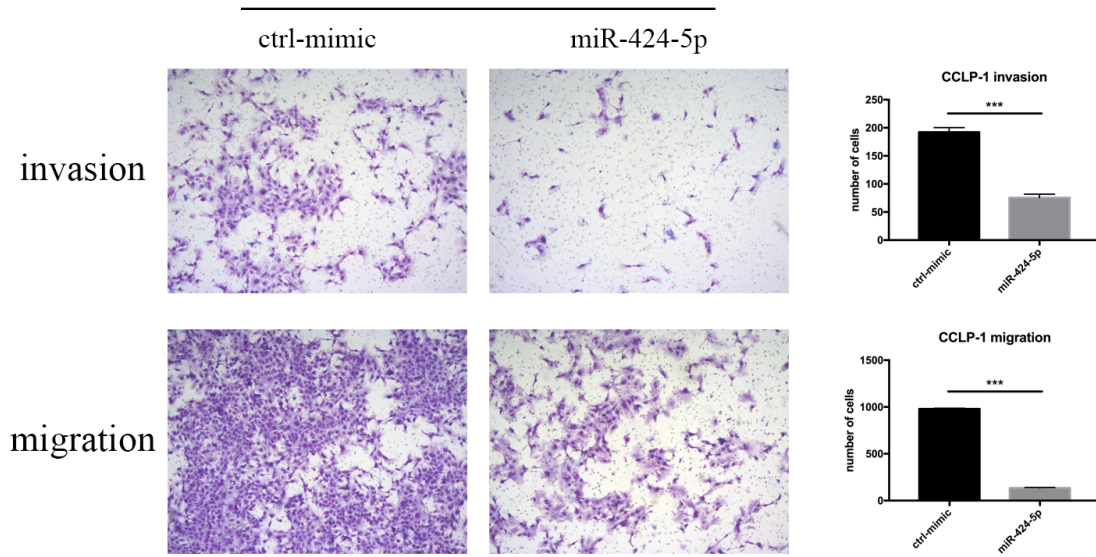
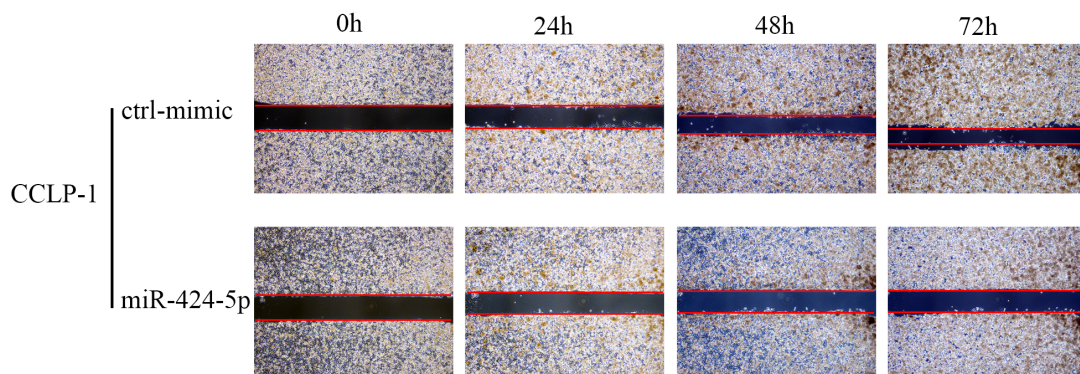


# Supplementary

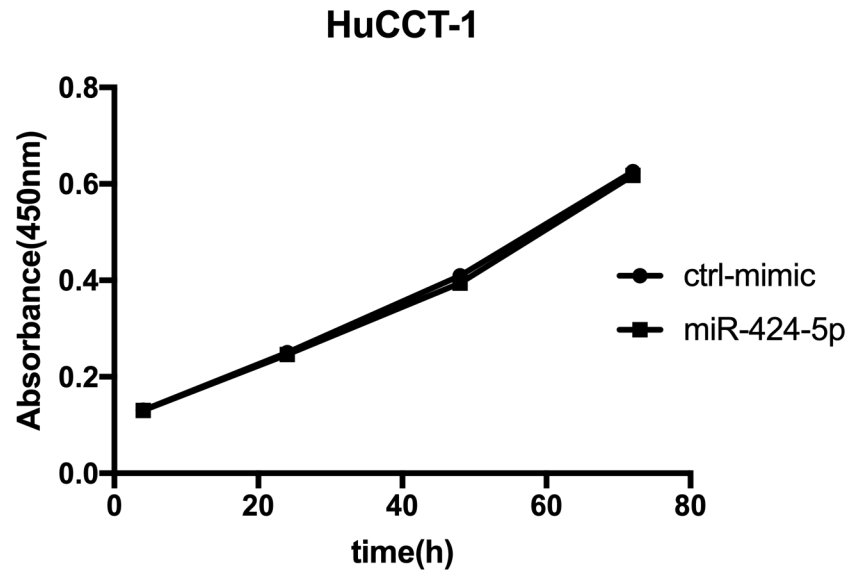
## CCLP-1



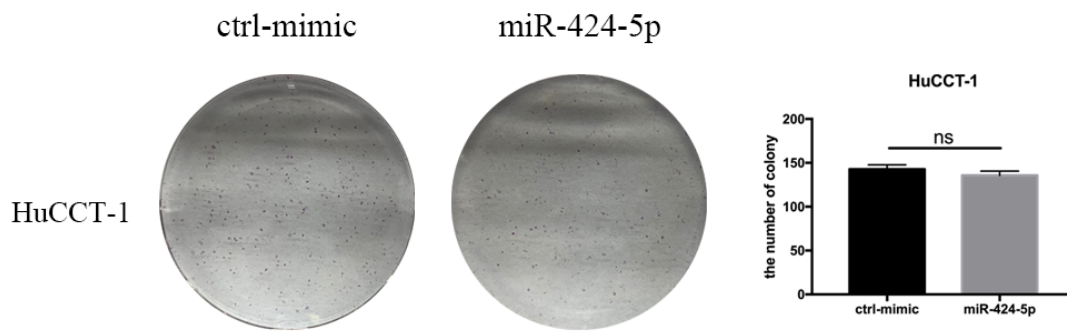
Supplement Figure 1. Transwell assays on CCLP-1 cells. Over-expression of miR-424-5p inhibited the metastasis of CCLP-1 cells. \*\*\*:  $p < 0.001$



Supplement Figure 2. Wound-healing assay on CCLP-1 cell.



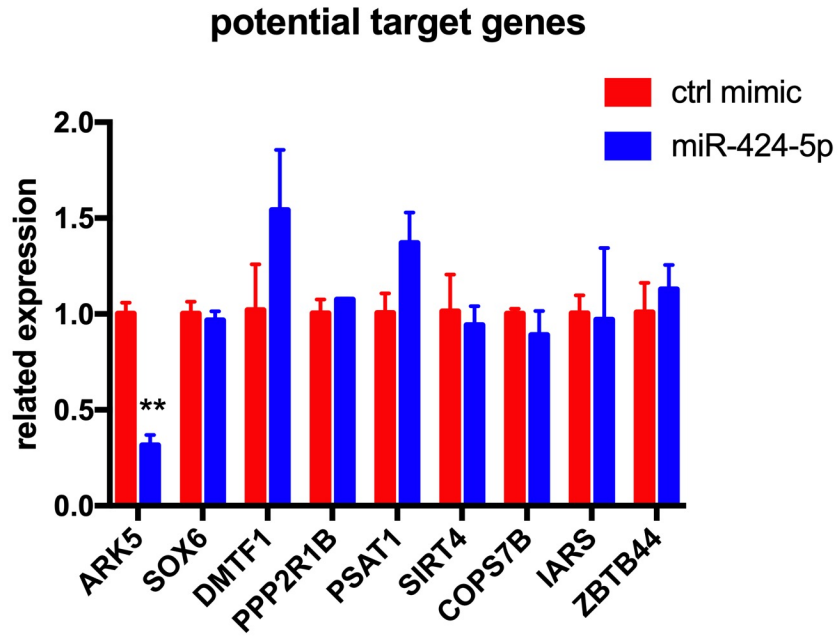
Supplement Figure 3. CCK-8 assay on HuCCT-1 cell. Over-expression of miR-424-5p showed no difference to ctrl-mimic group on cell proliferation.



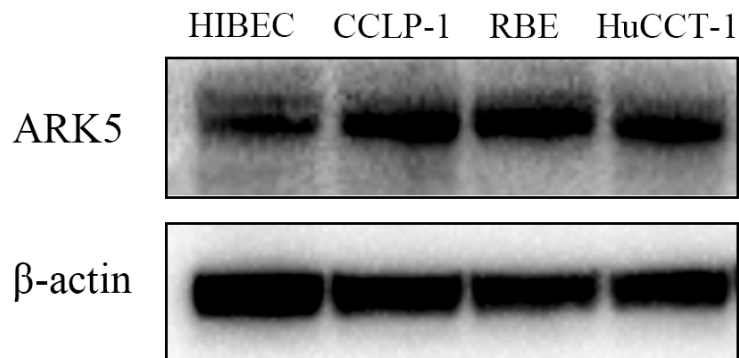
Supplement Figure 4. Colony formation assays on HuCCT-1 cell. Over-expression of miR-424-5p made no effects on colony-formation.

Supplement Table 1. target genes of miR-424-5p and their primers for PCR

GENE		Sequence (5'-3')
ARK5	Forward	GAGTCCACTCTATGCATC
	Reverse	ATGTCCTCAATAGTGGCC
PPP2R1B	Forward	CTTGGCGCGTTTCGCTATATG
	Reverse	GGCGGGGATGAGGTCATTTAG
SIRT4	Forward	GAATCGGGGATAACCAGACTACA
	Reverse	GCCAGCCTACGAAGTTTCTCG
IARS	Forward	CTGTTAGCAGACTTGGCCGAT
	Reverse	AGAAGGGCATGACTTTCACAC
SOX6	Forward	GGATGCAATGACCCAGGATTT
	Reverse	TGAATGGTACTGACAAGTGTTGG
DMTF1	Forward	TCACCACAATGGCTACGAAGT
	Reverse	AAGACAGGGAACGAAACATCC
PSAT1	Forward	TGCCGCACTCAGTGTTGTTAG
	Reverse	GCAATTCCCGCACAAGATTCT
COPS7B	Forward	GTGTATCCCCTACTCCGTGTT
	Reverse	CATTCATGCAGGGTCTTGACA
ZBTB44	Forward	CAAATCTTCCGGGCACATAAGG
	Reverse	GGCTTGGCCTACAAGTTTGGT



Supplement Figure 5. qRT-PCR result of targets of miR-424-5p. We performed qRT-PCR assay on RBE cells transfected with ctrl-mimic or miR-424-5p-mimic.



Supplement Figure 6. WB result of ARK5 expression in HIBEC and 3 ICC cell lines.