

Supplementary Tables

Supplementary Table 1. List of antibodies

Antibody (Ab)	Catalogue No.	Company	Dilution
E-cadherin Mouse mAb ¹	14472S	Cell Signaling Technology	1:1000
N-cadherin Rabbit pAb ²	AF0243	Beyotime	1:1000
MMP2 Rabbit pAb	AF0234	Beyotime	1:1000
Vimentin Rabbit mAb	AF1975	Beyotime	1:2000
Actin Rabbit pAb	20536-1-AP	Proteintech	1:1000
YBX1 Rabbit mAb	ab76149	Abcam	1:1000
p53 Rabbit pAb	10442-1-AP	Proteintech	1:1000
Lamin A/C Rabbit pAb	AF7350	Beyotime	1:1000
GAPDH Mouse mAb	AF5009	Beyotime	1:1000
Snail Rabbit pAb	3879S	Cell Signaling Technology	1:1000
c-Myc Rabbit pAb	9402	Cell Signaling Technology	1:1000
TFAP2C Rabbit pAb	ab218107	Abcam	1:1000
Normal rabbit IgG	A7016	Beyotime	1:1000
MAFG Rabbit pAb	GTX114541	GeneTex	1:1000
GFP Mouse mAb	66002	Proteintech	1:1000
Goat Anti-Mouse IgG (H+L)-HRP Conjugate	A0216	Beyotime	1:1000
Goat Anti-Rabbit IgG (H+L)-HRP Conjugate	A0208	Beyotime	1:1000

¹mAb: monoclonal antibody

²pAb: polyclonal antibody

Supplementary Table 2. siRNA and shRNA sequences

MILIP	siRNA1/shRNA1 GGTAACATAGAGACCCTAT
	siRNA2/shRNA2 GGAGTCAGGGCAATTCCAA
YBX1	siRNA1 GGACGGCAATGAAGAAGAT
	siRNA2 CCACGCAATTACCAGCAAA
c-Myc	siRNA1 CCTGAGACAGATCAGCAACAAC
	siRNA2 GGACTATCCTGCTGCCAAG
Snai1	siRNA1 TGTAGTTAGGCTTCCGATTGG
	siRNA2 TACTTCTTGACATCTGAGTGG
TFAP2C	siRNA1 TATTTAGACGTAGAGCTGAGG
	siRNA2 TTCTTTACACAGTTGCTGGGC

Supplementary Table 3. List of qRT-PCR primers

MILIP	Forward: AGAACCGCGAAAGGCTACTG
	Reverse: CACTTAAAGCCGGTCGTGGA
Neat1	Forward: GCATACGCAGCAGATCAGCAT
	Reverse: CCCACAATATAGGCATTACAAAGG
GAPDH	Forward: AGCCACATCGCTCAGACAC
	Reverse: GCCCAATACGACCAAATCC
MAFG	Forward: AGGAGATCGTCCAGCTGAAGCA
	Reverse: TCTGCTTCTCCAGCTCCTCCTT
β-Actin	Forward: CTCTTCCAGCCTTCCTTCCT
	Reverse: AGCACTGTGTTGGCGTACAG
PLANE	Forward: TGAGACGACATCCCTTCCAG
	Reverse: GGCCCTGAAATGACTTGCTC
Snail	Forward: TGCCCTCAAGATGCACATCCGA
	Reverse: GGGACAGGAGAAGGGCTTCTC

Supplementary Table 4. List of RT-PCR primers and RNA pulldown probes

MILIP isoforms	Forward: TCTCCACGACCGGCTTTAAGTG
	Reverse: GAACCGATGGGGTCTTAAGGTCAG
ChIP-TFAP2C-BR	Forward: CGGCCTTTTAGTCCCCGAGGC
	Reverse: GAGGAAAGGGTGGGGTCGAGC
MILIP-E1	Forward: GAGACTTCGCTGCTTGTTGG
	Reverse: GCTGGCGGGGCGGCCACCCTTC
MILIP-E2	Forward: ACTTCGCTGCTTGTTGGAGA
	Reverse: GGAGAAAGTCCAGACACGGG
MILIP-biotin-S-probes	Scramble 1: GACAATACTCGACAGGCTCC
	Scramble 2: GAGCGAAGGTTATGTCGACC
	Scramble 3: GTGAACAACGCGAGTTGTGGA
MILIP-biotin-AS-probes	Antisense 1: TGACCACGGAACACCTTCAG
	Antisense 2: ACTGTGTCCAGGGACAAGTG
	Antisense 3: TGAGAGGGATGCTTGGA AACC
Snail-biotin-S-probes	Scramble 1: CAGGACATACAGATCCC ACTA
	Scramble 2: ACTCCACCATGGAATATGAGA
Snail-biotin-AS-probes	Antisense 1: TG TAGTTAGGCTTCCGATTGG
	Antisense 2: TACTTCTTGACATCTGAGTGG

Supplementary Table 5. List of PCR primers for *in vitro* transcription

MILIP	Forward:
	AATACGACTCACTATAGGGATGCGCAACCCGCGCGCCGT
	Reverse: TCCCCAGCAGGCCAGGTGGGC
MILIP-ΔE1	Forward:
	AATACGACTCACTATAGGGAGAGAGCTGAAGGTGTTCCGT
	Reverse: TCCCCAGCAGGCCAGGTGGGC
MILIP-Δ1488-1895	Forward:
	AATACGACTCACTATAGGGATGCGCAACCCGCGCGCCGT
	Reverse: CTTGCCAGCTGGGGCCCTTGC
MILIP-Δ990-1895	Forward:
	AATACGACTCACTATAGGGATGCGCAACCCGCGCGCCGT
	Reverse: GATGCCCGGGAGGTGCCTG
MILIP-ΔE2	Forward:
	AATACGACTCACTATAGGGATGCGCAACCCGCGCGCCGT
	Reverse: CTGCTGGCGGGGCGGCCACCCTTC

Supplementary Table 6. Summary of clinicopathological characteristics of the cohort of 14 clear cell renal cell carcinoma patients

Characteristics	Cases	MILIP abundance in clear cell renal cell carcinoma (RS ¹)	<i>P</i> value ²
Gender	14		
Male	11	0.46±0.23 ⁽³⁾	0.3492
Female	3	0.99±0.47	
Age	14		
≥59 ⁽⁴⁾	7	0.6±0.36	0.8877
<59	7	0.54±0.24	
TNM	14		
I-III	10	0.16±0.11	0.0002
IV	4	1.58±0.32	
Distant metastasis	14		
M0	9	0.05±0.03	<0.0001
M1	5	1.50±0.26	

¹RS: Reactive score

²Two-tailed Student's *t*-test; a *P* value less than 0.05 was considered statistically significant

³Data shown are mean ± s.e.m

⁴The median age of the patients in this cohort was 59

Supplementary Table 7. Summary of proteins that interact with MILIP in Caki-1 cells detected using mass spectrometry

No.	Entry name	Coverage (%)	MW (kDa)	Score
1	YBX1	49	35.9	77.94
2	KRT1	27	66	47.62
3	KRT2	20	65.4	32.39
4	KRT10	16	58.8	32.13
5	YBX3	14	40.1	27.04
6	KRT5	12	62.3	19.5
7	KRT6B	10	60	18.84
8	KRT9	15	62	16.77
9	RPA1	12	68.1	15.42
10	KRT14	10	51.5	13.91
11	RBMS1	8	44.5	9.61
12	XRCC1	7	69.4	6.86
13	KRT77	5	61.9	6.82
14	RBMS2	6	43.9	3.62
15	RPL4	3	47.7	2.76
16	RBM14	2	69.4	2.15
17	HSPD1	2	61	1.63
18	RBFOX2	2	41.3	0
19	RBMS3	2	47.8	0

Supplementary Table 8. Summary of proteins that interact with MILIP in ACHN cells detected using mass spectrometry

No.	Entry name	Coverage (%)	MW (kDa)	Score
1	YBX1	54	35.9	247.05
2	YBX3	36	40.1	105.54
3	KRT1	37	66	79.48
4	KRT2	36	65.4	61.06
5	KRT10	25	58.8	45.41
6	KRT9	17	62	23.54
7	KRT5	13	62.3	22.30
8	KRT14	20	51.5	19.13
9	RBMS1	13	44.5	17.29
10	ALB	4	69.3	6.73
11	IGF2BP3	7	63.7	5.95
12	ETFA	6	35.1	5.58
13	ATP5F1A	2	59.7	4.73
14	RBFOX1	3	42.8	4.10
15	RNF146	7	38.9	3.81
16	ACTB	5	41.7	2.29
17	RBMS2	3	43.9	1.87