

## SUPPLEMENTARY TABLES

Supplementary Table 1. Association between *Ppnh* mRNA expression and various clinicopathological factors of HBV-related HCC patients.

Variables	<i>Ppnh</i> mRNA expression		<i>p</i> value	Multivariate analysis <sup>#</sup>		<i>p</i> value
	Low ( <i>n</i> = 79)	High ( <i>n</i> = 79)		OR	95%	
<b>Age, years</b>						
≤54	42	43	0.87	1	Reference	0.113
>54	37	36		0.237	0.040–1.403	
<b>Gender</b>						
Male	63	64	0.84	1	Reference	0.176
Female	16	15		0.128	0.524–24.94	
<b>Preoperative AFP (ng/ml)</b>						
≤200	46	41	0.48	1	Reference	0.192
>200	33	37		3.615	0.312–1.461	
<b>TB (μmol/L)</b>						
≤20	75	76	1.00	1	Reference	0.522
>20	4	3		0.223	0.002–22.02	
<b>ALT (U/L)</b>						
≤50	55	56	0.86	1	Reference	0.717
>50	24	23		0.696	0.089–4.931	
<b>γ-GT (U/L)</b>						
≤60	43	39	0.52	1	Reference	0.055
>60	36	40		11.495	0.946–139.7	
<b>HBcAb</b>						
No	5	4	1.00	1	Reference	0.780
Yes	74	75		1.942	0.018–205.2	
<b>Tumor size (cm)</b>						
≤5	39	37	0.75	1	Reference	0.257
>5	40	42		0.290	0.034–2.462	
<b>Tumor number</b>						
Single	57	58	0.75	1	Reference	0.639
Multiple	22	20		1.226	0.523–2.871	
<b>Tumor thrombus</b>						
No	65	57	0.13	1	Reference	0.231
Yes	14	22		0.288	0.038–2.210	
<b>Tumor encapsulation</b>						
No	21	23	0.80	1	Reference	0.304
Yes	55	55		2.634	0.416–16.68	
<b>Tumor differentiation</b>						
High	29	34	0.45	1	Reference	0.232
Low	49	45		2.978	0.498–17.83	
<b>History of liver cirrhosis</b>						
No	19	28	0.12	1	Reference	<b>0.022</b>
Yes	60	51		0.028	0.001–0.594	

Pearson Chi-Square test was used to analyze the relationship between *Ppnh* mRNA expression and clinicopathological characteristics. Bold font means statistical significance  $p < 0.05$ . <sup>#</sup>Logistics regression was used for multivariate analysis.

**Supplementary Table 3. The clinical information of 11 patients with HCC was analyzed by IHC.**

<b>Case ID</b>	<b>Patient Na</b>	<b>Accession</b>	<b>Gender</b>	<b>Age</b>
1	*	*	Male	61
2	*	*	Male	54
3	*	*	Male	56
4	*	*	Male	45
5	*	*	Male	44
6	*	*	Male	65
7	*	*	Male	68
8	*	*	Female	44
9	*	*	Female	48
10	*	*	Male	63
11	*	*	Male	51

  

<b>Pathologic</b>	<b>Tumor differentiation</b>	<b>Medical H</b>	<b>History of</b>	<b>Pathologic</b>
HCC	3	1	1	HCC
HCC	1	0	0	HCC
HCC	2	1	1	HCC
HCC	3	1	1	HCC
HCC	3	1	1	HCC
HCC	3	1	1	HCC
HCC	1	1	1	HCC
HCC	3	1	1	HCC
HCC	2	1	1	HCC
HCC	4	0	0	HCC
HCC	4	0	0	HCC
HCC	3	1	1	HCC
HCC	1	0	0	HCC

  

<b>HBsAg</b>	<b>ALT</b>	<b>AFP</b>	<b>CEA</b>	<b>AST</b>
1	31	4209.45	1.64	47
0	80	7200	1.48	118
1	50	29281.9	0.5	158
1	32	33242.8	0.77	37
1	49	55.9	3.87	71
1	48	12.45	1.39	111
1	90	1020	1.88	339
1	27	180.1	0.63	28
1	20	114517	1.39	50
0	23	1133	2.43	50
0	94	3348.1	2.59	111