

Description of Additional Supplementary Files

Supplementary Figures 1-9: that support the main figures are included.

Supplementary Data 1: Nanostring gene expression profiling of 126 genes in human islets isolated from non-diabetic (n=21) and those living with Type 2 diabetes (n=12). Reads are expressed as normalized counts.

Supplementary Data 2: Differentially expressed genes following RNAseq of islets from 8-week old male control (*Ins1*^{+/+}; *Med15*^{fl/fl}) and M15betaKO (*Ins1*^{Cre/+}; *Med15*^{fl/fl}) mice.

Supplementary Data 3: Additional information on Nanostring codeset used for human islet gene expression profiling, including: gene names and accession numbers; probe location, sequence and melting temps.

Source data for all figures: The source data for Figures 1-6 is included in the Source_Data.xlsx file