

Figure S1. Mechanical isolation of mouse glomerular tufts. Bright-field stereo-micrograph showing the isolated glomerular tufts from mouse kidneys. Note that the isolated glomeruli are devoid of the parietal cell layer.

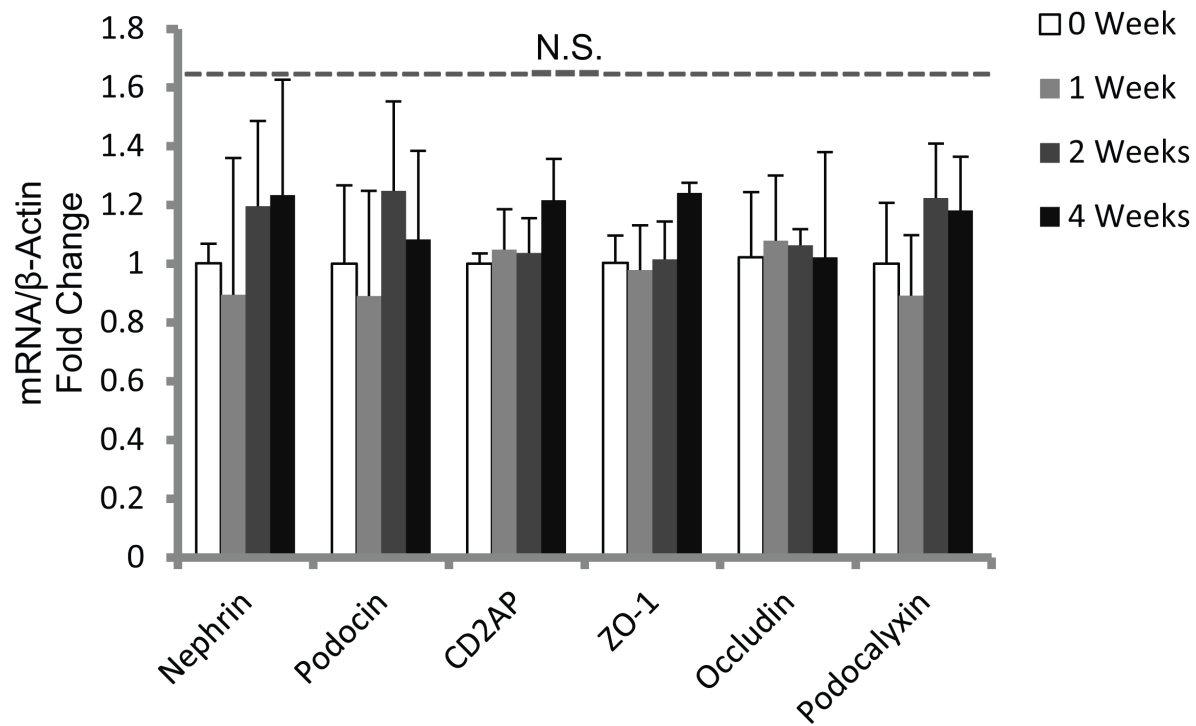


Figure S2. The transcript level of podocyte genes in TG animals receiving doxycycline treatments at different time points. The mRNA levels of the indicated genes were measured using real-time PCR in isolated mouse glomeruli and normalized to β -actin mRNA levels. N=3 in all groups.

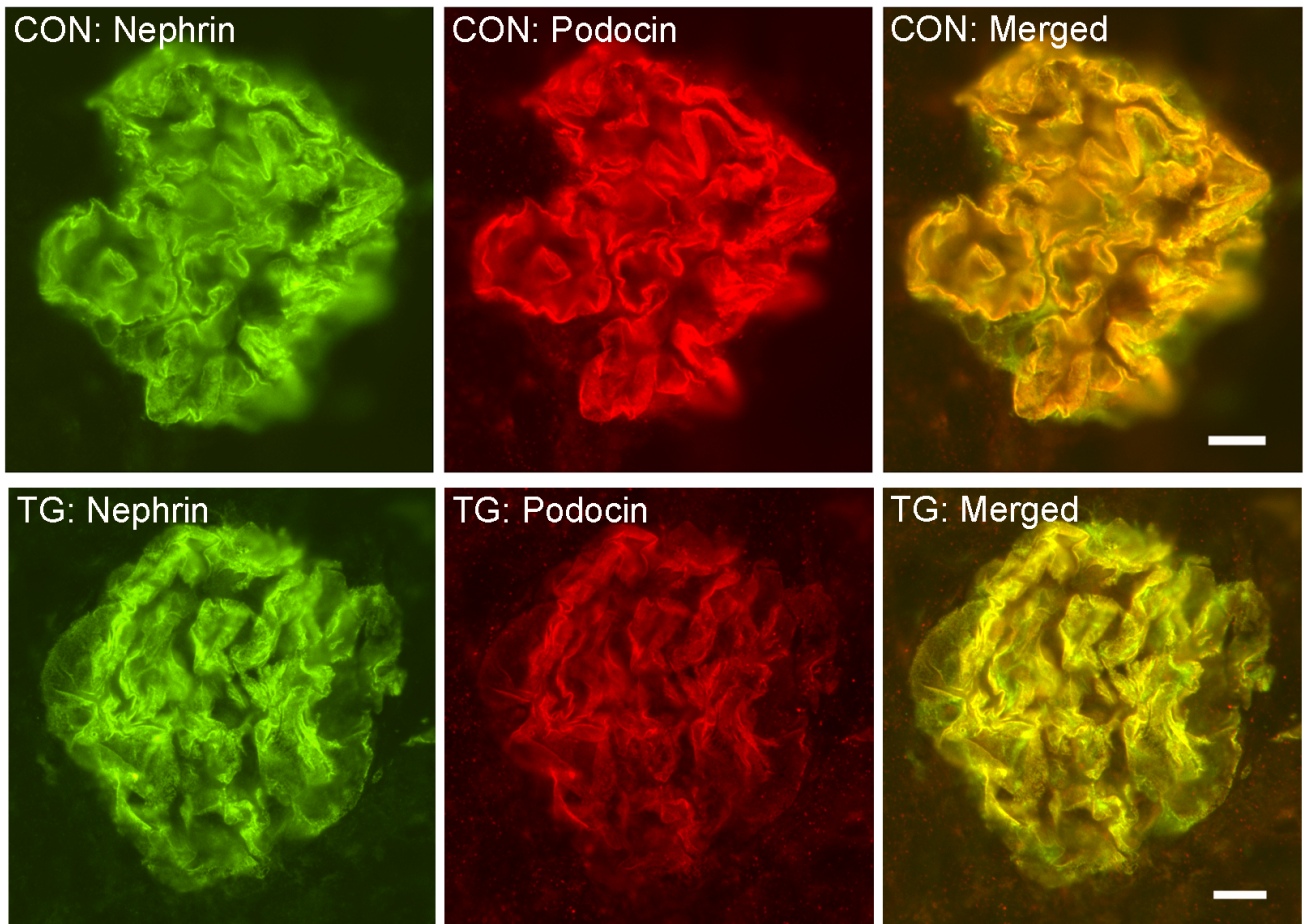


Figure S3. Nephrin and podocin localization in claudin-1 induced animals. Immunofluorescent micrographs showing the localization patterns of nephrin and podocin in CON and TG animals. Note that podocin staining signal is markedly reduced in claudin-1 induced animals. Bar: 10 μ m.

Table S1. Material list of molecular and cellular reagents used in this study.

Primers	Sequence
CMV-IE FW	CCATAGAAGACACCGGGACC
IRES REV2	AAGCGGCTTCGGCCAGTAAC
Nphs1	GAAGCAGCAGAATGAGTTCACACTGGGTCC
rtTA	ACTTTGCTCTTGTCCAGTCTAGACATGGTG
CLDN1-F (mouse)	GCCATCTACGAGGGACTGTG
CLDN1-R (mouse)	AAAGATTGCGATCAGCCCCA
CLDN1-F (rat)	CTGCTCAGGCCATCTACGAG
CLDN1-R (rat)	AAAGATTGCGATCAGCCCCA
Nephrin-F	TAATGTGTCTGCAGCCCAGG
Nephrin-R	TCCACTCCAGTCCTACCGAG
Podocin-F	TTGGCACATCGATCCCTCAC
Podocin-R	CTTTGGCCTGTCTTTGTGCC
Occludin-F	GGCAAGCGATCATACCAGA
Occludin-R	TTCCTGCTTTCCCCTTCGTG
ZO-1-F	ATTCTCAGAGCCAGCCCAAC
ZO-1-R	AAGAGCTGGACAGAGGTGGA
CD2AP-F	TGGAAGGGTGAACCTGAACGG
CD2AP-R	TTGCAGGAGGAGGTGGTTTC
Podocalyxin-F	GTCTGCATGGCATCCTTCT
Podocalyxin-R	GTCTGCAGCTCCTCTGTGAG
β -actin-F (mouse)	CGTTGACATCCGTAAAGAC
β -actin-R (mouse)	TGGAAGGTGGACAGTGAG
β -actin-F (rat)	CCACCATGTACCCAGGCATT
β -actin-R (rat)	CGGACTCATCGTACTCCTGC
Reagent	Suppliers
TRIzol® Reagent	Invitrogen 15596-018
iQ™ SYBR® Green Supermix	Bio Rad 170-8882
Lipofectamine® 2000 Transfection Reagent	Invitrogen 11668019
DC Protein Assay Kit II	Bio Rad 500-0112
Precision Plus Protein™ WesternC™ Pack	Bio Rad 161-0385
FBS Advantage	Atlanta Bio S11050
Penicillin-Streptomycin	Invitrogen 15140-122
Trypsin EDTA	Cellgro 25-053-CI
Dulbecco's Modification of Eagle's Medium (DMEM)	Cellgro 10-013-CV
Human Albumin ELISA Quantitation Set	Bethyl Lab E80-129
Protein A-Agarose	Sigma P2545
Protein G Sepharose	Sigma P3296
Anti-claudin-1 (rabbit) for Western blot	Invitrogen™ Thermo Fisher Scientific 51-9000
Anti-claudin-1 (rabbit) for fluorescence microscopy	Abcam ab140349
Anti-Nephrin (rabbit)	EMD Millipore ABT331
Anti-Nephrin (goat)	R&D systems AF3159
Anti-Podocin (rabbit)	Abcam ab50339

Anti-Podocin (rabbit)
Anti-ZO-1 (rat)
Anti-occludin (mouse)
Anti-Podocalyxin (goat)
Anti-CD2AP (goat)

Sigma P0372
Lab made
Invitrogen™ | Thermo Fisher Scientific 33-1500
R&D systems AF1556
Santa Cruz Biotechnology