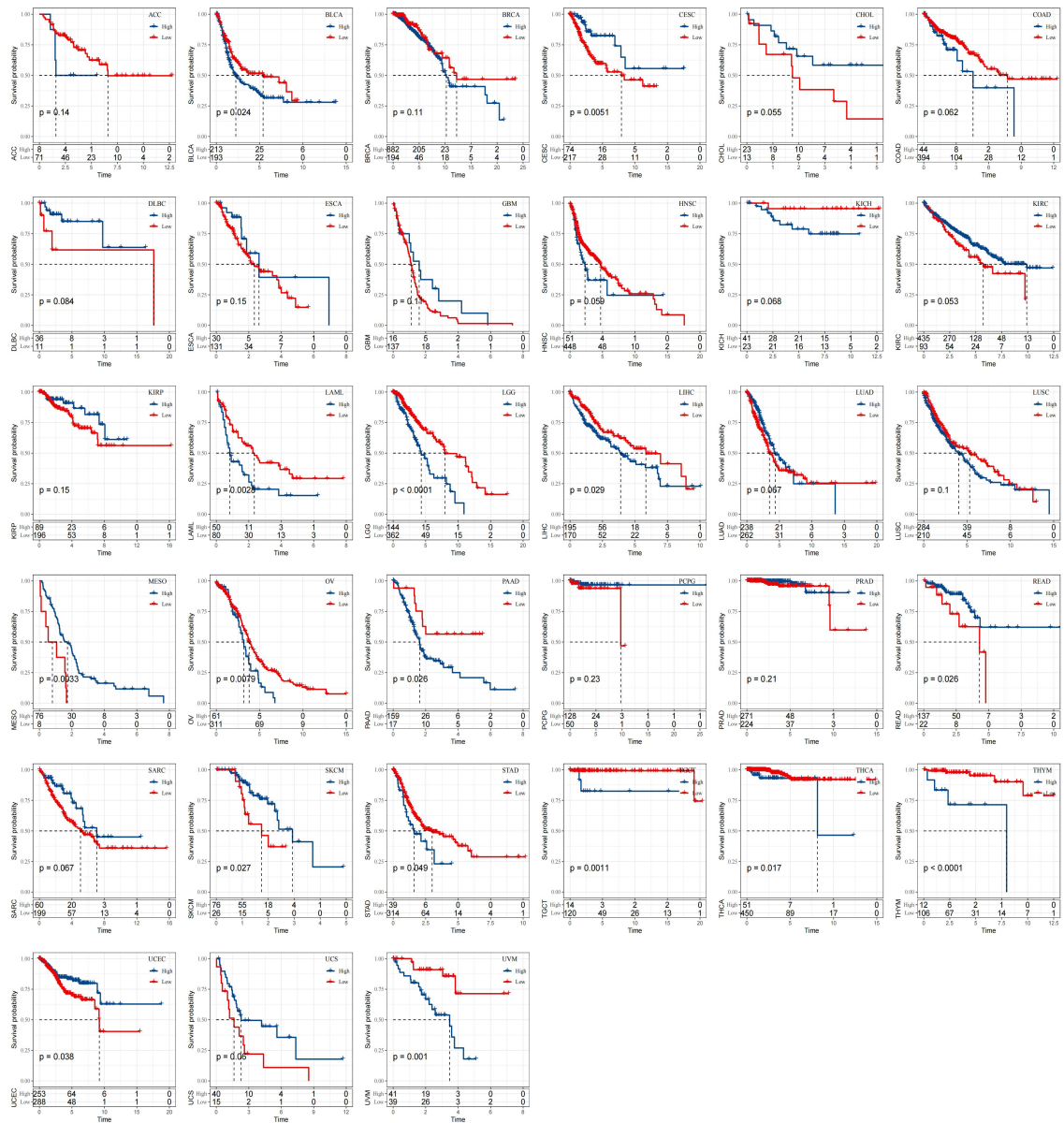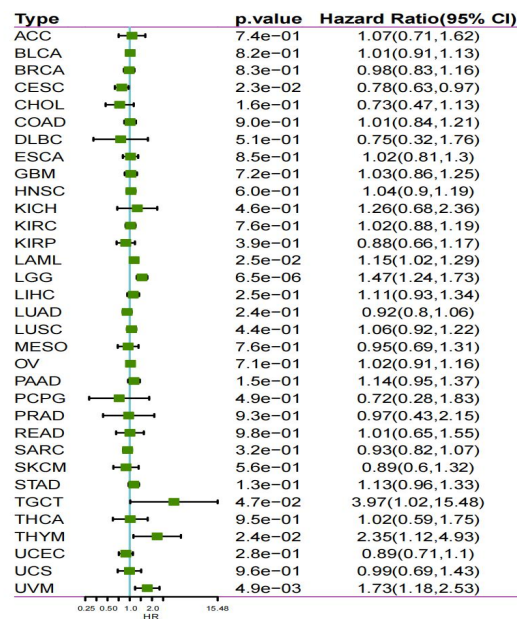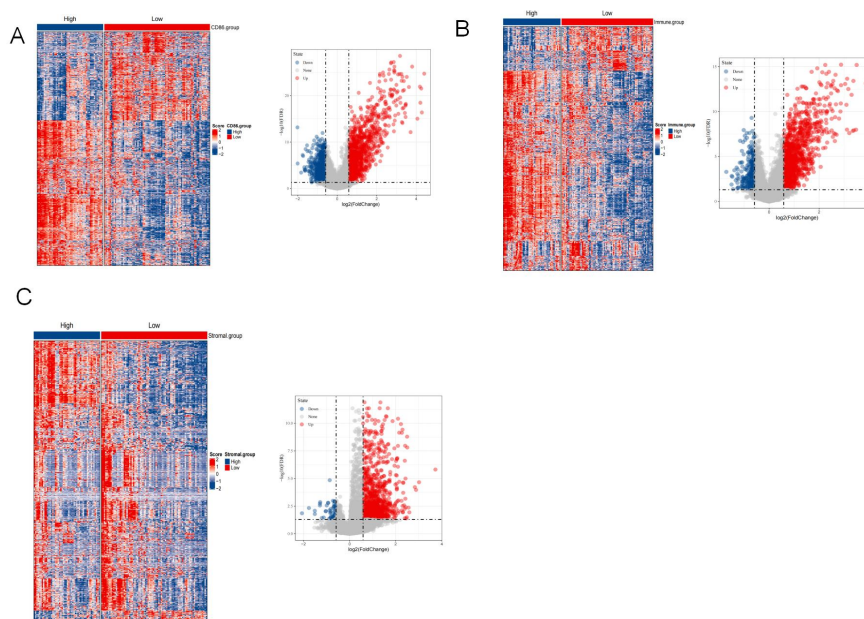Supplementary Figure 1 CD86 mRNA expression in various cancers
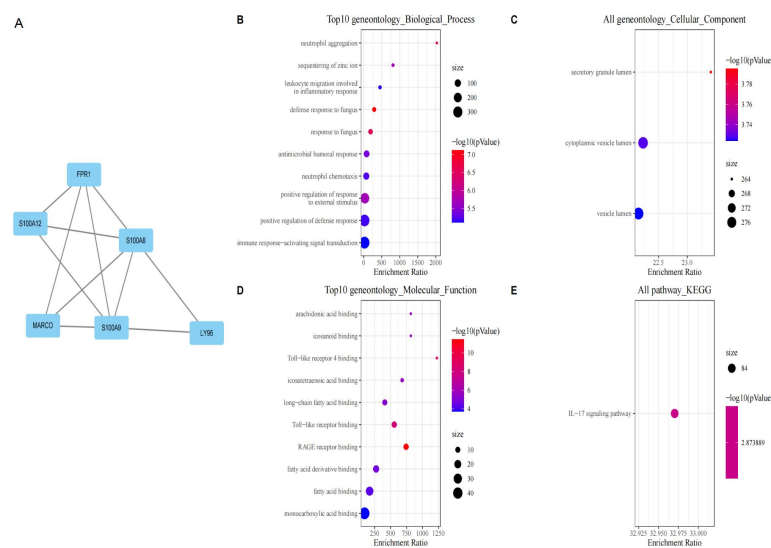
Supplementary Figure 2 OS survival and prognosis of CD86 in high and low expression
group in various cancers.

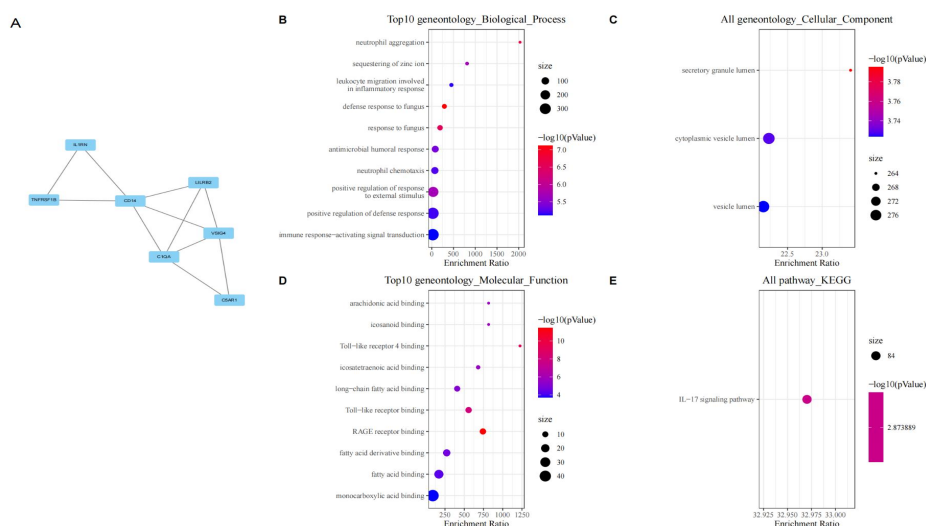| Type	p.value	Hazard Ratio(95% CI)
ACC	7.4e-01	1.07(0.71,1.62)
BLCA	8.2e-01	1.01(0.91,1.13)
BRCA	8.3e-01	0.98(0.83,1.16)
CESC	2.3e-02	0.78(0.63,0.97)
CHOL	1.6e-01	0.73(0.47,1.13)
COAD	9.0e-01	1.01(0.84,1.21)
DLBC	5.1e-01	0.75(0.32,1.76)
ESCA	8.5e-01	1.02(0.81,1.3)
GBM	7.2e-01	1.03(0.86,1.25)
HNSC	6.0e-01	1.04(0.9,1.19)
KICH	4.6e-01	1.26(0.68,2.36)
KIRC	7.6e-01	1.02(0.88,1.19)
KIRP	3.9e-01	0.88(0.66,1.17)
LAML	2.5e-02	1.15(1.02,1.29)
LGG	6.5e-06	1.47(1.24,1.73)
LIHC	2.5e-01	1.11(0.93,1.34)
LUAD	2.4e-01	0.92(0.8,1.06)
LUSC	4.4e-01	1.06(0.92,1.22)
MESO	7.6e-01	0.95(0.69,1.31)
OV	7.1e-01	1.02(0.91,1.16)
PAAD	1.5e-01	1.14(0.95,1.37)
PCPG	4.9e-01	0.72(0.28,1.83)
PRAD	9.3e-01	0.97(0.43,2.15)
READ	9.8e-01	1.01(0.65,1.55)
SARC	3.2e-01	0.93(0.82,1.07)
SKCM	5.6e-01	0.89(0.6,1.32)
STAD	1.3e-01	1.13(0.96,1.33)
TGCT	4.7e-02	3.97(1.02,15.48)
THCA	9.5e-01	1.02(0.59,1.75)
THYM	2.4e-02	2.35(1.12,4.93)
UCEC	2.8e-01	0.89(0.71,1.1)
UCS	9.6e-01	0.99(0.69,1.43)
UVM	4.9e-03	1.73(1.18,2.53)

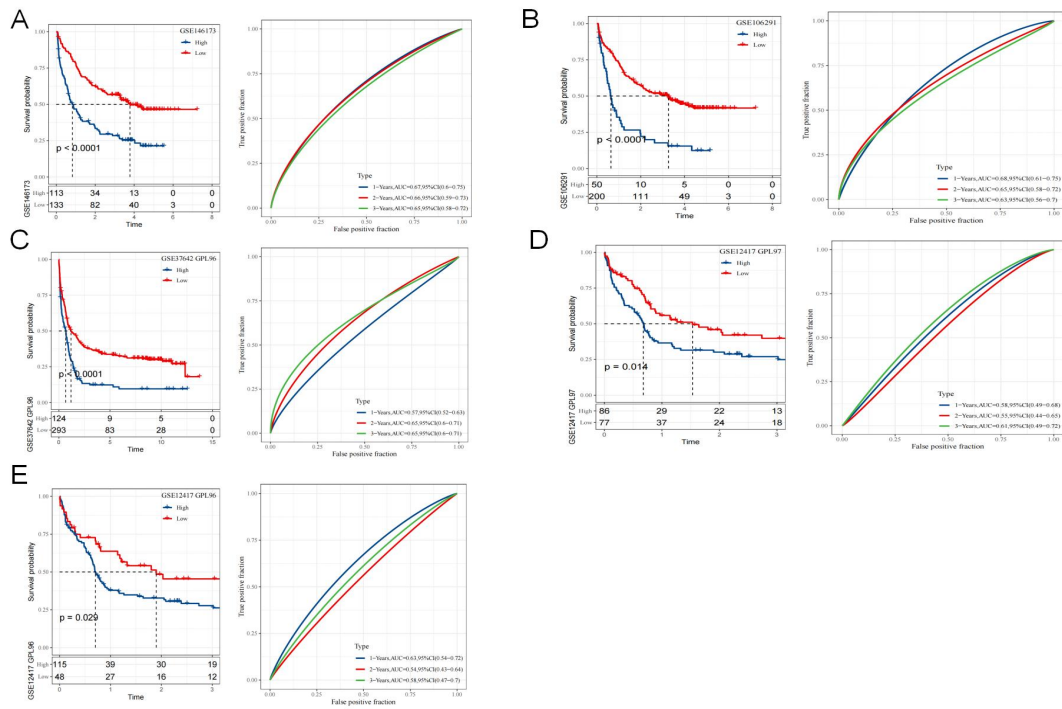Supplementary Figure 3 CD86 and univariate analysis in various cancers.

Supplementary Figure 4 Heat and volcano maps showed the high and low expression of CD86, immune score and matrix score. A. Gene heat map and volcano map of cd86 high-low expression group; B. Gene heat map and volcano map of the high and low expression immune score group; C. Gene heat map and volcano map of high and low expression group with matrix score.

Supplementary Figure 5 The PPI network , GO and KEGG analyzed of Mcode2. A. the PPI network diagram of Mcode2; B-C. Enrichment of the top ten of Go analysis; D-E. KEGG was used to analyze the top ten enrichment pathways.

Supplementary Figure 6 The PPI network , GO and KEGG analyzed of Mcode4. A. the PPI network diagram of Mcode4; B-C. Enrichment of the top ten of Go analysis; D-E. KEGG was used to analyze the top ten enrichment pathways.

Supplementary Figure 7 IRS different risk groups scores of survival prognosis in GEO data set were correlated with GSE146173, GSE106291, GSE37642 (the GPL96 platform), GSE12417 (the GPL97 platform), And GSE12417 (the GPL96 Platform) OS curve and ROC curve.