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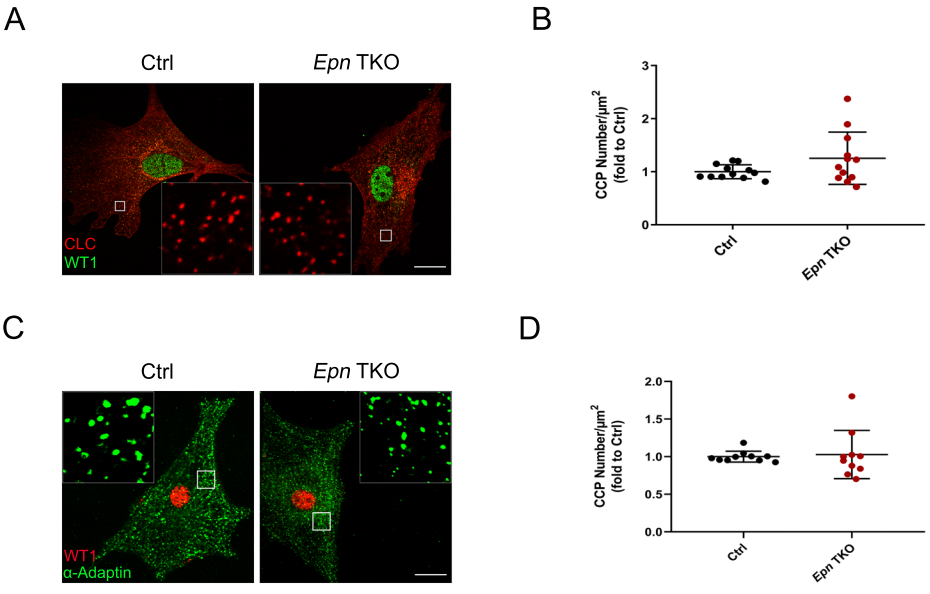

Supplemental Figure 1

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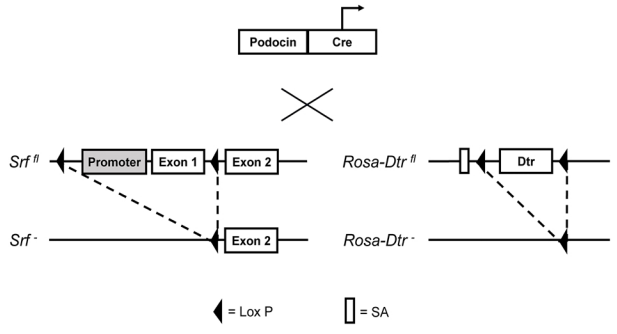

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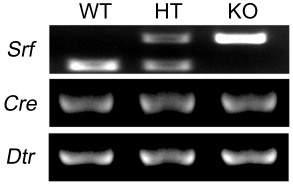

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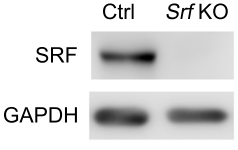

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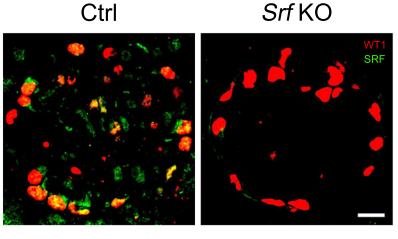

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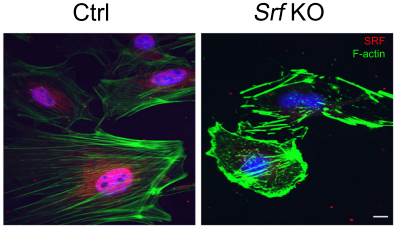

Supplemental Figure 2

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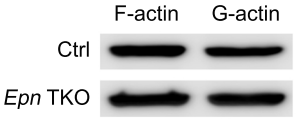

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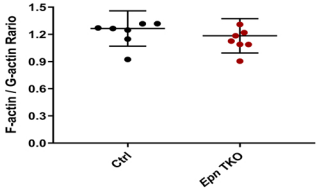
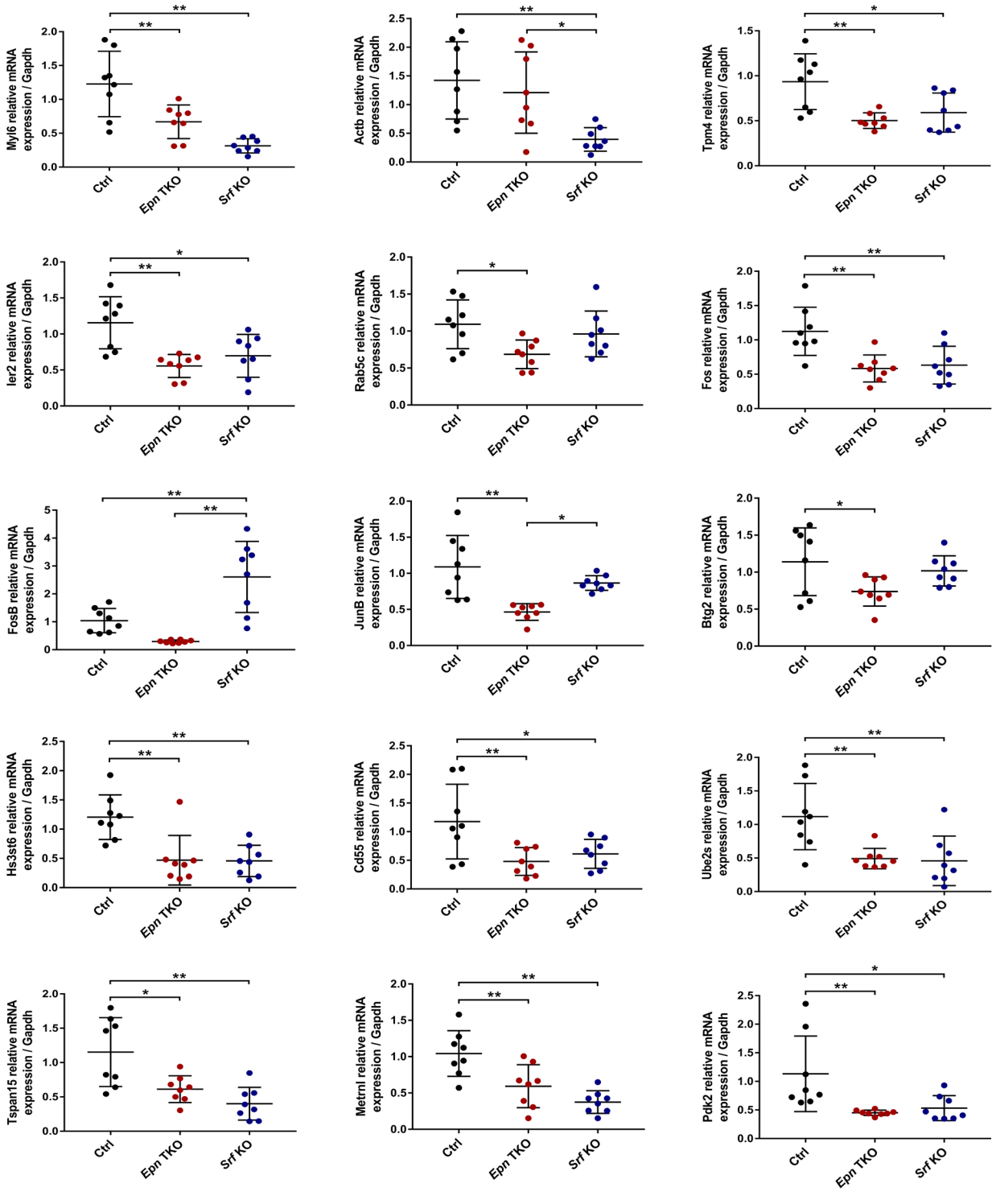


Supplemental Figure 3



Supplemental Figure 4

Supplemental Table. List of primers

Gene	Description	Forward primer Sequence (5'->3')	Reverse primer Sequence (5'->3')
Myl6	myosin light polypeptide 6	GTCCTAGTCACACTGGGCGA	GGCAAGGAACAGACTCGGGA
Actb	actin, cytoplasmic 1	TTTGCAGCTCCTTCGTTGCC	TTCCCACCATCACACCCTGG
Tpm4	tropomyosin 4	AGGGCGGAGGTATCTGAACTAAAG	AACTCAGCTCGGGTCTCAGC
Ier2	immediate early response 2	CCAGACGTGCGTCCATAGGT	GGCCGAAACGCGAATGGTAG
Rab5c	ras-related protein Rab-5C	AGCTGTGGAGTTTCAGGAAGCA	TCCACACCTCTGGTTCGGC
Fos	proto-oncogene c-Fos	GCGGGAATGGTGAAGACCGT	AGTTGATCTGTCTCCGCTTGGA
FosB	FBJ murine osteosarcoma viral oncogene homolog B	ACCAGTGGACCTGTGTCTGC	AGCTGATCAGTTTCCGCCTGA
JunB	transcription factor jun-B	AGGCAGCTACTTTTCGGGTC	TTGCTGTTGGGGACGATCAA
Btg2	BTG anti-proliferation factor 2	AGTGTCTTACCGCATCGGGG	CAGTAGAGTGCCAGGGTCGG
Hs3st6	heparan sulfate glucosamine 3-O-sulfotransferase 6	TCCGTGCACTTGGCTCTGAA	GTGGCATTAGGCCCCGGTA
Cd55	complement decay-accelerating factor	AGGAGAGCCTAACACAGGTGG	AGCATCACATGCAAAACTGTCA
Ube2s	ubiquitin-conjugating enzyme E2 S	TGTGAGCGTTTCGTAGCGGA	GGGCGGCAGATTCTCCACAT
Tspan15	tetraspanin-15	TGGCGGGGAGGACTACAGAG	TGCATTCAGGCGCTCCTTGT
Metrnl	meteorin like, glial cell differentiation regulator	AAGGACCACAGGCTTCCAGT	ATGAAGCCTCGGACAACAAAGT
Pdk2	pyruvate dehydrogenase kinase, isoenzyme 2	CCCGTTGTCCATGAAGCAGTTT	CAGACTCTGGACATACCAGCTC

Supplemental Figure 1: Pod-*Epn* TKO podocytes does not have clathrin coated pit accumulation distribution. (A) Representative immunofluorescence images of clathrin light chain (CLC) (red) and WT1 (green) in Ctrl and *Pod-Epn* TKO primary podocytes. Insets show the boxed regions at high magnification. Scale bar: 10 μm. (B) Clathrin-coated pits (CCPs) number in Ctrl (black) and *Pod-Epn* TKO (red) primary podocytes as assessed by CLC immunofluorescence (A). n=10. (C) Representative immunofluorescence images of α-adaptin (green) and WT1 (red) in Ctrl and *Pod-Epn* TKO primary podocytes. Insets show the boxed regions at high magnification. Scale bar: 10 μm. (D) Clathrin-coated pits (CCPs) number in Ctrl (black) and *Pod-Epn* TKO (red) primary podocytes as assessed by α-adaptin immunofluorescence (C). n = 10.

Supplemental Figure 2: Generation of Podocyte specific *Srf* KO mice. (A) Schematic representation of the mating scheme in *Podocin-Cre*, *Rosa-Dtr*$^{fl/fl}$ and *Srf*$^{fl/fl}$ mice. (B) Identification of *Srf*$^{+/+}$, *Srf*$^{+/-}$*and Srf*$^{-/-}$, *Podocin-Cre* and *Rosa-Dtr*$^{fl/fl}$ by tail genotyping. (C) Immunoblot images of SRF and GAPDH in Ctrl and *Pod-Srf* KO mice primary podocytes. (D) Immunofluorescence images of SRF (green) and WT1 (red) in Ctrl and *Pod-Srf* KO mice glomeruli. Scale bar: 10 μm. (E) Representative immunofluorescence images of Phalloidin (green), SRF (red) and DAPI (blue) in Ctrl and *Pod-Srf* KO primary culture podocytes. Scale bar: 10 μm.

Supplemental Figure 3 Pod-*Epn* KO podocytes does not affect F and G actin ratio.

(A) Representative immunoblot images for F-actin and G-actin in Ctrl and *Pod-Epn* TKO primary podocytes. (B) Quantification of immunoblots in (E) by densitometry. n=7.

Supplemental Figure 4 Transcriptional levels of genes regulated by *Epn* and *Srf* in podocytes.

Reverse transcriptase PCR of genes in control, *Pod-Epn* TKO and *Pod-Srf* KO podocytes. *p<0.05, **p<0.01 n=8

Supplemental Table 1 List of primers used in supplemental figure 4