

Table S1. Details of antibodies

Antibodies	Source	Identifier
Rabbit anti-CD2AP	Cell Signaling Technology	Cat# 5478
Rabbit anti-Nephrin	Abcam	Cat# ab58968
Rabbit anti-Podocin	Sigma-Aldrich	Cat# P0372
Rabbit anti-Desmin	Absin Bioscience	Cat# abs130084
Rabbit anti-Bcl2	Abcam	Cat# ab32124
Rabbit anti-Caspase 3	Cell Signaling Technology	Cat# 9662
Rabbit anti-Cleaved-Caspase 3	Cell Signaling Technology	Cat# 9664
Rabbit anti-Bax	Cell Signaling Technology	Cat# 2772
Rabbit anti-Cytochrome c	Cell Signaling Technology	Cat# 4272
Rabbit anti-COX IV	Proteintech	Cat# 11242-1-AP
Rabbit anti-FIS1	Novusbio	Cat# NB100-56646SS
Rabbit anti-MFF	Proteintech	Cat# 17090-1-AP
Rabbit anti-MID49	Proteintech	Cat# 16413-1-AP
Rabbit anti-MID51	Proteintech	Cat# 20164-1-AP
Mouse anti-PGC1 α	Santa Cruz Biotechnology	Cat# sc-518025
Mouse anti-P-DRP1 (Ser616)	Cell Signaling Technology	Cat# 4494
Rabbit anti-DRP1	Cell Signaling Technology	Cat# 8570
Goat anti-Nephrin	R&D systems	Cat# AF3159
Mouse anti-MMP-9	Santa Cruz Biotechnology	Cat# sc-13520
Rabbit anti- β actin	Baiaosi Bioscience	Cat# BB0712
Goat anti-rabbit (DL 800 4X PEG)	Cell Signaling Technology	Cat# 5151
Goat anti-mouse (DL 800 4X PEG)	Cell Signaling Technology	Cat# 5257
Donkey anti-goat (AF 790 H+L)	Jackson	Cat# 705-655-147
Donkey anti-rabbit (AF488)	Baiaosi Bioscience	Cat# A21206
Donkey anti-goat (AF594)	Baiaosi Bioscience	Cat# A11058
Donkey anti-mouse (AF594)	Baiaosi Bioscience	Cat# A21203
Goat anti-rabbit (AF594)	Cell Signaling Technology	Cat# 4412
Goat anti-mouse (AF488)	Cell Signaling Technology	Cat# 8890

FIS1: mitochondrial fission protein 1; MFF: mitochondrial fission protein; MID49 and MID51: mitochondrial dynamics proteins of 49 and 51 kDa; PGC1 α : peroxisome proliferator-activated receptor- γ co-activator 1 α ; Drp1: dynamin-related protein 1; MMP-9: matrix metalloproteinase-9.

Table S2. Primers for RT-PCR assay

Primer	Probe ID	Forward (5'→3')	Reverse (5'→3')
β-actin	NM_007393.3	GTGACGTTGACATCCGTAAAGA	GTAACAGTCCGCCTAGAAGCAC
MFF	NM_001310695.1	GGAGTTCCAAATGCCAGTGTGAT	TCGGCTCTGCTCTTCGCTTT
MiD49	NM_001009927.2	TGTGGTGGACTTCCTCTTGGC	GAGAATGAATGGGCGTGGG
MiD51	NM_001357659.1	GCAAAGGGAAGAAGGATGACAAT	TTAGGCGGGTAGGGCTGGTA
Fis1	NM_001163243.1	AAATACAATGAGGACATCCGCAG	CCAGGTAGAAGACATAGTCCCGC
Drp1	NM_001025947	AACCAACAACAGGCAACTGGAGAG	AACCTCACAATCTCGCTGTTCTCG
ND1	NM_001160038.1	ATGGTCAGTCTGTCATGGTGGAAC	GCATAGCACAAGCAGCGACAAC
18S	NR_003278	GGCGGCTTGGTGACTCTAGATAAC	CCTGCTGCCTTCCTTGGATGTG
rRNA			
PGC1α	NM_008904.2	CAACCGCAGTCGCAACATG	CCCTTTCTTGGTGGAGTGGC
Nrf1	NM_001164226.1	AGAAACGGAAACGGCCTCAT	ACAATCGCTTGCTGTCCCACT
Nrf2	NM_010902.3	CTGGCTGATACTACCGCTGTTC	AGGTGGGATTTGAGTCTAAGGAG
TFAM	NM_009360.4	GGAGGCAAAGGATGATTCGG	CTTCGTCCAACCTCAGCCATCT

MFF: mitochondrial fission protein; MID49 and MID51: mitochondrial dynamics proteins of 49 and 51

kDa; FIS1: mitochondrial fission protein 1; Drp1: dynamin-related protein 1; ND1:

NADH dehydrogenase subunit 1; PGC1α: peroxisome proliferator-activated receptor-γ co-activator 1α;

NRF1 and NRF2: nuclear respiratory factors 1 and 2; TFAM: transcription factor A, mitochondrial.

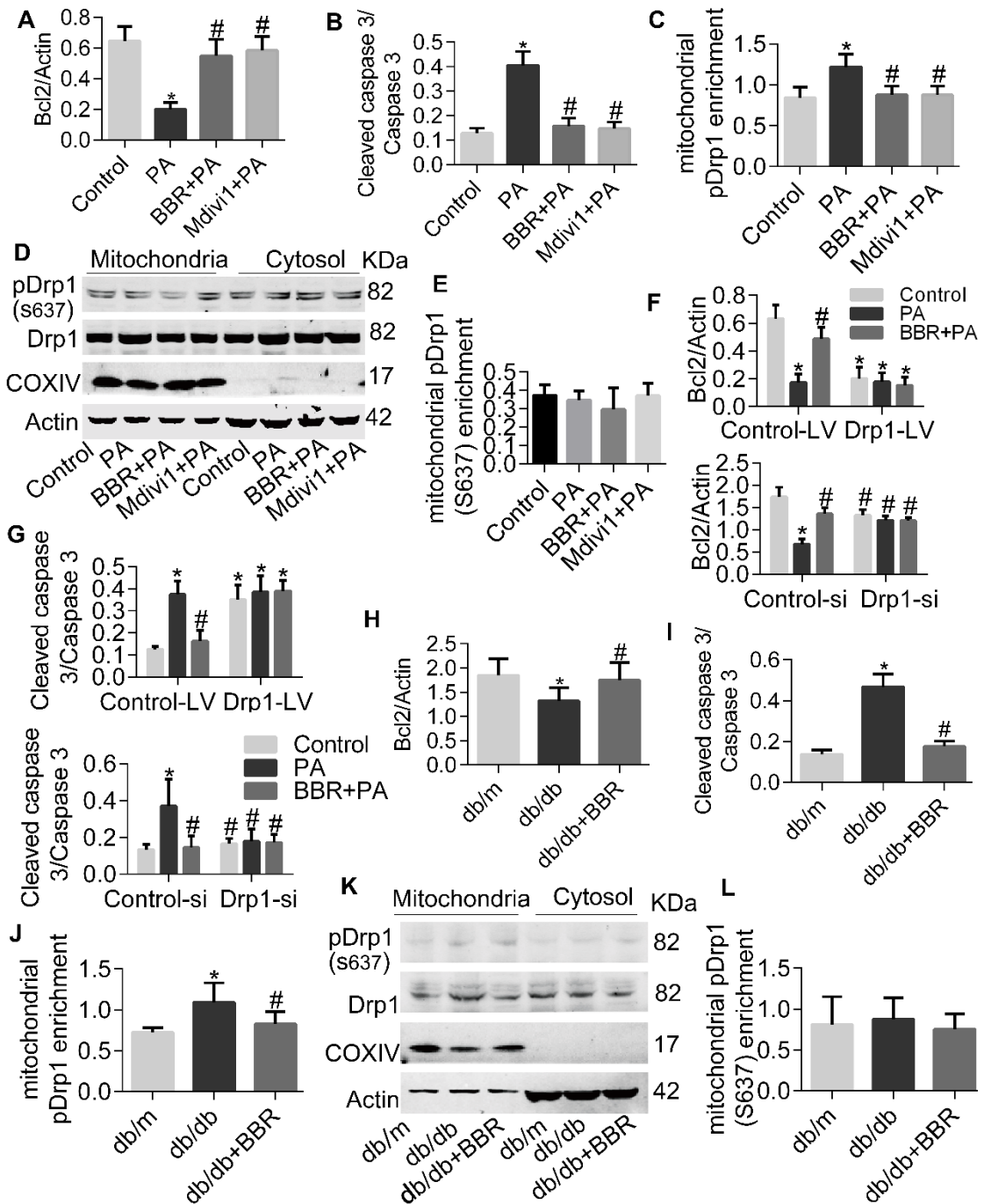


Figure S1. Quantification of the protein levels in Figure 1-8 and immunoblot analysis of pDrp1 (S637) levels in podocytes.

(A) Quantification of Bcl2 expression shown in Figure 1E.

(B) Quantification of cleaved-caspase 3 and caspase 3 levels in Figure 1E.

(C) Quantification of mitochondrial pDrp1 (S616) in cultured podocytes shown in Figure 4B.

(D) Western blot analysis of pDrp1 (637) protein in cultured podocytes.

(E) Bar graphs of mitochondrial pDrp1 (S637) protein levels from S1-D.

(F) Quantification of Bcl2 in figure 5D.

- (G) Quantitative data of cleaved-caspase 3 and caspase 3 levels in Figure 5D.
 - (H) Quantification of Bcl2 expression in mouse samples from Figure 7I.
 - (I) Cleaved-caspase 3 and caspase 3 levels in Figure 7I were quantified
 - (J) Quantification of mitochondrial pDrp1 (S616) in mouse samples from Figure 8E.
 - (K) Western blot analysis of pDrp1 (s637) protein in mouse samples.
 - (L) Quantification of mitochondrial pDrp1 (S637) protein levels from S1-K.
- All data were presented as the mean \pm SEM of three independent experiments and analyzed by one-way ANOVA. *P < 0.05 vs. Control; #P < 0.05 vs. PA. BBR, Berberine; PA, palmitate; Drp1, dynamin-related protein 1; LV, lentivirus; si, si RNA.