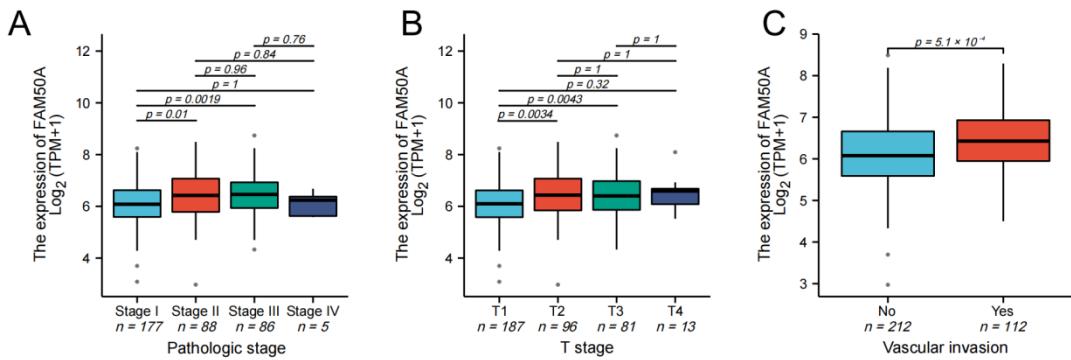
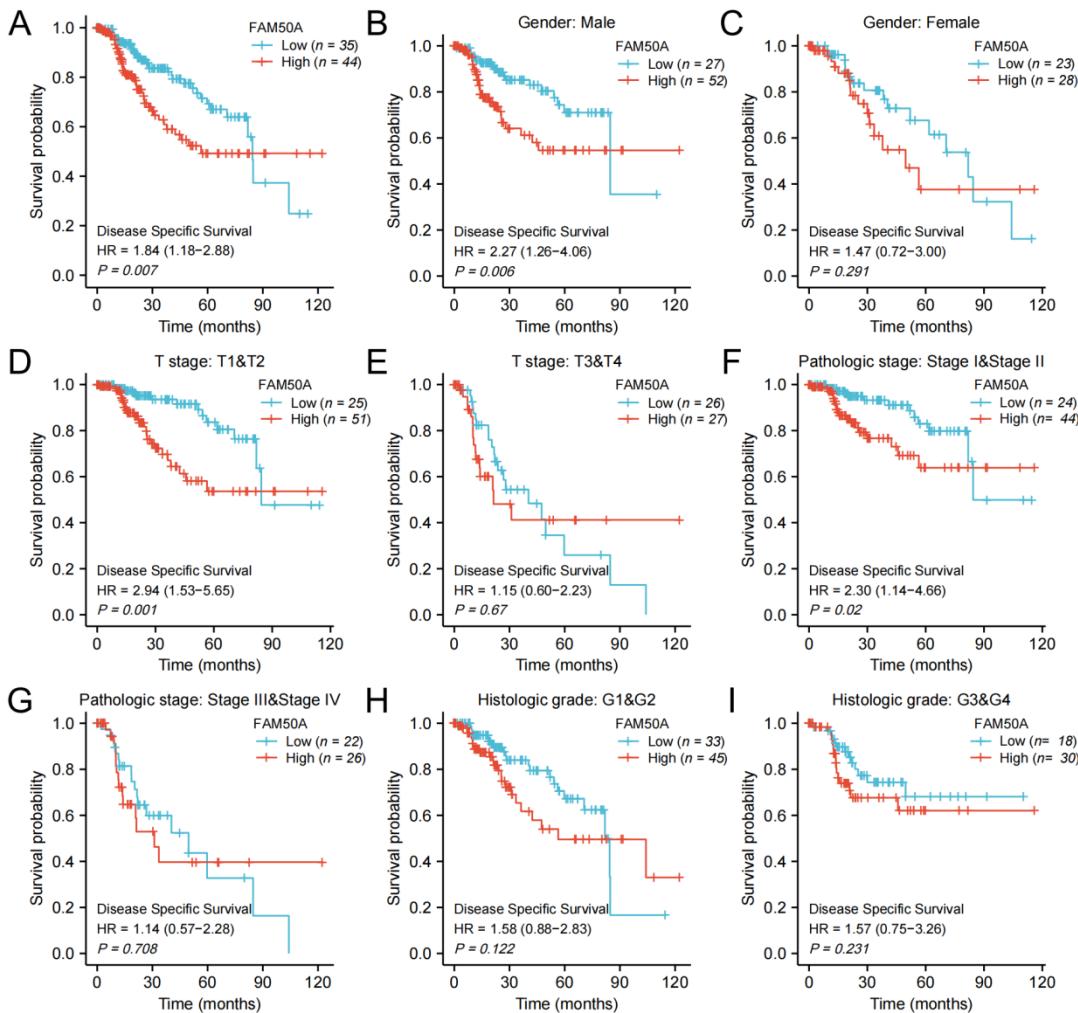


## Supplementary Materials



**Figure S1.** Different expression of FAM50A in various subtypes of HCC patients. (A) FAM50A expression in patients with different pathologic stages. (B) FAM50A expression in patients with different T stages. (C) FAM50A expression in patients with vascular invasion or not.



**Figure S2.** K-M survival analysis. We analyzed the effects of FAM50A on DSS in HCC patients with the help of information from TCGA. (A) All HCC patients. (B) Male patients. (C) Female patients. (D) T stage (T1 & T2). (E) T stage (T3 & T4). (F) Pathologic stage I&II. (G) Pathologic stage III&IV. (H) Histologic grade 1&2. (I) Histologic grade 3&4.

**Table S1.** Univariate and multivariate cox regression analysis of DSS in HCC patients induced by FAM50A.

Characteristics	HR (95% CI) Univariate analysis	P value	HR (95% CI) Multivariate analysis	P value
Gender (Female vs. Male)	0.813 (0.516–1.281)	0.373		
Age (<=60 vs. >60)	0.846 (0.543–1.317)	0.458		
Pathologic stage (Stage I~II vs. III~IV)	3.803 (2.342–6.176)	<0.001	0.925 (0.093–9.199)	0.947
Histologic grade (G1~2 vs. 3~4)	1.086 (0.683–1.728)	0.726		
T stage (T1~2 vs. 3~4)	3.639 (2.328–5.688)	<0.001	2.577 (0.250–26.556)	0.426
N stage (N0 vs. N1)	3.612 (0.870–14.991)	0.077		
M stage (M0 vs. N1)	5.166 (1.246–21.430)	0.024	2.567 (0.454–14.511)	0.286
Adjacent hepatic tissue inflammation (None vs. Mild~Severe)	1.403 (0.768–2.566)	0.271		
Residual tumor (R0 vs. 1~2)	1.678 (0.728–3.870)	0.224		
Child-Pugh grade (A vs. B~C)	2.560 (1.123–5.834)	0.025	3.671 (1.100–12.243)	0.034
Vascular invasion (No vs. Yes)	1.277 (0.707–2.306)	0.418		
AFP (ng/mL) (<=400 vs. >400)	0.867 (0.450–1.668)	0.668		
Albumin (g/dL) (<3.5 vs. >=3.5)	1.148 (0.586–2.250)	0.687		
Prothrombin time (<=4 vs. >4)	1.778 (1.054–2.999)	0.031	1.734 (0.650–4.626)	0.272
Fibrosis ishak score (0~1/2 vs. 3/4~5/6)	0.660 (0.340–1.279)	0.218		
FAM50A (Low vs. High)	1.841 (1.178–2.878)	0.007	2.948 (1.257–6.910)	0.013

**Table S2.** Correlation between FAM50A and immune cell markers in HCC.

Description	Gene markers	R	p
Macrophage	CD68	0.3	$1.3 \times 10^{-12}$
	CD11b (ITGAM)	0.3	$8.8 \times 10^{-13}$
CD4+ T cell	AIM2	0.22	$3 \times 10^{-7}$
	CCL4	0.13	$2.4 \times 10^{-3}$
	CCNB1	0.48	0
	EXO1	0.53	0
	KIF11	0.45	0
	KNTC1	0.36	0
	NUF2	0.47	0
	PRC1	0.48	0
CD8+T cell	RTKN2	0.31	$1.4 \times 10^{-13}$
	CD8A	0.18	$3.8 \times 10^{-5}$
	CD8B	0.22	$2.9 \times 10^{-7}$
Dendritic cell	HLA-DPB1	0.29	$1.4 \times 10^{-11}$
	HLA-DQB1	0.22	$3.1 \times 10^{-7}$
	HLA-DRA	0.27	$5.7 \times 10^{-10}$
	HLA-DPA1	0.25	$1 \times 10^{-8}$
B cell	CD20(KRT20)	0.13	$2 \times 10^{-3}$
Neutrophils	CD11b (ITGAM)	0.3	$8.8 \times 10^{-13}$
	CD15(FUT4)	0.19	$1.4 \times 10^{-05}$