



Figure S1 HSN migration defects in *zfp-1(ok554)* determined by anti-serotonin staining. (A) Epifluorescent images of the HSN stained with anti-serotonin in wild type (A) and *zfp-1(ok554)* adult animals (B). Asterisks indicate the vulva and the arrowhead denotes the position of a properly migrated HSN. The arrow in (B) indicates a HSN that has failed to migrate the full distance from its birthplace in the tail of the *zfp-1(ok554)* mutant animal. Note that undermigrated HSNs still differentiate, as they express the neurotransmitter serotonin, a late step in HSN development. Images are oriented with the posterior of the animal to the right. Scale bars: 20 μm . (C) Quantification of the percentage of animals with an undermigrated HSN from two pooled independent experiments in wild type ($n=78$) versus *zfp-1(ok554)* ($n=72$) animals. Worm schematic legend: Stacked bars represent the proportion of HSNs at different positions along the A-P body axis within only those animals containing at least one undermigrated HSN. Thus, since there are two HSNs within each animal and not every HSN is affected, one colored region (light pink) represents the wild type HSN that remains unaffected in animals containing a second undermigrated HSN, which is represented by either the reddish/purple, green or blue region. Error bars represent standard error of the proportion (SEP).