

SUPPLEMENTARY TABLES

Supplementary Table 1. Univariate and multivariate COX regression analysis of factors associated with OS in HCC patients.

Variable	Univariate analysis			Multivariate analysis		
	HR	95% CI	p value	HR	95% CI	p value
Age	1.007	0.990–1.024	0.441	1.018	0.999–1.038	0.069
Gender	0.839	0.536–1.314	0.443	1.198	0.735–1.953	0.469
Grade	1.073	0.795–1.449	0.645	1.098	0.795–1.518	0.57
Stage	1.809	1.426–2.294	<0.001	0.928	0.396–2.172	0.863
T	1.767	1.415–2.207	<0.001	1.805	0.828–3.936	0.137
M	3.892	1.223–12.386	0.021	2.079	0.556–7.777	0.277
ZNF765	3.728	1.775–7.830	0.001	4.314	1.815–10.253	0.001

Abbreviations: OS: overall survival; HR: hazard ratio; CI: confidence interval; T: tumor; N: node; M: metastasis; Bold values indicate p values <0.05.

Supplementary Table 2. Relationship between ZNF765 and gene markers of different immune cells using the TIMER database.

Description	Gene markers	LIHC			
		None		Purity	
		Cor	p	Cor	p
B cell	CD19	0.218	2.23E-05	0.275	2.02E-07
	CD79A	0.154	3.01E-03	0.25	2.49E-06
T cell (general)	CD3D	0.109	3.55E-02	0.207	1.06E-04
	CD3E	0.155	2.75E-03	0.291	3.86E-08
	CD2	0.146	4.74E-03	0.271	3.29E-07
CD8+ T cell	CD8A	0.171	9.53E-04	0.272	3.02E-07
	CD8B	0.077	1.39E-01	0.16	2.83E-03
Monocyte	CD86	0.306	2.12E-09	0.454	5.73E-19
	CSF1R	0.222	1.67E-05	0.363	3.32E-12
TAM	CCL2	0.196	1.54E-04	0.321	9.96E-10
	CD68	0.221	1.90E-05	0.314	2.56E-09
	IL10	0.24	2.99E-06	0.337	1.25E-10
M1	IRF5	0.464	3.53E-21	0.458	3.00E-19
	PTGS2	0.307	1.47E-09	0.455	4.54E-19
M2	CD163	0.204	7.29E-05	0.318	1.52E-09
	VSIG4	0.161	1.94E-03	0.27	3.72E-07
	MS4A4A	0.169	1.07E-03	0.299	1.43E-08
Neutrophils	CEACAM8	0.051	3.24E-01	0.076	1.62E-01
	ITGAM	0.301	4.08E-09	0.395	2.44E-14
	CCR7	0.17	1.04E-03	0.297	1.84E-08

Natural killer cell	KIR2DL1	0.06	2.48E-01	0.048	3.75E-01
	KIR2DL3	0.194	1.73E-04	0.235	1.04E-05
	KIR2DL4	0.158	2.27E-03	0.181	7.20E-04
	KIR3DL1	0.113	2.91E-02	0.127	1.78E-02
	KIR3DL2	0.134	9.70E-03	0.185	5.64E-04
	KIR3DL3	0.031	5.53E-01	0.018	7.43E-01
Dendritic cell	HLA-DPB1	0.177	6.19E-04	0.284	8.06E-08
	HLA-DQB1	0.101	5.27E-02	0.192	3.45E-04
	HLA-DRA	0.229	8.92E-06	0.344	5.08E-11
	HLA-DPA1	0.222	1.62E-05	0.346	3.88E-11
	CD1C	0.242	2.41E-06	0.335	1.73E-10
	NRP1	0.529	0.00E+00	0.581	1.39E-32
	ITGAX	0.368	3.50E-13	0.492	1.91E-22

Supplementary Table 3. Correlation analysis between ZNF765 and gene markers of different types of T cells in TIMER.

Description	Gene markers	LIHC			
		None		Purity	
		Cor	p	Cor	p
Th1	TBX21	0.143	5.87E-03	0.239	6.93E-06
	STAT4	0.221	1.90E-05	0.284	7.69E-08
	STAT1	0.484	0.00E+00	0.531	1.69E-26
	TNF	0.295	7.21E-09	0.406	3.93E-15
	IFNG	0.171	9.32E-04	0.243	5.20E-06
Th1-like	HAVCR2	0.302	3.50E-09	0.454	6.21E-19
	IFNG	0.171	9.32E-04	0.243	5.20E-06
	CXCR3	0.187	2.95E-04	0.282	1.01E-07
	BHLHE40	0.404	0.00E+00	0.427	1.08E-16
	CD4	0.269	1.62E-07	0.35	2.17E-11
Th2	STAT6	0.39	6.88E-15	0.38	2.88E-13
	STAT5A	0.35	3.96E-12	0.423	2.02E-16
Treg	FOXP3	0.247	1.46E-06	0.298	1.60E-08
	CCR8	0.472	6.08E-22	0.571	3.18E-31
	TGFB1	0.341	1.99E-11	0.448	1.84E-18
Resting Treg	FOXP3	0.247	1.46E-06	0.298	1.60E-08
	IL2RA	0.281	3.57E-08	0.408	2.99E-15
Effector Treg T-cell	FOXP3	0.247	1.46E-06	0.298	1.60E-08
	CCR8	0.472	6.08E-22	0.571	3.18E-31
	TNFRSF9	0.4	1.05E-15	0.501	2.56E-23
Effector T-cell	CX3CR1	0.475	0.00E+00	0.529	2.91E-26
	FGFBP2	0.008	8.72E-01	0.039	4.66E-01
	FCGR3A	0.295	8.36E-09	0.389	7.09E-14

Naïve T-cell	CCR7	0.17	1.04E-03	0.297	1.84E-08
	SELL	0.296	6.89E-09	0.421	3.05E-16
	DUSP4	0.341	2.06E-11	0.445	3.64E-18
Effector memory T-cell	GZMK	0.084	1.07E-01	0.187	4.93E-04
	GZMA	0.065	2.11E-01	0.153	4.41E-03
	CD69	0.259	4.21E-07	0.396	2.11E-14
Resident memory T-cell	CXCR6	0.164	1.57E-03	0.29	4.21E-08
	MYADM	0.604	0.00E+00	0.647	2.96E-42
General	CCR7	0.17	1.04E-03	0.297	1.84E-08
memory T-cell	SELL	0.296	6.89E-09	0.421	3.05E-16
	IL7R	0.33	6.88E-11	0.469	3.17E-20
	HAVCR2	0.302	3.50E-09	0.454	6.21E-19
Exhausted T-cell	LAG3	0.154	3.03E-03	0.181	7.33E-04
	CXCL13	0.164	1.52E-03	0.222	3.04E-05
	LAYN	0.348	6.73E-12	0.442	6.46E-18