

The role of miR-873 in hepatocellular carcinoma progression

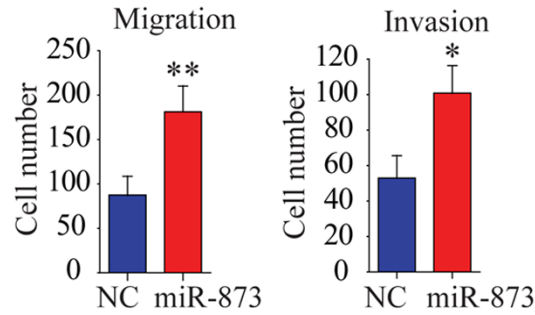
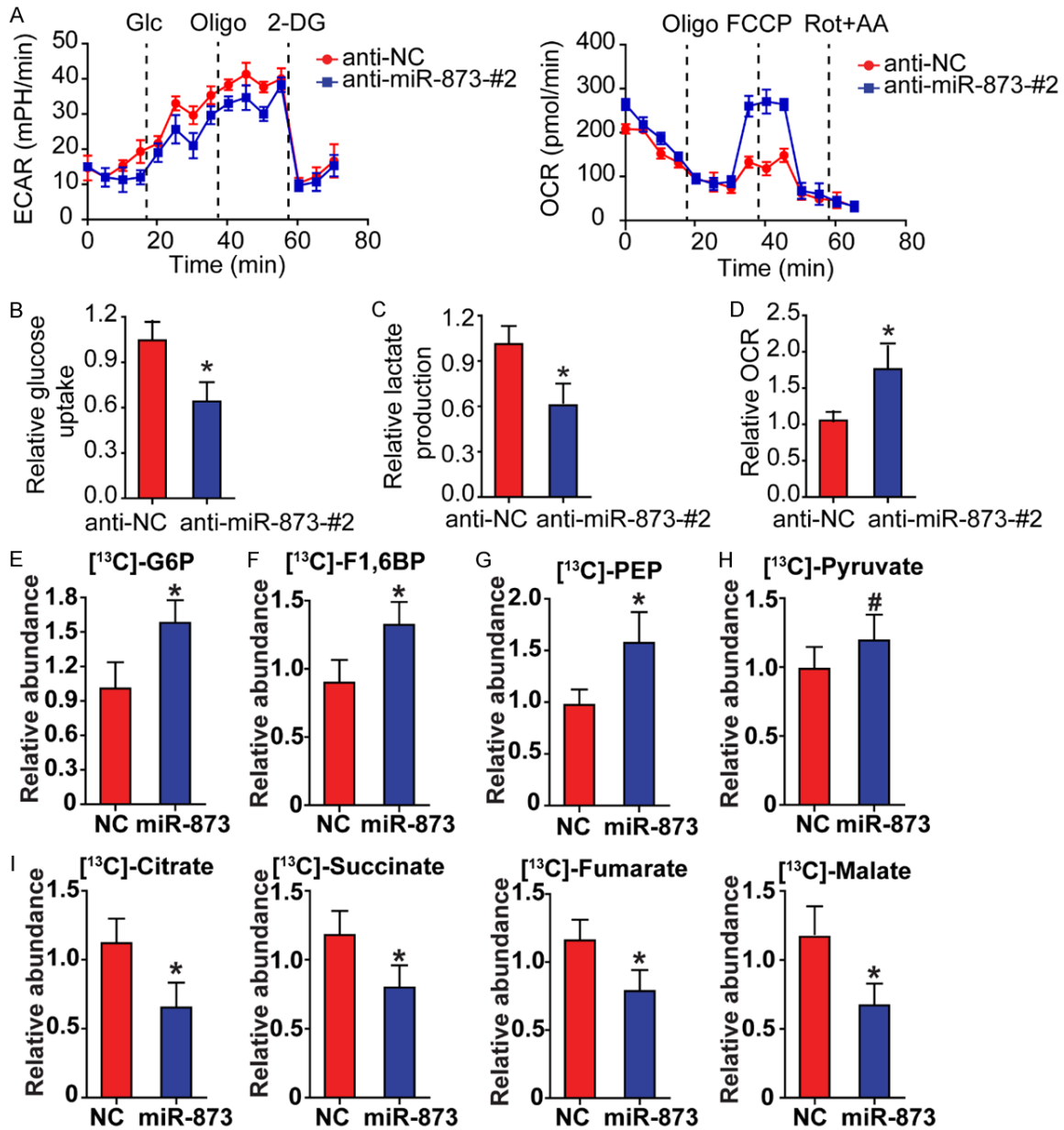


Figure S1. MiR-873 promotes the migration, and invasion of liver cancer cells. SMMC-7721 cells transfected with miR-873 mimics or its control were pre-treated with mitomycin-C (10 μ g/ml) and then migration and invasion were analyzed.



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Figure S2. MiR-873 enhances glycolysis in HCC cells (Part II). (A) By using a Seahorse Bioscience XFp analyzer, ECAR and OCR of Hep3B cells stably expressing anti-miR-873-#2 or anti-NC were measured. (B) Using the glucose assay kit, cellular glucose uptake was measured in Hep3B cells stably expressing anti-miR-873-#2 or anti-NC. The data were normalized to protein concentrations. (C) By using lactate assay kit, extracellular lactate production was measured in Hep3B cells stably expressing anti-miR-873-#2 or anti-NC. The above data were normalized to protein concentrations. (D) Equal numbers of Hep3B cells stably expressing anti-miR-873-#2 or anti-NC were subjected to an Oxytherm unit to measure the O_2 consumption rate. SMMC-7721 cells with stable overexpression of miR-873 or NC were cultured in medium containing ^{13}C -labeled glucose for the indicated time. ^{13}C -G6P (E), ^{13}C -F1,6BP (F), ^{13}C -PEP (G), ^{13}C -pyruvate (H), and cellular ^{13}C -labeling TCA cycle metabolites (I) were measured by GC-MS.

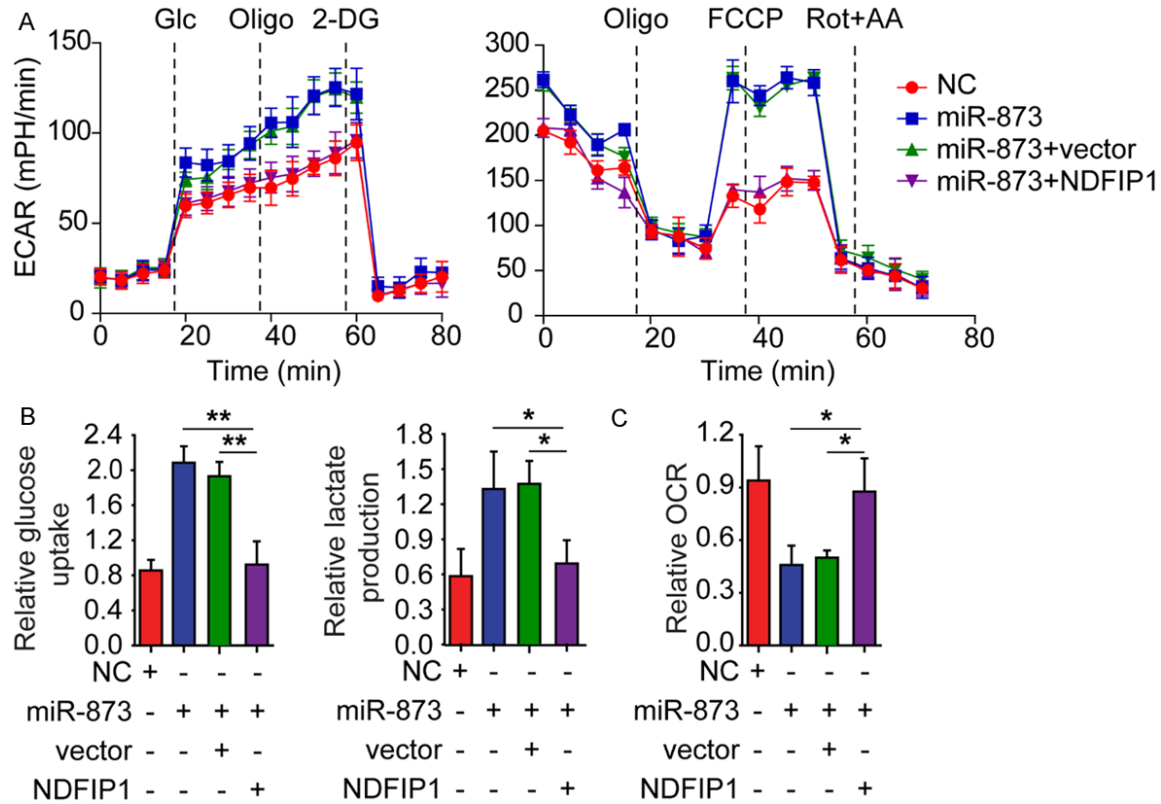


Figure S3. MiR-873 enhances glycolysis in HCC cells via NDFIP1. A. ECAR and OCR of SMMC-7721 cells with miR-873 mimics and NDFIP1 overexpression were detected using a Seahorse Bioscience XFp analyzer. B. Cellular glucose uptake and extracellular lactate production were measured in SMMC-7721 cells with miR-873 mimics and NDFIP1 overexpression using the glucose or lactate assay kit. The results were normalized to protein concentration. C. Equal numbers of SMMC-7721 cells with miR-873 mimics and NDFIP1 overexpression were subjected to an Oxytherm unit to measure their OCRs. * $P < 0.05$ and ** $P < 0.01$.

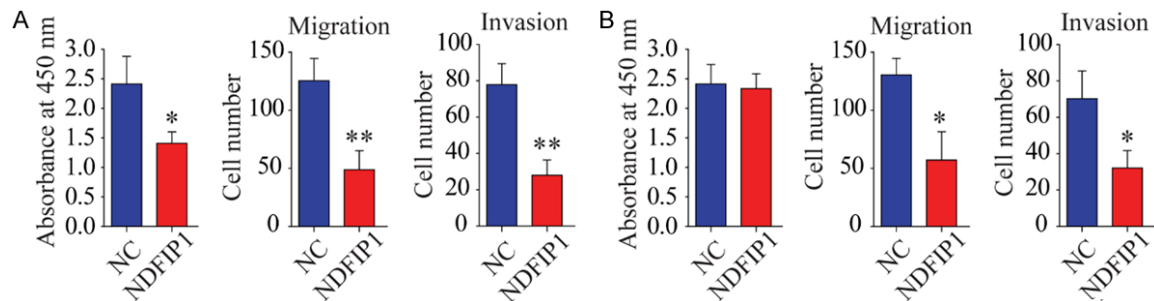


Figure S4. NDFIP1 inhibited the proliferation, migration and invasion of HCC cells. A. SMMC-7721 cells were transfected with NDFIP1 or vector. CCK-8 assay, transwell-migration assay and invasion assay were performed. B. Above assay was conducted under the treatment of Z-VAD.

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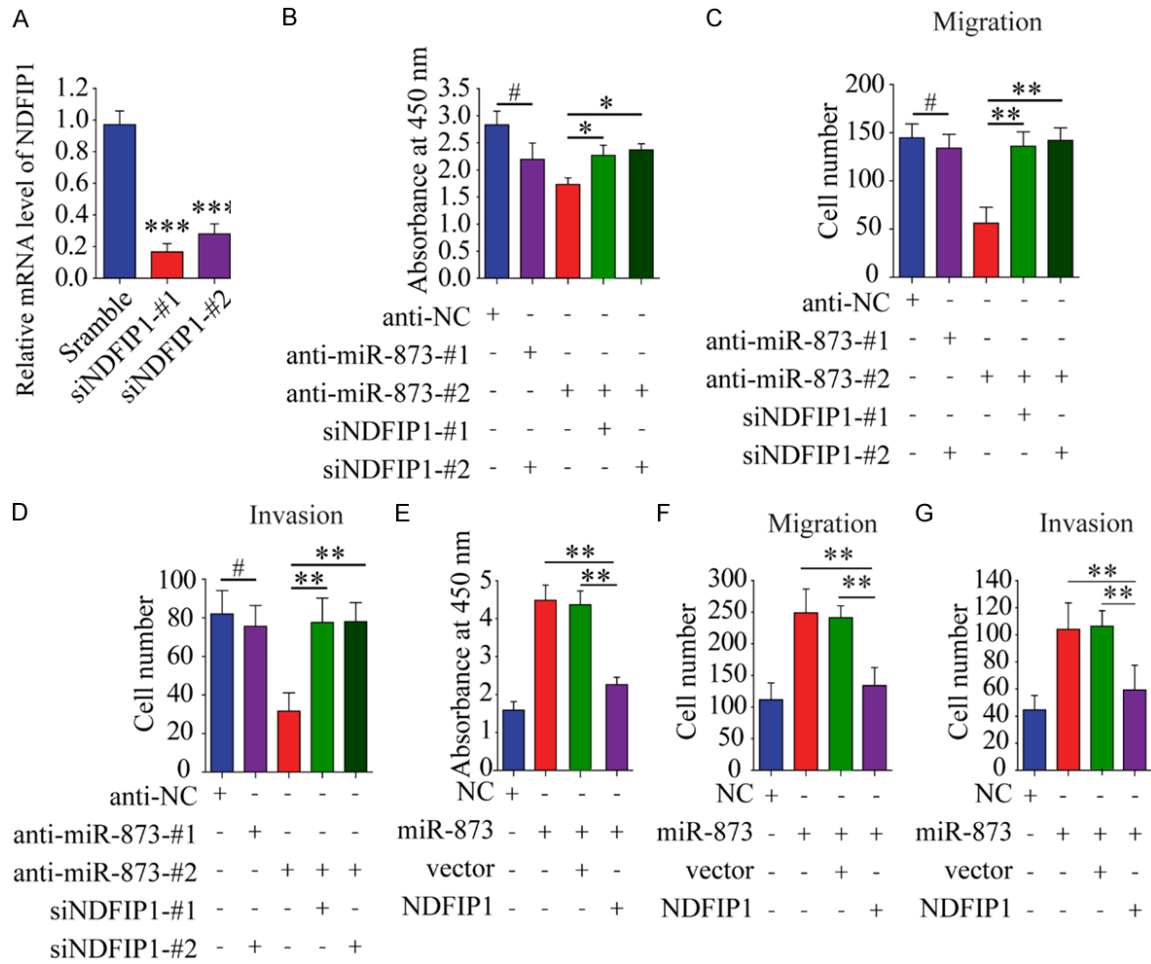


Figure S5. MiR-873 promotes the proliferation, migration, and invasion of liver cancer cells via NDFIP1. (A) Relative expression level of NDFIP1 with 2 specific siRNA. (B) The CCK-8 assay was performed to examine the effects of miR-873 inhibitor and siNDFIP1 on cell proliferation in Hep3B cells. (C) Transwell-migration assay. (D) Invasion assay was performed. (E) The CCK-8 assay was performed to examine the roles of miR-873 mimics and NDFIP1 in cell proliferation in SMMC-7721 cells. (F) Migration assay and (G) invasion assay was performed in SMMC-7721 cells treated as indicated. $**P < 0.01$.