Expression and Relationship of PD-L1, CD24, and CD47 in Hepatitis B Virus Associated Hepatocellular Carcinoma

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Supplementary Table S1. Univariate analysis of prognostic factors in HBV-associated HCC

Factors	P (OS)	HR (OS)	95%CI (OS)	P (PFS)	HR (PFS)	95%CI (PFS)
Gender	0.401	0.686	0.285-1.653	0.560	0.771	0.321-1.851
Age	0.558	1.008	0.981-1.036	0.667	1.007	0.976-1.039
Smoking	0.018	2.208	0.218-1.829	0.003	2.732	1.394-5.353
Drinking	0.254	1.595	0.716-3.556	0.248	1.602	0.721-3.560
Child-Pugh grade	0.072	3.044	0.904-10.249	0.256	1.995	0.607-6.559
Number of tumors	0.000	9.738	2.743-34.572	0.000	12.568	3.302-47.831
Invasion of the liver capsule	0.321	0.698	0.342-1.421	0.801	0.913	0.450-1.854
Histopathological grading	0.272	1.962	0.589-6.530	0.418	1.655	0.489-5.601
TNM stage	0.006	2.927	1.370-6.256	0.001	3.937	1.776-8.728
Postoperative treatment modalities	0.454	1.278	1.144-4.260	0.487	1.254	0.662-2.376
PD-L1	0.018	2.589	1.175-5.707	0.021	2.456	1.150-5.637
CD24	0.029	2.074	1.078-3.992	0.015	2.258	1.175-4.340
CD47	0.343	0.696	0.329-1.472	0.384	0.719	0.342-1.511
AFP	0.551	1.000	1.000-1.000	0.549	1.000	1.000-1.000
CEA	0.040	1.198	1.008-1.423	0.131	1.143	0.961-1.359
CA199	0.018	1.010	1.002-1.019	0.025	1.010	1.001-1.018

	0.452	0.999	0.995-1.002	0.971	1.000	0.996-1.004
ALT	0.452	0.999	0.995-1.002	0.971	1.000	0.996-1.004
AST	0.958	1.000	0.995-1.004	0.538	1.001	0.997-1.006
ALB	0.084	0.955	0.906-1.006	0.049	0.946	0.896-1.000
TBIL	0.138	1.028	0.991-1.066	0.149	1.027	0.990-1.065
RGT	0.097	1.002	1.000-1.003	0.019	1.002	1.000-1.004
PT	0.595	1.064	0.847-1.336	0.525	1.066	0.875-1.300
WBC	0.462	1.044	0.930-1.172	0.209	1.079	0.958-1.215
PLT	0.506	0.999	0.996-1.002	0.347	0.998	0.995-1.002
Hb	0.300	0.990	0.971-1.009	0.097	0.982	0.962-1.003
Maximum diameter of primary tumor	0.001	1.112	1.044-1.185	0.001	1.118	1.048-1.192

OS: Overall survival; PFS: Progression-free survival.

Supplementary Table S2. Correlation between CD47 expression and clinicopathological factors in HBV-associated HCC

Factors	N	CD47		P	Spearman correlation coefficient
		Low expression (n=18)	High expression (n=49)		
TNM stage (%)				0.950	
I	33	10 (55.5)	23 (46.9)		
II	22	5 (27.8)	17 (34.7)		
III	11	3 (16.7)	8 (16.3)		
IV	1	0 (0.0)	1 (2.0)		
Histopathological grading (%)				0.320	
Low	13	3 (16.7)	10 (20.4)		
Intermediate	49	15 (83.3)	34(69.4)		
High	5	0 (0.0)	5 (10.2)		
Number of tumors (%)				0.224	
1	57	15 (83.3)	42 (85.7)		
2	7	1 (5.6)	6 (12.2)		
>2	3	2 (11.1)	1 (2.0)		
Maximum diameter of primary tumor (cm) (mean±SD)	67	6.90±5.38	7.25±4.44	0.787	
CK19	67	0.06±0.24	0.63±1.93	0.282	

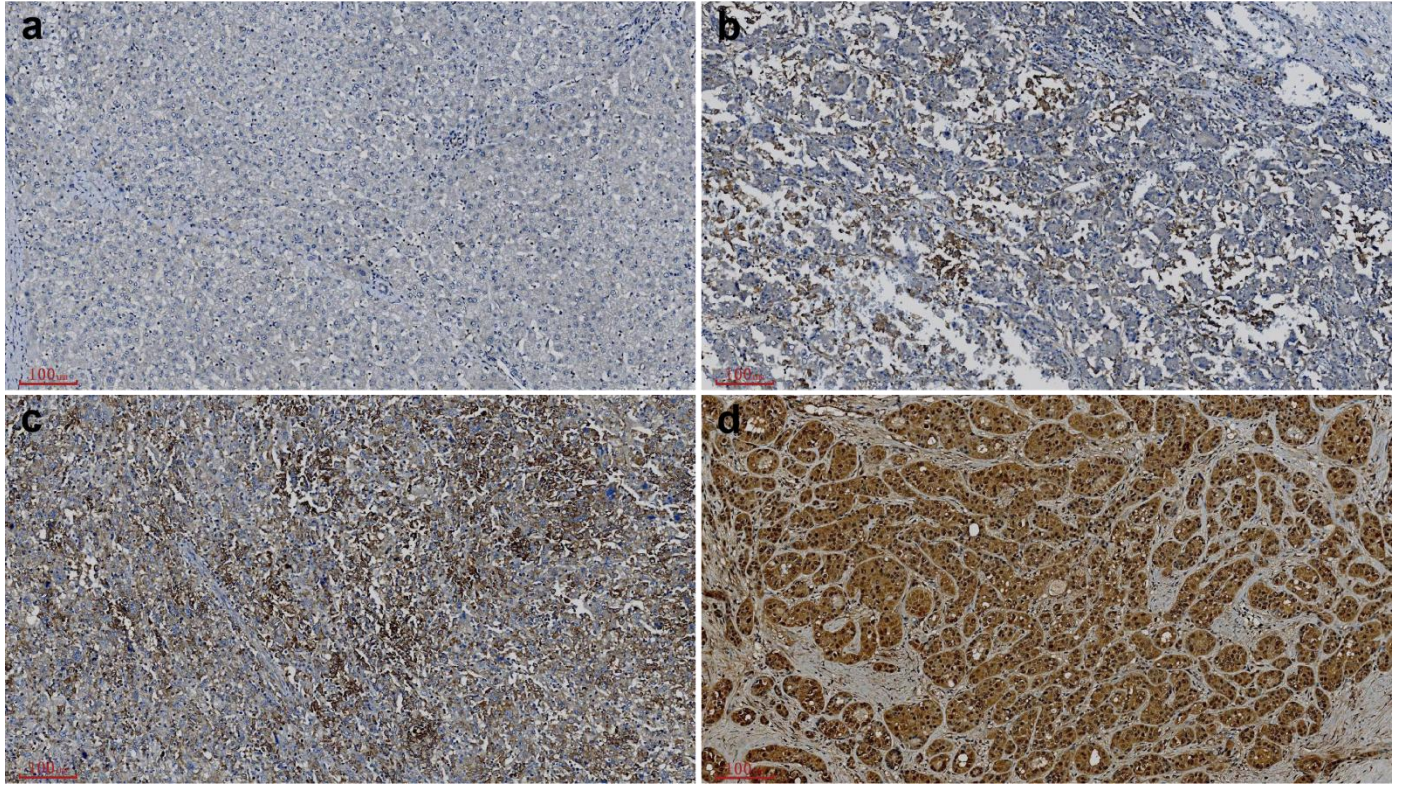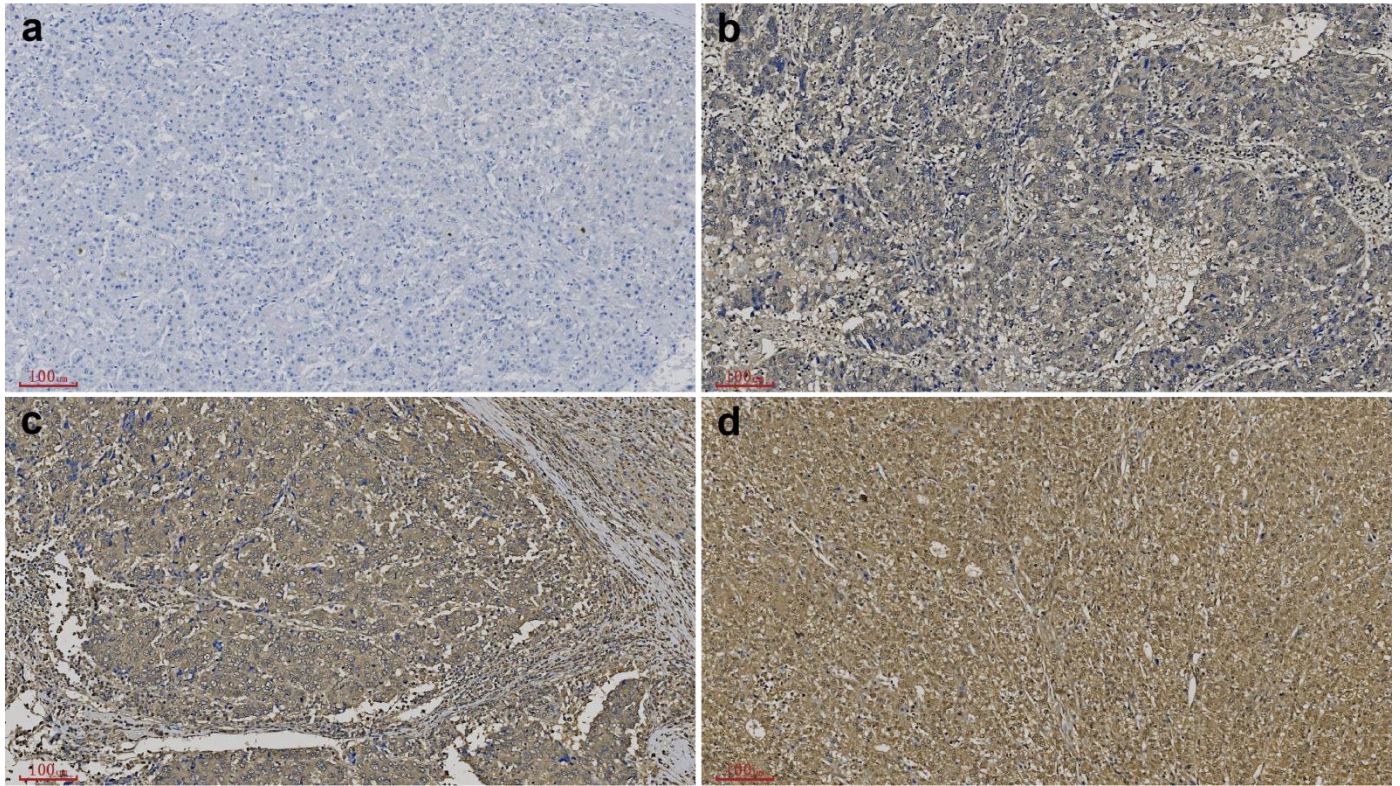|	(mean±SD)				
CK18 (mean±SD)	67	4.44±4.03	5.29±4.17	0.463	
CD34 (mean±SD)	67	1.56±2.33	3.37±3.92	0.025	-0.037
Glypican-3 (mean±SD)	67	4.72±3.74	3.67±3.97	0.334	
Hepar-1 (mean±SD)	67	1.11±2.35	2.47±3.61	0.079	
Ki67（%） (mean±SD)	67	28.61%±18.85%	26.94%±22.64%	0.781	

Fig. S1 Immunohistochemical study of PD-L1 expression in hepatocellular carcinoma tissues. The intensity of membranous staining was graded as negative **(a)**, weak **(b)**, intermediate **(c)**, or strong **(d)** (a-d, ×100).

Fig. S2 Immunohistochemical study of CD24 expression in hepatocellular carcinoma tissues. The intensity of membranous staining was graded as negative **(a)**, weak **(b)**, intermediate **(c)**, or strong **(d)** (a-d, ×100).
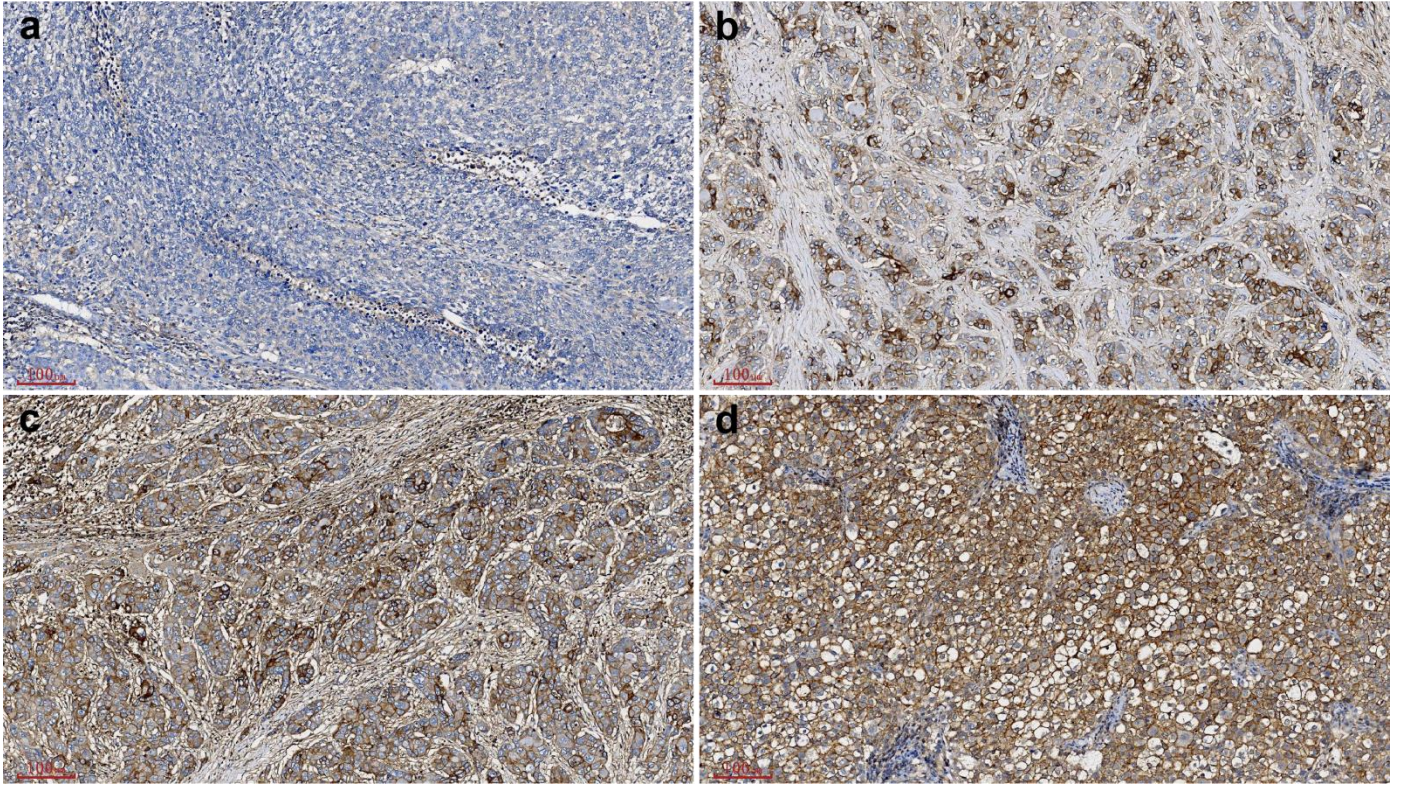
Fig. S3 Immunohistochemical study of CD47 expression in hepatocellular carcinoma tissues. The intensity of membranous staining was graded as negative **(a)**, weak **(b)**, intermediate **(c)**, or strong **(d)** (a-d, ×100).