

SUPPL. TABLE 2 Overrepresentation of functional classes among regulated genes in *Hnf4a*^{pKO} islets

I. Downregulated Genes in *Hnf4a*^{pKO} islets

Functional Annotation Clustering (DAVID 2008)

Representative Terms in Cluster	Fisher Exact p value
Transmembrane region	0.01
Selenium binding	0.02
Intercellular junction	0.03
Symporter activity, Ion transmembrane transporter activity	0.04
Sulfotransferase activity	0.04
Sugar transport	0.05
Signal transduction	0.06

Gene Set Enrichment Analysis of Pathways

Pathway	Nominal p value	FDR q value
GHPATHWAY (BioCarta)	<0.0001	0.019
BIOSYNTHESIS_OF_STEROIDS (KEGG)	<0.0001	0.031
HSA01032_GLYCAN_STRUCTURES_DEGRADATION (KEGG)	<0.0001	0.042
HSA00450_SELENOAMINO_ACID_METABOLISM (KEGG)	<0.0001	0.114
ERK5PATHWAY (BioCarta)	<0.0001	0.131
WNTPATHWAY (BioCarta)	<0.0001	0.147
RARRXRPATHWAY (BioCarta)	<0.0001	0.196

II. Upregulated Genes in *Hnf4a*^{pKO} islets

Functional Annotation Clustering (DAVID 2008)

Representative Terms in Cluster	Fisher Exact p value
Transmembrane region	0.01
Secreted; extracellular space	0.04
Lysosome	0.01
Cytokine activity	0.04
Polyamine metabolic process	0.02
MAPK signaling pathway	0.05
Cell adhesion	0.04
Response to stress	0.07
Extracellular matrix	0.10

Gene Set Enrichment Analysis of Pathways

Pathway	Nominal p value	FDR q value
Up-regulated during TGFbeta-induced epithelial-to-mesenchymal transition (EMT)	<0.0001	<0.0001
MAPK_SIGNALING_PATHWAY (Kegg)	<0.0001	0.021
Upregulated by hypoxia in normal fibroblasts	<0.0001	<0.0001
TGF_BETA_SIGNALING_PATHWAY (Kegg)	<0.0001	0.023
REGULATION_OF_ACTIN_CYTOSKELETON (Kegg)	<0.0001	0.114
LEUKOCYTE_TRANSENDOTHELIAL_MIGRATION (Kegg)	<0.0001	0.002
INTEGRINPATHWAY (Biocarta)	<0.0001	0.001
TGF_BETA_SIGNALING_PATHWAY (Biocarta)	<0.0001	0.196