Supplementary Table 1. Physical and metabolic parameters of diabetic patients.

Results are means ± SE. #$p < 0.05$ *vs.* nondiabetic control, *$p < 0.05$ *vs.* sedentary diabetics.

Supplementary Table 2. List of antibodies used in the experiments.

Supplementary Figure 1. *A*: Experimental protocol to assess the effect of aerobic physical exercise on nephroprotection in diabetic rats. *B*: Experimental protocol to assess the effect of treating exercised diabetic rats with an irisin receptor blocker (CycloRGDyK) on nephroprotection induced by physical exercise. *C*: Incremental load exhaustion velocity (EV) reached in the initial test and after four and eight weeks of aerobic exercise. *D*: Incremental load test distance reached in the initial test and after four and eight weeks of aerobic exercise. *E*: Incremental load test time reached in the initial test and after four and eight weeks of aerobic exercise in diabetic rats. CT, nondiabetic; DM, sedentary diabetic; DM + Exe, exercised diabetic; DM + Cyclo, sedentary diabetic treated intraperitoneally with 1mg/kg of αV integrin receptor inhibitor (CycloRGDyK); DM + Exe + Cyclo, exercised diabetic treated intraperitoneally with 1mg/kg of CycloRGDyK. Results are means ± SE. #$p < 0.05$ *vs.* initial, *$p < 0.05$ *vs.* after four weeks.

Supplementary Figure 2. Time course of the effect of high glucose treatment in HK-2 cells. *A* and *B*: Western blot analysis of collagen IV, fibronectin, NF-κB(p65) pAMPK$^{(Thr172)}$, AMPKα, pACC$^{(Ser79)}$, ACC, and vinculin in HK-2 cells treated with high glucose for 24 hours or 48 hours followed by quantitation of collagen IV/vinculin, fibronectin/vinculin, NF-κB/vinculin, and pAMPK$^{(Thr172)}$/vinculin by AMPKα/vinculin ratio, and pACC$^{(Ser79)}$/vinculin by ACC/vinculin ratio. The uniformity of protein loading and transfer efficiency were assessed by reprobing the membranes for vinculin. Blots are representative of three independent experiments. Results are means ± SE. NG, normal glucose (5.6 mmol/L); HG, high glucose (30 mmol/L glucose). #$p < 0.05$ *vs.* NG (24 h), *$p < 0.05$ *vs.* NG (48 h).

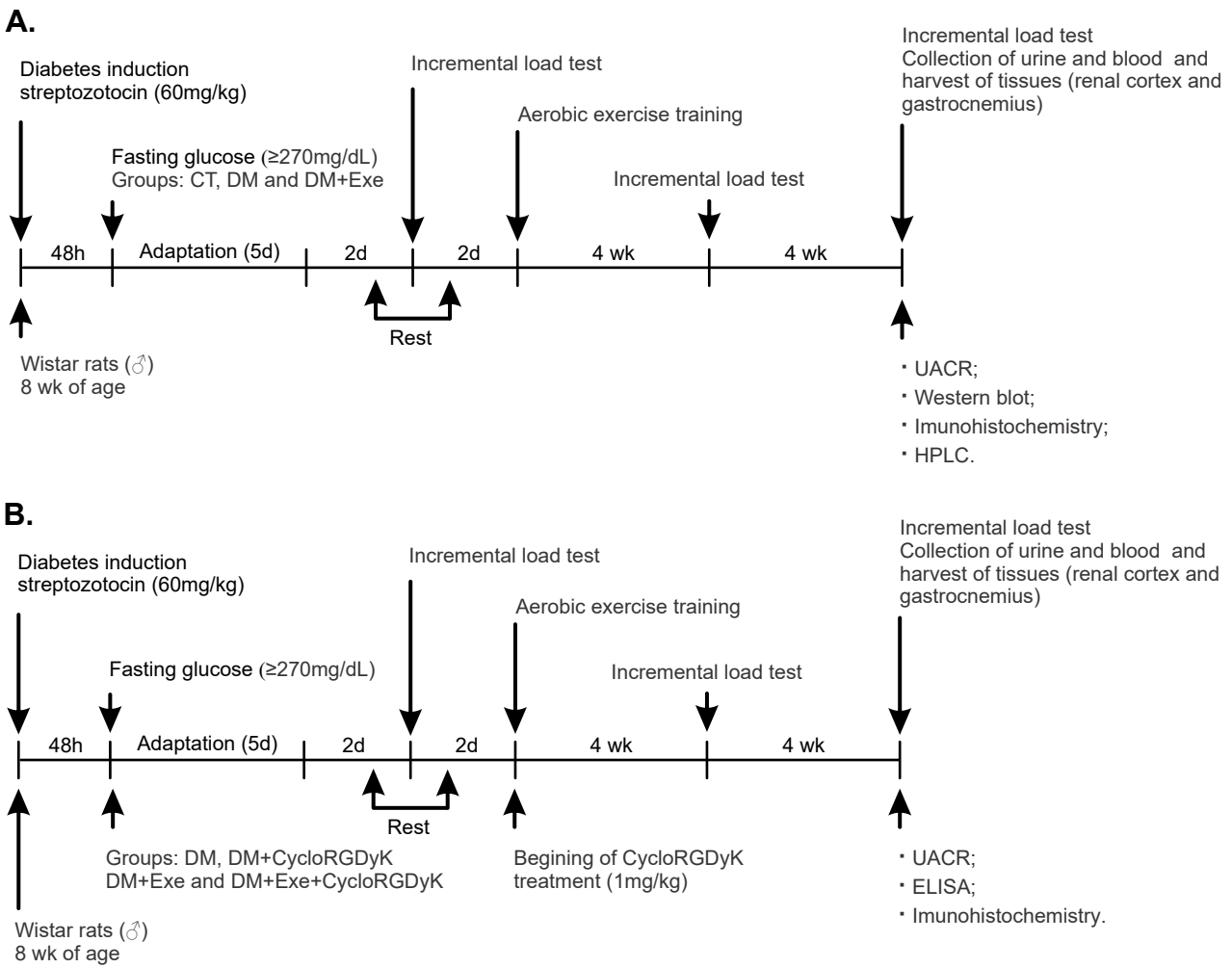
Supplementary Table 1

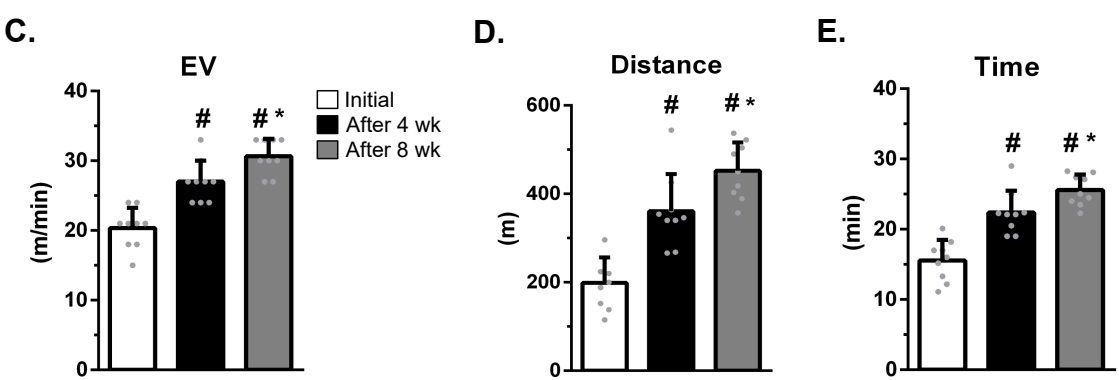
Parameters	Non diabetic control	Sedentary diabetics	Exercised diabetics
Gender (male/female)	6/9	9/6	7/8
Age (years)	47.0 ± 4.8	51.7 ± 4.5	50.6 ± 3.9
BMI (weight/height^2)	26.8 ± 3.3	30.6 ± 3.1$^{\#}$	29.4 ± 3.6$^{\#}$
Diabetes diagnosis (years)	-	4.4 ± 2.0	5.5 ± 2.5
Fasting glucose (mg/dL)	84.9 ± 8.7	144.7 ± 40.8$^{\#}$	131.8 ± 30.9$^{\#}$
Glycated hemoglobin (%)	NA	7.3 ± 1.3	7.2 ± 1.5
Systolic blood pressure (mmHg)	NA	123.3 ± 12.9	113.0 ± 14.6
Diastolic blood pressure (mmHg)	NA	79.1 ± 7.4	73.2 ± 9.0
Serum irisin (μg/mL)	NA	1.1 ± 0.5	1.7 ± 0.6*

Supplementary Table 2

Antibodies (dilution)	Source	Identifier
Anti-rabbit phospho-AMPKa Thr172 (1:1000)	Cell Signaling Technology	Cat. # 2535
Anti-rabbit AMPKa (1:1000)	Cell Signaling Technology	Cat. # 5831
Anti-rabbit phospo-ACC Ser79 (1:1000)	Cell Signaling Technology	Cat. # 11818
Anti-rabbit ACC (1:1000)	Cell Signaling Technology	Cat. # 3676
Anti-rabbit vinculin (1:1000)	Cell Signaling Technology	Cat. # 13901
Anti-rabbit GAPDH (1:1000)	Cell Signaling Technology	Cat. # 5174
Anti-rabbit phopho-NF-κB p65 (1:1000)	Cell Signaling Technology	Cat. # 3033S
Anti-rabbit PGC1-α (1:250)	Cell Signaling Technology	Cat. # 2178S
Anti-rabbit fibronectin (1:100 – WB, 1:50 – IHC)	Abcam	Cat. # ab2413
Anti-rabbit type IV collagen (1:50 – IHC)	Abcam	Cat. # ab6586
Anti-goat type IV collagen (1:1000)	SouthernBiotech	Cat. # 1340-01
Anti-rabbit acetyl - Lys310 - NF-κB p65 (1:500)	Assay Biotechnology	Cat. # D0018
Anti-mouse NF-κB p65 (1:500)	Santa Cruz Biotechnology	Cat. # sc8008
Anti-mouse TNF-a (1:25 – IHC)	Santa Cruz Biotechnology	Cat. # sc52746
Anti-mouse F4-80 (1:50 – IHC)	Bio-Rad Laboratories	Cat. # MCA497RT
Anti-rabbit FNDC5/irisin (1:1500)	Phoenix Pharmaceuticals	Cat. # G-067-16
Anti-rabbit HRP-linked (1:2000)	Cell Signaling Technology	Cat. # 7074S
Anti-goat HRP-linked (1:2000)	Santa Cruz Biotechnology	Cat. # sc2354
Anti-mouse HRP-linked (1:2000)	Thermo Fisher Scientific	Cat. # 31430
Biotinylated anti-rabbit H+L (1:200)	Vector Laboratories	Cat. # BA-100
Biotinylated anti-mouse H+L (1:200)	Vector Laboratories	Cat. # BA-200

Supplementary Figure 1





Supplementary Figure 2