

SUPPLEMENTARY DATA

Supplementary Table 1.

The primer sequences used for qRT-PCR:

Gene	Forward primer	Reverse primer
G6Pase	TCGGAGACTGGTTCAACCTC	ACAGGTGACAGGGAACTGCT
PEPCK	CTAACTTGGCCATGATGAACC	CTTCACTGAGGTGCCAGGAG
PGC1 α	TATGGAGTGACATAGAGTGTGCT	CCACTTCAATCCACCCAGAAAG
IGFBP1	ATCAGCCCATCCTGTGGAAC	TGCAGCTAATCTCTCTAGCACTT
Gyk	TGGGTAGAACAAGACCCGAAG	TTCCTCTGGTTGCTGACAC
36B4	CCCTGAAGTGCTCGACATCA	TGCGGACACCCTCCAGAA
miR-451	CTGGTGTCGTGGAGTCGGCAAT	ACACTCCAGCTGGGAAACCGTT ACCATT
U6	CTCGCTTCGGCAGCACA	AACGCTTCACGAATTTGCGT

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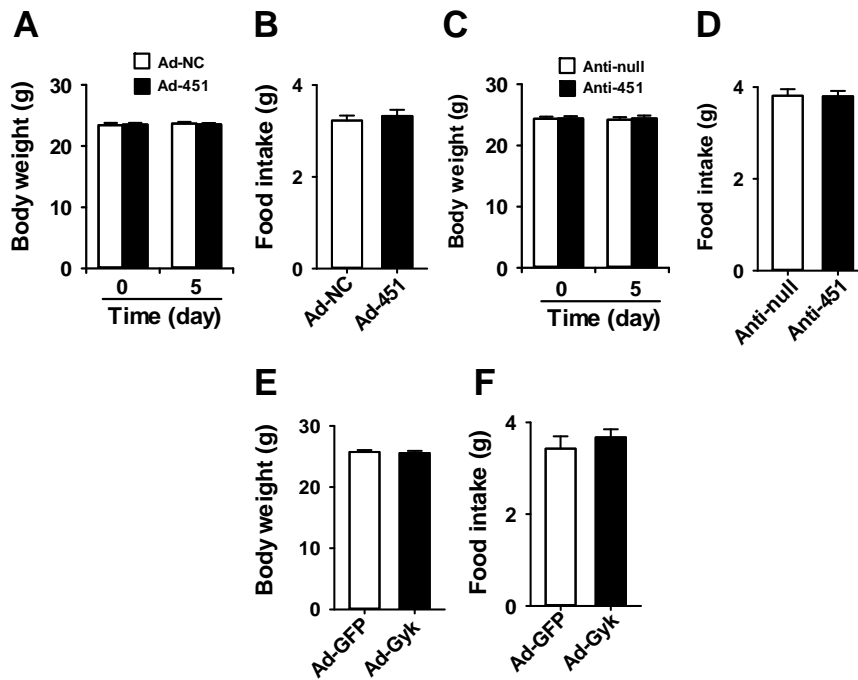
Supplementary Table 2.

The primary antibodies used for Western blot:

Antibody	Catalogue No.	Reagent company
AKT	# 9272	Cell Signaling Technology
phospho-AKT (Ser473)	# 9271	Cell Signaling Technology
GSK3 β	# 9315	Cell Signaling Technology
phospho-GSK3 β (Ser9/21)	# 9336	Cell Signaling Technology
FOXO1	# 2880	Cell Signaling Technology
phospho-FOXO1 (Ser256)	# 9461	Cell Signaling Technology
Phospho-IGF-I Receptor β (Tyr1131)/Insulin Receptor β (Tyr1146)	#3021	Cell Signaling Technology
14-3-3 ζ	sc-1019	Santa Cruz
Glycerol kinase	ab126599	Abcam,
β -actin	A1978	Sigma-Aldrich

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Supplementary Figure 1. Effect of infection with adenoviruses expressing different molecules on body weight and food intake of mice. C57BL/6 mice infected with adenoviruses expressing miR-451 pre-miRNA (Ad-451), miR-451 sponges (Anti-451), glycerol kinase (Gyk), or corresponding control adenoviruses (Ad-NC, Anti-null, and Ad-GFP) for 5 days were examined for body weight (A, C, E) and 24 h food intake (B, D, F) (n=7 per group). Means \pm SEMs shown are representative of three independent experiments with the number of mice included in each group in each experiment indicated.



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Supplementary Figure 2. Effect of inhibition of miR-451 on the diabetic syndromes in db/db mice. db/db mice or control wild type mice (WT) infected with adenoviruses expressing miR-451 sponges (Anti-451), or control viruses (Anti-null) for 5-7 days were examined for blood glucose levels after feeding (A), glucose tolerance (B), and hepatic gluconeogenic gene expression (n=5-7 per group). Means \pm SEMs with the number of mice included in each group indicated. *P<0.05.

