

Figure S1. (A-D), Bodymap of PLCB1, PLCB2, PLCB3 and PLCB4 respectively. Red indicates tumor samples and green indicates normal samples (gepia. cancer-pku.cn/). PLCB, phospholipase C  $\beta$ .

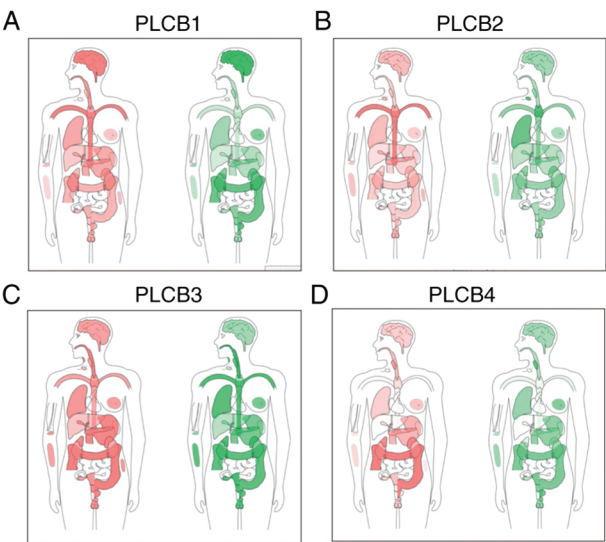


Figure S2. (A-D) Protein expressions of PLCB1, PLCB2, PLCB3, PLCB4 in liver tissue, respectively ([proteatlas.org/ENSG00000182621-PLCB1/tissue/liver#img](https://proteatlas.org/ENSG00000182621-PLCB1/tissue/liver#img); [proteatlas.org/ENSG00000137841-PLCB2/tissue/liver#img](https://proteatlas.org/ENSG00000137841-PLCB2/tissue/liver#img); [proteatlas.org/ENSG00000149782-PLCB3/tissue/liver#img](https://proteatlas.org/ENSG00000149782-PLCB3/tissue/liver#img); [proteatlas.org/ENSG00000101333-PLCB4/tissue/liver#img](https://proteatlas.org/ENSG00000101333-PLCB4/tissue/liver#img)). PLCB, phospholipase C  $\beta$ .

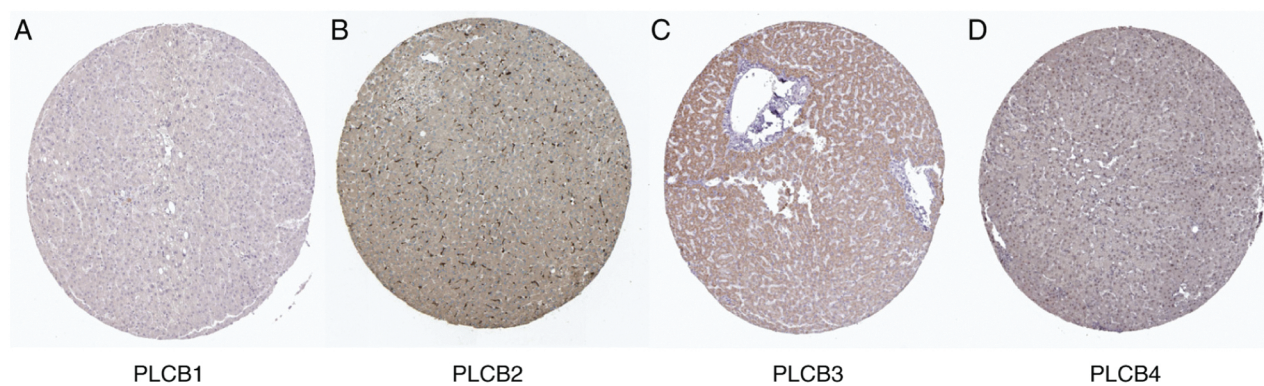


Figure S3. (A-D) Expressions of PLCB1, PLCB2, PLCB3, PLCB4 in different organs, respectively. GTEx portal website. PLCB, phospholipase C  $\beta$ .

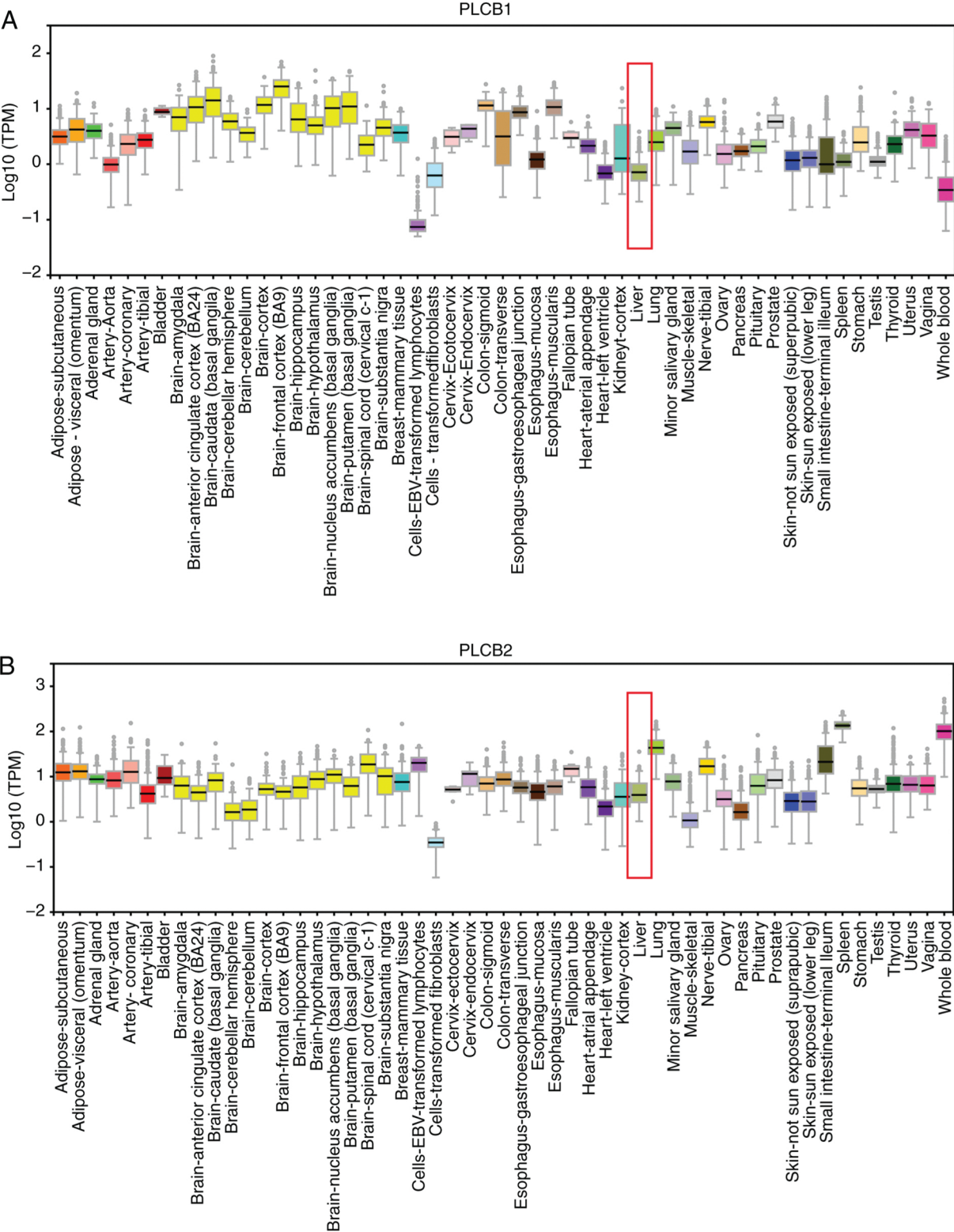


Figure S3. Continued. (A-D) Expressions of PLCB1, PLCB2, PLCB3, PLCB4 in different organs, respectively.

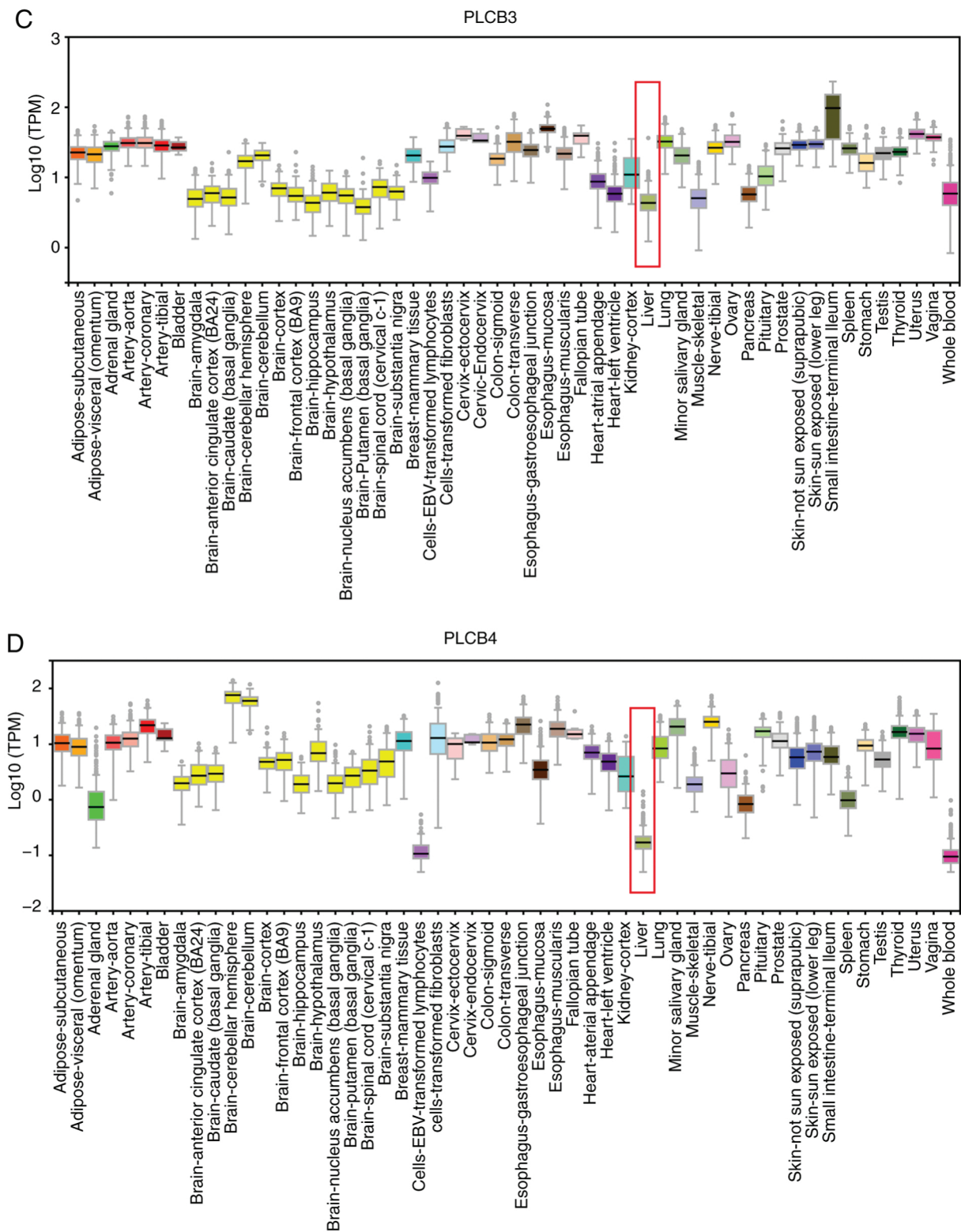




Figure S4. Enriched gene ontologies of phospholipase C  $\beta$ .1-4 genes. (A) Biological process, (B) cellular component, (C) Molecular function. Images generated using Cytoscape software.

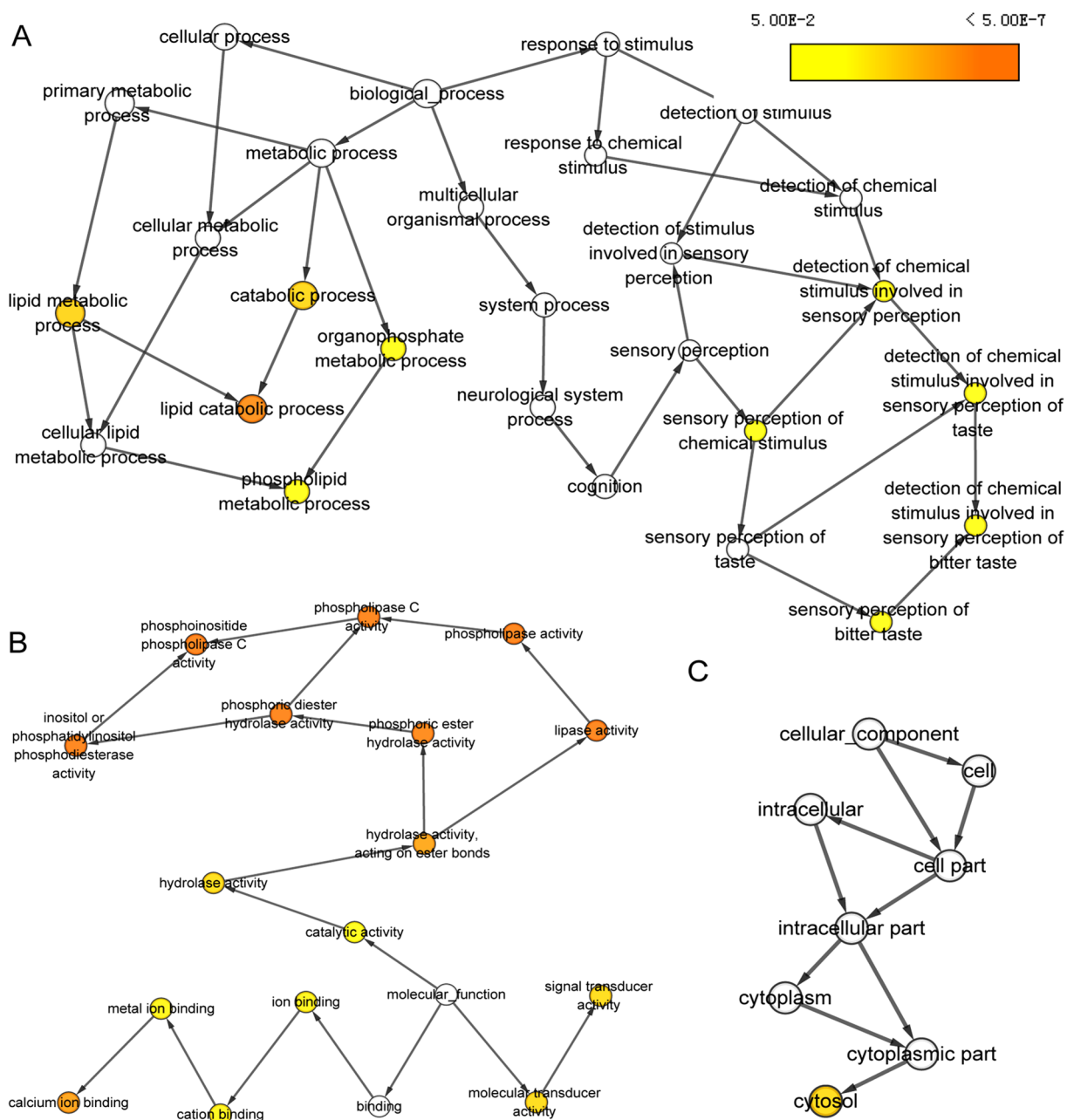


Figure S5. Pathways in cancer associated with phospholipase C  $\beta$  1-4.

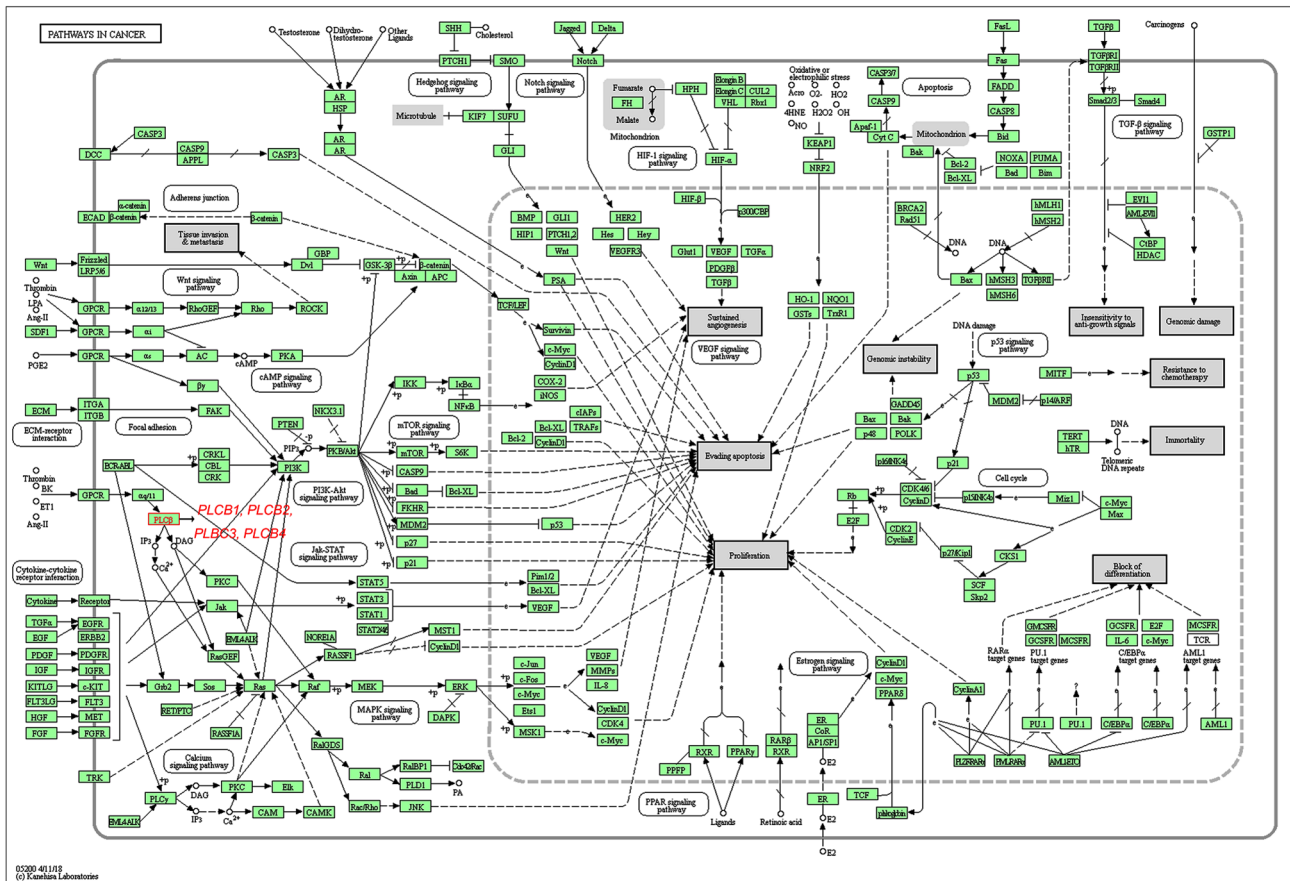


Table SI. Demographic characteristics of 212 patients with HBV-associated hepatocellular carcinoma.

Variables	Patients (n=212)	No. of event	Overall survival			P-value	Recurrence-free survival			P-value
			MST (months)	HR (95% CI)			MST (months)	HR (95% CI)		
Gender										
Male	183	74	NA	Ref.			106	40.10	Ref.	
Female	29	8	NA	0.587 (0.283-1.218)	0.152		10	NA	<b>0.467 (0.244-0.893)</b>	<b>0.021</b>
Age (years)										
≤60	175	69	NA	Ref.			96	45.90	Ref.	
>60	37	13	NA	0.864 (0.478-1.564)	0.630		20	48.00	0.974 (0.602-1.578)	0.916
HBV										
AVR-CC	56	25	NA	Ref.			35	28.80	Ref.	
CC	156	57	NA	0.747 (0.467-1.196)	0.225		81	51.10	0.751 (0.505-1.117)	0.158
Tumor size (cm)										
≤5	137	46	NA	Ref.			73	51.10	Ref.	
>5	74	36	53.30	<b>1.975 (1.274-3.060)</b>	<b>0.002</b>		43	28.40	1.409 (0.966-2.056)	0.075
Cirrhosis										
Yes	195	80	NA	Ref.			111	37.90	Ref.	
No	17	2	NA	<b>0.231 (0.057-0.939)</b>	<b>0.041</b>		5	NA	<b>0.383 (0.156-0.938)</b>	<b>0.036</b>
Multinodular										
Yes	45	23	47.90	Ref.			26	28.70	Ref.	
No	167	59	NA	0.622 (0.384-1.008)	0.054		90	49.10	0.823 (0.531-1.274)	0.382
AFP (ng/ml)										
≤300	115	39	NA	Ref.			62	48.00	Ref.	
>300	94	43	NA	<b>1.546 (1.002-2.385)</b>	<b>0.049</b>		54	35.20	1.200 (0.833-1.728)	0.328
BCLC stage										
0	20	2	NA	Ref.	<b>&lt;0.0001</b>		6	NA	Ref.	<b>&lt;0.0001</b>
A	143	48	NA	<b>4.119 (1.001-16.951)</b>	<b>0.050</b>		<b>74</b>	51.60	2.050 (0.892-4.711)	0.091
B	22	12	46.10	<b>8.992 (2.005-40.320)</b>	<b>0.004</b>		<b>15</b>	26.90	<b>4.019 (1.550-10.421)</b>	<b>0.004</b>
C	27	20	13.60	<b>18.993 (4.419-81.632)</b>	<b>&lt;0.0001</b>		21	8.90	<b>6.163 (2.477-15.333)</b>	<b>&lt;0.0001</b>

Ref., reference value (1); HR, hazard ratio; 95% CI, 95% confidence interval; HBV, hepatitis B virus; AVR-CC, acute viral replication-chronic carrier; CC, chronic carrier; AFP, AFP,  $\alpha$ -fetoprotein; BCLC, Barcelona Clinic Liver Cancer. Bold indicates significant P-values.