Figure S1. Partial β-islet cell necrosis in T2DM rats. Pancreas section stained with hematoxylin and eosin shows decreased but not total destruction of islets of Langerhans at 25 weeks in streptozotocin+high-fat, high-carbohydrate (T2DM) rats. Yellow arrows show normal islet cells and the blue arrow shows total destruction of pancreatic islets. T2DM, type 2 diabetes mellitus.

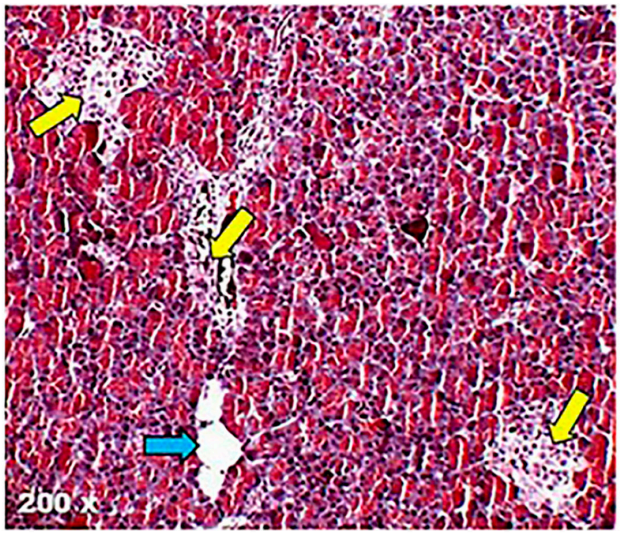

Figure S2. AG does not change Nos2, Nox4 and Ucp2 mRNA expression in myofibroblasts. Primary myofibroblasts were preincubated with 0-50 nM insulin and 0-17.5 mM glucose for 48 h and were treated with and without 0-1 mM AG up to 24 h. Nos2, Nox4 and Ucp2 mRNA expression was similar in AG-treated compared with untreated myofibroblasts in type 2 diabetes mellitus conditional medium. Gene amplification was normalized against β-actin expression, and gene expression levels are shown as relative expression units with comparison to the control group as an internal calibrator. The values represent the mean ± SD. n=3/group in experiments performed in triplicate. AG, aminoguanidine; Nox4, NADPH oxidase 4; Ucp2, uncoupling protein 2.

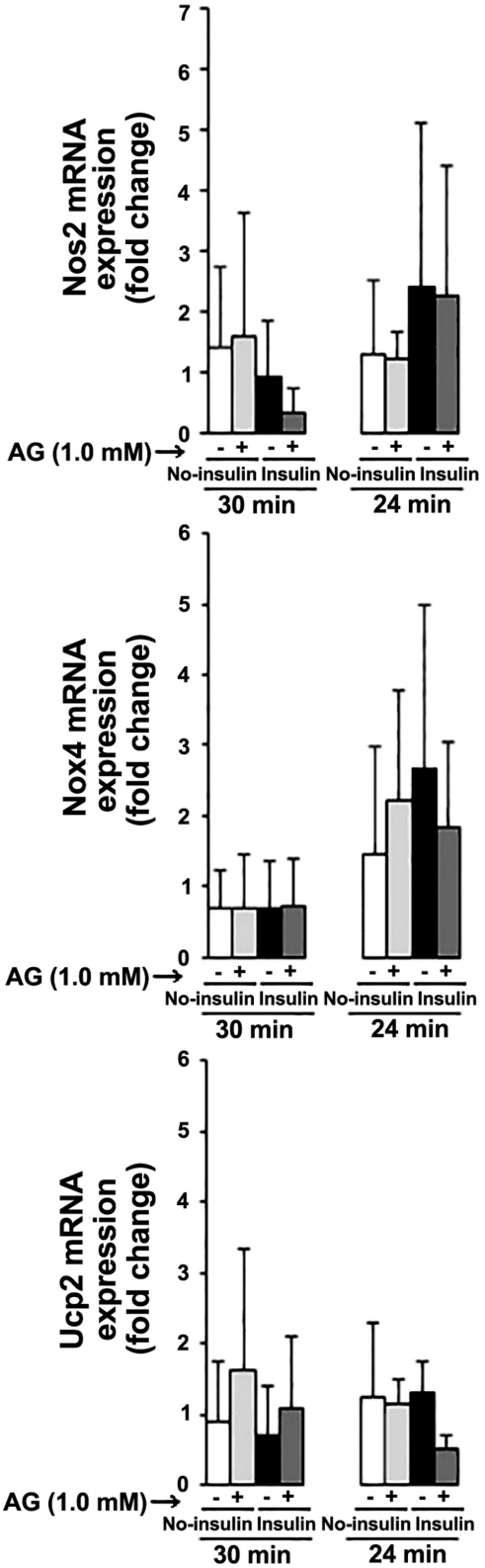

Table SI. List of commercially available antibodies used.

Target	Catalogue number	Source
Actin	sc-130657	Santa Cruz Biotechnology, Inc.
p-ERK1/2	sc-7383	Santa Cruz Biotechnology, Inc.
ERK1/2	sc-292838	Santa Cruz Biotechnology, Inc.
p-Akt1/2/3	sc-16646-R	Santa Cruz Biotechnology, Inc.
p-Akt1/2/3	sc-7985-R	Santa Cruz Biotechnology, Inc.
AKT	sc-1618	Santa Cruz Biotechnology, Inc.
p-Smad2/3	52903	Abcam
Smad2/3	8685	Cell Signaling Technology, Inc.
p-JNK	sc-6254	Santa Cruz Biotechnology, Inc.
JNK	9252	Cell Signaling Technology, Inc.
p-STAT3	9145	Cell Signaling Technology, Inc.
STAT3	9132	Cell Signaling Technology, Inc.

Table SII. Primer sequences.

Gene (rat)	Forward	Reverse
β-actin	5'-AGCCATGTACGTAGCCATCC-3'	5'-CTCTCAGCTGTGGTGGTGAA-3'
Ager	5'-GGGTCACAGAAACCGGTGAT-3'	5'-GTCTGGGTTGTCGTTTTCGC-3'
Col1a1	5'-AAGGCCCACGGGGACCTGTT-3'	5'-GGGCCAGGCACGGAAACTCC-3'
Il6	5'-GTGGCTAAGGACCAAGACCA-3'	5'-TAGCACACTAGGTTTGCCGAG-3'
Nos2	5'-ACACAGTGTCGCTGGTTTGA-3'	5'-AACTCTGCTGTTCTCCGTGG-3'
Nox4	5'-GTCTGCTTGTTTGGCTGTCC-3'	5'-ACACAATCCTAGGCCCAACA-3'
Nrf2	5'-AGACCAGAGATGGCAACGTG-3'	5'-TCCATCCTCCCGAACCTAGT-3'
Pdgfb	5'-GGAGCTGTTTGTGC-3'	5'-CACAATGTCTGTTC-3'
Tgfβ1	5'-TGGTGGACCGCAACAACGCA-3'	5'-TGCACGGGACAGCAATGGGG-3'
Tnfα	5'-CTCCCAGGTTCTCTTCAAGG-3'	5'-TGGAAGACTCCTCCCAGGTA-3'