

**Supplementary Table 2.** Characteristics of the study subjects - validation set 2.

Characteristic	<b>Validation Set 2</b>	
	No.	%/Value
<b>Healthy Subjects</b>	177	
Age - yr		46.5±10.8
Sex		
Male	115	65.0%
Female	62	35.0%
AFP		
>400 ng/mL	0	0%
≤400 ng/mL	135	76.3%
Missing	42	23.7%
<b>Benign Lesions</b>	3	
Age - yr		41.3±11.5
Sex		
Male	3	100%
Female	0	0%
AFP		
> 400 ng/mL	0	0%
≤ 400 ng/mL	2	66.7%
Missing	1	33.3%
<b>HCC</b>	60	
Age - yr		54.6±9.6
Sex		
Male	57	95.0%
Female	3	5.0%
AFP		
> 400 ng/mL	18	30.0%
≤ 400 ng/mL	37	61.7%
Missing	5	8.3%
CHB History		
Yes	57	95.0%
No	3	5.0%
Missing	0	0%
LC History		
Yes	39	65.0%
No	12	35.0%
Missing	0	0%
Tumor Size		
> 2.0 cm	33	55.0%
≤ 2.0 cm	4	6.7%
Missing	23	38.3%
BCLC Stage		
0	4	6.7%
A	20	33.3%

B	6	10.0%
C	7	11.7%
Missing	23	38.3%
Pathology Availability		
Yes	38	63.3%
No	22	36.7%

Notes: The validation set 2 is comprised of HCC patients and controls recruited from Shanghai Public Health Clinic Center and The Tenth People's Hospital of Shanghai. AFP:  $\alpha$ -fetoprotein; BCLC: Barcelona Clinic Liver Cancer staging system; CHB: chronic hepatitis B virus infection; HCC: hepatocellular carcinoma; LC: liver cirrhosis.