

**ESM Figure 1. Microarray gene expression of GABA signalling system components in human pancreatic islets.**

(a) Microarray gene expression profile showing mean expression of 19 GABA<sub>A</sub> channel subunit genes in pancreatic islets from non-diabetic individuals (grey bar, n = 54; 31 males, 23 females). Abundant expression of the  $\beta$ 3,  $\gamma$ 2 and  $\pi$  GABA<sub>A</sub> channel subunits was observed. Microarrays data were summarized and normalized with Robust Multi-array Analysis (RMA) and presented as mean $\pm$ SEM. AU, arbitrary units.

(b) Microarray gene expression profile showing mean expression of 14 GABA-signalling system associated proteins, receptors, enzymes and transporter genes in pancreatic islets from non-diabetic individuals (grey bar, n = 54; 31 males, 23 females). Abundant expression of the *GABARAP*, *RADIXIN*, *GAD65* and the *NKCC1* genes was observed.

