

## **Supplementary Tables**

**Supplementary Table 1** Differentially expressed genes involved in the 3 shared pathways across layers of data.

**Supplementary Table 1:** Differentially expressed genes involved in the 3 shared pathways across layers of data

Gene /Pathway	Axon guidance (Reactome)	Beta1 integrin cell surface interactions (Pid)	EGFR1 (Net path)
ABLIM1	y		
AHNAK			y
AKAP9	y		
CALD1			y
CAP1	y		
CDK5	y		y
COL2A1	y	y	
COL6A3	y		
DPYSL2	y		
DPYSL3	y		
EEF1A1			y
EPHB1	y		y
FGA	y	y	
FGG	y	y	
HNRNPA1			y
HNRNPR			y
HSPA8	y		
JUP			y
LAMA4		y	
LAMC1	y	y	
MYH11	y		
NEDD4			y
PEA15	y		
PPP2R1B	y		
RGMA	y		
RPS6KA3	y		y
RPS6KA3			
SPTAN1	y		
SPTBN1	y		
SPTBN2	y		
TFRC			y
TGM2		y	

THBS2		y	
TKT			y
TUBB2B	y		
VIM			y
YWHAZ			y

**Supplementary Table 2 Clinical data retrieved from each publication included in our analysis**

Supplementary Table 1: Clinical data retrieved from each publication included in our analysis.

GENE EXPRESSION																		
Dataset #	Year	PMID	HCC(n)	Controls (n)	GEO dataset	Liver cirrhosis in HCC samples	Etiology of liver disease(n)	Sex	AFP	AST	ALT	Metastasis	HCC Grade/Differentiation	HCC stage	Child Pugh MELD score	Survival	METHOD	
1	2004	17393520	35	NT=13 (3 not matched)	GSE6764	N/A	HCV=35	N/A	N/A	N/A	N/A	N/A	very early (8 cases), early HCC (10 cases) advanced HCC (7 cases), very advanced HCC (10 cases)	N/A	N/A	Affymetrix Human Genome U133 Plus 2.0 Array		
2	2008	18504433	11	2(healthy livers)	GSE6222	N/A	N/A	training_M =64/F=18; validation_M =173/F=52	training_(>100 ng/mL)=53; validation_(>100 ng/mL)=53	N/A	N/A	N/A	training_class A=72; validation_class A=204	BCLC training_25 stage 0/50 stage A/9 stage B; validation_21 stage 0/186 stage A/16 stage B	training_class A=72; validation_class A=204	N/A	Affymetrix Human Genome U133 Plus 2.0 Array	

3	2008	18923165	training_80	training_82	GSE10143	17	training_HC V=60; HBV=17HCV +=47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Human 6k Transcriptio nally Informative Gene Panel for DASL
4	2009	19098997	47	58 (41 not matched tissue)	GSE14323	16	HCV+=47	M=15/F=1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Affymetrix Human Genome U133A 2.0 Array; Affymetrix Human Genome U133A Array
5	2009	19861515	16	NT=47 (not matched tissue)	GSE17967	N/A	HCV+=16	M=179/F=65	(>100 ng/mL)=63	N/A	N/A	class A=226	BCLC stage 39 stage 0, 205 stage A	class A=226	58 mo death=8 2,overall 1 recurren ce=155, early recurren ce (<2 years) 87	Affymetrix Human Genome U133A 2.0 Array	

6	2011	21320499	34	34	GSE20 140 (GSE1 0141.G SE101 40)	37, 3	HCV=150; HBV=56	M=35/F=5	(≤20 ng/mL)=14 , >20 ng/mL)=26	N/A	(≤40)=21 , >40)=19	N/A	class A=40	TNM stage I (30), II-III (10)	class A=40	N/A	Illumina HumanHT- 12 V3.0 expression beadchip
7	2011	21712445	40		GSE28 248	LC=15	244 out of 287 clinical data	M=14/F=1	N/A	N/A	N/A	N/A	maybe all hcv	N/A	training _(7 ys) recurren ce or death=1 64;valid ation_ (5.6 ys) recurren ce or death=5 1	DASL Human Cancer Panel by Gene	
8	2013	23691139	15	40	GSE17 548	training _LC+ =116, LC-=124; validation _LC+=55, LC-=28	HCV=40	training_ M=199, F=41; validation_M =67,F=16	training_>200 ng/mL)=85; validation_>100 ng/mL)=37	N/A	N/A	N/A	training_class A=240; validation_ class A =79	training_AJC C stage I=102, II= 100, III=38 IV=0; validation _AJCC stage I=34, II= 23, III=26 IV=0,	training _class A =240; validatio n_class A =79	N/A	Affymetrix Human Genome U133 Plus 2.0 Array

9	2013	23800896	GSE36376_276; GSE25097_211	15	GSE36376, GSE25097	LC+=22, LC-=23	HBV=10, HCV=3, N/A=2	M=37/F=8	(>400 ng/mL)=19	N/A	N/A	N/A	N/A	N/A	25.68 mo death=32, recurrence=10	Illumina HumanHT-12 V4.0 expression beadchip; Rosetta/Merck Human RSTA Affymetrix 1.0 microarray, Custom CDF
10	2014	24498002	46	GSE36376_247; GSE25097_283(40 not matched tissue)	GSE47595	LC+=21, LC-=37, N/A =1	GSE36376_HBV+=183; GSE25097_N/A	M=53//F=6	(≥100 ng/ml)=36,<100 ng/ml)=15, N/A=8	N/A	N/A	N/A	TNM stage I (32), II (16) III (10), N/A=1	N/A	N/A	Illumina Human Whole-Genome DASL HT
11	2014	24564407	45	46	GSE45114	N/A	N/A	M=10//F=1	normal=8, abnormal=2	median=39.09	median=36.18	N/A	N/A	N/A	N/A	CapitalBio Human 22k oligonucleotide microarray

12	2014	25093504	39	45	GSE57958,	C1_36 ; C2 =60;C3_211	HBV=40, HBV=-5	C1_M=58 ; C2_M=78;C3_M=201	C1_(>300 ng/mL)=18; C2_(>300 ng/mL)=36;C3_(>300 ng/mL)=104	N/A	N/A	N/A	BCLC C1_5 stage 0/ 53 stage A/ 8 stage B/6 stage C ; C2_4 stage 0/ 64 stage A/19 stage B/9 stage C ;(C3 16 patient no BCLC available )_20 stage 0/ 144 stage A/ 22 stage B/26 stage C	N/A	overall survival >2 y=215; <1 y; n=125	Illumina HumanHT-12 V4.0 expression beadchip	
13	2014	25141867	11	40	GSE55092	N/A	HBV=36, HBV=-23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Affymetrix Human Genome U133 Plus 2.0 Array	
14	2014	25376302	18	11	GSE60502	N/A	HBV+=11	training_M=61, F=17; validation_M =34,F=15	(>400 ng/mL)training_7, validation_3	training_87 ± 72; validation_71 ± 41	training_66 ± 61, validation_61 ± 28	N/A	class A=78	N/A	class A=78	yes	Affymetrix Human Genome U133A Array
15	2014	25536056	C1_72	18	GSE39791	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Illumina HumanHT-12 V4.0 expression beadchip	



Dataset #	Year	PMID	HCC (n)	Controls (n)	GEO dataset	Liver cirrhosis in HCC samples	Etiology of liver disease(n)	Sex	AFP	AST	ALT	Metastasis	HCC Grade/Differentiation	HCC stage	Child Pugh MELD score	Survival	METHOD
1	2015	26190160	9	7	N/A	N/A	N/A	M(8), F(1)	N/A	N/A	N/A	Y(9), N(0)	G2(6), G3(3)	T1(5), T2(4)	N/A	N/A	miRNA 3.0 Array (DNA Link)
2	2014	24789420	10	9	GSE31383 (control); GSE20594 (HCC)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	xMap Beads (Luminex)
3	2014	24564407	45	10	GSE10694	Y(22), N(23)	HBsAg+(35), HBsAg-(10), HBeAg+(9), HBeAg-(36)	M(37), N(8)	<400(26), ≥400 (19)	N/A	N/A	Y(27), N(18)	0(3), I(5), II(11), III(16), IV(10)	N/A	N/A	Yes	Mammalian miRNA Array Services V1.0 (CapitalBio)
4	2011	21298008	73	73	GSE21362	Y(37), N(36)	HBV+(12), HBV-(61)	M(54), F(19)	N/A	N/A	N/A	N/A	Well(21), Moderate(45), Poor(7)	T1(7), T2(51), T3(13), T4(2)	A(69), B(4)	Yes	Human microRNA Chips (3D-Gene™)

5	2008	18649363	78	10	N/A	Y(40), N(38)	HBV+(62), HBV-(16), Alcohol Yes(18), Alcohol No(38)	M(65), F(13)	N/A	N/A	N/A	Y(25), N(53)	N/A	II(38), III(31)	N/A	Yes	Custom Array 509 Probes(CapitalBio)
6	2012	22135159	20	20	N/A	Y(13), Y(7)	HBV+(18), HCV+(2)	M(19), F(1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Low Density Array Human MicroRNA V2 (TaqMan ABI)
7	2011	21319996	94	94	N/A	N/A	HBV+(84), HBV-(13)	M(79), F(18)	<400ng/mL (66), ≥400ng/mL (31)	<35u/L (24), ≥35u/L (73)	<35u/L (29), ≥35u/L (68)	N/A	N/A	I-II(41), III-IV(56)	N/A	N/A	N/A
8	2009	19473441	20	20	N/A	Y(12), Chronic Hep(8)	HBV+HCV-(14), HCV+HBV-(4), Alcohol Yes(4), Alcohol No(16), None(2)	M(17), F(3)	≤20ug/L (5), >20ug/L (15)	N/A	N/A	Y(6), N(14)	Well(3), Moderate(12), Poor(5)	I(5), II(11), III(4)	N/A	N/A	mirMASA (Genaco)

9	2009	19173277	35	9	N/A	Background Liver Fibrosis: 0(9), 1(4), 2(5), 3(4), 4(13)	HBV+(12), HCV+(14)	M(21), F(5)	N/A	N/A	Range 9-246	N/A	Well(10), Moderate(15), Poor(1)	I(7), II(13), III(4), IV(A1) --> vascular invasion	N/A	N/A	Liver Chip 10k
10	2007	18171346	10	10	N/A	N/A	HBV-(10)	M(10), F(0)	71-923 ug/L	N/A	N/A	N/A	Well(1), Moderate(8), Poor(1)	N/A	N/A	N/A	In House Printed
11	2006	16331254	25	25	N/A	Y(14), Chronic Hep(5), Missing(6)	HBV+(6), HBV-(18), Missing(1)	M(22), F(3)	1.1-143830	N/A	N/A	N/A	Well(5), Moderate(15), Poor(3), Missing(2)	N/A	N/A	N/A	In House (OmniGrid 100)
12	2015	26062888	30	30	N/A	Y(12), N(18)	N/A	M(23), F(7)	N/A	46.16±18.8 <sub>2</sub>	41.66±18.66 U/l	N/A	N/A	N/A	N/A	N/A	8×60K Microarray (Agilent)
13	2015	26046780	327	327	N/A	N/A	N/A	M(226), F(101)	N/A	N/A	N/A	Y(4), N(243), MX(81)	G1(42), G2(155), G3(114), G4(12)	T1(159), T2(82), T3(70), T4(13), TX(3)	A(195), B(18), C(1), N/A(111)	Yes	TCGA Data Set HiSeq 2000 (Illumina)

14	2015	25861255	66	66	GSE54751	Y(48), N(17)	HBV-HCV-(19), HBV+HCV-(13), HBV-HCV+(19), HBV+HCV+(4), Missing(1)	M(50), F(16)	Discovery( $6086.8 \pm 17237$ ), Validation( $10275 \pm 52910$ ) ng/mL	N/A	N/A	N/A	N/A	I-II(23), III(22), IV(18), Missing(3)	N/A	Yes	Low density array Human MicroRNA V2.0 (TaqMan ABI)
15	2015	25500075	6	6	GSE54537	Y(6)	HCV(6)	M(4), F(2)	15 ng/mL	N/A	N/A	N/A	G1(2), G2(4)	N/A	A(6)	N/A	miRNA Array V2.0
16	2014	24875649	24	24	N/A	Y(15)	HBV/HCV(15)	M(19), F(5)	3.2-7053ng/mL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Illumina HiSeq2000
17	2013	23812667	166	110	GSE31384	Y(139), N(27),	HBsAg+(146), HBsAg-(20), HBeAg+(30), HBeAg-(136)	M(141), F	<400ug/L (91), ≥400ug/L (75)	N/A	N/A	Y(19), N(147)	I(23), II(103), III(40)	I(60), II(48), III(58)	N/A	Yes	Custom Human microRNA Array (CapitalBio)
18	2013	23390000	9	10	GSE40744	Y(10)	HCV(10)	M(9), F(1)	N/A	N/A	N/A	N/A	G2(5), G3(5)	N/A	N/A	N/A	Multispecies miRNA-2 Array (Affymetrix )

19	2012	23082062	18	18	N/A	Ymacro(3), Ymicro(7), N(8)	N/A	M(15), F(3)	N/A	N/A	N/A	N/A	G1(2), G2(4), G3(12)	T1(3), T2(8), T3(6), T4(1)	N/A	N/A	Low Density Array Human MicroRNA V2.0 (TaqMan ABI)
20	2014	24586785	102	29	N/A	N/A	N/A	M(77), F(25)	N/A	58.3±40.6	63.6±52.5	N/A	N/A	N/A	N/A	Illumina Bead Array V2.0 miRNA	
21	2013	24417970	78	78	N/A	Y(58), N(20)	HBV(61), HBV-(17)	M(63), F(15)	<200ng/mL (35), ≥300ng/mL (43)	N/A	N/A	N/A	I-II(40), III-IV(38)	I(37), II-III(41)	A(72), B(6)	Yes	HiSeqTM 2000 (Illumina )
METHYLATION																	
Dataset #	Year	PMID	HCC (n)	Controls (n)	GEO dataset	Liver cirrhosis in HCC samples	Etiology of liver disease(n)	Sex	AFP	AST	ALT	Metastasis	HCC Grade/Differentiation	HCC stage	Child Pugh_MELD score	Survival	METHOD
1	2011	21500188	13	12		Y(12)	HBV(3), HCV(4) Alcoholic(6)	M(10), F(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HumanMethylation27 DNA Analysis Bead-Chip

2	2014	24306662	45	45		Y(120),N(34),	HBV(149), HCV(1), Nonviral(4)	M(130), F(24)	<20ng/ml(59), ≥20ng/ml(95)	N/A	N/A	N/A	BCLC A(30), B(85), C(39)	I(86), II(6), III(62)	A(135), B(19), C(0)	yes	Illumina GoldenGate Methylation BeadArray Cancer Panel I
3	2014	25376292	22	22		N/A	HBV(1) HCV(9), Alc ohol(4), Other (8)	M(19), F(3)	N/A	N/A	N/A	N/A	Well Diff (9), Mod Diff (12), Poor (1)	N/A	N/A	N/A	Infinium HumanMethylation27 BeadChip
4	2015	25945129	8	8	GSE59 260	N/A	HBV-HCV-(8)	M(8), F(0)	>400 mg/dL(3)	N/A	N/A	N/A	N/A	N/A	A6 (7),A5(1 )	N/A	NimbleGen Human DNA Methylation 3x720K CpG Island Plus RefSeq Promoter Arrays
5	2011	21747116	12	12	GSE29 720	N/A	N/A	M(9), F(2)	N/A	N/A	N/A	N/A	High(2),Medi um(8), Low(1)	N/A	N/A	N/A	Agilent-017075 Human hg18 promoter 800-200

6	2010	20165882	20	20	GSE18081	Y (20)	HCV(20)	M(17), F(3)	Mean: 22.6 // Range: 3.0-89.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Illumina GoldenGate Methylation BeadArray Cancer Panel I
7	2012	22234943	62	62	GSE37988	N/A	HBV-HCV-(7), HBV+HCV-(36), HBV-HCV+(6), HBV+HCV+(13)	M(54), F(8)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Illumina HumanMethylation27 BeadChip	
8	2013	24012984	20	8	GSE44970	N/A	HCV(8)	M(56), F(21)	>100 mg/dL(20)	N/A	N/A	N/A	0(6), A(59), B(5), C(7)	Class A(69)	yes	HumanMethylation27 BeadChip	
9	2013	23208076	66	66	GSE54503	Y(48), N(17), Missing(1)	HBV-HCV-(19), HCV(19), HBV(13), HBV+HCV(4), Missing(11)	M(50), F(16)	N/A	N/A	N/A	N/A	I-II(23), III(22), IV(18), Missing(3)	N/A	N/A	Infinium HumanMethylation 450K BeadChip	

10	2014	25093504	59	59	GSE57956	Y(37),N(21)	HBV+(36),HBV-(23)	M(53), F(6)	>100 ng/mL(36), <100 ng/mL(15)	N/A	N/A	N/A	I(5), II(23), III(26),IV(10 )	T1N0Mx(32), T2N0Mx(16), T3N0Mx(10)	N/A	yes	Infinium HumanMethylation27 BeadChip
11	2014	25294808	27	27	GSE60753	Y(26),N(1)	HBV(1) HCV(7), Alcohol(9), Other (10)	M(21), F(6)	N/A	N/A	N/A	I(10), II(14), III(3)	T1N0Mx(10), T2N0Mx(7), T3N0Mx(9), T4N0Mx(1)	N/A	N/A	Infinium 450k HumanMethylation BeadChip	
WHO ELSE SEQUENCING																	
Dataset #	Year	PMID	HCC (n)	Controls (n)	GEO dataset	Liver cirrhosis in HCC samples	Etiology of liver disease(n)	Sex	AFP	AST	ALT	Metastasis	HCC Grade/Differentiation	HCC stage	Child Pugh_MELD score	Survival	METHOD
1	2013	23912677	3	3	N/A	N/A	HBV (3)	M(3)	N/A	N/A	N/A	N/A	BCLC Stage A	N/A	N/A	N/A	Agilent SureSelect Human All Exon 38Mb

2	2014	24055508	4	4	N/A	N/A	HCV (4)	M(2), F(2)	16-779 ng/mL	N/A	N/A	N/A	Well(1), Moderate(3)	N/A	N/A	N/A	Roche SeqCap EZ Human Exome Library V2.0
3	2017	28323123	5	5	N/A	G1S2(2), G1S1(2), Non(1)	HBV(4), unknown(1)	M(3), F(2)	range 1.9-3233			N/A	ModDiff(3), PoorlyDiff(2)	N/A	N/A	N/A	Agilent ( no more details given)
4	2014	24798001	231	231	GSE54504	N/A	HBV(167), HCV(22), HBV-HCV-(42)	M(175), F(56)	<200(148), ≥200(83)	N/A	N/A	N/A	1-2(151), 3-4(80)	N/A	N/A	N/A	Agilent SureSelect 50 Mb System
5	2012	22561517	24	24	N/A	N/A	HCV (4), HBV (1), Alcohol (12), NASH (2), Other (7)	M(20),F(4)	≥ 24 ng/mL(7)	N/A	N/A	N/A	I-II(11), III-IV(12)	N/A	N/A	N/A	N/A
PROTEOMICS												N/A					
Dataset #	Year	PMID	Controls (n)	GEO dataset	Liver cirrhosis in HCC samples	HCC Etiology	Sex	AFP	ALT	AST	Metastasis	HCC Grade/Differentiation	HCC stage	Child-Pugh/MELD Score	Survival	METHOD	

1	2004	14726492		1	N/A	N/A	HBV(1)	M(1)	7.3ug/L	N/A	N/A	N/A	III(1)	N/A	N/A	N/A	MALDI-TOF-MS
2	2008	19003864		12	N/A	Y(12)	HBV(12)	M(12)	N/A	N/A	N/A	N/A	Moderate(5), Poor(7)	N/A	N/A	N/A	2D-DIGE
3	2005	15759316		10	N/A	Y(8), N(2)	HBV+HCV-(10)	M(10)	9> 25ug/L, 1 <25ug/L	N/A	N/A	N/A	G3(10)	N/A	N/A	N/A	2D-DIGE
4	2005	16097030		14	N/A	N/A	HBV-HCV+(14)	M(12), F(2)	N/A	N/A	N/A	N/A	G3(5), G2(9)	N/A	N/A	N/A	2-DE /MALDI-MS
5	2007	17627933		12	N/A	N/A	HBV(12)	M(10), (2)	2-53697ng/mL	N/A	N/A	N/A	G3(6), G2(6)	N/A	N/A	N/A	2D-DIGE
6	2014	23621634		3	N/A	N/A	HBV(3)	M(2), F(1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2DE and MALDI-TOF
7	2009	19562805		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TiO2-based 3-D LC system
8	2016	26709725		12	N/A	N/A	HBV-C(12), HBV-B(12)	M(24)	HBV-B 4035 ng/mL, HBV-C 1616 ng/mL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	iTRAQ
9	2013	23589362		20	N/A	Y(20: Severe 13, Moderate 7)	HBV(20)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2DE+MALDI TOF/TOF

10	2012	22813877		10	N/A	Y(8)	HBV(7)	M(10)	N/A	N/A	N/A	N/A	G2(5), G2-3(2), G3(3)	N/A	N/A	N/A	QITL
11	2012	22082227		11	N/A	N/A	HBV+HCV-(11)	M(11)	11 >250 ug/L	N/A	N/A	N/A	G3(11)	N/A	N/A	N/A	2D-LC-MS/MS
12	2011	21631109		83	N/A	Y(54, 83, 35)	HBV (60, 71, 38), HCV (3, 2, 4)	M(58, 64, 36), F(11, 19, 4)	<=20ng/mL( 31, 71, 22), >=20ng/mL(38 , 12, 18)	N/A	N/A	N/A	Well(32 sHCC), Moderate (37 sHCC)	TI(57 sHCC), TII(2 sHCC)	A (32 DN, 50 sHCC), B(2 DN), C(1 DN)	N/A	iTRAQ
13	2010	20230046		5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MS and RP-SCX
14	2010	19956837		20	N/A	Y(10)	HBV (7), HCV (8), None(5)	M(19), F(1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2D-DIG/MALDI-TOF MS
15	2009	19715608		18	N/A	Y(12), Chronic (6)	HBV(18), HCV RNA-(18)	M(14), F(4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2D/MALDI-TOF MS
16	2009	19535095		3	N/A	Y(1)	HBV(1), None(2)	M(2), F(1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4 months, 28 months and <1 month	2D-DIGE

17	2009	19161326		80	N/A	N/A	Training(HBV:48, HCV:0, None:7), Validation(HBV:20, HCV:1, None:4)	Training(M:48, F:7), Validation(M:20, F:5)	N/A	N/A	N/A	N/A	N/A	Training(G1-2:33, G3-4:22), Validation(G1-2:18, G3-4:7)	Training(A:53, B:2, C:0), Validation(A:25, B:0, C:0)	N/A	MALDI-TOF
18	2004	15221772		20	N/A	Y(12)	HCV(20)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2DE/MALDI-TOF-MS
19	2003	14673798		21	N/A	N/A	HCV(21)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2-DE, MALDI-TOF MS
20	2003	14654528		21	N/A	N/A	HBV(7), HCV(7), None(7)	M(20), F(1)	N/A	N/A	N/A	N/A	G1(3), G1-2(7), G2(11)	N/A	N/A	N/A	2-DE, MALDI-TOF MS
21	2002	12481271		11	N/A	Y(7), N(2), N/A(2)	HBV+(4), HBV-(7)	M(9), F(2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2DE, (DE)MALDI-TOF-MS
22	2013	23462207		26	N/A	Y(3)	HBV(3), HCV(4)	M(19), F(7)	N/A	N/A	N/A	N/A	G1(4), G2(12), G2-3(3), G3(5)	T1(13), T2(7), T3(5)	N/A	N/A	2DE, LC-MS

23	2005	16335951		8	N/A	Y(4), N(4)	HBV+(5), HBV-(3)	M(6), M(2)	>20ng/mL(3), <20ng/mL(3)	N/A	N/A	N/A	G1-2( 1), G2(4), G2-3(2), G4(1)	N/A	NA	N/A	2DE, LC-MS
24	2006	16342242		10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	G3(10)	N/A	N/A	N/A	2DE, LC-MS
25	2011	22034872		3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Nano-LC-MS/MS	
26	2005	15852300		7	N/A	N/A	HBV(7)	M(7)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2D-DIGE	
27	2011	21913717		3	N/A	N/A	HCV(0), N/A(1)	M(2), F(1)	N/A	53-124 IU/L	63-80 IU/L	N/A	Moderate(1), Moderate-Poor(1), Poor(1)	T1(1), T3(2)	N/A	N/A	LC-MS
28	2007	17203974		28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SELDI/2DE	
29	2007	17586277		10	N/A	N/A	HBV(10)	N/A	N/A	N/A	N/A	N/A	G3(10)	N/A	N/A	LCM-ESI-MS/MS	

### Legend and abbreviations

\*patient's data relative to the whole population of patients enrolled in the study not the ones used in the gene expression profile

\*\*clinical information are reported only for patients enrolled in immunohistochemistry validation

AJCC American Joint Committee on Cancer: AJCC

BCLC Barcelona Clinic Liver Cancer

C1 cohort 1

C2 cohort 2

C3 cohort 3

**HBV+** hepatitis B virus positive

HC healthy control

HCC Hepato-cellular carcinoma

**HCV+** hepatitis C virus positive

HL healthy liver

NT non tumoral tissue (mainly peritumoral)