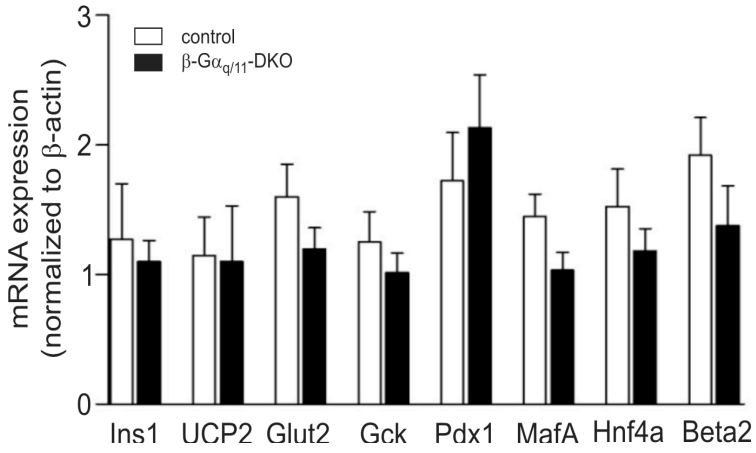
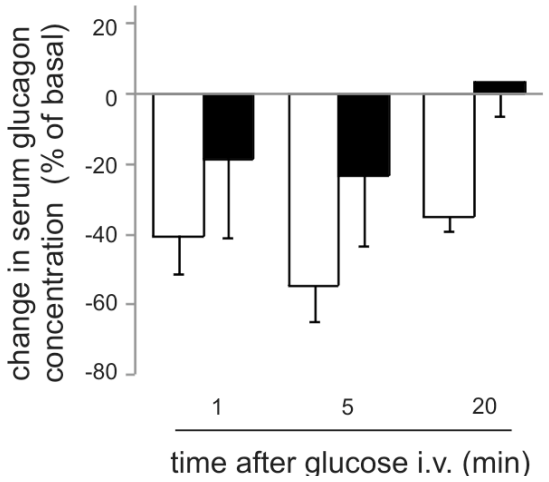
Supplemental information for Sassmann *et al*., 2009

Supplemental Figures



Supplemental Figure 1: Expression of marker genes in isolated islets from control mice and β-Gα_q/Gα_{11}-DKOs as determined by reverse transcription polymerase chain reaction. Data were normalized to β-actin. Gck, Glucokinase; Glut2, Glucose transporter 2; Hnf4a, hepatocyte-associated transcription factor-4; Ins1, Insulin -1; Pdx1, pancreatic and duodenal homeobox 1; UCP2, uncoupling protein 2.



Supplemental Figure 2: Reduction of serum glucagon levels after intravenous glucose injection (1 mg/g) in fasted control mice (white bars) and β-$G\alpha_q$/$G\alpha_{11}$-DKOs (black bars) (expressed as % reduction compared to glucagon concentration before glucose application).

Supplemental Methods

RT- PCR

mRNA from isolated pancreatic islets was prepared with a RNeasy Mini kit (Qiagen). Reverse transcription was performed according to standard protocols. Amplification was performed with following primers: Ins1 5`- GCTGGTAGAGGGAGCAGATG-3`/5`- CAGAGACCAT-CAGCAAGCAG-3`; Pdx1 5`- TGGCTCTTTTCCCTGAAGAA-3`/5`CGGTAGCAACCAA-GAGGAAA-3`; Beta2 5`- GCAAACTGAAAATCAAAACCAA-3`/ 5`-GGATTGTTATCA-AAAGTTGAAAGATG-3`; Glut2 5`-TGATCGGCACAAGTGTGTTT-3`/5`-AGGGAGGG-AGATCGAGAGAG-3`; MafA 5´-GAGGCTCCCCTGTCTCTTCT-3`/5`-GCGTATGCCAT-CACAAACTT-3`; Hnf4a 5`-CAAGCTTGCAAGGCAAATG-3`/5`-GCGAGTGAATGAGT-GAATGG-3`; Gck 5`-GAAGGAGAAGGGGAAGGAGA-3`/5`-ATGTTCAGGGCTTGTTC-AGG-3`; UCP2 5`-CAGCCAGCGCCCAGTACC-3`/5`-CAATGCGGACGGAGGCAAAG-C-3` using the Platinum SYBR Green qPCR SuperMix UGD (Invitrogen Life Technologies) and an ABI PRISM 7700 Sequence detection system (Applied Biosystems). The resulting bands were normalized against β-actin.

Determination of glucagon levels

Serum glucagon concentrations were measured using a Glucagon RIA kit (Linco Research, St. Charles, MO, USA)