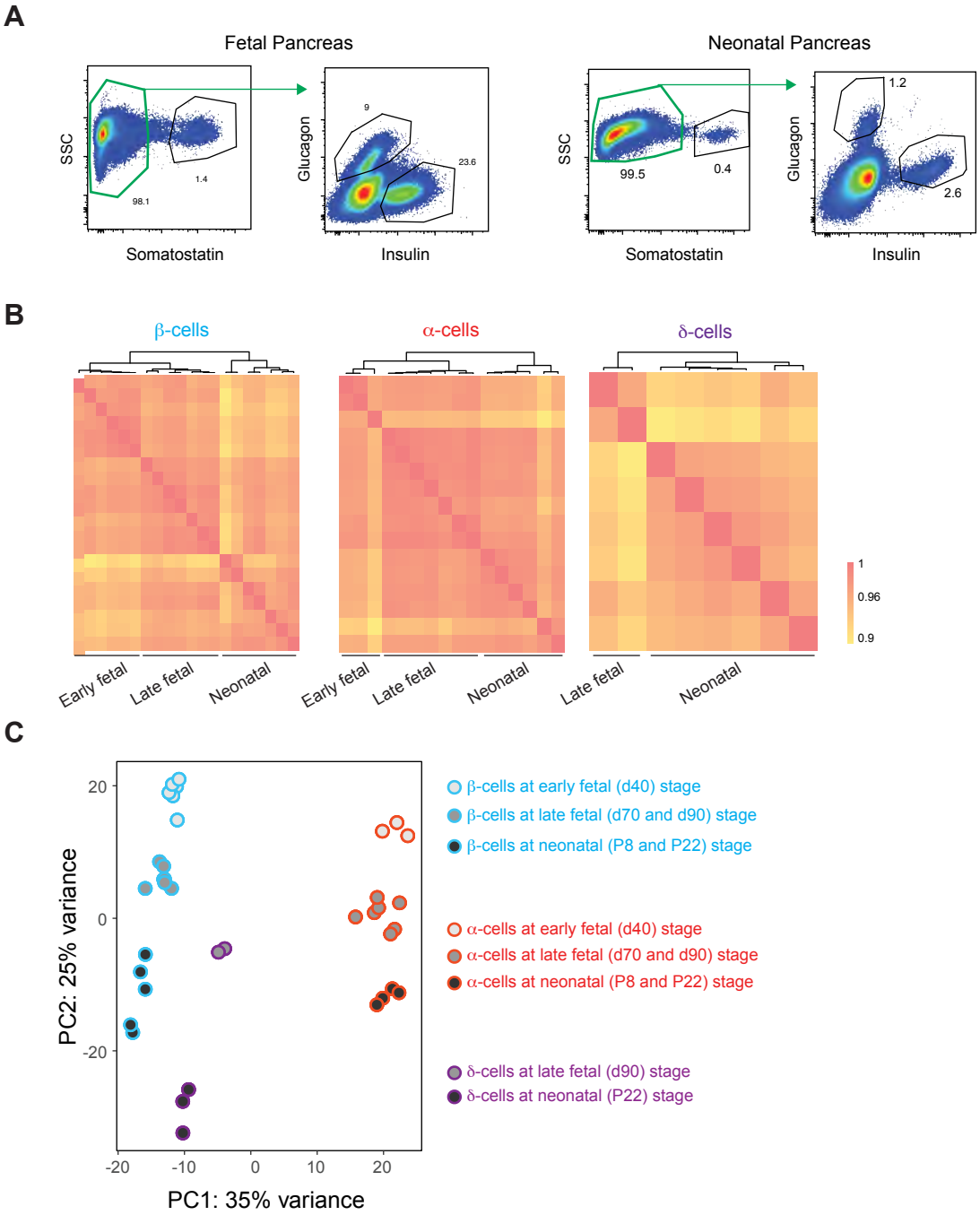

Fig. S1. (A) FACS plots demonstrating distinct populations of Insulin (INS) positive β-, glucagon (GCG) positive α- and somatostatin (SST) positive δ-cells among dispersed fetal and neonatal pancreatic cells. (B) Pearson correlation matrix of all RNA-seq samples used in this study demonstrating distinct stage specific gene expression patterns in β-, α-, and δ-cells (C) Principal Component Analysis indicating the RNA-Seq libraries cluster according to cell type in principle component 1, followed by developmental stage in principle component 2

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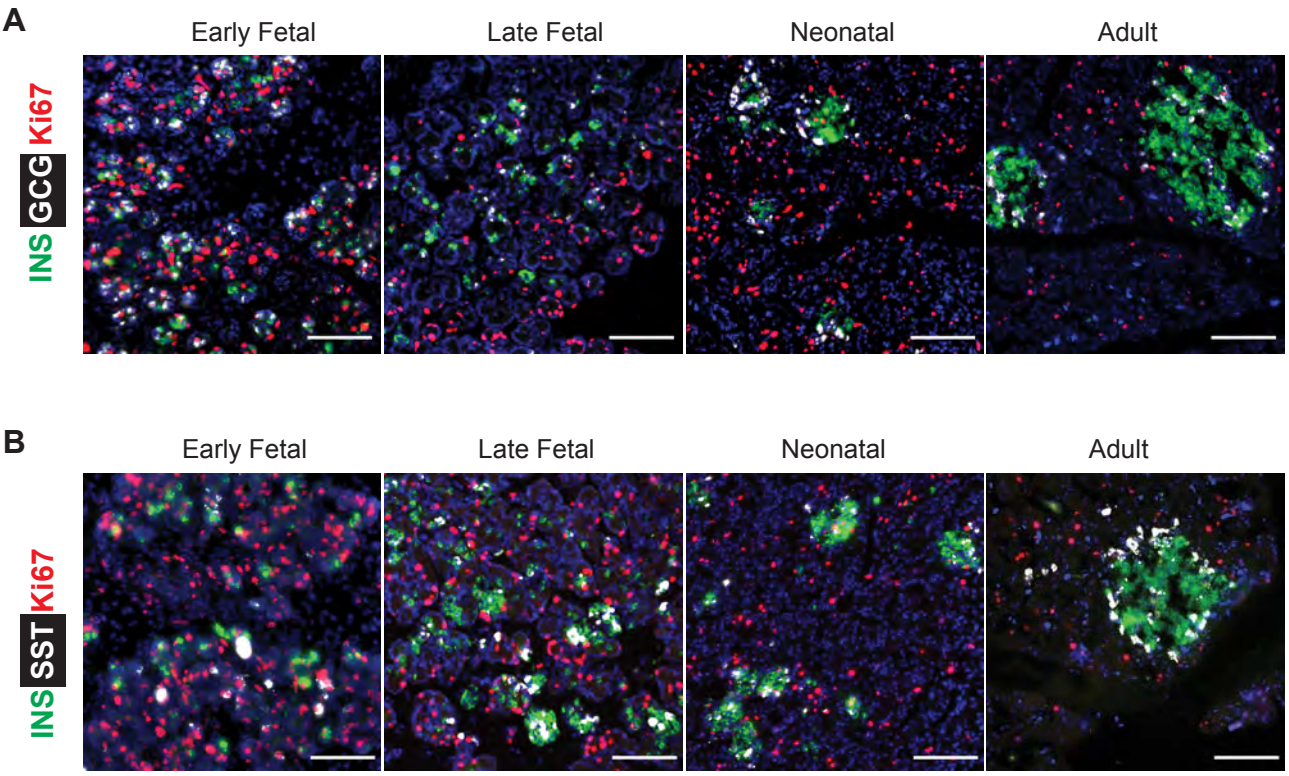

Fig. S2. Representative immunofluorescence images showing (A) Insulin and Glucagon or (B) Insulin and Somatostatin co-stained with Ki67 (Scale bars, 100 µm)

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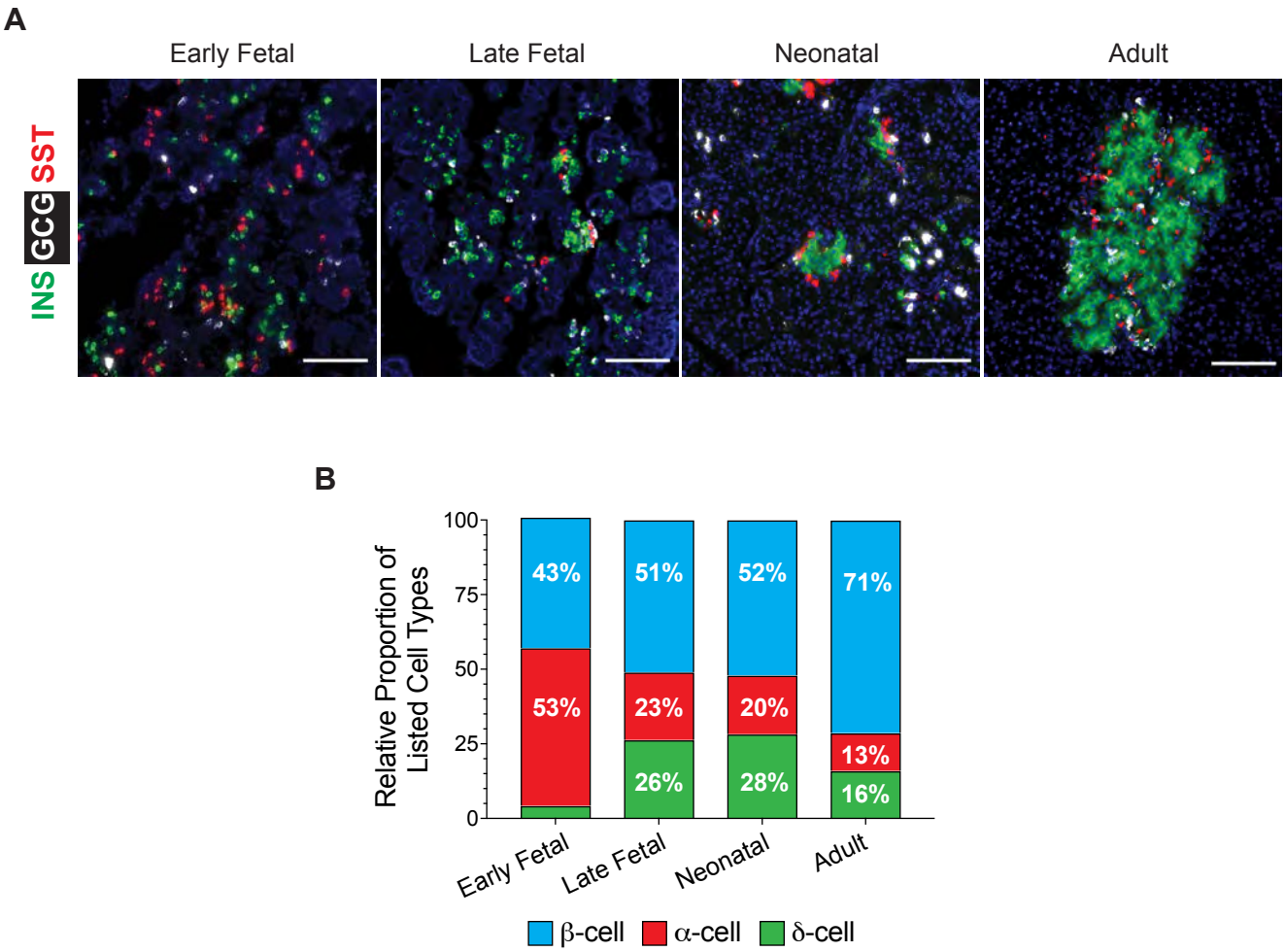

Fig. S3. Representative immunofluorescence images (A) and (B) their quantification graphs showing relative proportion of INS+, GCG+ and SST+ cells in each developmental stage (n = 40 images per group, from 3 pigs per group, Scale bars, 100 µm)

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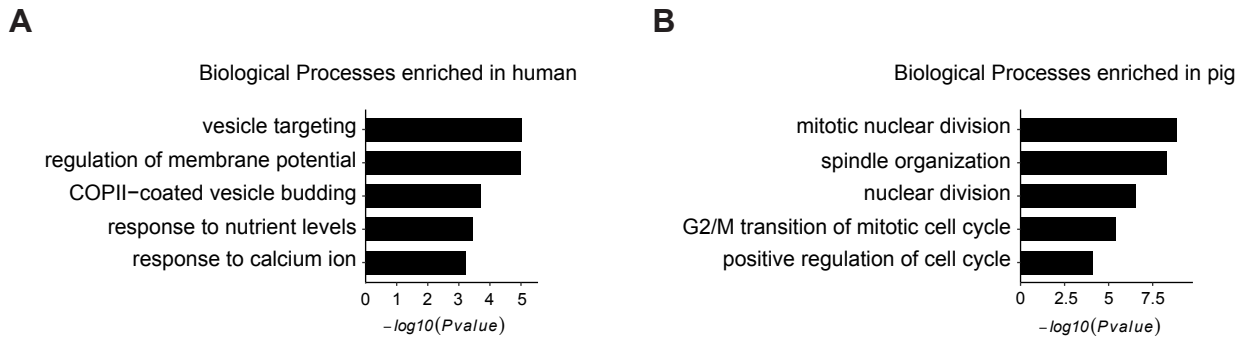

Fig. S4. Enriched GO terms with genes enriched in (A) human and (B) pig β-cells at neonatal stage. Adjusted p value threshold was 0.05.

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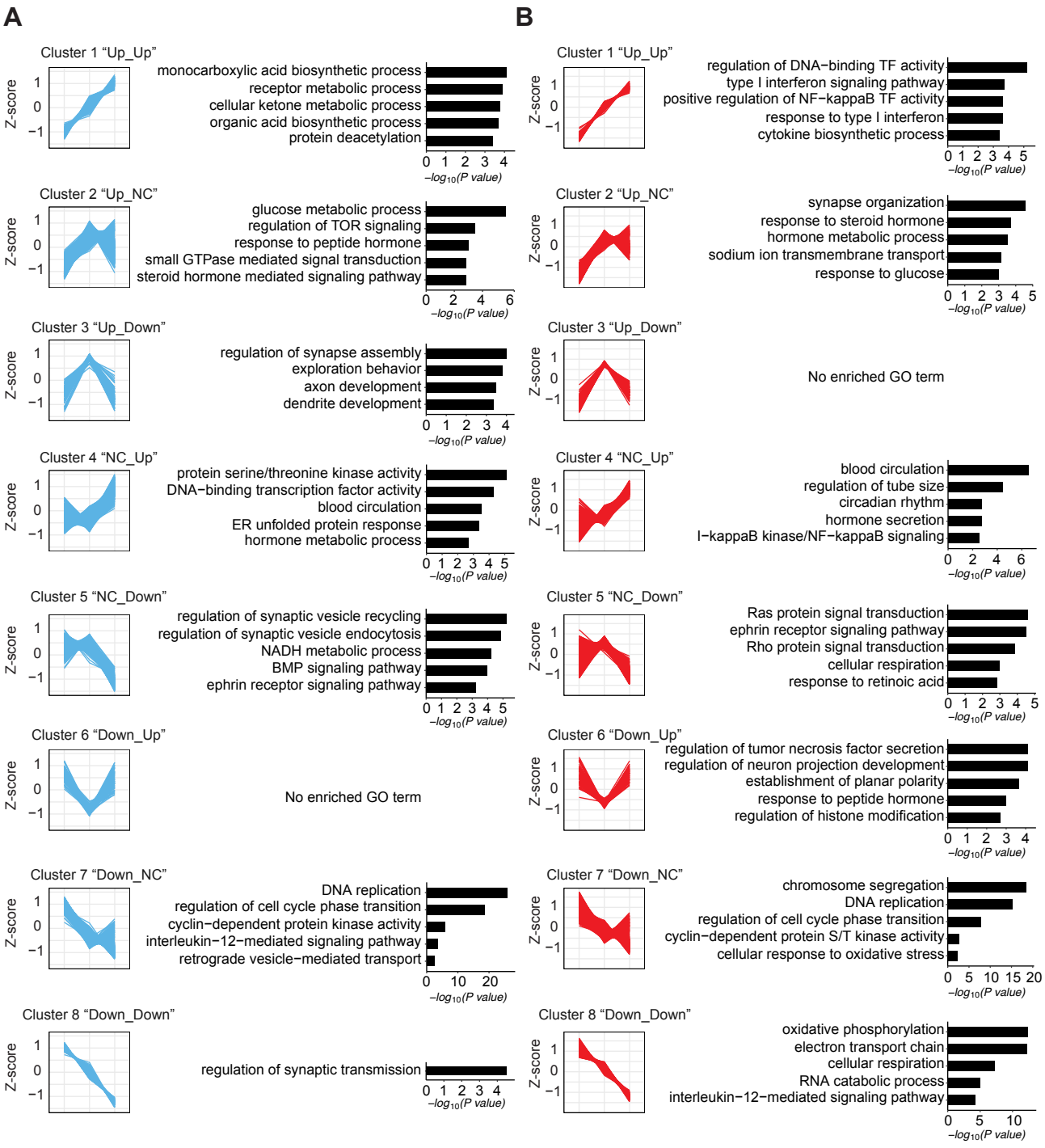

Fig. S5. (A, B) Visualization of gene expression change with z score representing log2(X+1) transformed TPM counts of genes in 8 clusters. Genes were clustered based on expression changes from early fetal stage to neonatal day 22 in β- (A) and α- (B) cells. Enriched GO terms with genes in each cluster are shown to the right. Adjusted p value threshold was 0.1.

Supplementary Tables

Table S1. List of RNA-Seq libraries sequenced in this study

Click here to Download Table S1

Table S2. Differentially expressed genes in pig β-, α-, and δ-cells between two developmental stages (Early fetal vs Late fetal, Late fetal vs Neonatal)

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Table S3. TPM counts of genes in each RNA-seq library

Click here to Download Table S3

Table S4. Genes which are developmentally regulated in human and pig islet cells

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Table S5. Differentially expressed genes and GO term analysis comparing neonatal human and pig β-cells.

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Table S6. Genes with dynamic expression in pig β- and α-cells from early fetal to neonatal stages.

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Table S7. MODY and NDM genes which are developmentally regulated in human and pig islet cells

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Table S8. Up- and down-regulated genes in pig β-cells between late fetal and P22.

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Table S9. GO term analysis in pig β-cells between late fetal and P22.

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