Figure S6 The slope of FlincG3 fluorescence in the ASEL cell body changes in response to the first 0 to 50 mM NaCl upstep.

(A) FlincG3 fluorescence in the ASEL cell body decreases in response to a 0 to 50 mM NaCl upstep and stops decreasing in response to a 50 to 0 mM NaCl downstep in wild-type animals. The slopes for the first 0 to 50 mM NaCl upstep between wild-type and wild-type switch control animals are different (n = 20 (first set, blue; wild-type), n=15 (third set, pink; switch control); permutation test p<0.00001). The slope values between the first 0 to 50 mM NaCl upstep and 50 to 0 mM NaCl downstep are different in wild-type animals (n=20; first pair, blue; permutation test p<0.00001), as compared to those of the switch control, which are not different (n=15; second pair, pink). Regression analysis was applied to the data for the first 0 to 50 mM NaCl upstep. $R^2 = 1.00$ and $R^2 = 0.01$ for wild-type and

wild-type switch control, respectively. Individual dots are the slopes calculated for each animal. sc = switch control. Horizontal bars indicate mean; vertical error bars indicate ±SD. See Materials and Methods for details of statistical analysis. (B) FlincG3 fluorescence in the ASEL cell body does not change in response to the second and fourth 50 to 0 mM NaCl downstep and may decrease slightly in response to the third 50 to 0 mM NaCl downstep in wild-type animals relative to those exposed to the switch control. The slopes for the second and fourth 50 to 0 mM NaCl downstep between wild-type and wild-type switch control animals are not different (n = 20 (first set, blue; wild-type for second downstep and fifth set, blue; wild-type for fourth downstep), n=15 (second set, pink; switch control for second downstep and sixth set, pink; switch control for fourth downstep); permutation test ns). The slopes for the third 50 to 0 mM NaCl downstep between wild-type and wild-type switch control animals are different (n = 20 (third set, blue; wild-type), n=15 (fourth set, pink; switch control; permutation test p<0.01). Individual dots are the slopes calculated for each animal. sc = switch control. Horizontal bars indicate mean; vertical error bars indicate ±SD. See Materials and Methods for details of statistical analysis.