**Additional file 6: Figure and Figure Legends**

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**Figure S1. circTRIM33-12 expression in HCC cells.** a circTRIM33-12 expression in several HCC cell lines was examined using qRT-PCR analysis. **b** circTRIM33-12 expression in Huh 7 cells was modified by shRNA interference transfection. **c** TRIM33-12 expression in circTRIM33-12 knockdown HCC cells. **d** circTRIM33-12 expression in Huh 7 cells was modified by cDNA transfection. The data are represented as the mean ± SD, n=3. \*\*P < 0.01; \*\*\*P < 0.001; NS, no significant.



**Figure S2. circTRIM33-12 regulated the progression of HCC cells in vitro. a** Cell proliferation in HCC cells with the reduced expression of circTRIM33-12 was assessed by a CCK-8 assay. **b** The cell cycle in HCC cells with the reduced expression of circTRIM33-12 was detected by FCM. **c** The migration and invasion abilities in HCC cells with the reduced expression of circTRIM33-12 was evaluated via a transwell assay. The data are represented as the mean ± SD, n=3. \*P < 0.05; \*\*P < 0.01.



**Figure S3. TET1 binds to miR-191 in HCC cells. a** TET1, TIMP3, SATB1, and DIECR1 mRNA expression in Huh 7 cells was modified by miR-191 mimic transfection. **b** TET1, TIMP3, SATB1, and DIECR1 protein expression in Huh 7 cells was modified by miR-191 mimic transfection. **c** TET1, TIMP3, SATB1, and DIECR1 mRNA expression in SMMC-7721 cells was modified by miR-191 siRNA transfection. **d** TET1, TIMP3, SATB1, and DIECR1 protein expression in SMMC-7721 cells was modified by miR-191 siRNA transfection. **e** A schematic drawing showing the putative binding site of miR-191 with respect to TET1. **f** The luciferase activity of luc-TET1 or mutant luc-TET1 in SMMC-7721 cells after cotransfection with miR-191 or the negative control (NC). The data are represented as the mean ± SD, n=3. \*\*P < 0.01.



**Figure S4. Forced or reduced TET1 expression in HCC cells. a** TET1expression in SMMC-7721 cells was modified by cDNA transfection. **b** TET1 mRNA expression in Huh 7 cells was modified by shRNA transfection. **c** TET1 protein expression in Huh 7 cells was modified by shRNA transfection. The data are represented as the mean ± SD, n=3. \*\*P < 0.01; \*\*\*P < 0.001.



**Figure S5. TET1 regulated the progression of HCC cells in vitro. a** The expression of 5hmC and 5mC was detected in Huh 7 cells after transfection with circTRIM33-12 shRNA or the negative control (NC) using IF. **b** The expression of 5hmC and 5mC was detected in Huh 7 cells after transfection with TET1 shRNA or the negative control (NC) using IF. **c** Cell proliferation in Huh 7 cells with the reduced expression of TET1 was assessed by a CCK-8 assay. **d** The cell cycle in Huh 7 cells with the reduced expression of TET1 was detected by FCM. **e** The migration and invasion abilities of Huh 7 cells with the reduced expression of TET1 was evaluated via a transwell assay. The data are represented as the mean ± SD, n=3. \*P < 0.05; \*\*P < 0.01.



**Figure S6. circTRIM33-12 and TET1 regulate the expression of several same genes in HCC cells. a** The mRNA levels of WWC3, TP53INP1, ULBP1 and JHDM1D were detected in SMMC-7721 cells after transfection with circTRIM33-12, TET1, or the control using qRT-PCR. **b** The mRNA levels of WWC3, TP53INP1, ULBP1 and JHDM1D were detected in Huh 7 cells after transfection with circTRIM33-12 shRNA, TET1 shRNA, or the control using qRT-PCR. The data are represented as the mean ± SD, n=3. \*P < 0.05; \*\*P < 0.01; \*\*\*P < 0.001.