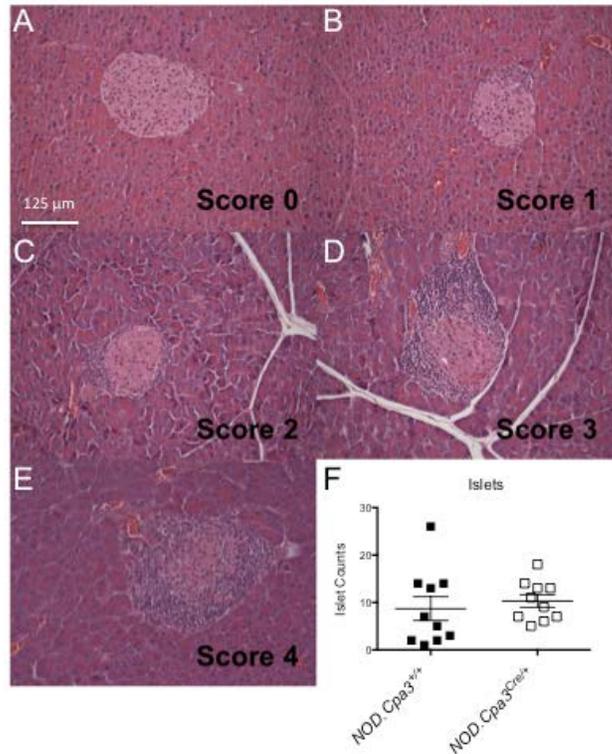


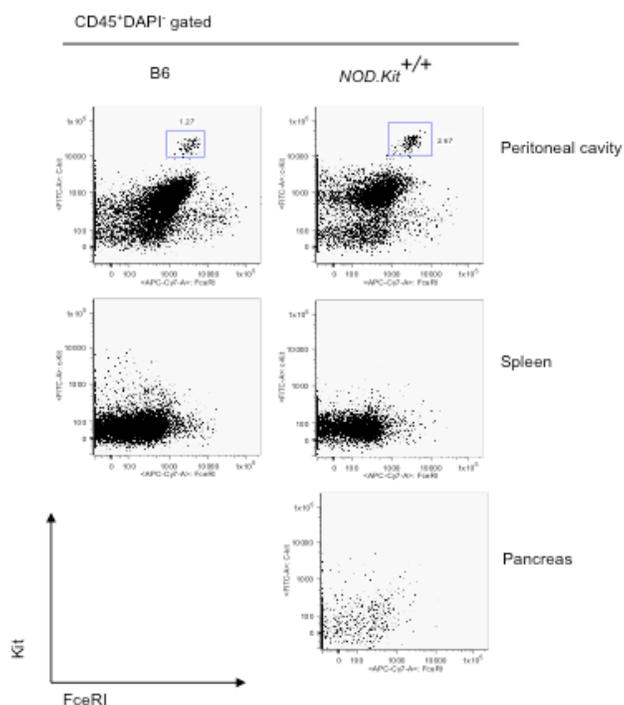
SUPPLEMENTARY DATA

**Supplementary Figure 1.** Insulinitis Scoring Pancreata from 15-week old female and male NOD.*Cpa3Cre*<sup>+/+</sup> and NOD.*Cpa3*<sup>+/-</sup> mice were formalin fixed, paraffin embedded and stained with H&E plus aldehyde fuchsin to evaluate islet insulinitis. Representations of the different insulinitis scores are shown: score 0 = no insulinitis (A); score 1 = peri-islet insulinitis (B); score 2 = intermediate insulitis (C), score 3 = intra-islet insulinitis (D), and score 4 = complete islet insulinitis (E). Total number of islets scored per genotype (F). The genotypes were unknown to the scoring person, to ensure blind evaluation.



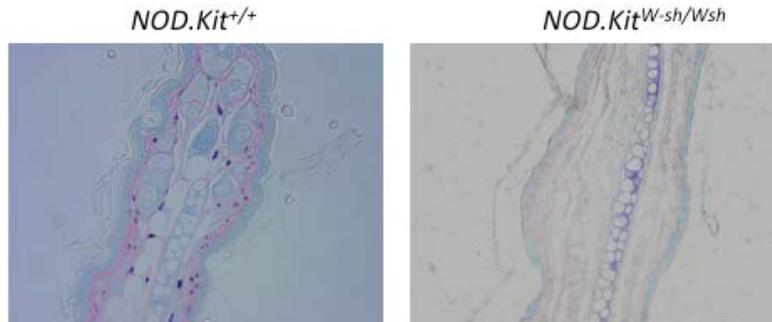
## SUPPLEMENTARY DATA

**Supplementary Figure 2.** Analysis for mast cells in peritoneal cavity, spleen, and pancreas in NOD mice. Flow cytometric analyses of mast cells in peritoneal cavity, spleen, and pancreas from B6 (left column) or NOD (right column) mice. CD45<sup>+</sup> cells were stained for Kit and FcεRI to identify mast cells.

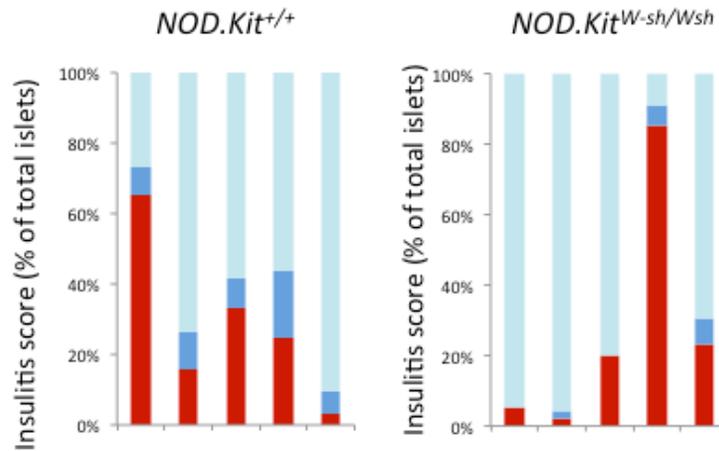


SUPPLEMENTARY DATA

**Supplementary Figure 3.** Mast cell deficiency in *NOD.Kit<sup>W-sh/W-sh</sup>* mice Toluidine blue staining of ear sections (100x) of *NOD.Kit<sup>+/+</sup>* (left) and *NOD.Kit<sup>W-sh/W-sh</sup>* mice (right). Metachromatic mast cells were only found in *NOD.Kit<sup>+/+</sup>* mice.



**Supplementary Figure 4.** Insulinitis scores Pancreata were excised at 10 weeks of age, and insulinitis visualized by hematoxylin and eosin staining of paraffin sections counting all islets with a 3-step sectioning of the pancreas each 150  $\mu$ m apart. Scores were designated as insulinitis (red), peri-insulinitis (dark blue), or no insulinitis (light blue). Each bar represents the score distribution in one individual mouse (n = 5 for each group). Student's *t* test P value = 0.6394.



SUPPLEMENTARY DATA

**Supplementary Figure 5.** PLNs from 13-week old NOD.*Cpa3<sup>Cre/+</sup>* and NOD.*Cpa3<sup>+/+</sup>* mice were collected and single cell suspensions were analyzed by flow cytometry. A) Absolute number of live cells per PLN. B) Absolute number of CD45<sup>+</sup> cells per PLN. C) Percent of CD3<sup>+</sup> T cells of total CD45<sup>+</sup> cells per PLN. D) Absolute number of CD3<sup>+</sup> cells per PLN. Each dot in the graph represents one mouse.

