

Supplemental Figure 1

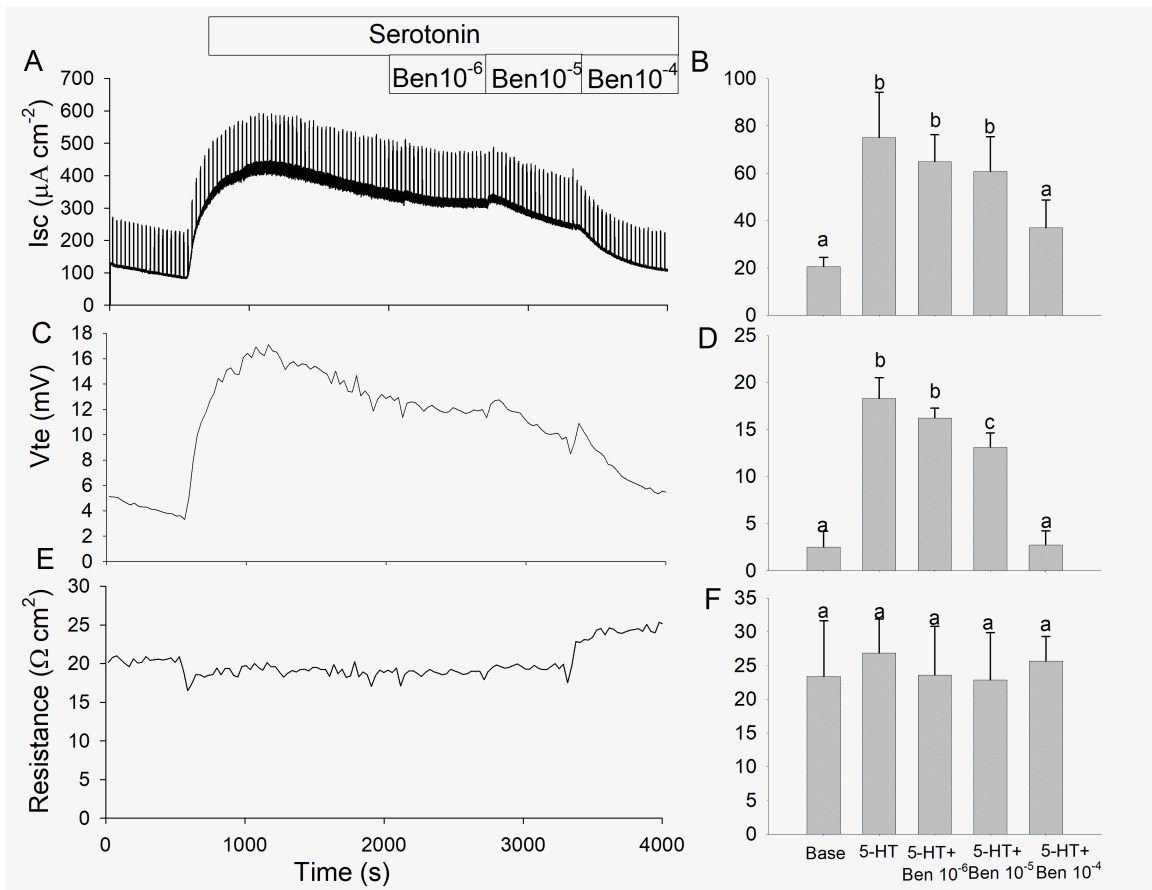


Figure S1. Effect of benzamil on serotonin-stimulated ion transport. A

and B: short-circuit current (Isc). C and D: Transepithelial voltage (Vt). And E and F resistance (R) across the anterior midgut from fifth-instar *R. prolixus*. Application of serotonin (5-HT) on both the basolateral and apical sides induced a positive deflection in Isc and VT. Addition of benzamil (Ben, 1, 10 and 100 μM) blocked the effect of 5-HT ($n = 6$). Serotonin and benzamil were added during the times indicated by the horizontal bars in A. Columns marked with different letters are significantly different (means \pm SE, repeated-measures ANOVA, Tukey-Kramer multiple comparison test, $P < 0.05$).

Supplemental Figure 2

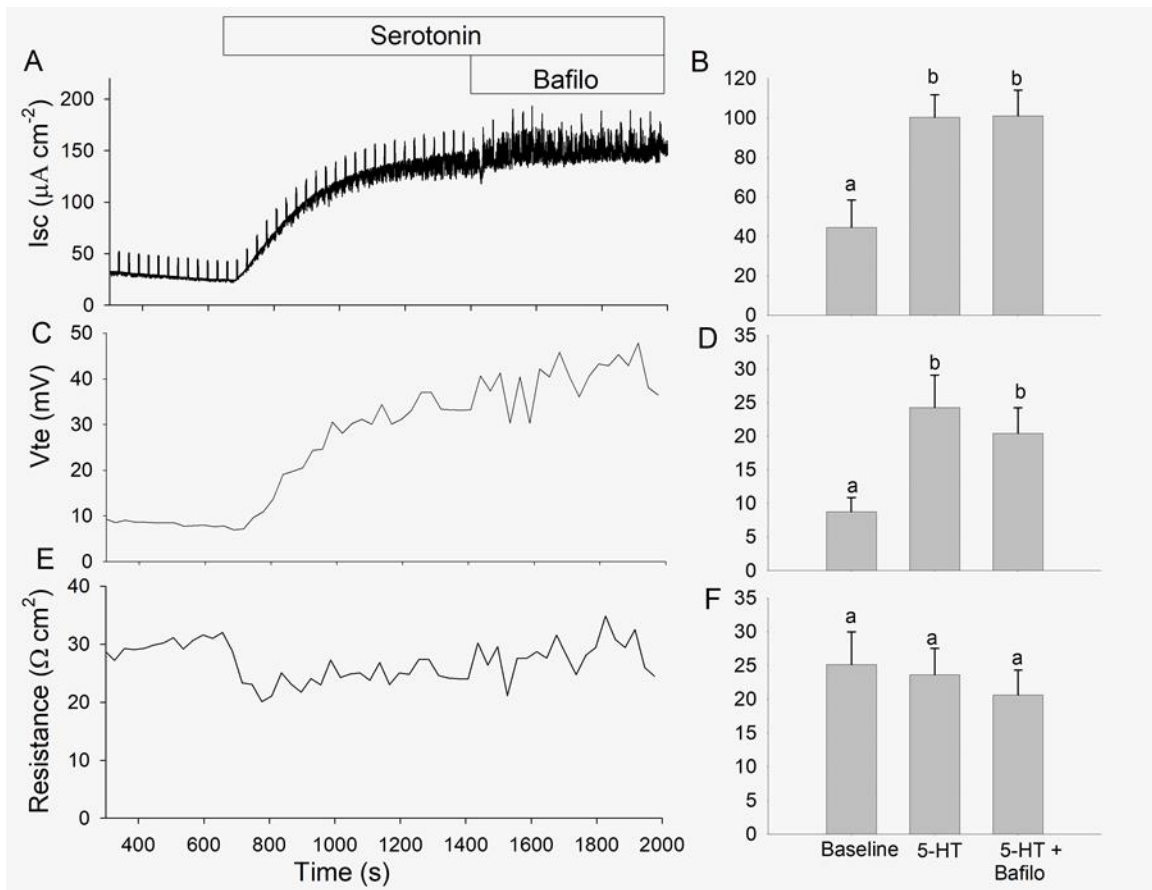


Figure S2. Effect of bafilomycin on serotonin-stimulated ion transport.

A and B: short-circuit current (Isc). C and D: Transepithelial voltage (Vt). And E and F resistance (R) across the anterior midgut from fifth-instar *R. prolixus*. Application of serotonin (5-HT) on both the basolateral and apical sides induced a positive deflection in Isc and VT. Addition of bafilomycin (Bafilo, 100 μM) blocked the effect of 5-HT (n = 6). Serotonin and bafilomycin were added during the times indicated by the horizontal bars in A. Columns marked with different letters are significantly different (means \pm SE, repeated-measures ANOVA, Tukey-Kramer multiple comparison test, $P < 0.05$).

Supplemental Figure 3

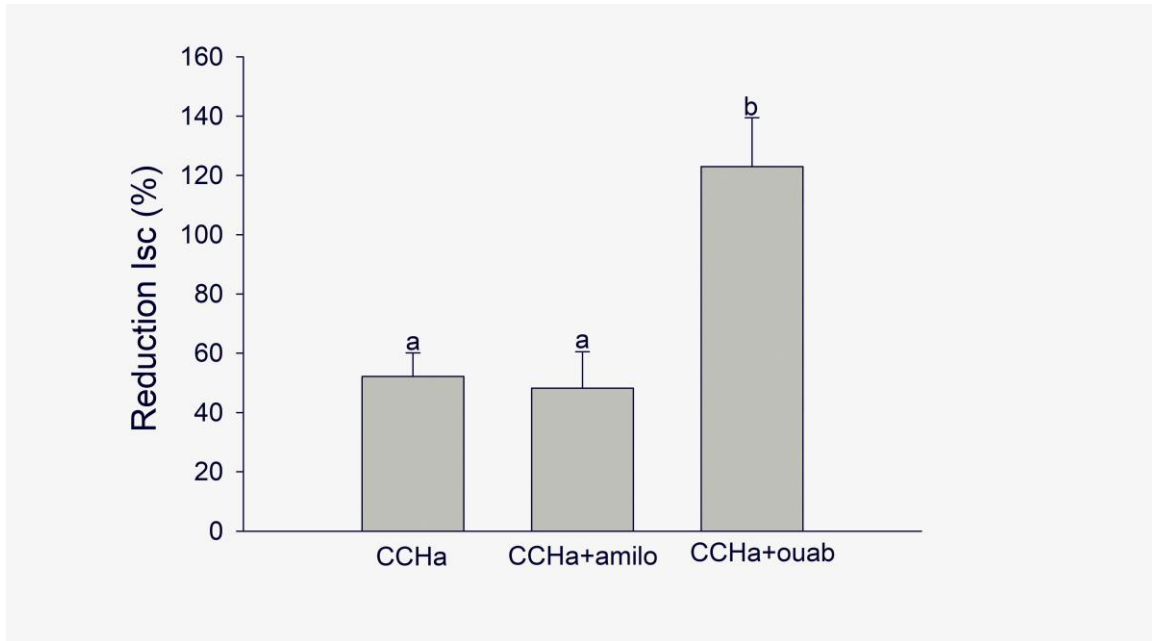


Figure S3. Percentage of peak serotonin-stimulate I_{sc} in response to *RhoprCCHamide2*, amiloride, and ouabain. Effect of *RhoprCCHamide2* (1 μ M, CCHa, n = 10), *RhoprCCHamide2* + amiloride (100 μ M, CCHa+amilo, n = 5), and *RhoprCCHamide2* + ouabain (100 μ M, CCHa+ouab, n = 5). Columns marked with different letters are significantly different (means \pm SE, non-parametric Kruskal-Wallis test, Dunn's multiple comparisons test, $P < 0.05$).