



Figure S4. Additional data on NSM neurons and serotonin receptors. (A) Promotion of lifespan by NSM neurons via *NSM::syntaxin(T254I)* and *NSM::mgl-1* transgenes is suppressed by loss of *tph-1* (*tph-1; xuEx2331* vs. *tph-1*: $p=0.391$; *tph-1; xuEx2295* vs. *tph-1*: $p=0.085$). **(B-E)** Mutations in the other four serotonin receptor genes cannot block the ability of *IL1::trpa-1* transgene to promote lifespan at cool temperature. **(F)** RNAi of *ser-7* blocks the ability of IL1 neurons to promote lifespan. **(G)** *ser-7* is expressed in the intestine. **(H)** Transgenic expression of SER-7 in the intestine (*Pges-1::ser-7*) extends lifespan ($p<0.001$), but this effect cannot be blocked by *fmo-2* RNAi ($p<0.001$). **(I)** As a positive control, *fmo-2* RNAi can suppress the long-lived phenotype of *vhl-1* mutant worms ($p=0.031$). p values are indicated (log-rank).