

Supplementary figures and figure legends

Figure S1

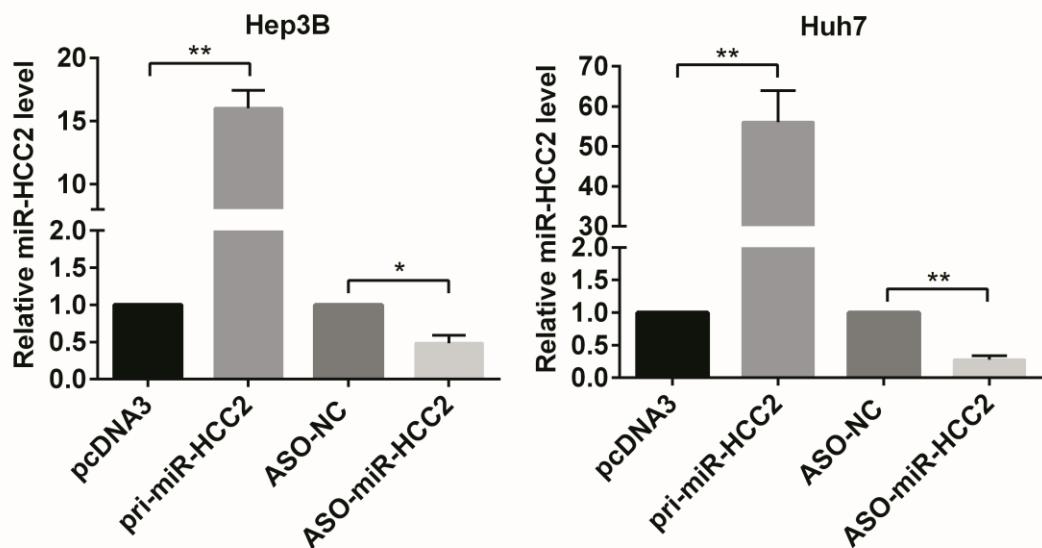


Figure S1: The efficiency of the miR-HCC2 ectopic expression plasmid.

The efficiencies of pcDNA3/pri-miR-HCC2 and ASO-NC/ASO-miR-HCC2 vectors in modulating miR-HCC2 expression were determined by RT-qPCR in Hep3B and HuH7 cells. All error bars indicate the means \pm SD of three independent experiments. * $p<0.05$; ** $p<0.01$.

Figure S2

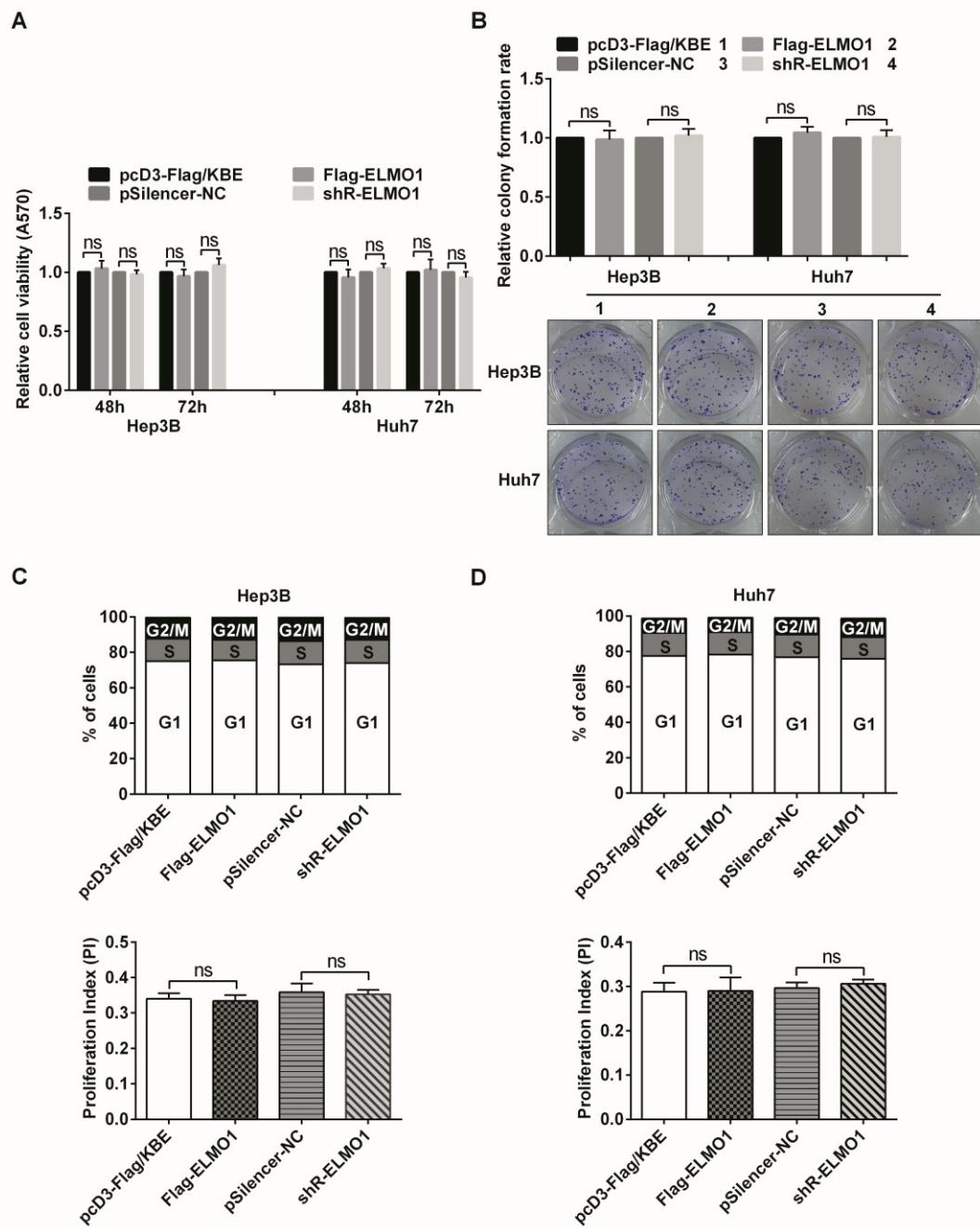


Figure S2: ELMO1 did not significantly influence the proliferation and the G1/S and S/G2/M phase transitions of human HCC cells. (A) MTT assays of cells that were transiently transfected with Flag-ELMO1, shR-ELMO1, or a control vector. (B) Colony formation assays tested the impact of ELMO1 on the proliferation of Hep3B and Huh7 cells. (C, D) Flow cytometric analysis was

utilized to assess cell cycle progression in Hep3B cells (C) and Huh7 cells (D). The proliferation index of cells transfected with Flag-ELMO1 or shR-ELMO1 is presented. All error bars indicate the means \pm SD of three independent experiments. ns: no significance.

Figure S3

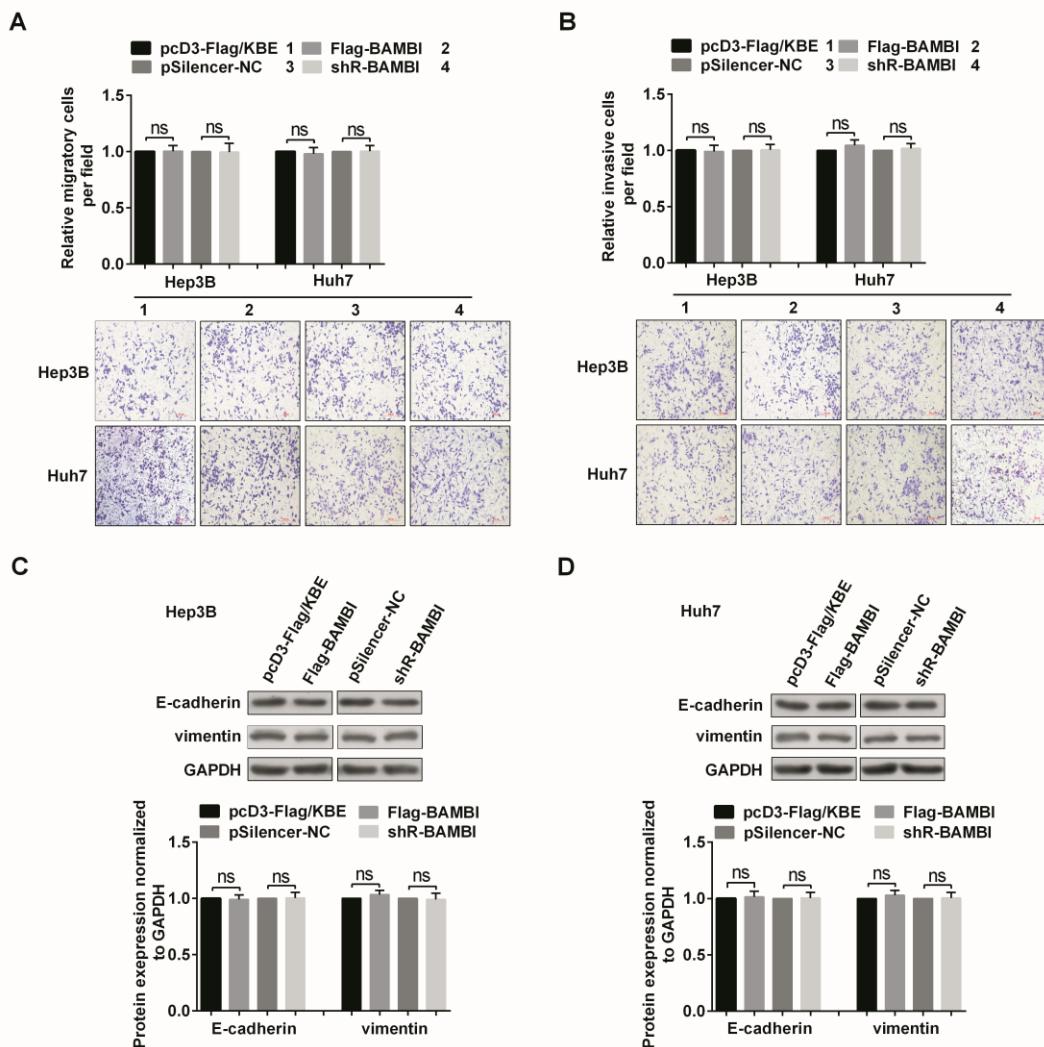


Figure S3: BAMBI did not significantly contribute to the cell migration, invasion, and the EMT process in human HCC cells. (A, B) The migratory (A) and invasive (B) capabilities of Hep3B and Huh7 cells transfected with either Flag-BAMBI or shR-BAMBI were measured. (C, D) Protein expression levels of EMT-associated markers were detected by Western blot. All error bars indicate the means \pm SD of three independent experiments. ns: no significance.

Table S1: HCC tissue information

Sample number	Sex	Age	TNM staging
847	male	20	T1N0M0
864	female	68	T1N0M0
895	male	35	T1N0M0
903	male	54	T1N0M0
909	male	44	T1N0M0
943	male	34	T1N0M0
986	male	41	T1N0M0
1033	male	34	T1N0M0
876	male	46	T1N0M0
1026	male	69	T1N0M0
979	male	36	T2N0M0
1015	female	55	T2N0M0
1039	male	60	T2N0M0
944	female	65	T3N0M0
971	male	40	T3N0M0
1036	male	36	T3bN0M0
883	male	36	T4N0M0
965	female	51	T4N0M0
980	male	50	T4N0M0
985	male	53	T4N0M0

Table S2: Primers and oligonucleotides used in this work

Name	Primer Sequence (5' -3')
pri-miR-HCC2 sense	CGGGATCCGGTTGGATGAGAATAG
pri-miR-HCC2 anti-sense	GGAATTGCCCTCTACAGACTCCACC
ASO-miR-HCC2	CCAUCUGCCUACGACAAACAGA
ASO-NC	GACUACACAAAUCAGCGAUUU
BAMBI-3' UTR-Top	GATCCCAAAATGACCTCTGCAAACAGAAGCTG
BAMBI-3' UTR-Bottom	AATTCAAGCTTCTGTTGCAGAGGTCTTTGG
BAMBI-3' UTR-mut-Top	GATCCCAAAATGACCTCTGAACAACAAAGCTTG
BAMBI-3' UTR-mut-Bottom	AATTCAAGCTTGTTCAGAGGTCTTTGG
ELMO1-3' UTR-Top	GATCCTCTAACATTGGCCAAACAGTAAGCTTG
ELMO1-3' UTR-Bottom	AATTCAAGCTTATCTGTTGGCAAAAAATGTTGAG
ELMO1-3' UTR-mut-Top	GATCCTCTAACATTGGCTGGTAAGTCATAAGCTTG
ELMO1-3' UTR-mut-Bottom	AATTCAAGCTTATGACTTACCGAAAAAATGTTAGAG
BAMBI sense	GACGGATCCACCATGGATGCCACTCCAGCTAC
BAMBI anti-sense	GCAGCCTCGAGGCTACGAATTCCAGCTTCCCCTG
BAMBI-shR-Top	GATCCGCTCTTGCAAGCACGACAGACTCGAGTCTGT CGTCTTGCAAGAGAGTTTGAG
BAMBI-shR- Bottom	AGCTTCAAAAACCTCTTGCAAGCACGACAGACTCGAG TCTGTCGTGCTTGCAAGAGAGCG
ELMO1 sense	CGCGGATCCACCATGCAGGTGGTAAGGAGCAG
ELMO1 anti-sense	GCAGCCTCGAGGCGTTACAGTCATAGACGAAGTC
ELMO1-shR-Top	GATCCTCCGAGAGGATGAACCAGGAAGACTCGAGTCTT CCTGGTTCATCCTCTCGGATTTGA
ELMO1-shR- Bottom	AGCTTCAAAAATCCGAGAGGGATGAACCAGGAAGACTC GAGTCTTCTGGTTCATCCTCTCGGAG
miR-HCC2 RT primer	GTCGTATCCAGTGCAGGGTCCGAGGTGCAGTGGATAC GACCCATCTGC
U6 RT primer	GTCGTATCCAGTGCAGGGTCCGAGGTATTGCAGTGG TACGACAAAATATGGAAC
miR-HCC2 forward	TGCGGTCTGTTGTCGTAGGCA
U6 forward	TGCGGGTGCTCGCTTGGCAGC
miRNA Reverse	CCAGTGCAGGGTCCGAGGT
qPCR-BAMBI forward	TCACTGGGGCATGTACAGTG
qPCR-BAMBI reverse	TGGTGACAGTGTGTACAAAG
qPCR-ELMO1 forward	ATGGTCAAGCTGTCAAGACAT
qPCR-ELMO1 reverse	CACAATCCATTATTCCAC
β-actin forward	CGTGACATTAAGGAGAAGCTG
β-actin reverse	CTAGAACATTGCGGTGGAC