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Supplemental information

Oncogenic miR-27a delivered by exosomes binds to SFRP1 and promotes angiogenesis in renal clear cell carcinoma

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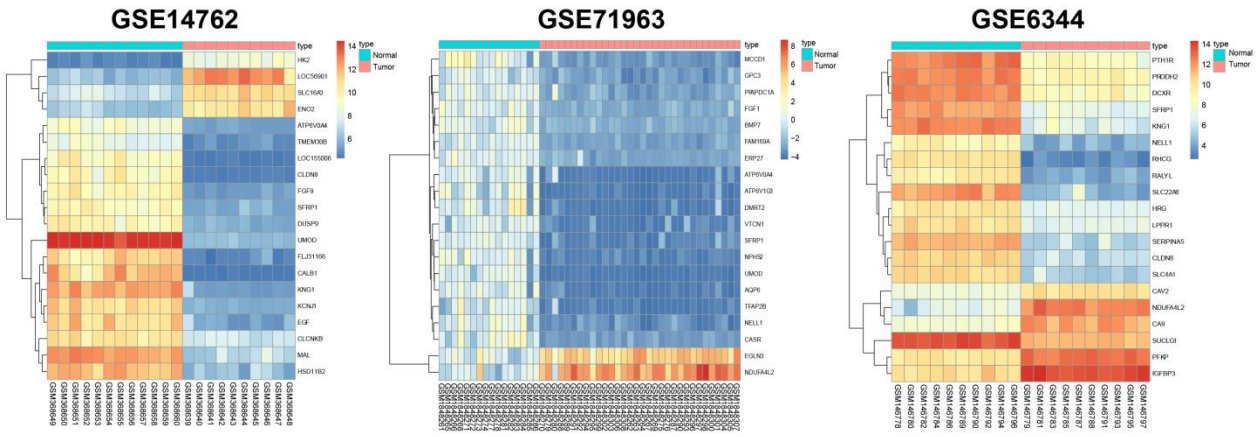
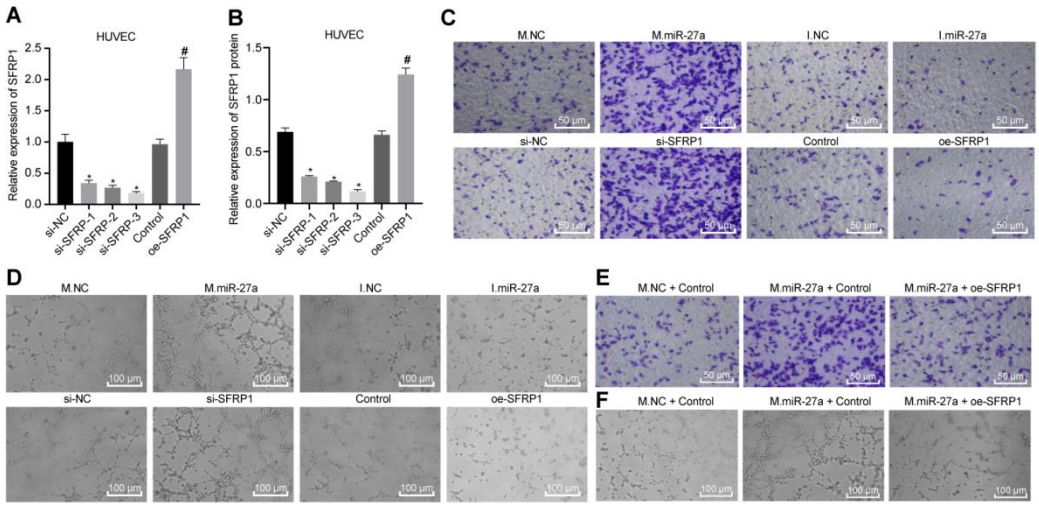
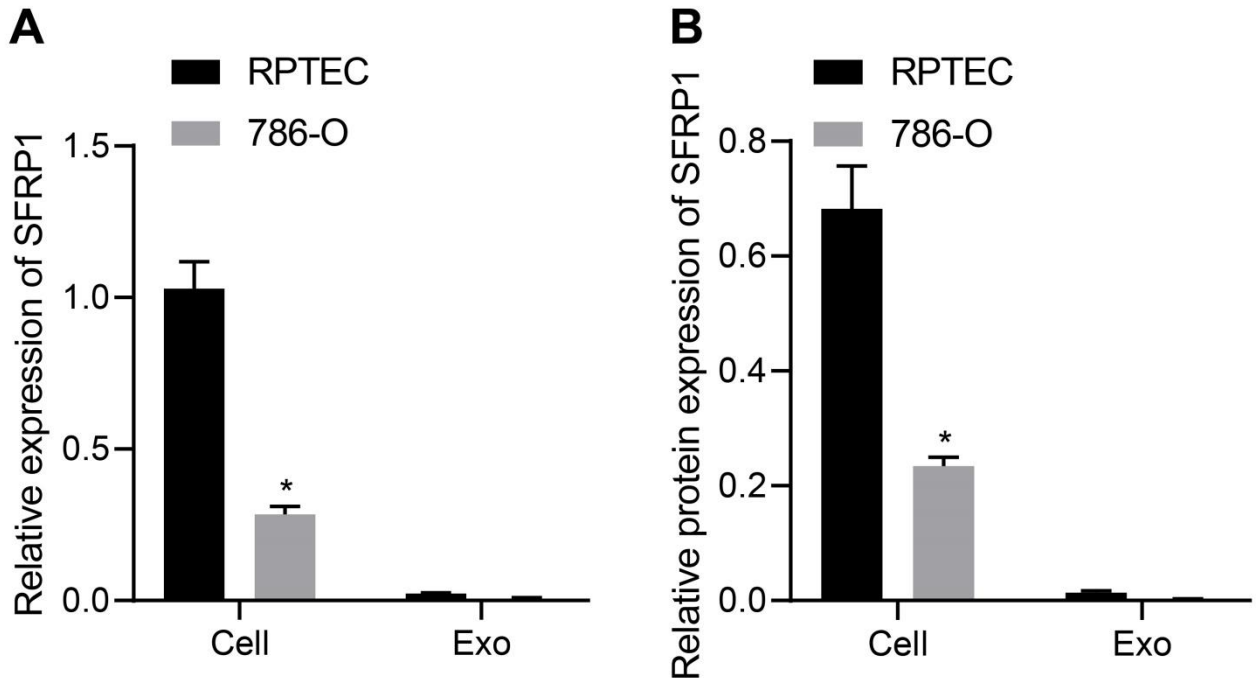


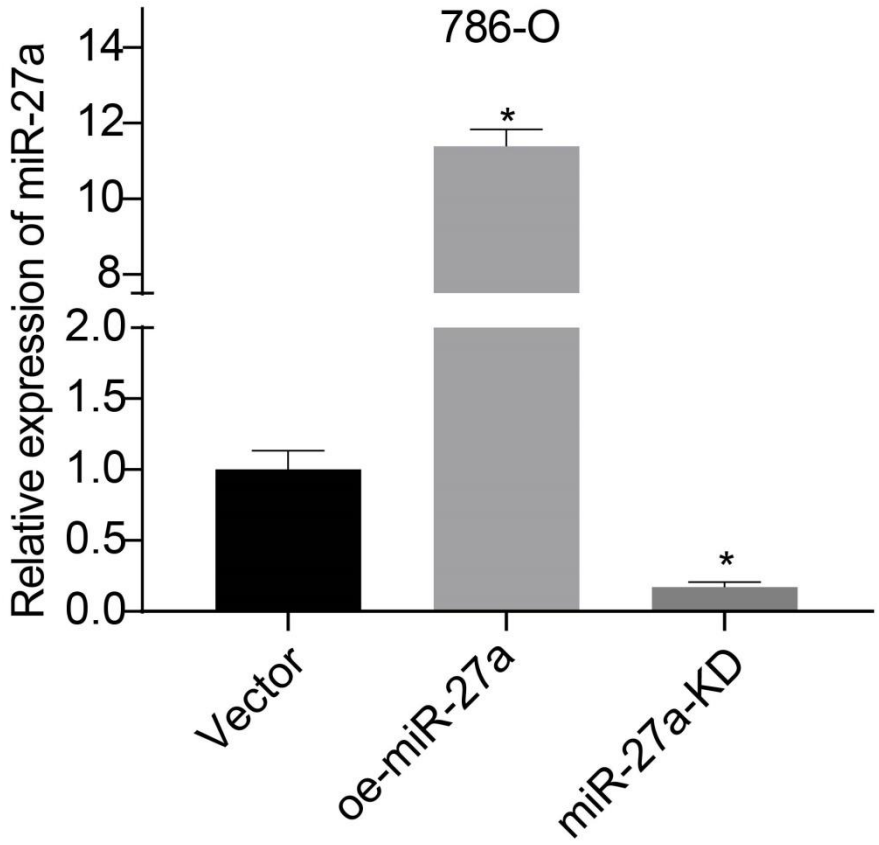
Supplementary Figure 1 Heat map of the top 20 differentially expressed genes in GSE14762, GSE71963, and GSE6344 profiles (from left to right). The abscissa represents the sample number, the ordinate represents the differential gene, the histogram at the upper right is the color scale, and each rectangle in the figure corresponds to a sample expression value.



Supplementary Figure 2 A-B: RT-qPCR (A) and Western blot assay (B) for transfection efficiency of silencing and overexpression of SFRP1 in HUVECs; C: Transwell assay (200 ×) for cell migration ability in HUVECs transfected with miR-27a mimic (M. miR-27a), miR-27a inhibitor (I.miR-27a), siRNA targeting SFRP1 (siSFRP1), SFRP1 overexpression (oe-SFRP1) and miR-27a mimic NC (M.NC), miR-27a inhibitor NC (I.NC), siRNA NC (siNC), control; D: Matrigel tubule formation assay for capillary-like tubes in HUVECs transfected with M. miR-27a, I.miR-27a, siSFRP1, oe-SFRP1 and M.NC, I.NC, siNC, control; E: Transwell assay (200 ×) for cell migration ability in HUVECs transfected with M. miR-27a, oe-SFRP1, M.NC, control. F: Matrigel tubule formation assay for capillary-like tubes in HUVECs transfected with M. miR-27a, oe-SFRP1, M.NC, control. * $p < 0.05$ versus siNC group, # $p < 0.05$ versus Control group. The measurement data are summarized by mean ± standard deviation. The comparison among multiple groups was analyzed by one-way ANOVA with Tukey post hoc test. Cellular experiment was repeated three times.



Supplementary Figure 3 A: RT-qPCR for expression of SFRP1 normalized to GAPDH in RPTEC and 786-O cells; B: Western blot assay for expression of SFRP1 in RPTEC and 786-O cells, with CD63 as protein internal reference for exosomes and β-actin as internal reference for cells. * $p <$ 0.05 versus RPTEC cells. The measurement data are summarized by mean ± standard deviation. Data comparison between two groups were analyzed by unpaired *t* test. Cellular experiment was repeated three times.



Supplementary Figure 4 Transfection efficiency of knockdown and overexpression of miR-27a in 786-O cells. * $p < 0.05$ versus vector group. The measurement data are summarized by mean ± standard deviation. The comparison among multiple groups was analyzed by one-way ANOVA with Tukey post hoc test. Cellular experiment was repeated three times.