

**Supplementary Figure 1.** Knockdown of circ-ADD3 promotes HCC cell migration. A. The sequences of two siRNAs targeting the junction site of circ-ADD3. B. qRT-PCR analysis of circ-ADD3 expression in Huh7 and MHCC-97L cells transfected with the indicated siRNAs. C. Transwell migration assay in Huh7 and MHCC-97L cells transfected with the indicated siRNAs and ADD3 expression vector. \*\*P < 0.01.

# Circular RNA circ-ADD3 in hepatocellular carcinoma

#### Protein:

EZH2 protein

#### RNA:

GUCUUGGCAUGGUCACACCUAUCAAUGACCUUCCUGGUGCAGAUACAUCCUCAUAUGUGA AGGGAGAAAACUUACUCGCUGUAAACUUGCCAGCCUGUACAGACUUGUAGACUUGUUUG UUAUAAUAAUUCCCAGAGGCCUAUCUUUUUCUGAAGCUACAGCCUCCAAUUUGGUGAAAG UCAAUAUAAUAGGAGAAGUGGUUGACCAGGGAAGUACCAAUUUGAAAAUUGACCAUACAG GAUUCAGUCCCAUGCUGCAAUCUAUUCAACACGUCCUGAUGUUAAGUGUGUGAUACACA UCCAUACCCUUGCAACAGCAGCUGUAUCCUCCAUGAAAUGUGGGAUCCUUCCAAUUUCUC AAGAGUCUCUUCUUGGGAGAUGUUGCCUAUUAUGACUACCAAGGGUCACUUGAAGAAC AGGAGGAGAGAUUCAACUGCAGAAGGUUCUGGGACCAAGUUGUAAGGUGCUGGUACUCA GGAAUCAUGGUGGUUGCACUUGGAGAAACAUUAGAGGAGGCUUUUCAUUAUAUUUUUA AUGUGCAACUAGCCUGUGAGAUUCAGGUGCAGGCCCUAGCAGGUGCAGGUGGAGUAGACA AUCUCCAUGUACUGGACUUUCAGAAGUAUAAAGCUUUCACUUACACUGUAGCAGCGUCUG GUGGAGGAGGUGUGAAUAUGGGUUCCCAUCAAAAAUGGAAGGUUGGCGAAAUUGAGUUUG AAGGGCUUAUGAGGACUCUGGACAACUUGGGGUAUAGAACAGGCUAUGCUUACAGGCAUC CUCUCAUUCGAGAGAGCCUAGGCACAAGAGUGAUGUGGAAAUCCCAGCAACUGUGACUG CUUUUUCCUUUGAAGACGAUACAGUGCCACUCUCUCCUCUCAAAUACAUGGCACAGAGGC AACAGCGUGAAAAAACAAGAUGGCUGAACUCACCAAAUACUUACAUGAAAGUGAAUGUGC CUGAGGAGUCUCGGAACGGAGAAACCAGUCCCCGAACCAAAAUCACGUGGAUGAAAGCAG AAGACUCAUCUAAAGUUAGUGGUGGAACACCUAUCAAAAUUGAAGAUCCAAAUCAGUUUG UUCCUUUAAACACAAACCCGAAUGAGGUACUAGAAAAGAGAAAUAAGAUUCGGGAACAAA AUAAGCCACCUUCU

circ-ADD3

## Interaction probabilities

Prediction using RF classifier 0.8 Prediction using SVM classifier 0.96

Supplementary Figure 2. The interaction probability between circ-ADD3 and EZH2 was predicted by RPISeq online software based on RF and SVM classifiers (probabilities > 0.5 were considered "positive").

## Protein:

MEDYTKIEKIGEGTYGVVYKGRHKTTGQVVAMKKIRLESEEEGVPSTAIREISLLKELRH PNIVSLQDVLMQDSRLYLIFEFLSMDLKKYLDSIPPGQYMDSSLVKSYLYQILQGIVFCH SRRVLHRDLKPQNLLIDDKGTIKLADFGLARAFGIPIRVYTHEVVTLWYRSPEVLLGSAR YSTPVDIWSIGTIFAELATKKPLFHGDSEIDQLFRIFRALGTPNNEVWPEVESLQDYKNT FPKWKPGSLASHVKNLDENGLDLLSKMLIYDPAKRISGKMALNHPYFNDLDNQIKKM

CDK1p rotein

#### RNA:

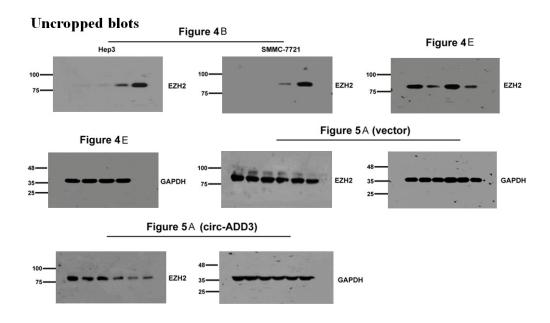
GUCUUGGCAUGGUCACACCUAUCAAUGACCUUCCUGGUGCAGAUACAUCCUCAUAUGUGA AGGGAGAAAACUUACUCGCUGUAAACUUGCCAGCCUGUACAGACUUGUAGACUUGUUUG UUAUAAUAAUUCCCAGAGGCCUAUCUUUUUCUGAAGCUACAGCCUCCAAUUUGGUGAAAG UCAAUAUAAUAGGAGAAGUGGUUGACCAGGGAAGUACCAAUUUGAAAAUUGACCAUACAG GAUUCAGUCCCCAUGCUGCAAUCUAUUCAACACGUCCUGAUGUUAAGUGUGAUACACA UCCAUACCCUUGCAACAGCAGCUGUAUCCUCCAUGAAAUGUGGGAUCCUUCCAAUUUCUC AAGAGUCUCUUCUGGGAGAUGUUGCCUAUUAUGACUACCAAGGGUCACUUGAAGAAC AGGAGGAGAAUUCAACUGCAGAAGGUUCUGGGACCAAGUUGUAAGGUGCUGGUACUCA GGAAUCAUGGUGUGGUUGCACUUGGAGAAACAUUAGAGGAGGCUUUUCAUUAUAUUUUUA AUGUGCAACUAGCCUGUGAGAUUCAGGUGCAGGCCCUAGCAGGUGCAGGUGGAGUAGACA AUCUCCAUGUACUGGACUUUCAGAAGUAUAAAGCUUUCACUUACACUGUAGCAGCGUCUG GUGGAGGAGGUGUGAAUAUGGGUUCCCAUCAAAAAUGGAAGGUUGGCGAAAUUGAGUUUG AAGGGCUUAUGAGGACUCUGGACAACUUGGGGUAUAGAACAGGCUAUGCUUACAGGCAUC CUCUCAUUCGAGAGAAGCCUAGGCACAAGAGUGAUGUGGAAAUCCCAGCAACUGUGACUG CUUUUUCCUUUGAAGACGAUACAGUGCCACUCUCUCCUCUCAAAUACAUGGCACAGAGGC AACAGCGUGAAAAACAAGAUGGCUGAACUCACCAAAUACUUACAUGAAAGUGAAUGUGC CUGAGGAGUCUCGGAACGGAGAAACCAGUCCCCGAACCAAAAUCACGUGGAUGAAAGCAG AAGACUCAUCUAAAGUUAGUGGUGGAACACCUAUCAAAAUUGAAGAUCCAAAUCAGUUUG UUCCUUUAAACACAAACCCGAAUGAGGUACUAGAAAAGAGAAAUAAGAUUCGGGAACAAA AUAAGCCACCUUCU

circ-ADD3

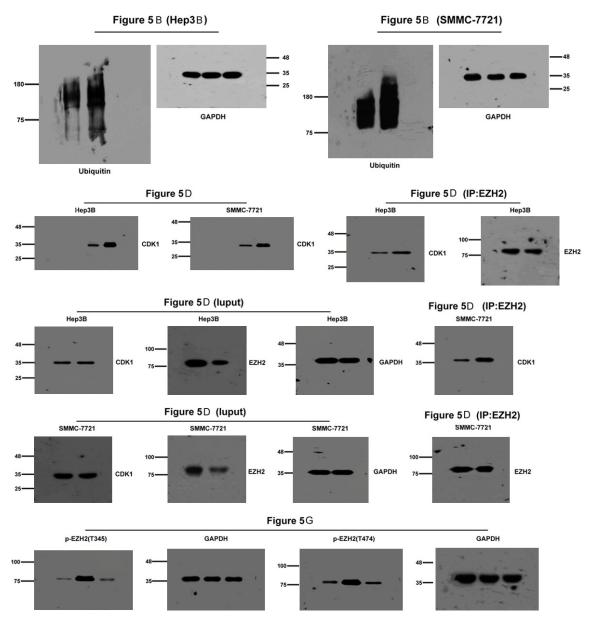
## Interaction probabilities

Prediction using RF classifier 0.85 Prediction using SVM classifier 0.96

**Supplementary Figure 3.** The interaction probability between circ-ADD3 and CDK1 was predicted by RPISeq online software based on RF and SVM classifiers (probabilities > 0.5 were considered "positive").



# Circular RNA circ-ADD3 in hepatocellular carcinoma



**Supplementary Figure 4.** The amino acid sequence alignment between hsa-circ-ADD3 and homologous mus-circ-ADD3. The data showed 87% similarity between them.