



Figure S4. Stalled  $\beta$  cell precursors do not undergo apoptosis at E18.5 but are largely absent from P2  $Nkx2.2^{SDmut/Cre}$  animals. (A) NKX6.1+INS-  $\beta$  precursors in  $Nkx2.2^{SDmut/Cre}$  embryos are not TUNEL+ at E18.5. (B) Immunostaining at P2 demonstrates that NKX6.1 expression in  $Nkx2.2^{SDmut/Cre}$  mice is mainly confined to INS+ cells. NKX6.1+CHGA-  $\beta$  precursors are rarely visible. (C) *Nkx6.1* and *ChgA* transcript levels are decreased in P2 mutants. Data are presented as mean  $\pm$  SEM. \* $p < 0.05$ .  $n = 3-4$ . Scale bars represent 50 $\mu$ m.