



**Figure S1 Identification of two *egl-46* alleles that affect *gcy-33<sup>prom</sup>::gfp* expression**

(A) Representative picture of an animal expressing a BAG reporter (*gcy-33<sup>prom</sup>::gfp*) in wild type animals. Ventral view, anterior to the left. Scale bar, 20 $\mu$ m.

(B) Two mutant alleles of *egl-46* were isolated from an EMS forward mutagenesis screen using the BAG-specific transcriptional *gcy-33<sup>prom</sup>::gfp* reporter.  $n > 50$  \* $P < 0.05$

Note that the translational *gcy-33* reporter called *gcy-33<sup>prom</sup>::GCY-33::GFP* that we used in the rest of the study is minimally affected by loss of *egl-46* (Figure 4). This suggests that sequences included in the translational reporter transgene harbor binding sites for *ets-5* and *egl-13* that ensure expression in the BAG neurons.