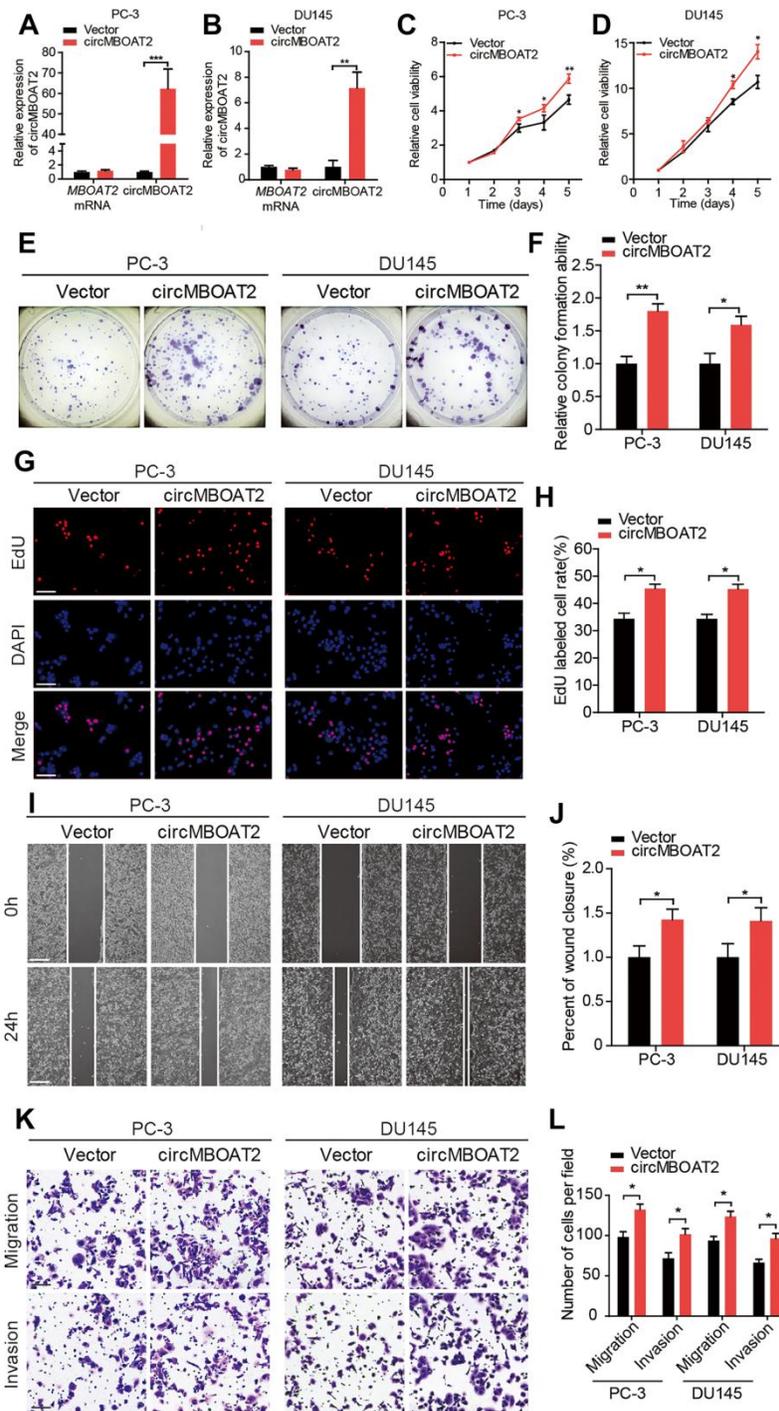
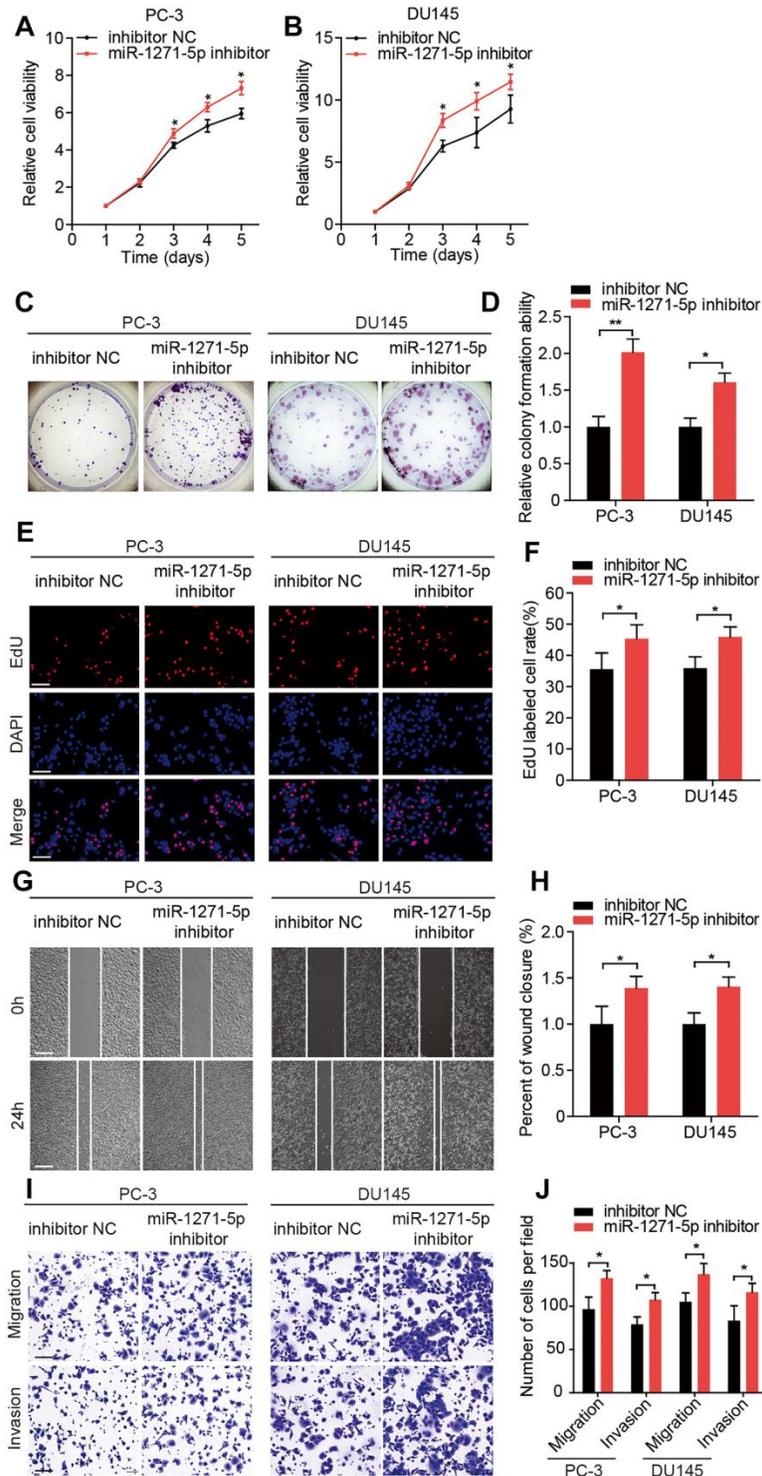


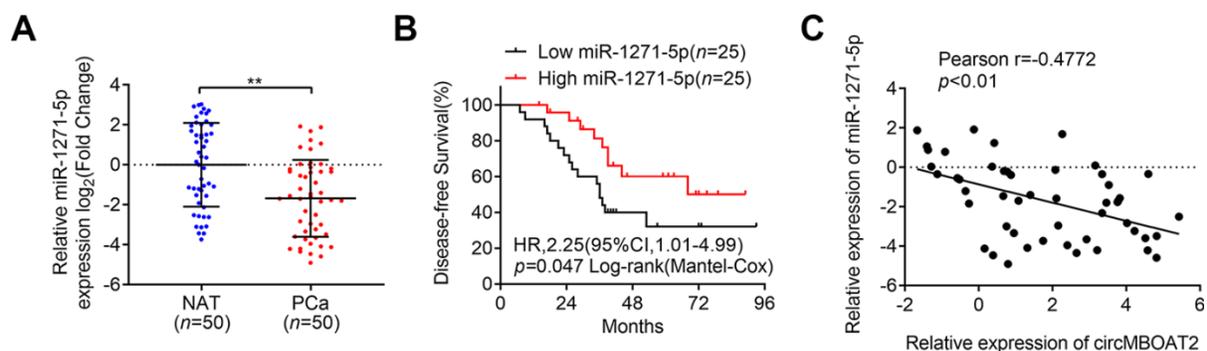
SUPPLEMENTARY FIGURES



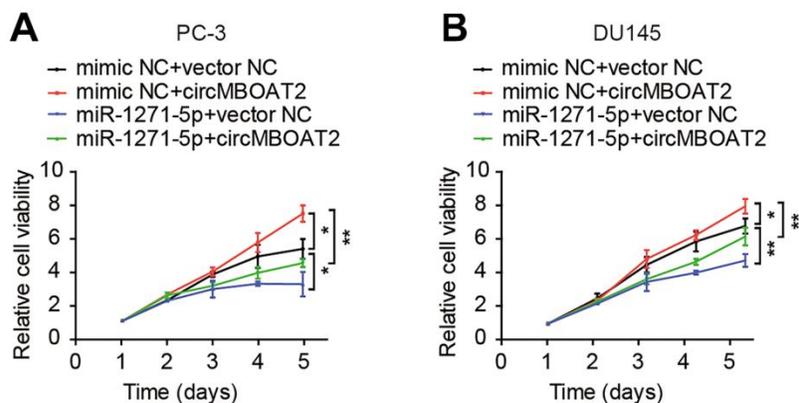
Supplementary Figure 1. circMBOAT2 exerts oncogenic effects in PCa cells. (A, B) qRT-PCR analysis of circMBOAT2 and MBOAT2 in PC-3 and DU145 cells treated with circMBOAT2 plasmid. (C, D) CCK-8 assay determined the cell viability in PC-3 and DU145 cells treated with circMBOAT2 plasmid. (E, F) Representative images and quantifications of colony formation assays in PC-3 and DU145 cells treated with circMBOAT2 plasmid. (G, H) Representative images and quantifications of EdU assays in PC-3 and DU145 cells treated with circMBOAT2 plasmid. Scale bars: 100 μ m. (I, J) Representative images and quantifications of wound healing assays in PC-3 and DU145 cells treated with circMBOAT2 plasmid. Scale bars: 200 μ m. (K, L) Representative images and quantifications of transwell assays in PC-3 and DU145 cells treated with circMBOAT2 plasmid. Scale bars: 100 μ m. Data are displayed as mean \pm SD. * p < 0.05; ** p < 0.01; *** p < 0.001.



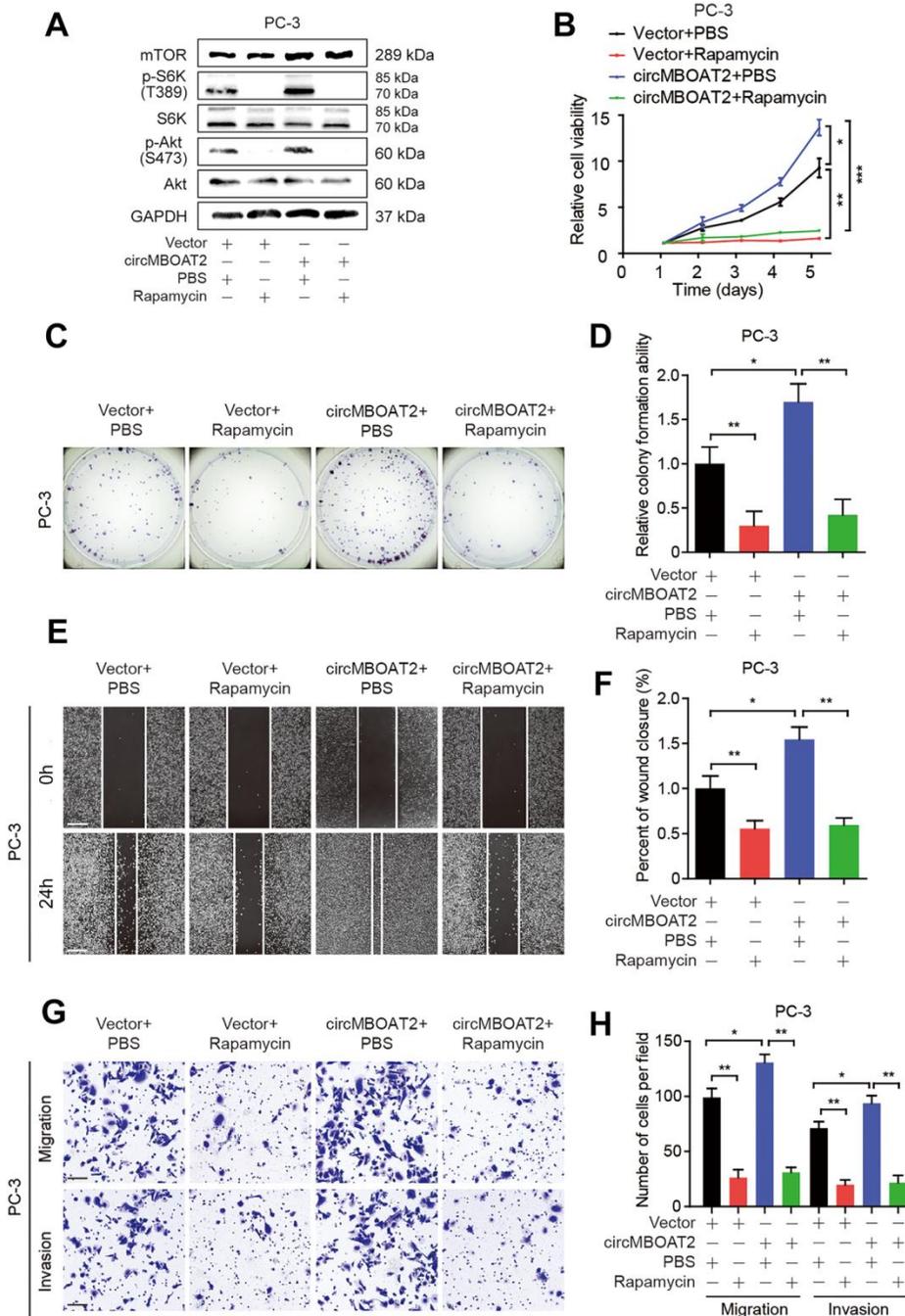
Supplementary Figure 2. Silencing miR-1271-5p promotes cell proliferation, migration and invasion in PCa cells. (A, B) CCK-8 assay determined the cell viability in PC-3 and DU145 cells treated with miR-1271-5p inhibitor. (C, D) Representative images and quantifications of colony formation assays in PC-3 and DU145 cells treated with miR-1271-5p inhibitor. (E, F) Representative images and quantifications of EdU assays in PC-3 and DU145 cells treated with miR-1271-5p inhibitor. Scale bars: 100 μ m. (G, H) Representative images and quantifications of wound healing assay in PC-3 and DU145 cells treated with miR-1271-5p inhibitor. Scale bars: 200 μ m. (I, J) Representative images and quantifications of transwell assay in PC-3 and DU145 cells treated with 1271-5p inhibitor. Scale bars: 100 μ m. Data are displayed as mean \pm SD. * p < 0.05; ** p < 0.01.



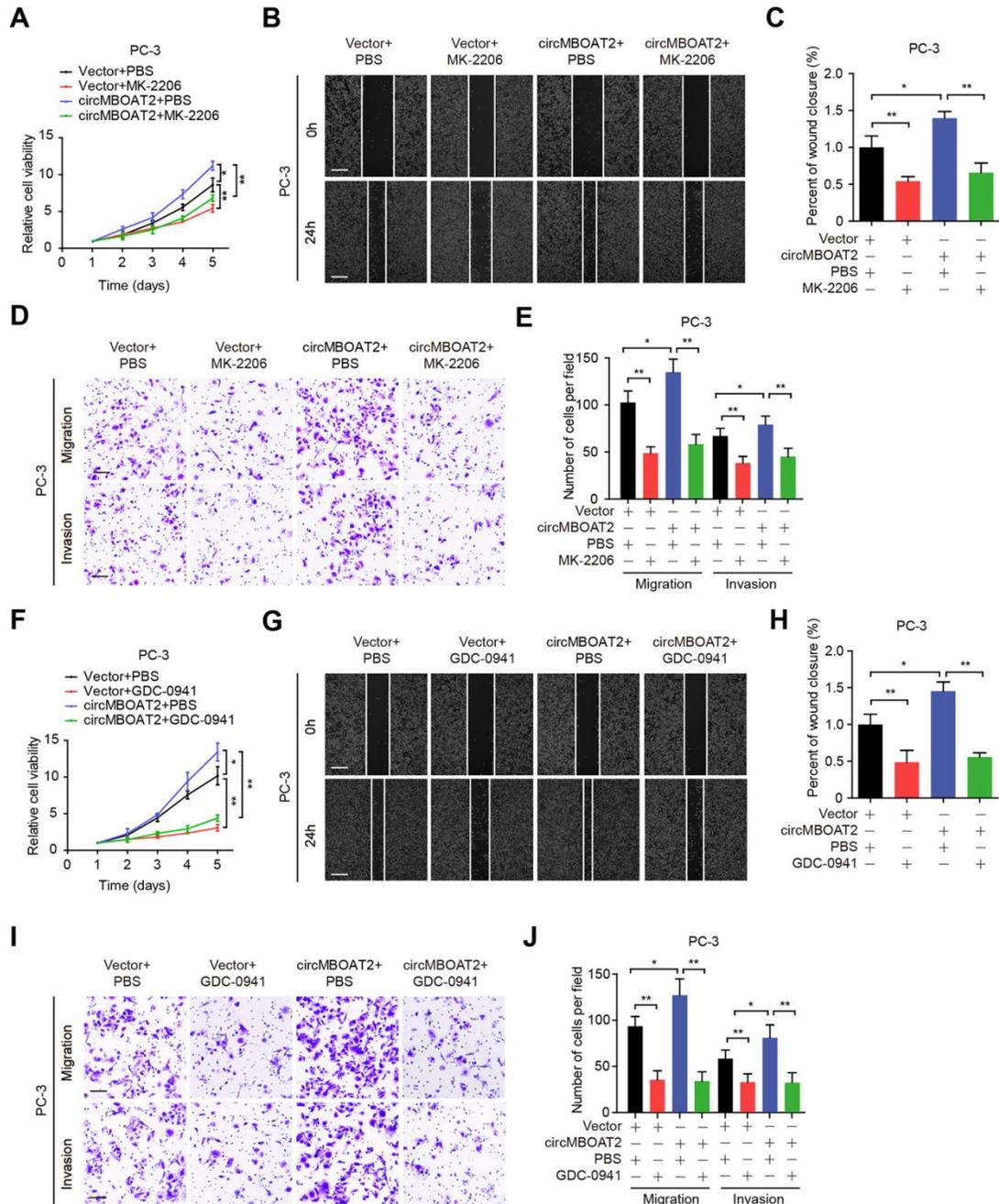
Supplementary Figure 3. The abundance and clinical significance of miR-1271-5p in PCa patients. (A) qRT-PCR analysis of miR-1271-5p expression in cohort 1 of 50 PCa patient tissues paired with their respective NATs. (B) The Kaplan-Meier curves for DFS of PCa patients in cohort 1. Median miR-1271-5p expression levels were used as the cutoff value for patient stratification. (C) The correlation between miR-1271-5p and circMBOAT2 in PCa tissues (n=50). Data are displayed as mean \pm SD. **p < 0.01.



Supplementary Figure 4. circMBOAT2 promotes cell proliferation by sponging miR-1271-5p in PCa cells. (A, B) CCK-8 assay determined the cell viability in PC-3 and DU145 cells treated with miR-1271-5p mimic or mimic NC, transfected with vector or circMBOAT2 plasmid. Data are displayed as mean \pm SD. *p < 0.05; **p < 0.01.



Supplementary Figure 5. Rapamycin abolishes the oncogenic role of circMBOAT2 in PCa cells. (A) Western blot analysis of expression of mTOR and its substrates in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 100 nM rapamycin or PBS for 48h. (B) CCK-8 assay determined the cell viability in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 100 nM rapamycin or PBS. (C, D) Representative images and quantifications of colony formation assays in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 100 nM rapamycin or PBS. (E, F) Representative images and quantifications of wound healing assays in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 100 nM rapamycin or PBS. Scale bars: 200 μ m. (G, H) Representative images and quantifications of transwell assay in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 100 nM rapamycin or PBS. Scale bars: 100 μ m. Data are displayed as mean \pm SD. * p < 0.05; ** p < 0.01; *** p < 0.001.



Supplementary Figure 6. MK-2206 and GDC-0941 abolish the oncogenic role of circMBOAT2 in PCa cells. (A) CCK-8 assay determined the cell viability in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 1 μ M MK-2206 or PBS. (B, C) Representative images and quantifications of wound healing assay in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 1 μ M MK-2206 or PBS. Scale bars: 200 μ m. (D, E) Representative images and quantifications of transwell assay in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 1 μ M MK-2206 or PBS. Scale bars: 200 μ m. (F) CCK-8 assay determined the cell viability in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 1 μ M GDC-0941 or PBS. (G, H) Representative images and quantifications of wound healing assay in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 1 μ M GDC-0941 or PBS. Scale bars: 200 μ m. (I, J) Representative images and quantifications of transwell assay in PC-3 cells transfected with vector or circMBOAT2 plasmid, treated with 1 μ M GDC-0941 or PBS. Scale bars: 200 μ m. Data are displayed as mean \pm SD. * p < 0.05; ** p < 0.01.