

## Supplementary Table 9 Clinical data of human liver cancer samples for histology

### analysis

Patients <sup>a</sup>	Gender <sup>b</sup>	Age	Tumor size (cm)	Edmondson Grade	TNM Grade	Capsules <sup>c</sup>
HCC without metastasis (NM group in IHC investigation)						
1	M	61	5.0×4.5	III	II	+
2	F	68	7.6×6.0	II	II	+
3	M	43	7.8×6.0	III	II	++
4	M	71	8.2×5.4	III	II	+++
5	M	43	4.0×3.1	III	I	+
6	M	49	5.5×5.4	III	II	+
7	M	61	5.5×4.0	II	II	+
8	M	57	5.0×4.0	III	II	+++
9	F	67	11.0×10.0	III	II	++
10	M	43	1.9×1.3	III-IV	I	+
11	M	63	7.1×6.9	III	II	+
12	F	16	13.0×9.5	III	II	+
13	F	34	3.5×1.6	III	I	+++
14	F	53	2.4×2.0	III	I	+++
15	F	71	4.5×4.0	III	II	+++
16	M	43	12.0×10.0	III	II	+
17	M	49	2.6×1.7	III	I	+++
18	M	55	2.7×2.5	III	I	+
19	M	38	1.5×1.2	II	I	+++
20	M	41	1.6×1.2	III	I	+++
21	M	45	2.8×2.0	III	I	+++
22	M	37	2.0×1.8	III	I	+
23	M	49	2.8×1.6	III	I	+++
24	M	38	2.5×1.6	III	I	+++
25	F	57	2.2×1.9	III	I	+++
26	M	54	2.0×2.0	III	I	+
27	M	33	2.0×1.5	III	I	+++
28	M	60	2.6×2.0	III	I	+
HCC with portal vein tumor thrombi (M and PVTT group in IHC investigation)						
29	M	43	8.0×9.0	III	III	+++
30	M	57	16.0×12.0	III	III	+++
31	M	57	16.0×9.0	III	III	+++
32	F	61	4.5×4.0	III	III	+++
33	M	57	4.0×3.0	III	III	+++
34	M	48	6.5×4.5	III	III	+++
35	M	54	11.0×11.0	III	III	+++
36	M	51	10.0×12.0	III	III	+++

37	M	36	6.0×7.0	III	III	+++
38	M	40	6.5×4.5	III	III	+++
39	M	22	10.0×10.0	III	III	+++
40	F	52	4.6×4.0	III	III	+++
41	M	66	9.0×8.0	III	III	+++
42	M	37	8.0×4.5	III	III	+++
43	M	45	5.0×4.0	III	III	+++
44	M	44	6.0×5.0	III	III	+++
45	M	41	9.5×8.0	III	III	+++
46	F	57	5.5×4.5	III	III	+++
47	M	46	9.0×8.0	III	III	+++
48	M	47	4.6×4.0	III	III	+++
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Non-metastatic HCC (nmHCC group in flow cytometry analysis)						
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49	F	43	4.0×2.8	III	II	+
50	M	43	11.0×7.0	III	III	+
51	M	48	4.6×3.2	II	I	+
52	M	45	5.0×3.8	III	II	++
53	M	47	3.2×3.5	III	I	+
54	M	39	4.0×3.1	II	II	+
55	M	51	10.0×9.0	III	III	+++
56	M	54	5.9×6.0	II	III	+
57	M	59	12.0×11.0	II-III	III	+
58	M	53	5.0×7.0	III	III	+
59	M	44	2.3×4.5	III	II	+++
60	M	76	7.0×6.0	III	III	+
61	M	40	6.5×4.5	III	III	+
62	M	58	6.0×4.2	II	III	+
63	M	52	5.2×4.0	II	III	+
64	M	45	3.3×3.0	III	II	++
65	M	52	5.0×4.0	III	II	+
66	F	45	10.0×8.0	III	III	+
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Metastatic HCC (mHCC group in flow cytometry analysis)						
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67	M	54	8.0×11.0	III	III	+
68	M	42	10.5×8.5	III	III	+++
69	M	44	15.0×11.0	III	III	++
70	F	62	7.9×5.9	III	III	+++
71	M	51	15.0×10.0	III	III	+++
72	M	54	11.2×6.8	III	III	+++
73	M	52	3.4×3.0	III	III	+++
74	M	49	2.5×2.0	III	III	+++
75	M	34	7.4×5.5	III	III	+
76	M	65	10.0×8.6	III	III	+
77	M	48	6.0×5.2	III	III	+
78	M	45	9.5×7.2	III	III	+++

79	F	60	3.0×2.7	III	III	+
80	M	58	5.0×4.0	III	II	+++
81	M	33	16.0×11.0	III	III	++
82	M	67	4.2×3.7	III	II	++
83	M	55	14.2×9.4	III	III	+
84	M	45	13.0×8.0	III	III	+++
85	M	37	13.0×9.2	III	III	++
86	M	47	8.0×5.0	III	III	+++
87	M	32	10.7×7.3	III	III	++
88	F	59	9.4×7.6	III	III	+++

- a. All patients were positive for hepatitis B virus infection.
- b. M, male; F, female.
- c. +, integrated capsules; ++, infiltrated capsules; +++, none capsules.