

## SUPPLEMENTARY TABLES

**Supplementary Table 1. List of primary antibodies.**

Name	Catalog	Analysis	Dilutions	Company
TRPM2	#PA1-46473	Western blot IF staining	1:1000 1:50	Invitrogen
Antiaquaporin 1(AQP1)	#NB600-749	IF staining	1:200	Novus Biologicals
TGF- $\beta$ 1	#ab64715	Western blot	1:1000	Abcam
CTGF	#bs-0743R	Western blot	1:1000	Bioss
$\alpha$ -SMA	#bs-33187M	Western blot	1:1000	Bioss
Fibronectin	#bs-0666R	Western blot	1:1000	Bioss
Collagen I	#bs-7158R	Western blot	1:500	Bioss
Collagen III	#bs-0549P	Western blot	1:1000	Bioss
Phospho-AMPK(S487)	#ab131357	Western blot	1:1000	Abcam
JNK1	#ab199380	Western blot	1:1000	Abcam
Phospho-IKK $\alpha$ (T23)	#32041	Western blot	1:1000	Abcam
IKK $\alpha$	#ab32041	Western blot	1:1000	Abcam
Phospho-NF- $\kappa$ B (Ser536)	#3033	Western blot	1:1000	CST
NF- $\kappa$ B	#8242	Western blot	1:1000	CST
Lamin B	#ab32535	Western blot	1:500	Abcam
GAPDH	#60004	Western blot	1:10000	Proteintech

IF, immunofluorescence.

**Supplementary Table 2. The RT-qPCR sequences used in the study.**

Gene name	Primer sequences (5'→3')
mouse-TRPM2	F: TACTCGCTTACGTGCGTAG R: ATCGCTTCCGCCATAGTT
human-TRPM2	GAAGAGCATTTTCCGCAGAG ATGAGCTCGCCTTCCTTGTA
mouse-TNF- $\alpha$	F:CATCTTCTCAAAACTCGAGTGACAA R: TGGGAGTAGATAAAGGTACAGCCC
mouse-IL-1 $\beta$	F: GCCTCGTGCTGTCGGACCCATAT R: TCCTTTGAGGCCCAAGGCCACA
mouse-IL-6	F: TCCGAGTTGCCGAACGAC R: ATGACTCTATGCTCCACGTC
mouse-MCP-1	F: CCCACTCACCTGCTGCTACT R: TCTGGACCCATTTCCTTCTTG
mouse- IFN- $\gamma$	F: GCGTCATTGAATCACACCTG R: TGAGCTCATTGAATGCTTGG
mouse-GAPDH	F: AGGTCGGTGTGAACGGATTTG R: TGTAGACCATGTAGTTGAGGTCA
human-GAPDH	F: CTGCACCACCAACTGCTTAG R: AGGTCCACCACTGACACGTT

**Supplementary Table 3. Clinical data on male patient samples.**

	<b>Normal</b>	<b>Diabetic nephropathy</b>	<b>P-value</b>
Total numbers	6	6	
Age	54.33 ± 2.93	54.67 ± 2.91	0.937
Weight (kg)	72.20 ± 3.57	62.20 ± 2.58	0.047
Body mass index ( kg/m <sup>2</sup> )	24.38 ± 0.62	20.85 ± 1.09	0.019
Systolic blood pressure on admission (mmHg)	115.50 ± 4.32	157.17 ± 3.73	<0.001
Diastolic blood pressure on admission (mmHg)	73.17 ± 1.54	84.00 ± 1.93	0.001
Serum creatinine (mmol/L)	63.83 ± 6.45	148.83 ± 20.66	0.008
Serum uric acid (umol/L)	231.00 ± 12.56	370.50 ± 22.62	<0.001
Estimated glomerular filtration rate (ml/min/1.73m <sup>2</sup> )	108.00 ± 3.30	58.83 ± 2.34	<0.001
Serum albumin (g/L)	38.17 ± 3.50	26.33 ± 1.98	0.015
Proteinuria (mg/day)	59.50 ± 4.82	3620.00 ± 613.89	<0.001

Data are means ± S.E.