

| Gene symbol | Gene title | P16 | P19 | P32 |
|----------------------|--|-----|-----|-----|
| <i>Star</i> | steroidogenic acute regulatory protein | - | 0.2 | - |
| <i>Cyp39a1</i> | cytochrome P450, family 39, subfamily a, polypeptide 1 | ns | ns | 0.2 |
| <i>Mat1a</i> | methionine adenosyltransferase I, alpha | ns | ns | 0.2 |
| <i>Alb1</i> | albumin 1 | 0.2 | - | - |
| --- | RIKEN cDNA 6330416G13 gene | ns | - | 0.3 |
| <i>Hamp2</i> | hepcidin antimicrobial peptide 2 | ns | ns | 0.1 |
| <i>Fabp1</i> | fatty acid binding protein 1, liver | 0.0 | - | - |
| <i>Upp2</i> | uridine phosphorylase 2 | 0.2 | ns | 0.4 |
| <i>Tdh</i> | L-threonine dehydrogenase | ns | 0.2 | - |
| <i>1810008K16Rik</i> | ER resident transmembrane homologous to yeast ERP-6, emp24/gp25L/p24 | ns | 0.2 | 0.1 |
| --- | RIKEN cDNA 2310014L17 gene | ns | 0.3 | ns |
| --- | RIKEN cDNA A030012M09 gene | ns | ns | 0.3 |
| <i>Eif2ak3</i> | eukaryotic translation initiation factor 2 alpha kinase 3 | 0.4 | ns | 0.2 |
| <i>Serpina1a</i> | serine (or cysteine) proteinase inhibitor, clade A, member 1a | 0.0 | - | - |
| <i>Ahsg</i> | alpha-2-HS-glycoprotein | 0.1 | - | - |
| <i>Tdel</i> | tumor differentially expressed 1 | 0.2 | ns | ns |
| <i>Vegfb</i> | vascular endothelial growth factor B | ns | - | 0.2 |
| <i>Camk2b</i> | Calcium/calmodulin-dependent protein kinase II, beta | ns | 0.4 | 0.0 |
| <i>Myh6</i> | myosin, heavy polypeptide 6, cardiac muscle, alpha | - | - | 0.1 |
| <i>Vtn</i> | vitronectin | ns | ns | 0.2 |
| <i>Vtn</i> | vitronectin | ns | ns | 0.2 |
| <i>Gngt1</i> | guanine nucleotide binding protein (G protein), gamma transducing activity polypeptide 1 | ns | ns | 0.3 |
| <i>Pou2f1</i> | POU domain, class 2, transcription factor 1 | ns | ns | 0.3 |
| <i>Eomes</i> | eomesodermin homolog (<i>Xenopus laevis</i>) | - | - | 0.1 |
| --- | RIKEN cDNA 2210418O10 gene | ns | 0.5 | 0.2 |
| <i>BC013476</i> | similar to cytochrome P450, 4a10 | ns | - | 0.2 |
| --- | similar to ubiquinol-cytochrome c reductase complex (7.2 kD) | ns | 0.1 | 0.3 |
| <i>Pnrc1</i> | proline-rich nuclear receptor coactivator 1 | 0.2 | - | ns |
| <i>Dtl</i> | denticleless homolog (<i>Drosophila</i>), 2810047L02Rik | 0.2 | - | - |

Table S2. Summary of microarray data for genes with decreased expression levels. Numbers are fold changes in gene expression levels in the mutant pancreata as compared to wild-type controls. Genes that showed reduced expression levels by 4 fold or higher in at least one age group are shown. “-,” expression was not detectable at a significant level; “ns,” expression was detectable but was not identified as significantly different between mutant and wild-type samples (i.e., less than 2-fold change). For P16 samples, RNA from a single pancreas was used per array, and each genotype had two biological replicates. For data analysis, signals of the replicates were averaged for each probe within a genotype for calculation

of a ratio (i.e., mutant average signal / wild-type average signal). Genes identified by the software as “Present” in at least one array out of a total of 4 arrays were selected for further analyses, and those with ratios ≤ 0.5 or ≥ 2.0 were considered as differentially expressed genes at a significant level. For P19 and P32 experiments, cDNA sample was similarly generated from total pancreatic RNA (10 μg) from single animals and then, equivalent amounts of two samples of the same genotype were pooled prior to cRNA and hybridization to a single array. Genes identified as “Present” in at least one of the two arrays (mutant and wild-type) were selected for further analyses. The genes that showed a decrease difference of ≥ 2.0 fold in the magnitude (i.e., Signal Log Ratio ≥ 1.0 or ≤ -1.0) were considered as differentially expressed genes at a significant level. Repeat appearance of the same gene in the tables indicates multiple detections by different Affymetrix probes for the same gene.