

Figure S1. Expression levels of LOC284454 in human non-tumor liver samples and in non-cancerous tissues from patients with hepatocellular carcinoma.

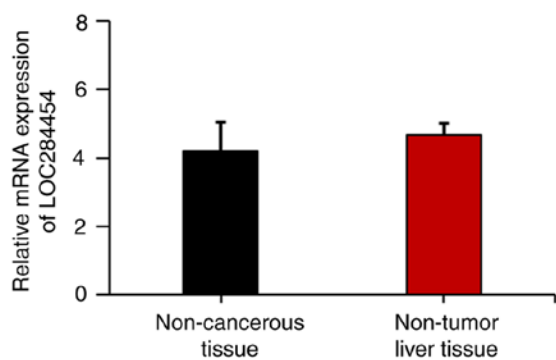


Figure S2. Fluorescence *in situ* hybridization assays revealed the location and expression levels of LOC284454 in MHCC-97L and Hep3B cells (magnification, x200). sh, short hairpin; Ctrl, control.

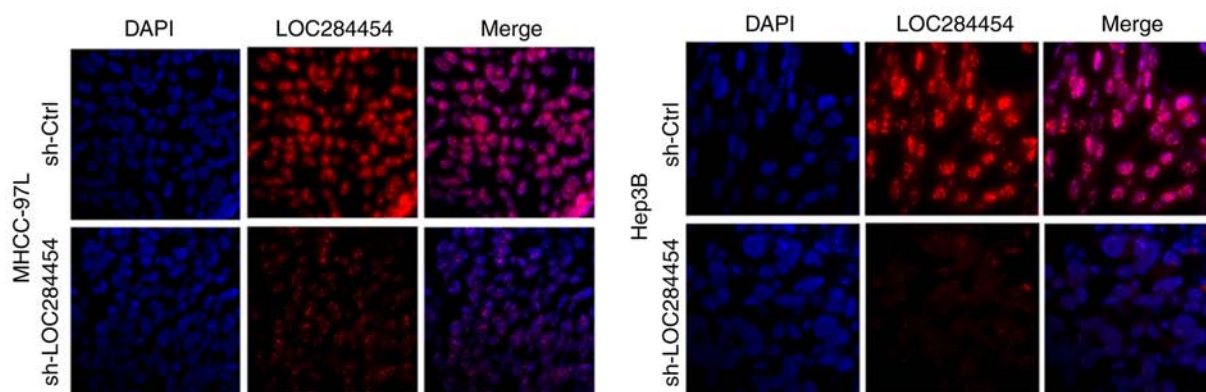


Figure S3. LOC284454 binds with EZH2. (A) RIP assay revealed the association between endogenous LOC284454 and EZH2 in liver cancer cells. (B) Pull-down assays. (C) Luciferase reporter assays revealed the levels of LOC284454 or EZH2 in 293T cells. **P<0.01 vs. IgG, Bio-NC or ov-NC. RIP, RNA immunoprecipitation; Bio, biotinylated; NC, negative control; EZH2, enhancer of zeste homolog 2; WT, wild-type; MUT, mutant; ov, overexpression.

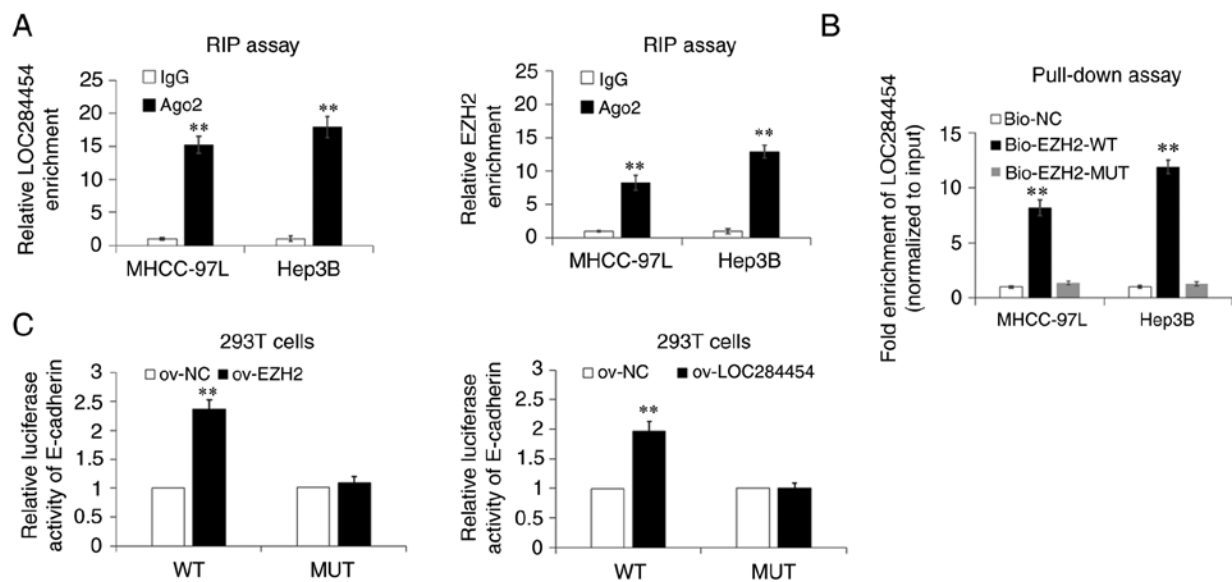


Figure S4. EZH2 is essential for the inhibitory effect of LOC284454 on E-cadherin. (A) LOC284454, EZH2 and E-cadherin expression was measured by reverse transcription-quantitative PCR in MHCC-97L and Hep3B cells. (B) EZH2 and E-cadherin expression was measured by western blotting. **P<0.01. Ctrl, control; ov, overexpression; sh, short hairpin; EZH2, enhancer of zeste homolog 2.

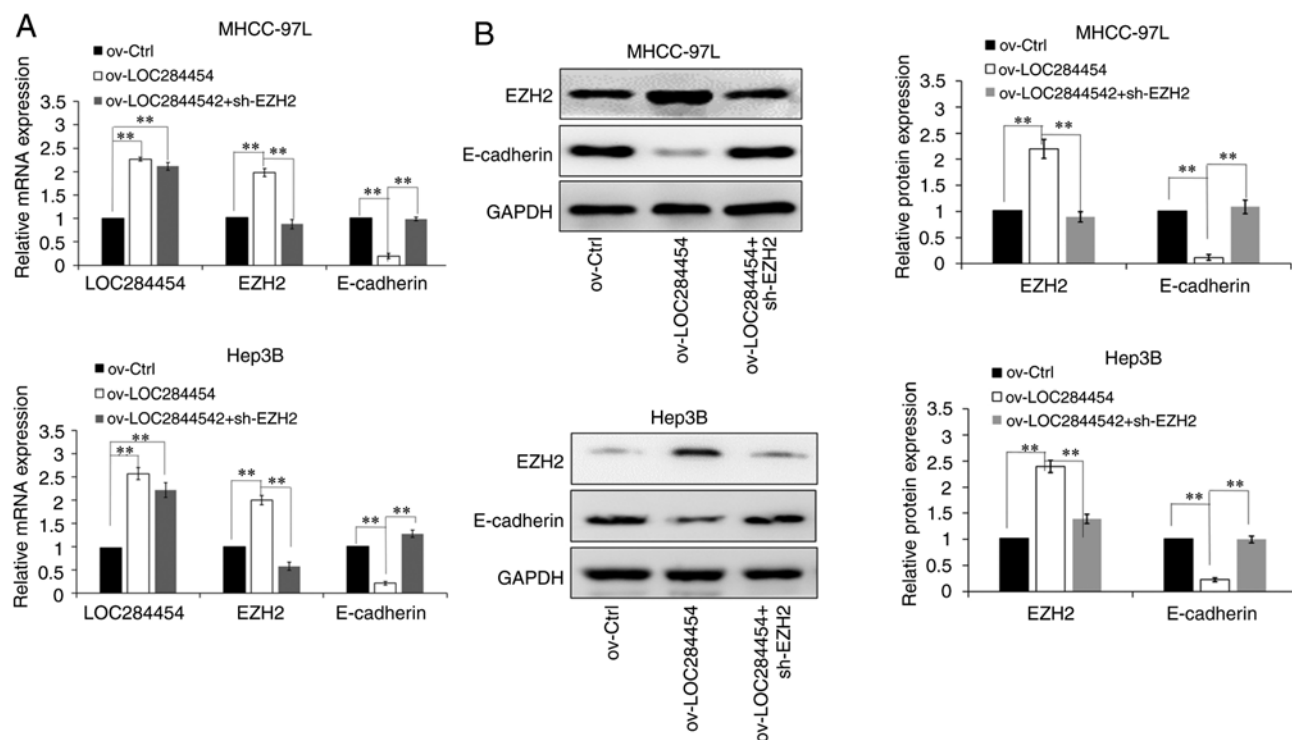


Figure S5. E-cadherin expression is significantly significantly downregulated in MHCC-97L and Hep3B cells transfected with sh-E-cadherin. E-cadherin expression was assessed by reverse transcription-quantitative PCR in (A) MHCC-97L and (B) Hep3B cells. ** $P < 0.01$ vs. Ctrl. sh, short hairpin; Ctrl, control.

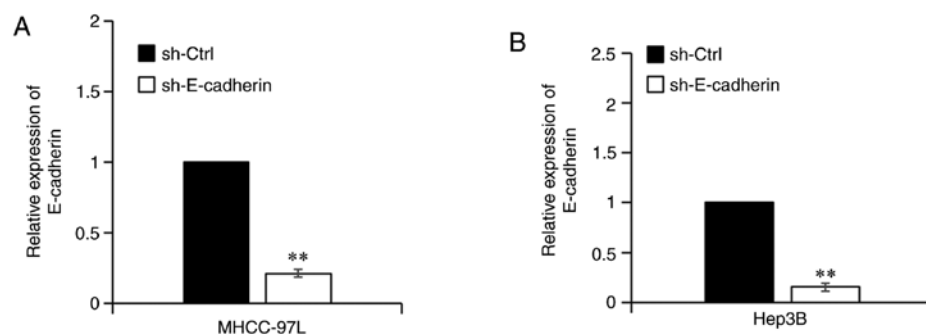


Table SI. Clinical characteristics of the 15 patients from whom the non-tumor liver samples were obtained.

Variable	Total no. of patients
Age, years	
<45	11
≥45	4
Sex	
Female	6
Male	9
Hepatitis B surface antigen	
Positive	2
Negative	13
Reasons for surgical resection	
Hepatolithiasis	10
Liver trauma	5

Table SII. Primer sequences used for reverse transcription-quantitative PCR.

Gene	Forward	Reverse
LOC284454	5'-TGGCTAGCCTAGTCACAGTTG-3'	5'-TTCCCCTAATTGGGAGGTTTC-3'
E-cadherin	5'-AGTGCGCTGGACTAGTCAGTAA-3'	5'-ATCACCCCTCTAATGCCATCC-3'
EZH2	5'-TCACGATCGGTCATCGGATTC-3'	5'-TTGCACCCTTTCATGATTGC-3'
N-cadherin	5'-CCACCATATGACTCCCTCTT-3'	5'-AGAAAATAATTCCAATCTA-3'
Vimentin	5'-GACAATGCGTCTCTGGCACGT-3'	5'-TCCTCCGCCTCCTGCAGGTT-3'
GAPDH	5'-TGAAGGTCGGAGTCAACGG-3'	5'-CCTGGAAGATGGTGATGCGG-3'

EZH2, enhancer of zeste homolog 2.