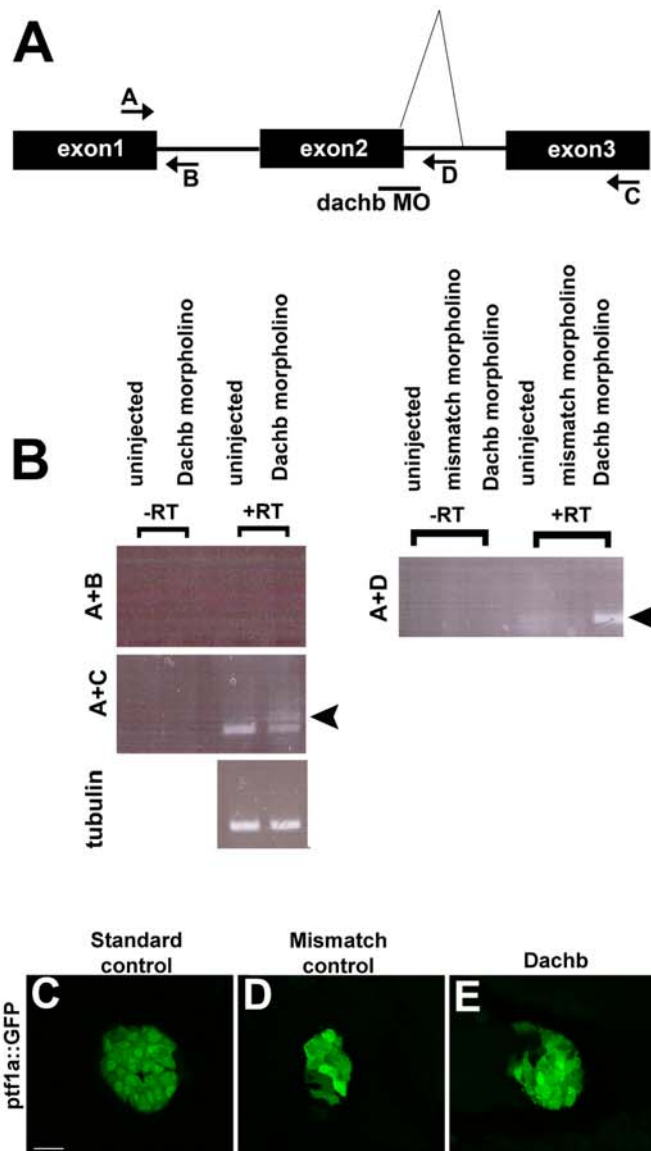


Figure S1



S1. Effect of the dachb morpholino on the splicing pattern of the dachb mRNA and on the exocrine pancreas. A. Schematic representation of the first three exons of the dachb gene. Dachb morpholino targets the junction between exon 2 and intron 2-3. The arrows indicate the position of PCR primers relative to the exons, the introns, and the new splicing pattern. B. RT-PCR with RNA extracted from morpholino-injected embryos. Dachb morpholino induces a knock-down of the fully spliced dachb mRNA. The primers used are as indicated in (A). The presence of a portion on intron 2-3 is indicated by arrowheads. Lower panels: GFP reporter protein expression of Tg(ptf1a::GFP) embryos at 48hpf in ptf1a::GFP embryos injected with the following morpholino oligonucleotides: standard control (C), mismatch control (D) and dachb morpholino (E). All panels are optical sections of ventrally-viewed yolk-free embryos with anterior to the left. Scale bar, 50µm.

Figure S2

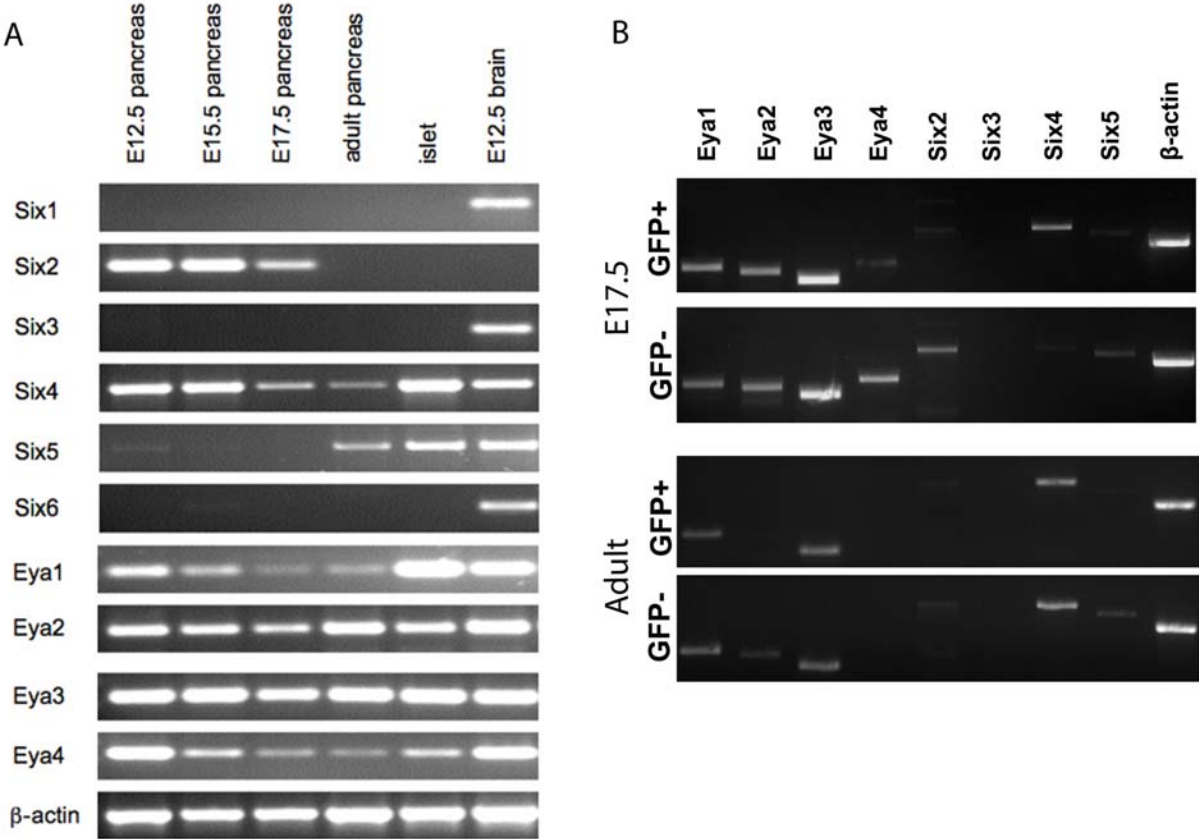


Fig.S2 A. Expression of Six and Eya family mRNA in the mouse. RT-PCR was performed with gene specific primers with RNA purified from isolated mouse tissues at the indicated ages. B. Pancreatic β -cell specific expression of the Eya and Six genes. RT-PCR was performed using gene specific primers with RNA purified from GFP-positive- (GFP+) or GFP-negative (GFP-) sorted cells from e17.5 (upper) and adult (lower) MIP-GFP mice.

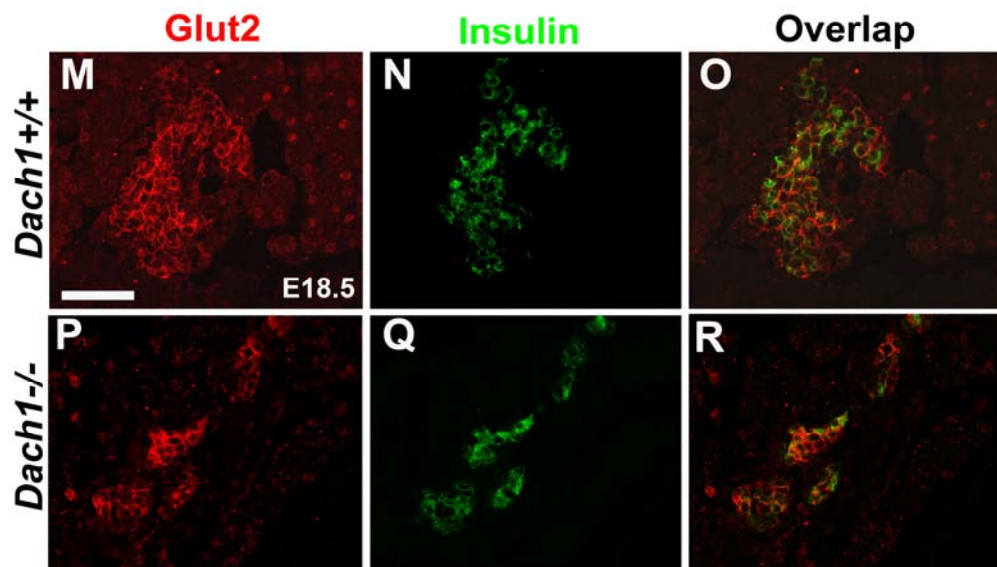
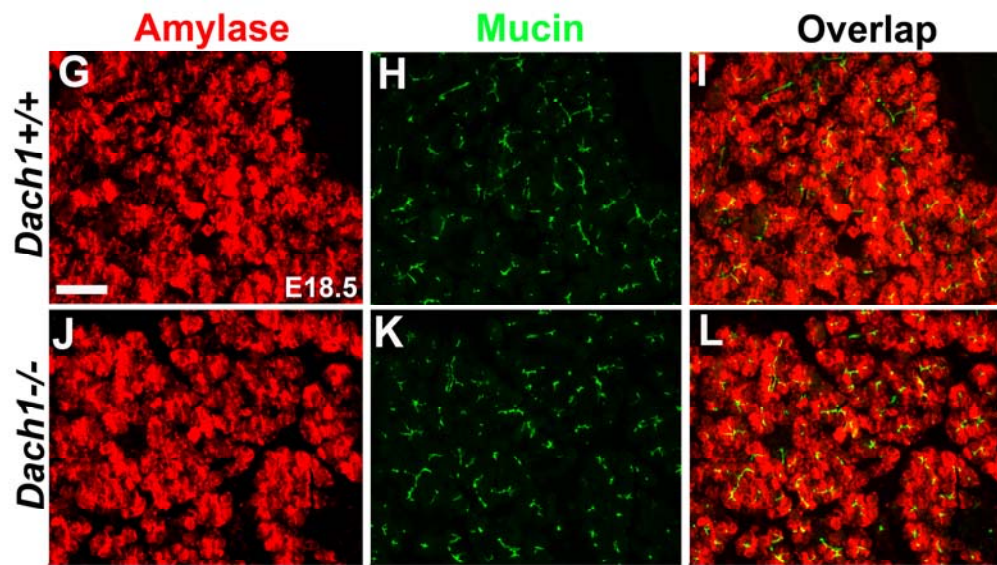
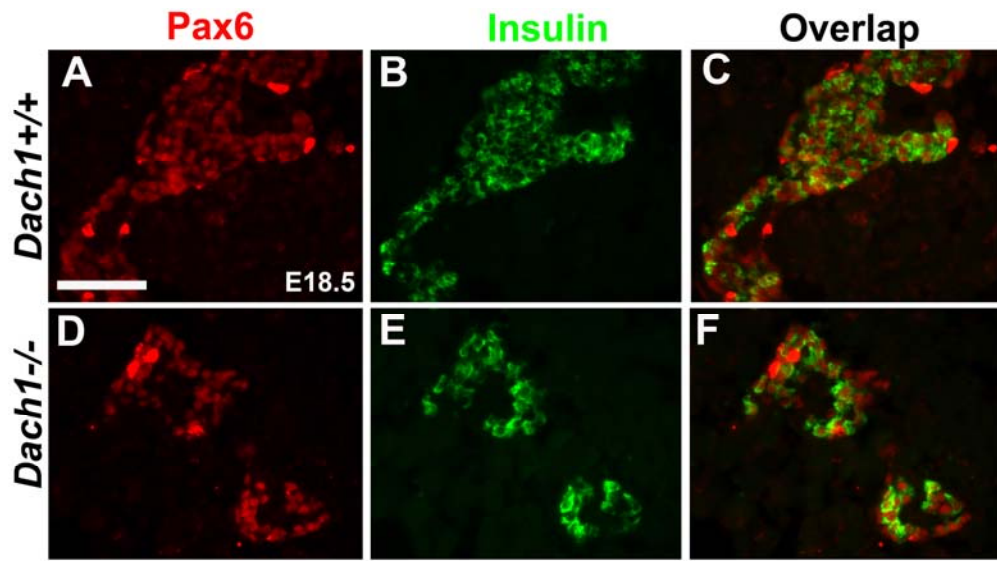


Figure S4

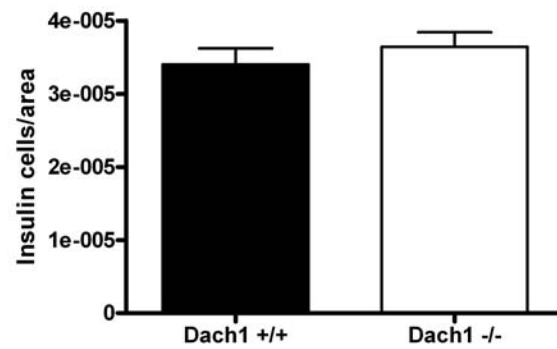
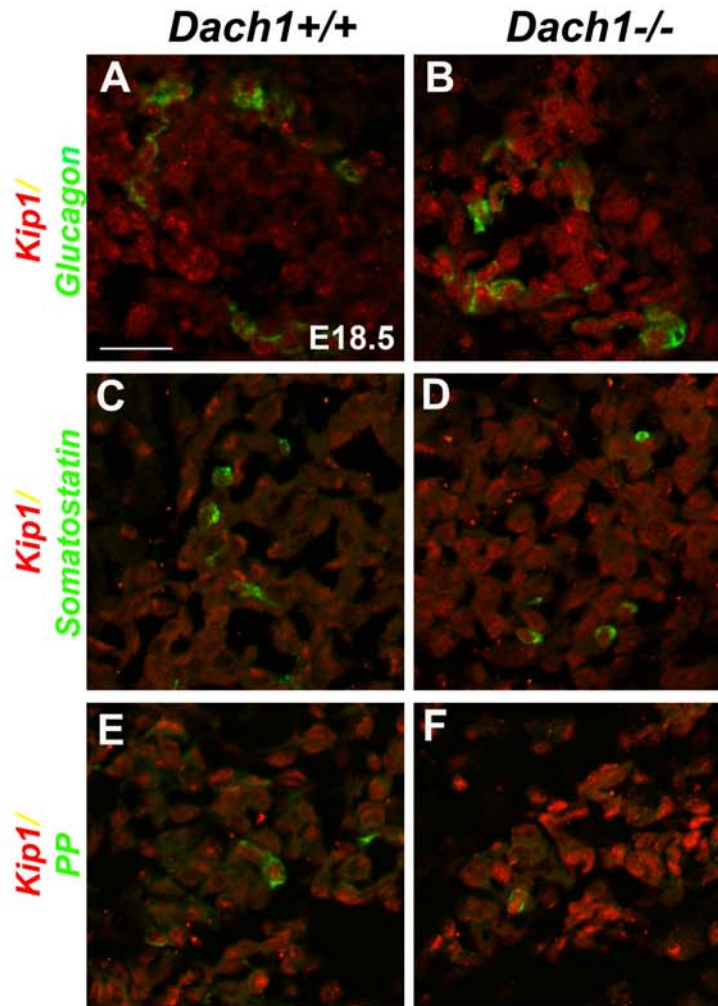


Fig.S4. Development of the endocrine pancreas in the absence of Dach1 at E15.5 Insulin cells from Dach1 +/+ (black bar) and Dach1 -/- (white bar) embryos were counted and expressed as the total number of cells per total pancreatic area. Each data point represents the mean of 2 embryos \pm standard error of the mean. $p=0.43$.

Figure S5



S5. Cell cycle regulation in the endocrine pancreas in the absence of Dach1 at E18.5 (A-F) Immunofluorescent co-staining for cyclin-dependent kinase inhibitor p27Kip1 (red), Glucagon (A-B; green), Somatostatin (C-D; green) and Pancreatic Polypeptide (E-F; green) on sectioned pancreas from mouse embryos at E18.5. Scale bar, 50 μ m.