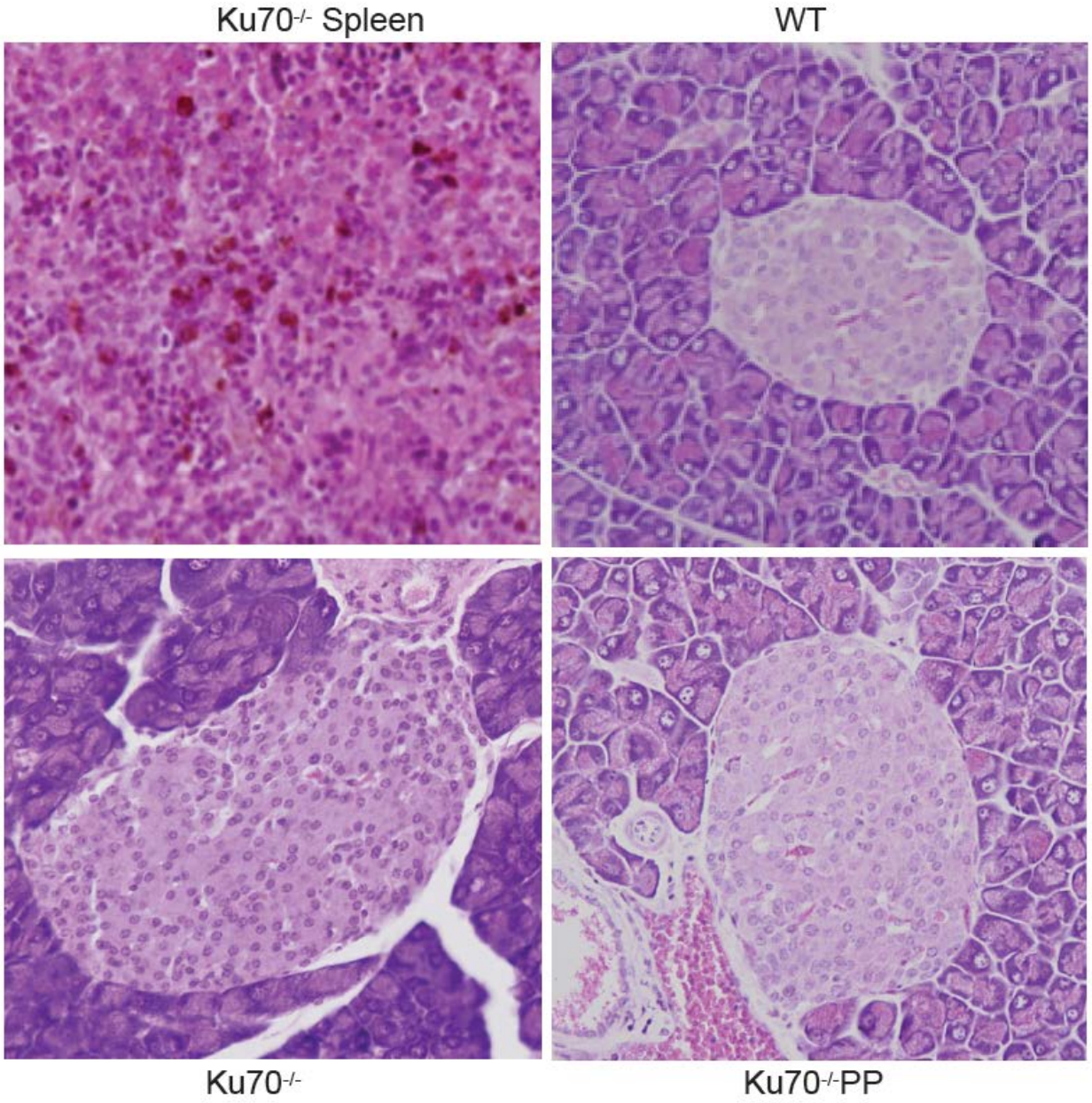
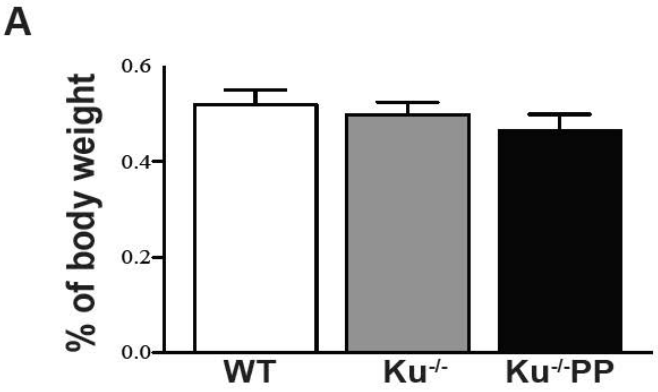
SUPPLEMENTARY DATA

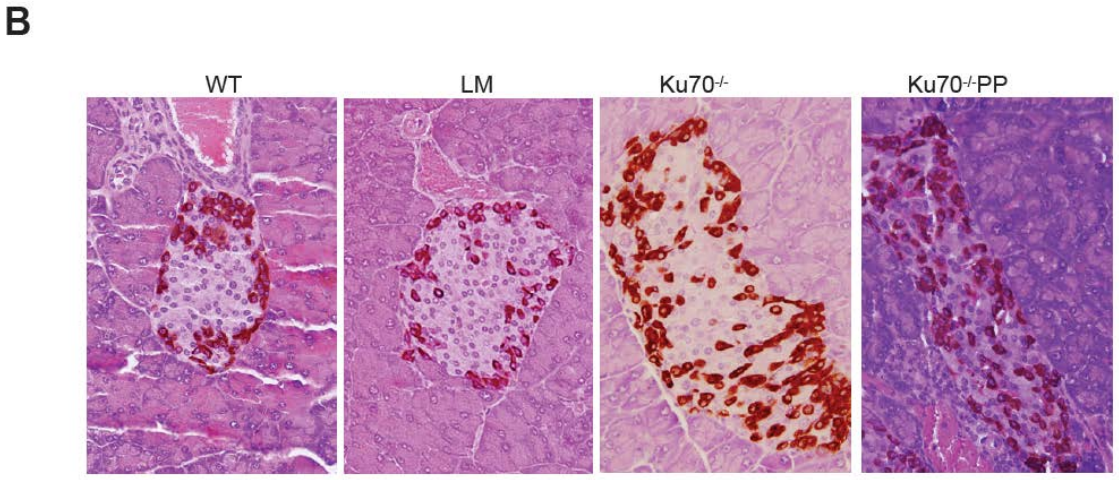
Supplementary Figure 1. Absence of apoptosis in Ku70$^{-/-}$ and Ku70$^{-/-}$p53$^{p/p}$ islets. Pancreatic sections from 3-month-old mutant mice and age-matched wild-type controls were analyzed with a TUNEL assay; no apoptotic cells were detected in the islets; a spleen from a 1-month-old Ku70$^{-/-}$ mouse was used as a positive control. Magnification: 600X.



SUPPLEMENTARY DATA

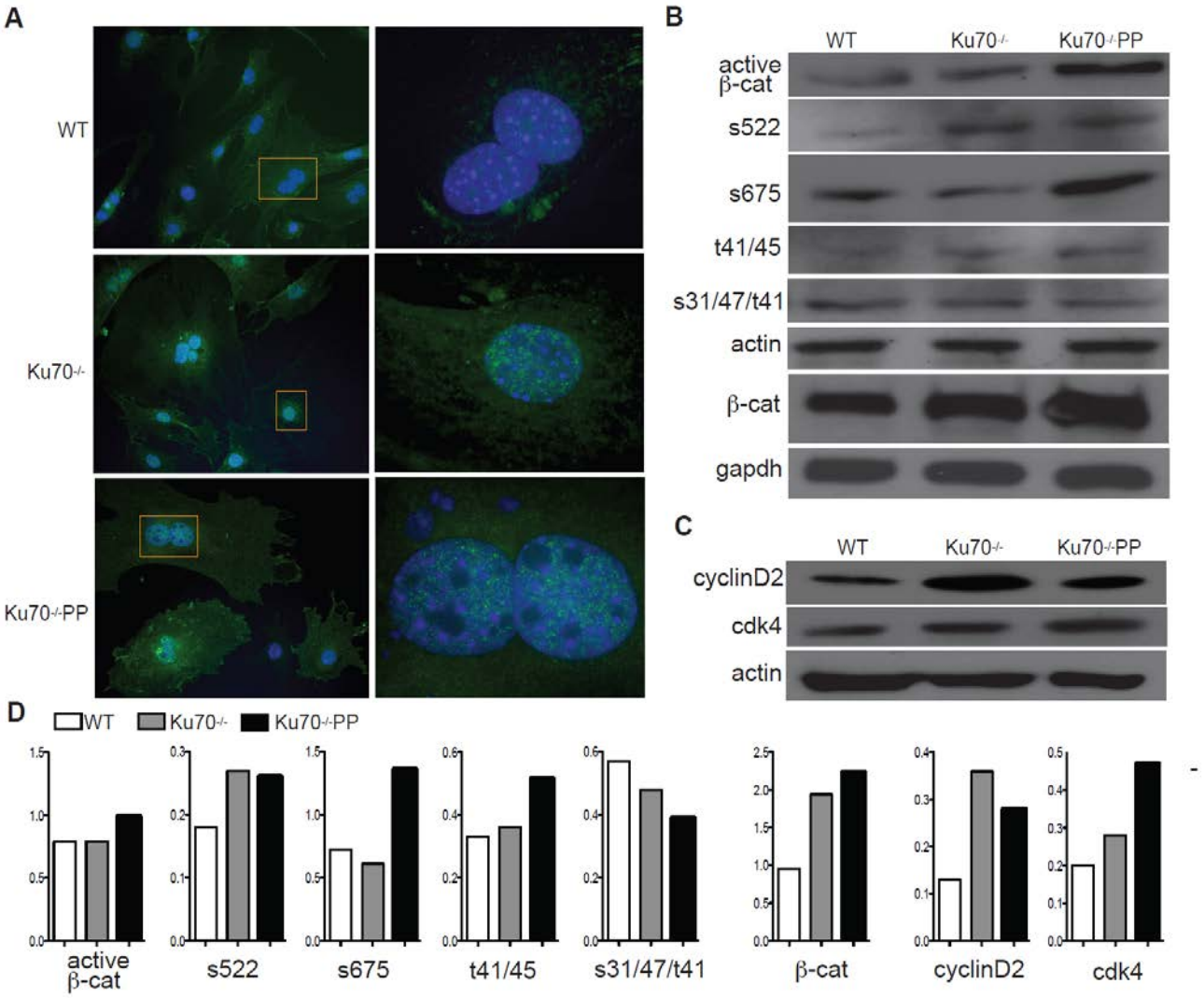
Supplementary Figure 2. No significant difference in the ratio of pancreas weight to body mass. (A) Comparison of the pancreas weight to body mass ratio among genotypes. $n \geq 8$ mice, between 4 and 5 months old, per genotype. (B) Representative immunohistochemical staining for glucagon of pancreatic sections from mutant and control mice. Magnification: 400X.





SUPPLEMENTARY DATA

Supplementary Figure 3. Increased β-catenin in early passage MEFs absent for Ku70. (A) Representative fields from wild-type, $Ku70^{-/-}$, and $Ku70^{-/-}p53^{p/p}$ passage 2 MEFs stained for β-catenin antibody (green) and DAPI (blue). Left panels, magnification 400X. Identified cells in dashed yellow outline in right panel; magnification 1000X. (B) Western blot analysis using passage 2 MEFs examining the activation/degradation of β-catenin using indicated antibodies. GAPDH and actin are used as loading controls. We repeated these experiments one-three times. (C) Western blot analysis of cyclin D2 and CDK4 in passage 2 MEFs. Actin is used as a loading control. The data shown are a representative of three independent experiments. (D) Densitometry quantification of Western bands from S3B and S3C.



SUPPLEMENTARY DATA

Supplementary Figure 4. Preliminary analysis of random blood glucose level in Lig4$^{-/-}$Ku70$^{-/-}$ p53$^{p/p}$ triple mutant mice.