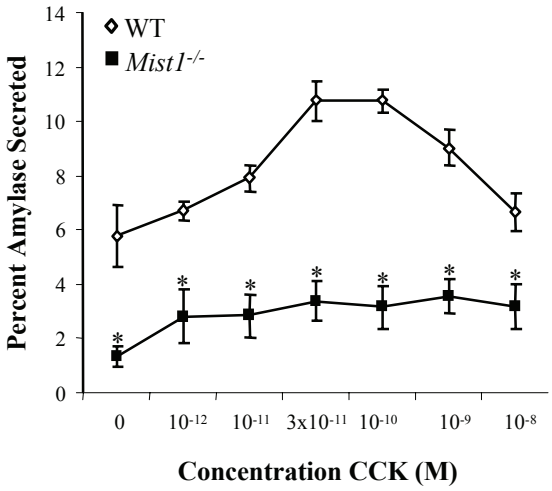
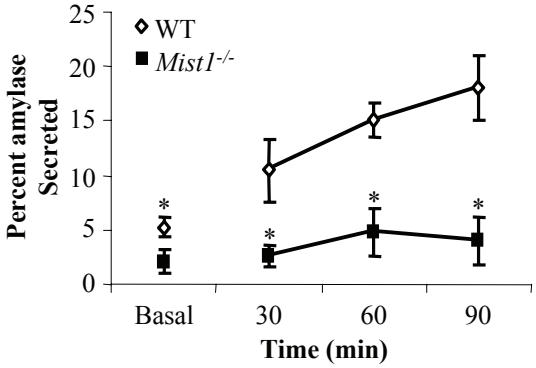
A.



B.



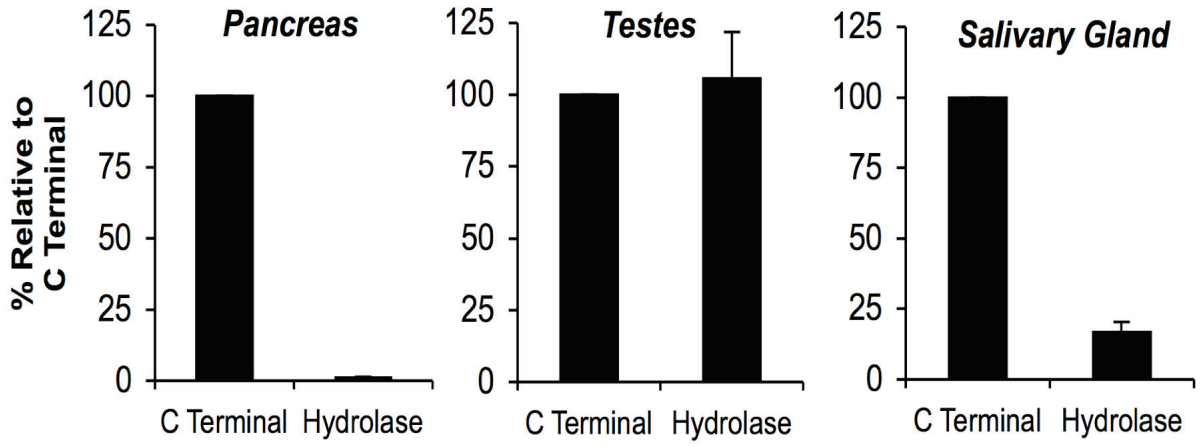
Supplemental Figure S1. Comparison of CCK-stimulated regulated exocytosis between wild type (WT) and *Mist1*$^{-/-}$ pancreatic acinar cells in response to **(A)** increasing amounts of CCK or **(B)** over time in response to maximal CCK (30 pM) stimulation. *p<0.05; n=5.

Methodology

Isolated acini were stimulated with 0.1 pM to 10 nM CCK. Cells were stimulated for 30 min, and centrifuged at 3000 rpm for 12 sec to obtain the supernatant. At the beginning and end of the stimulation period, an aliquot of non-stimulated cells was prepared in a similar fashion for control secretion levels. 100 µl of the control supernatants was removed and taken as the level of background amylase release (O_T). The cells in the control aliquot were sonicated and used to determine total amylase content (T_T). All concentrations were performed in duplicate.

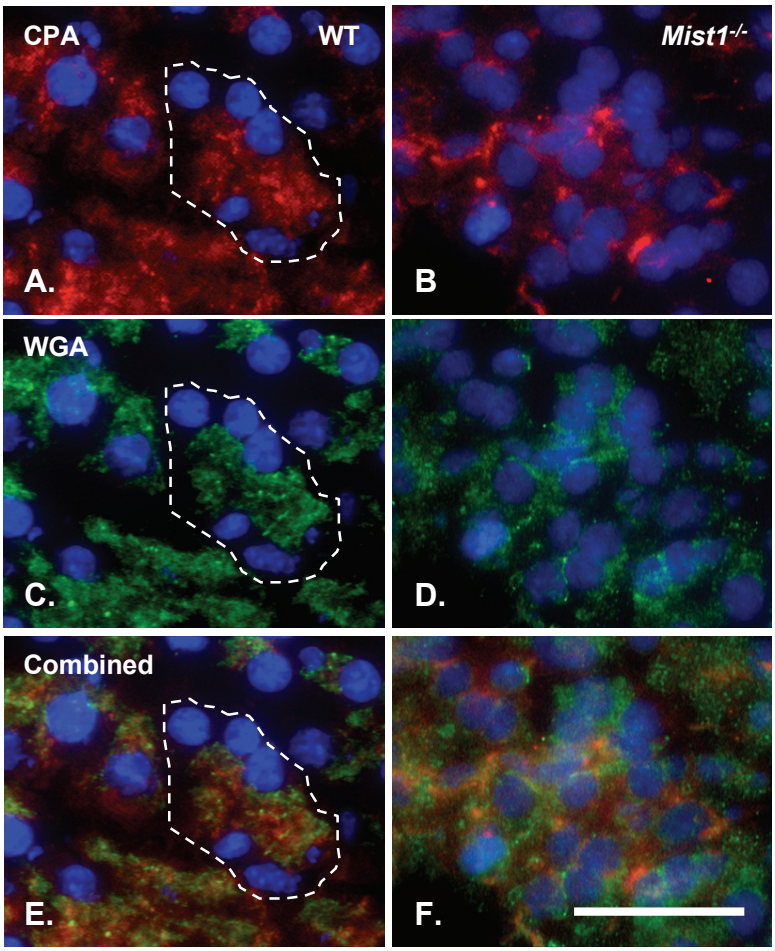
Amylase in the supernatant (X) was determined as described in Kowalik et al (2007). The percent amylase released was determined by dividing the amount of amylase released after stimulation for 30 min by the total amount of amylase within the cells and subtracting the background levels from the amount released [$(X-O_T)/T_T$].

Supplemental Figure S1. Garside et al (2010)



Supplemental Figure S2. Amplification of the C-terminal cationic binding domain or the hydrolase domain by qRT-PCR in the pancreas, testes, and salivary glands. For absolute quantification, standard curves were generated for each primer set using varying concentrations (500 ag-50 μg) of plasmid DNA. Standard curves for each primer were imported into the LightCycler 2.0 program and concentrations of mRNA determined based on the reference sample included. C-terminal amounts were set to 100%. Error bars represent mean ± SE; n=3.

Supplemental Figure S2. Garside et al (2010)



Supplemental Figure S3. Localization of lectins to zymogen granules in pancreatic acini is decreased in *Mist1*$^{-/-}$ tissue. Co-staining for CPA by IF (**A, B)** and lectin accumulation by binding of FITC-conjugated wheat germ agglutinin **(C, D)** in WT and *Mist1*$^{-/-}$ tissue. Prominent lectin accumulation is found in zymogen granules as observed in combined channel images **(E, F)**. An acinus has been outlined in WT tissue. Scale bar = 25 μM.

Supplemental Figure S3. Garside et al (2010)