**Supplementary Table 1.** The clinical characteristics of 48 patients with hepatocellular carcinoma

Case	Age	Sex	Tumor Size	Differentiation	Cirrhosis	AFP	ALB	ALP	HBV	Survival	Status	Recurrence
No.			(cm)							(months)		
1	75	F	2.4	2	1	6310	39	308	0	62	Alive (lost FU)	No
2	67	M	4	3	1	33	38	48	1	24.17	Died	Confirmed
3	43	M	4.5	3	1	4706	47	82	1	61.73	Died	Confirmed
4	54	M	8	2	0	7326	43	105	1	2.63	Died	No
5	54	M	2.5	2	1	3650	35	218	1	21.67	Died	Confirmed
6	62	F	2	2	1	4957	42	231	0	0.37	Died	No
7	40	M	8.5	2	1	26900	43	144	1	3.03	Died	No
8	35	M	3.5	2	1	1321	33	45	1	18.07	Died	Confirmed
9	37	M	2.8	2	1	10	30	156	1	56.63	Died	No
10	60	M	4.7	1	1	10	27	207	1	47.7	Died	Confirmed
11	62	M	11	1	1	N/A	30	156	1	0.8	Died	No
12	68	F	8	2	1	4800	32.5	169	1	7.03	Died	Confirmed
13	71	M	5	2	1	76	33	92	1	52.4	Died	Confirmed
14	54	F	11	2	0	36	37	89	0	80.33	Alive	No
15	46	M	7.5	2	0	46230	34	57	1	9.77	Died	Confirmed
16	34	M	2.5	1	1	312	20	191	1	80.33	Alive	Confirmed
17	71	M	14	3	0	14715	30	122	1	3.67	Died	Confirmed
18	58	M	3	1	1	4788	30	64	1	47.33	Died	Confirmed
19	40	F	3	2	1	329	32	57	1	3.17	Died	No
20	62	M	5.5	1	0	10	40	72	1	46.6	Alive	No
21	58	F	2.5	2	0	694	42	52	1	31.43	Alive	No
22	53	M	5	2	0	76	34	120	1	21.3	Died	Confirmed
23	45	M	3.5	0	1	4	43	65	1	44.07	Alive	No
24	34	M	3	2	1	2727	41	97	1	44.03	Alive	No
25	66	M	7	2	0	12	40	94	1	41.47	Died	No
26	66	M	7.5	2	1	971	34.3	155	1	0.83	Died	No
27	64	M	4.5	2	1	35	39	156	1	30.57	Died	Confirmed
28	74	M	6	1	0	11	33	117	1	39.63	Alive (lost FU)	Confirmed

29	68	M	2.5	2	1	439	28	117	1	4.63	Died		No
30	48	M	7.5	0	0	309	36	58	1	38.93	Died		No
31	67	M	6	0	1	45	29	226	1	0.43	Died		No
32	42	M	4	2	0	115	40	77	1	46.17	Died		Confirmed
33	48	M	2	2	1	4	40	92	1	29.67	Died		No
34	49	M	2.2	2	1	N/A	N/A	N/A	1	0.2	Died		No
35	45	M	1.5	2	1	5.5	38	113	1	30.03	Died		No
36	17	M	5	2	0	49890	32	83	1	42.77	Died		Confirmed
37	68	M	6.5	1	1	26	28	70	1	0.47	Died		No
38	55	M	6	2	1	511	41	85	1	0.47	Died		No
39	66	F	8	2	1	N/A	34	133	1	41.5	Died		No
40	59	M	5.5	2	1	555	40	112	1	0.1	Died		No
41	48	M	3	2	1	610	40	95	1	40.77	Alive	(lost FU)	Confirmed
42	69	F	7.5	1	1	11	28	116	1	1.8	Died		No
43	51	M	5.5	2	0	4	31	70	1	38.9	Died		No
44	44	M	7	3	0	29	34	95	1	21.63	Died		Confirmed
45	60	M	2.5	0	1	626	33.6	111	1	28.9	Died		No
46	62	M	16	2	0	83	39	108	1	34.5	Alive	(lost FU)	Confirmed
47	33	M	7	1	1	45660	37	133	1	3.1	Died		No
48	58	M	5	1	1	N/A	N/A	N/A	1	25.6	Died		No

Differentiation: 0: Clear cell carcinoma; 1: Well-differentiated; 2: Moderate-differentiated; 3: Poor-differentiated. Cirrhosis: 1: with cirrhosis; 0: without cirrhosis. HBV: 1: with HBV; 0: without HBV; N/A: not available.