

Table SI. Details of liver cancer tumor specimens.

A) Information of 13 pairs of liver cancer tissue samples				
Liver cancer tissue sample	Sex	Age, years	TNM stages	HBV
980T/N	Male	55	T2N0M0	-
999T/N	Female	70	T1N0M0	-
1022T/N	Male	53	T1N0M0	-
1035 T/N	Male	40	T1N0M0	+
1036 T/N	Male	51	T2N0M0	+
1039 T/N	Male	53	T4N0M0	+
1040 T/N	Male	42	T2N0M0	+
1041 T/N	Male	56	T3N0M0	+
1042 T/N	Male	54	T3N0M0	+
1043 T/N	Male	44	T2N0M0	+
1044 T/N	Male	65	T4N0M0	+
1046 T/N	Male	64	T2N0M0	+
1054 T/N	Female	68	T2N0M0	+
B) Information of liver cancer tumor specimens for deep sequencing				
Liver cancer tissue sample	Sex	Age, years	TNM stages	HBV
887T	Male	38	T1N0M0	-
929T	Male	34	T1N0M0	-
1033T	Male	34	T1N0M0	-
864T	Female	68	T1N0M0	+
875T	Male	30	T1N0M0	+
896T	Male	46	T3N0M0	+

T, tumor; N, node; M, metastasis; +, positive; - negative.

Table SII. Primers and oligonucleotides used for vector constructions.

Target	Sequence (5'-3')
pri-miR-HCC2	S: CGGGATCCGGGTTTGGATGAGAATAG AS: GGAATTCGCCCTCTACAGACTCCACC
ASO-miR-HCC2	CCAUCUGCCUACGACAAACAGA
ASO-NC	GACUACACAAAUCAGCGAUUU
scrambled miRNA	S: TGATTCTAAGTATAGCAGACGTAGGCAGATGGAGCTT AS: AAGCTCCATCTGCCTACGTCTGCTATACTTAGAATCA
Flag-BAMBI	S: GACGGATCCACCATGGATCGCCACTCCAGCTAC AS: GCAGCCTCGAGGCTACGAATTCCAGCTTCCCGTG
BAMBI-3'UTR	S: GATCCCAAAATGACCTCTGCAAACAGAAGCTG AS: AATTCAAGCTTCTGTTTGCAGAGGTCATTTTGG
BAMBI-3'UTR- mut	S: GATCCCAAAATGACCTCTGAACAACAAAGCTTG AS: AATTCAAGCTTTGTTGTTTCAGAGGTCATTTTGG
shR-BAMBI	S: ATCCGCTCTCTTGCAAGCACGACAGACTCGAGTCTGT CGTGCTTGCAAGAGAGTTTTTGA AS: AGCTTCAAAAATCTCTTGCAAGCACGACAGACTCG AGTCTGTCTGCTTGCAAGAGAGCG
miR-HCC2 promoter1 (-1552~-556)	S: CGGGGTACCCTGCTGCGAGTAGGGTAGTT AS: GGAAGATCTTCACAGCCCCTTATTTACCGA
miR-HCC2 promoter2 (-3000~-2000)	S: CGGGGTACCGGAGTGTGGGTTTAGTAATG AS: GGAAGATCTCTCTCATCACCACTCCCTGAC
miR-HCC2 promoter3 (-4000~-3000)	S: CGGGGTACCTTTAACTGCCCCTTATAAATC AS: GGAAGATCTCTAACAATCAACTAAACC
miR-HCC2 promoter2-mut1	S: TTAGCGATGAATGACGAGCTAGTGTTATGGGT AS: ACCCATAACACTAGCTCGTCATTCATCGCTAA
miR-HCC2 promoter2-mut2	S: TTGTTATTTGAGATTAGCTGCAGGGGAAAATGCT AS: AGCATTTTCCCCTGCAGCTAATCTCAAATAACAA
pYY1	S: GTAGGATCCATGGCCTCGGGCGACACCCTC AS: GCGCGCTCGAGTCACTGGTTGTTTTTGGCCTT
pShR- YY1	S: GATCCATCCCAAACAACCTGGCAGAATCTCGAGATTCTG CCAGTTGTTTGGGATTTTTTGA AS: AGCTTCAAAAAATCCCAAACAACCTGGCAGAATCTCG AGATTCTGCCAGTTGTTTGGGATG

S, sense; AS, antisense; miR, micro RNA; pShR, plasmid of short hairpin RNA; pri, primary; ASO, antisense oligonucleotide; NC, negative control.

Table SIII. Sequences of primers used for reverse transcription-quantitative PCR.

Target	Sequence (5'-3')
miR-HCC2, reverse transcription	GTCGTATCCAGTGCAGGGTCCGAGGTGCACTG GATACGACCCATCTGC
U6, reverse transcription	GTCGTATCCAGTGCAGGGTCCGAGGTATTCGCA CTGGATACGACAAAATATGGAAC
miR-HCC2, forward	TGCGGTCTGTTTGTCTAGGCA
U6, forward	TGCGGGTGCTCGCTTCGGCAGC
universal reverse	CCAGTGCAGGGTCCGAGGT
BAMBI	F: TCACTGGGGCATGTACAGTG R: TGGTGACAGTGTGTACAAAG
CD90	F: GACCCGTGAGACAAAGAAGC R: GCCCTCACACTTGACCAGTT
OCT4	F: AGCAAAACCCGGAGGAGT R: CCACATCGGCCTGTGTATATC
SOX2	F: GCCGAGTGGAACTTTTGTCG R: GGCAGCGTGTACTTATCCTTCT
NANOG	F: TTTGTGGGCCTGAAGAAAAC R: AGGGCTGTCCTGAATAAGCAG
YY1	F: TATTGACCATGAGACAGTGG R: TTCAGGTTAGTTGACTGAGC
β -catenin	F: ATGGAGCCGGACAGAAAAGC R: CTTGCCACTCAGGGAAGGA
Cyclin D1	F: ATCGAAGCCCTGCTGGAGT R: GGGAAAGAGCAAAGGAAAA
Axin2	F: CGCTCGGGTTTGTGTAAAGT R: GTCAACGCTCTGCCCTACAC
EpCAM	F: GAATAATAATCGTCAATGCCAGTG R: CGCTCTCATCGCAGTCAG
AFP	F: CCAACAGGAGGCCATGCTTGCTT R: GAATGCAGGAGGGACATATGTTT
β -Actin	F: CGTGACATTAAGGAGAAGCTG R: CTAGAAGCATTGCGGTGGAC

F, forward; R, reverse; miR, micro RNA; BAMBI, bone morphogenic protein and activin membrane-bound inhibitor homolog; CD90, cluster of differentiation 90; OCT4, octamer-binding transcription factor 4; SOX2, sex determining region Y-box 2; NANOG, nanog homeobox; Axin2, axis inhibition protein 2; EpCAM, epithelial cellular adhesion molecule; AFP, α -fetoprotein.