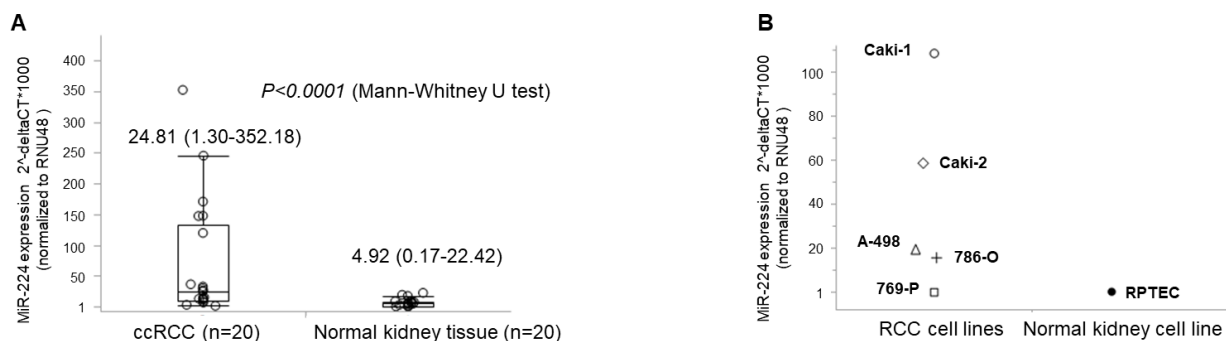
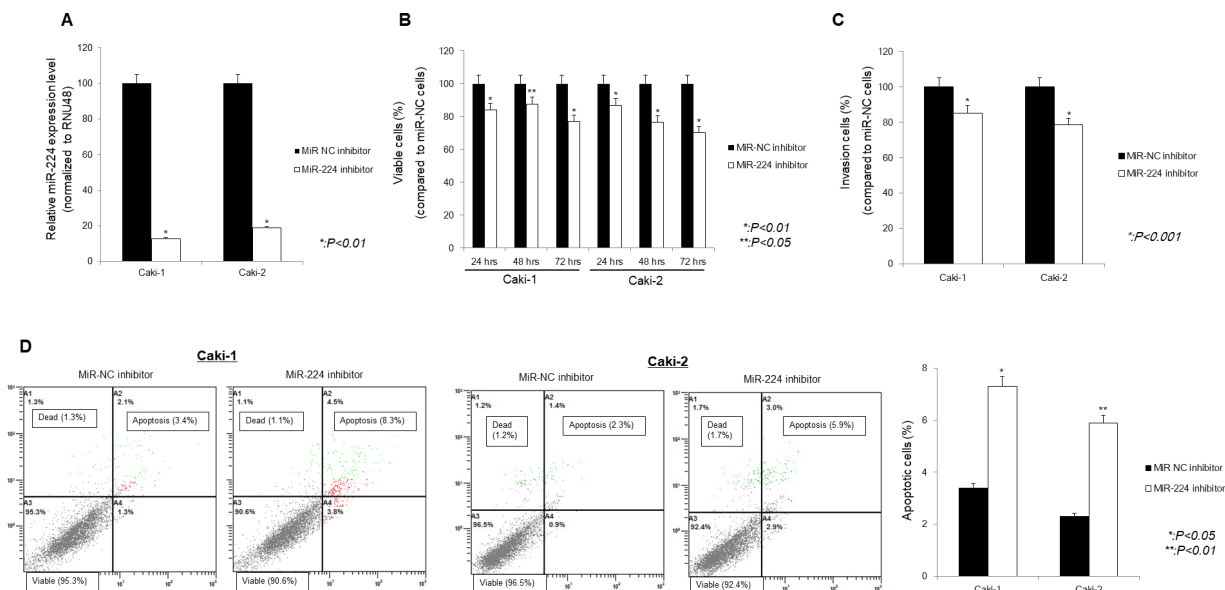


Extracellular miR-224 as a prognostic marker for clear cell renal cell carcinoma

SUPPLEMENTARY MATERIALS

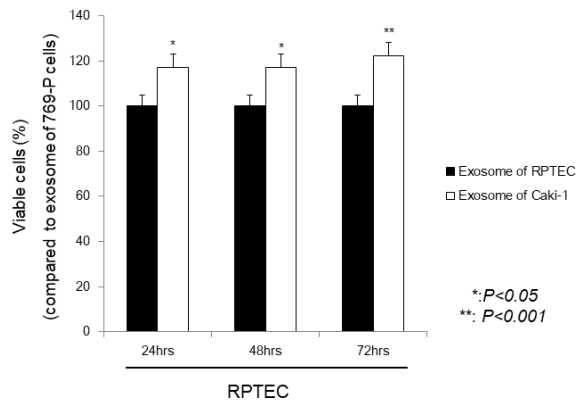


Supplementary Figure 1: Intracellular expression of miR-224 in ccRCC, matched normal kidney tissues, and cell lines. (A) miR-224 expression in ccRCC tissues ($n = 20$) and matched normal kidney tissues ($n = 20$). miR-224 expression was significantly higher in ccRCC tissues compared with matched normal tissues. (B) miR-224 expression in renal cancer cell lines (Caki-1, Caki-2, A-498, 786-O, and 769-P) and a normal renal cell line (RPTEC). The expression of miR-224 was higher in Caki-1 and Caki-2 cells compared with other renal cancer cell lines, while RPTEC had the lowest expression of miR-224.

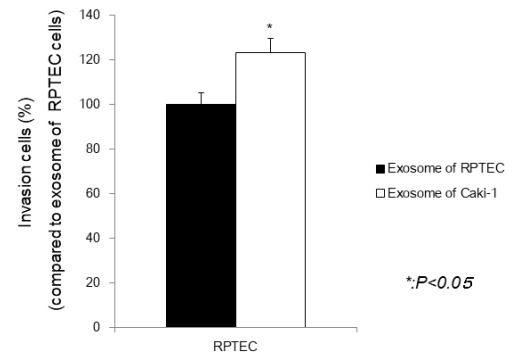


Supplementary Figure 2: Effect of downregulation of miR-224 on Caki-1 and Caki-2 cells. Cells transfected with an miR-224 inhibitor significantly decreased miR-224 expression compared with cells transfected with control (A). After miR-224 downregulation, cell growth (B) and cell invasion ability (C) were decreased while cell apoptosis was increased (D).

A MTS assay



B Invasion assay



Supplementary Figure 3: Effect of addition of Caki-1 exosomes to target RPTEC cells using the MTS assay (A), Cell Invasion assay (B). (A, B) Caki-1 exosomes added to RPTEC cells significantly promoted cell viability and cell invasion compared with 769-P exosomes added to 769-P cells.