



Fig. S5. Pdx1-FlpO allele design and validation. (A) Design of the *Pdx1-FlpO* allele (B and C) *Pdx1-FlpO* founders were crossed to alkaline phosphatase Flp reporter mice (gift, Dr. Susan Dymecki, Harvard University) to visualize recombination in the pancreas. Frozen sections of pancreata from *Rosa26^{hpAP/+}* (B, negative control) or *Pdx1-FlpO*; *Rosa26^{hpAP/+}* (C). Mice were stained for alkaline phosphatase activity (dark blue). Founder lines exhibiting prominent alkaline phosphatase activity in the pancreas were used in further breeding. Bars = 200 μ m. (D and E) The *Pdx1-FlpO* strain was crossed with additional strains to generate *Kras*^{LSL.G12D/+}; *p53*^{R172H/+}; *Pdx1-FlpO*^{tg/+}; *Slc7a11*^{Fl/Fl} (KPFS) mice. Histopathological examination of the pancreas of young KPFS mice revealed the spontaneous formation of both acinar-to-ductal metaplasia (ADM indicated with arrow, panel D) and pancreatic intraepithelial neoplasia (PanIN indicated with arrow, panel E), both precursors to tumor development. Bar = 50 μ m. (F) Table indicating effective genotypes of tissues in the KPFSR mouse.