Supplemental Figures

Figure S1. Targeted disruption of the *p107* gene and metabolic characterization of *p107*-null mice. ***A***: Strategy used for the disruption of the *p107* gene (16). The presence of mutated or wild-type *p107* alleles was evaluated using PCR with previously described primers (arrows; 16). ***Panel B*** (upper) shows PCR products for genomic DNA from *p107* WT, HT and KO animals. The mutant *p107* gene was detected by a 330-bp PCR fragment. ***Panel B*** (lower) is a representative immunoblot of islet protein extracts from *p107* WT, HT and KO animals probed with a p107 antibody. ***Panels C-F*** show metabolic parameters examined in p107-null mice. At the time of a glucose tolerance test, fasted animals were weighed (***C***), then injected intraperitoneally with a glucose bolus. ***D*** shows the blood glucose levels of animals at the indicated time points following glucose administration. Blood from fasting and post-prandial mice were analyzed for circulating glucose (***E***) and insulin (***F***). There were no statistically significant differences between the KO (n=7-8) and WT (n=6-9) or HT (4-8) mice.

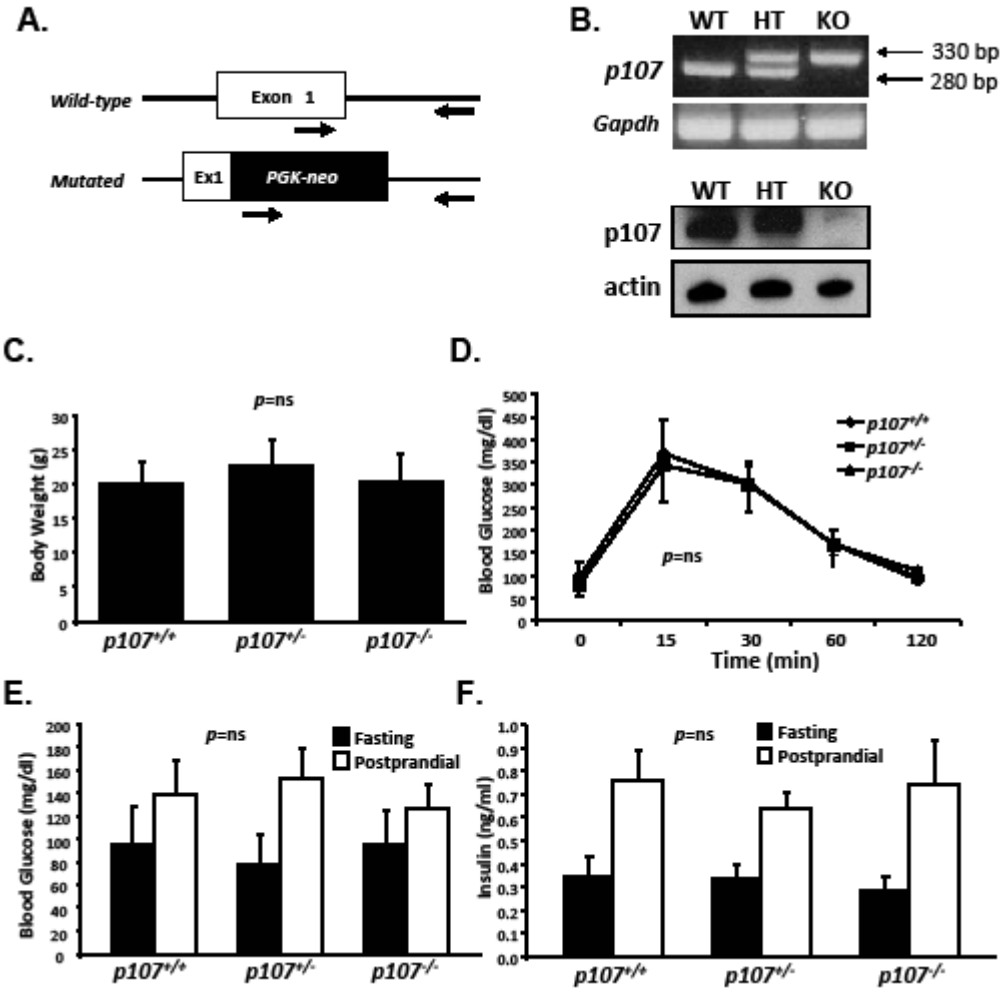

Figure S2. **Islet histomorphometry in *p107*-null mice**. ***A***: Representative insulin-stained sections of whole pancreases from WT (n=5), HT (n=4), and KO (n=6) animals. ***B*** Quantification of β cell mass and area based on pancreas mass which were not significantly different in the three groups.

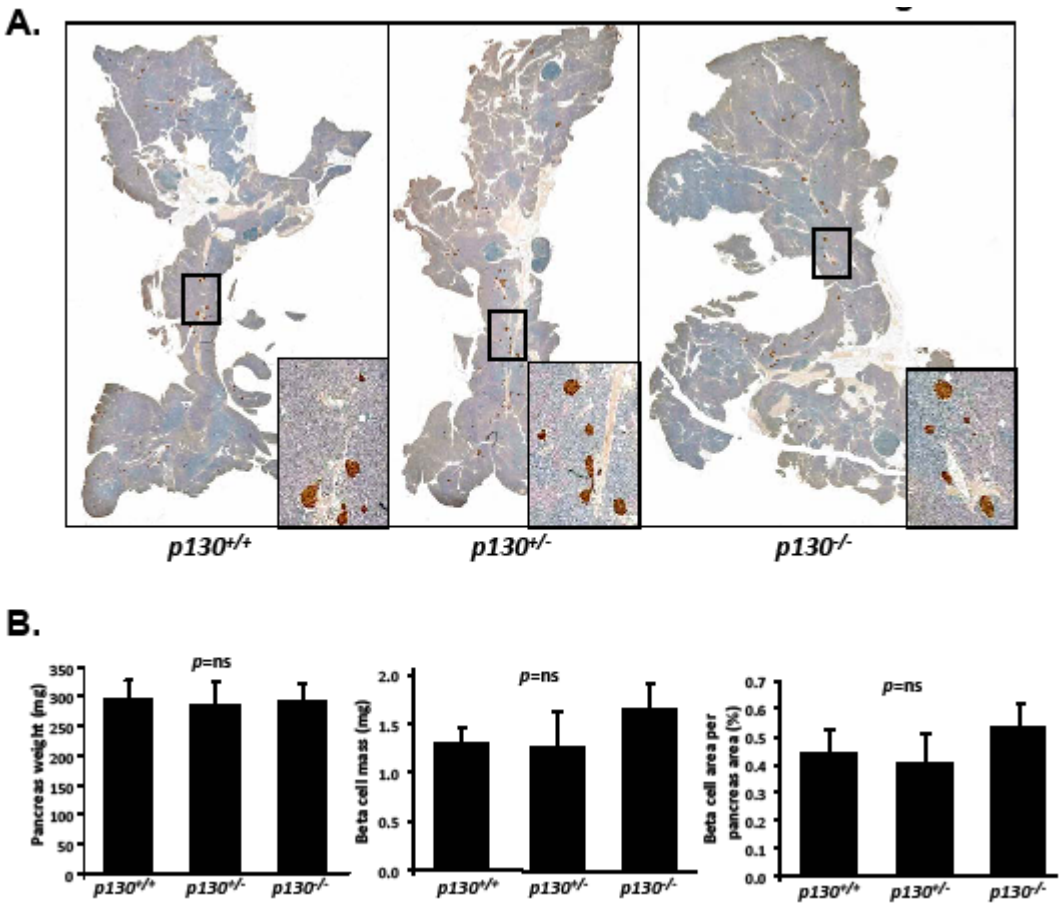

Figure S3. β **cell replication rates in *p107*-null mice**. ***A*** Quantification of β cell replication based on BrdU incorporation into insulin-positive cells identified by BrdU (red) and insulin (green) double immunofluorescent staining. Replication was not significantly increased in *p107*-deficient β cells (n=6) compared to WT (n=9) or HT (n=5) mice. ***B*** Representative cell cycle phase distribution profiles of *p107* WT (n=8), HT (n=4) and KO (n=4) islet cells using flow cytometry. ***C*** Representative cell cycle phase distribution profiles for *p130* WT (n=8), HT (n=7) and KO (n=7) islet cells based on flow cytometric analysis of DNA content. Percentage of cells in G1, S, and G2/M are presented as means ± SE.

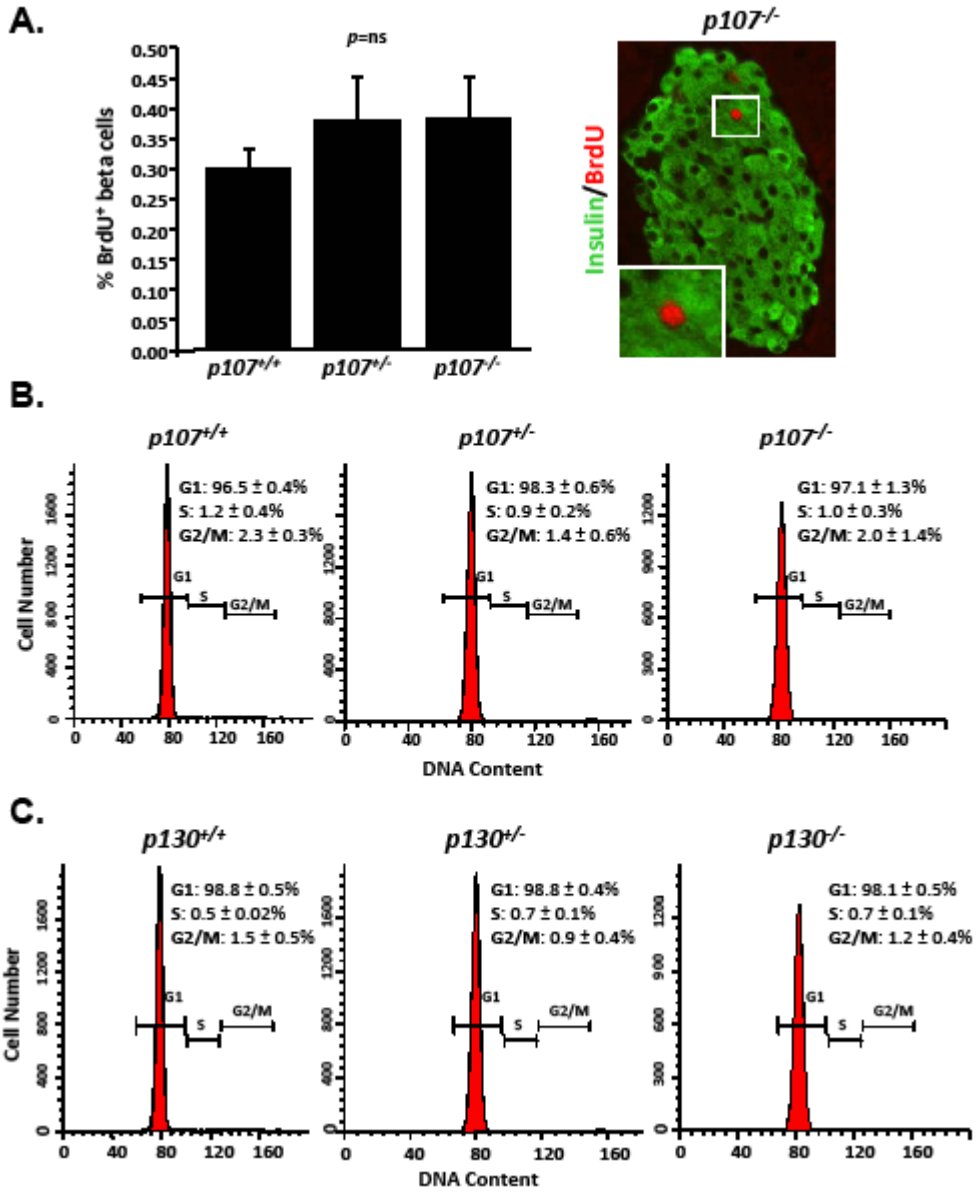

Figure S4. Spleen, kidney, and liver mass was not significantly reduced in $Rb^{CKO};p130^{-/-}$ animals compared to *Rb* wild-type or heterozygous animals (n=3-5 for each group).