Supplemental figure legends:

Supplemental figure 1. Nox1 is expressed in isolated pancreatic acini. The expression of Nox enzymes Nox 1-4 in isolated mouse pancreatic acini was studied using RT-PCR. PCR products yielded bands of the expected size. Mouse dsDNA mix from Genecopoeia was used as positive control. PCR products yielded bands of the expected size (Nox1: 127 bp; Nox2: 198 bp; Nox3:184 bp; Nox4: 147 bp). n: 3.

Supplemental figure 2: RT-PCR analysis of expression of Nox1. The expression of Nox1 mRNA in pancreas from WT and Nox1 KO mice was studied using RT-PCR. Total RNA was obtained from pancreas. The expression of Nox1 was seen only in WT mice. 18S rRNA was used as a housekeeping gene. RT-PCR products yielded bands of the expected size (Nox1: 127 bp; 18S rRNA 150 pb).

Supplemental figure 3: The lack of Nox1 does not affect either caerulein-induced amylase secretion (A) or trypsin activation (B). Results shown are means ± SE, n=5. * $p<0.05$ vs control WT.

Supplemental figure 4: The absence of Nox1 does not affect the histological feature characteristics of AP. A: Pancreas weight/body weight (PW/BW) ratio is slightly increased in both WT and Nox1 KO mice with AP. **B:** Representative hematoxylin and eosin (H&E)-stained sections (total magnification: 400x) show intracellular vacuoles and inflammatory infiltration (arrows) in pancreas from caerulein-treated WT mice and Nox1 KO mice. n: WT: 8; WT w/AP: 4; Nox1 KO: 8; Nox1 KO w/AP: 4.

Supplemental figure 5: The lack of Nox1 does not affect the increase in water content or serum digestive enzymes induced by AP. Graphic representation of pancreatic water content (%), serum amylase levels (U/L) and pancreatic lipase (U/L). Results: means ± SE, * $p<0.05$ vs control WT; n: 5.

Supplemental figure 6: Nox1 does not mediate AP-induced phosphorylation of AKT. p-AKT was visualized using DAB as a chromogen (color: brown). The staining displayed a cytoplasmic localization of p-AKT in pancreatic acini from both WT and Nox1 KO mice with AP. Total magnification: 400X.

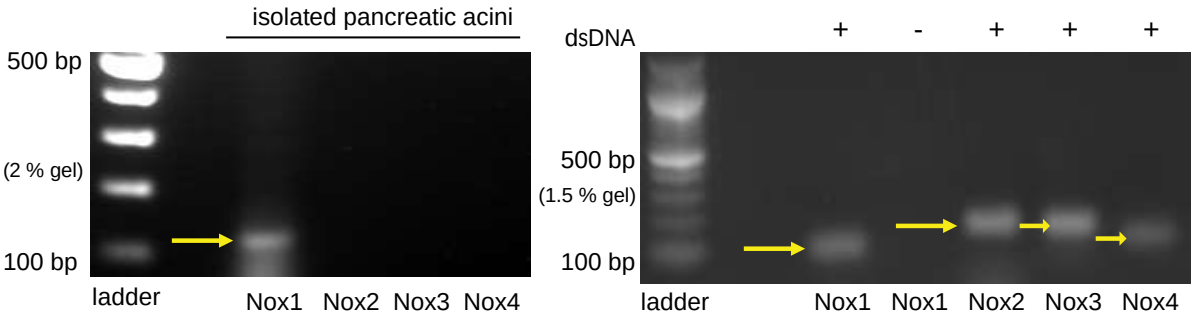
Supplemental figure 7: Left: Nox1, Nox3 and Nox4 are expressed in PaSCs. Right: Nox2 is expressed in peritoneal macrophages. The expression of the Nox enzymes in mouse PaSCs and peritoneal macrophages was assessed by RT-PCR. Two Nox1 primers (one previously published [1] and another from Genecopoeia) were used to confirm the lack of Nox1 expression in peritoneal macrophages. PCR products yielded bands of the expected size (Nox1: 127 bp, Nox2: 198 bp, Nox3:184 bp and Nox4: 147 bp).

Supplemental Figure 8. Caerulein does not cause ROS generation in isolated pancreatic acini. Intracellular ROS levels were tested using fluorescence by the H_2DCFDA fluorescent probe. (mean ±SE). n: 3 experiments.

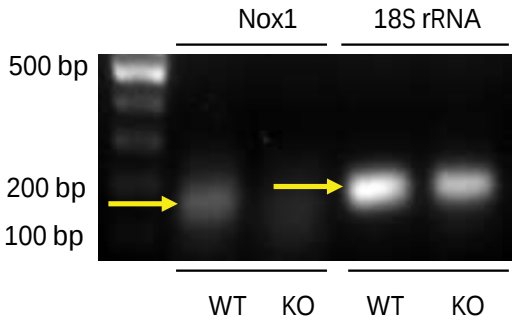
Reference:

1. Singla, B., et al., *PKCdelta-Mediated Nox2 Activation Promotes Fluid-Phase Pinocytosis of Antigens by Immature Dendritic Cells.* Front Immunol, 2018. **9**: p. 537.

Supplemental figure 1

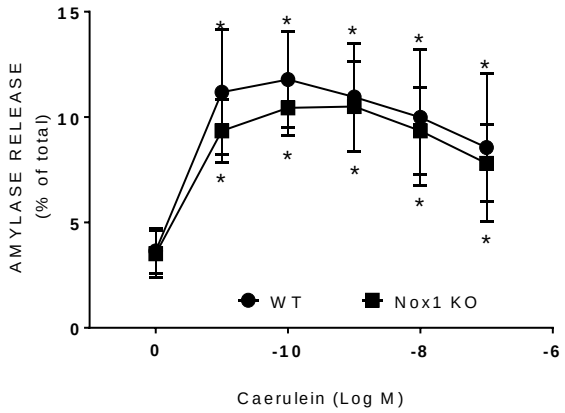


Supplemental figure 2



Supplemental figure 3

A)



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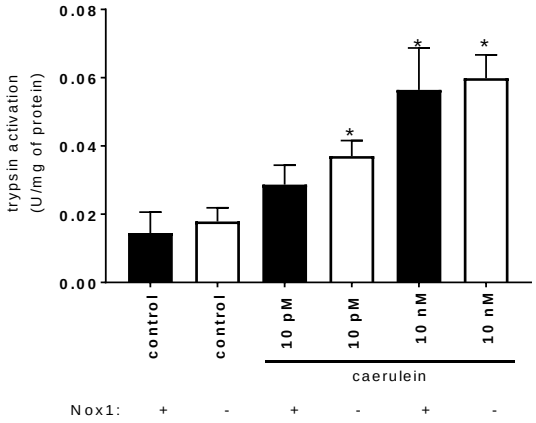

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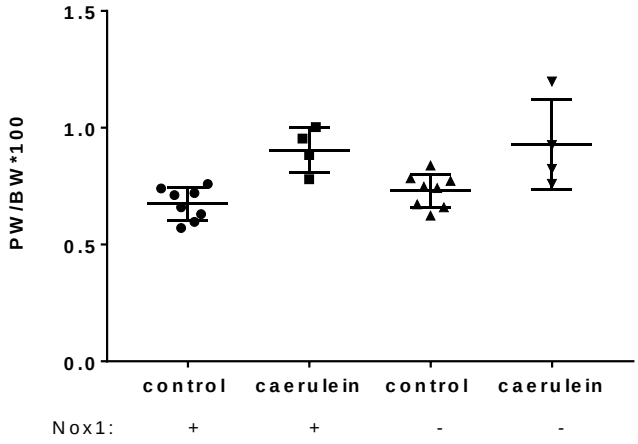

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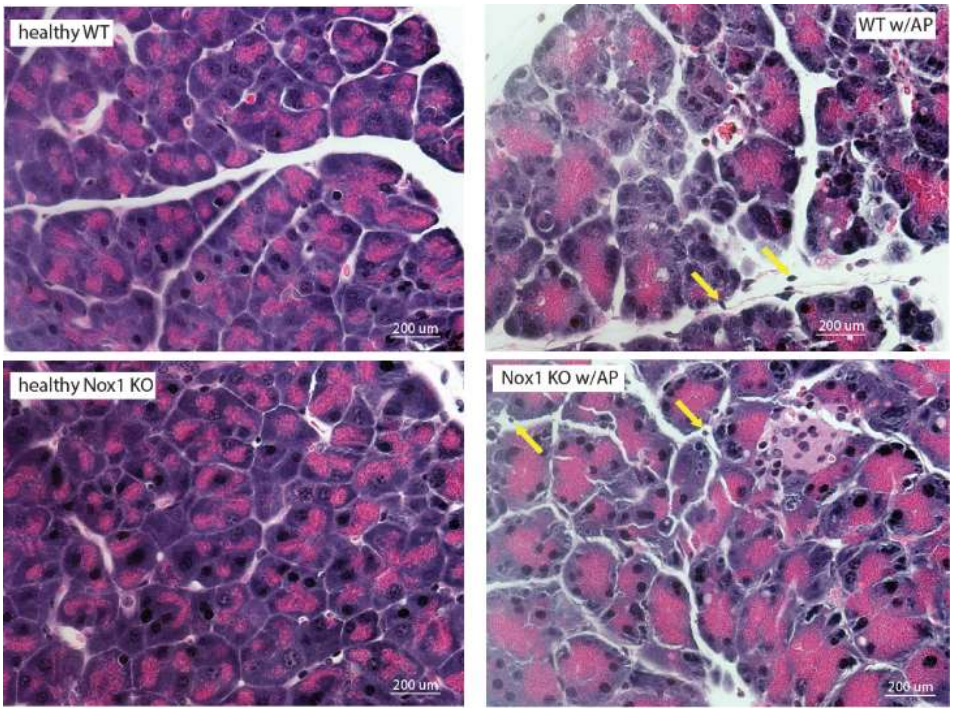
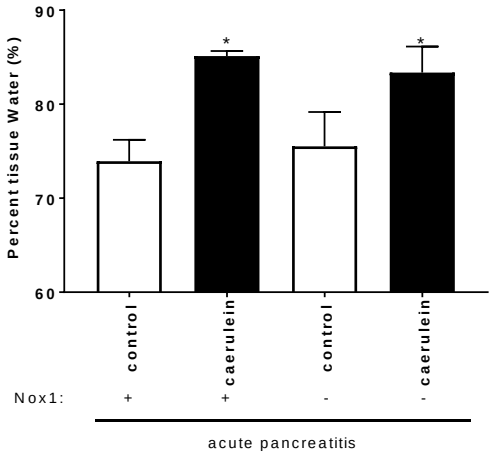


Supplemental figure 5

A)



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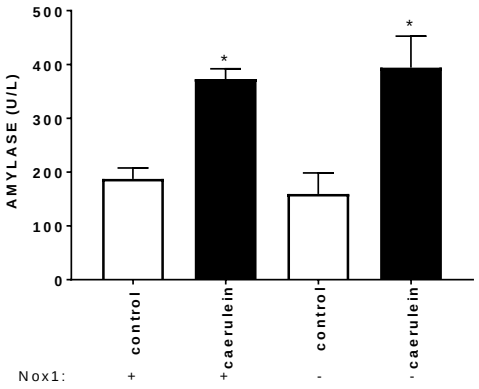

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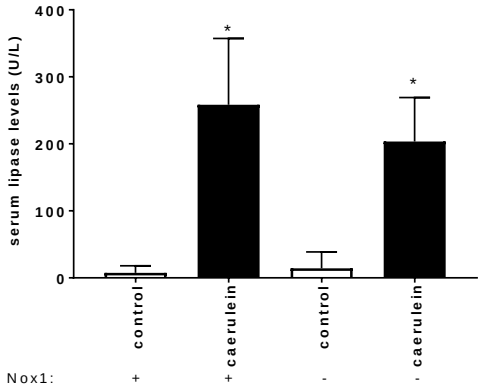

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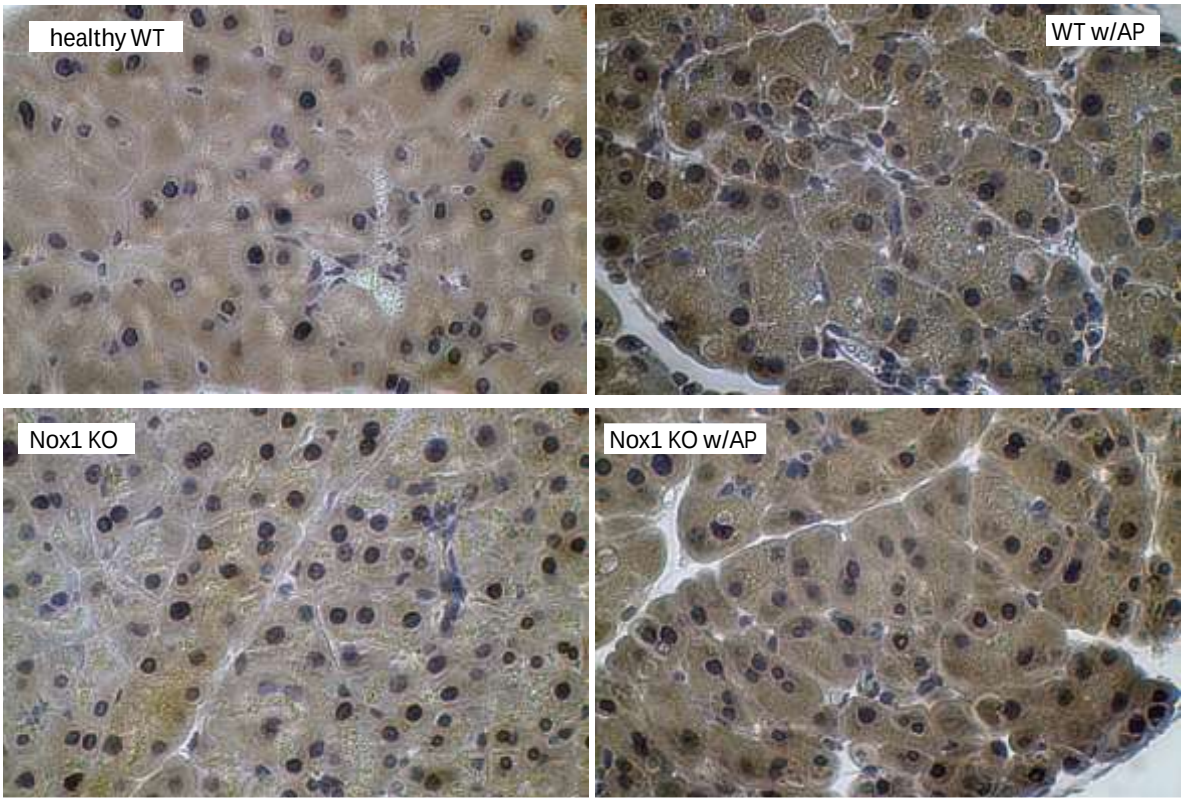

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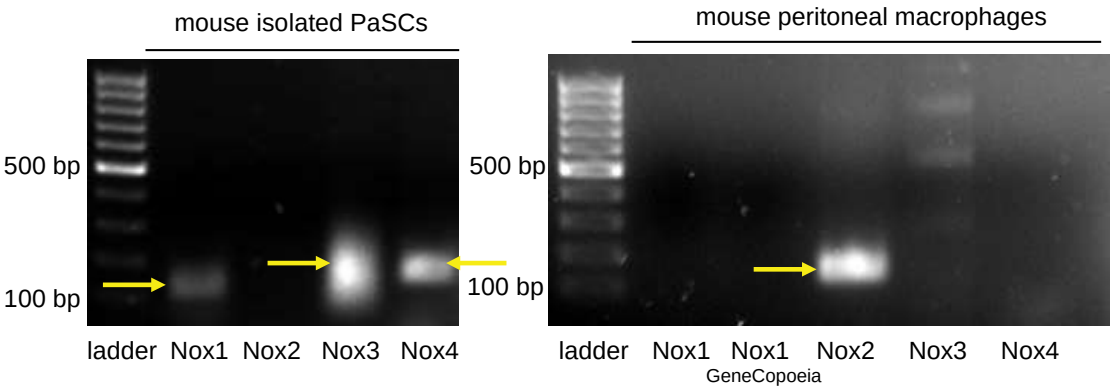

Supplemental figure 8