**Table S2.** Strains used in this work.

|  |  |  |  |
| --- | --- | --- | --- |
| Strain | Genotype | Source | Relevant Figures |
| WT | N2 (Bristol) | CGC | 1A, 1B, S1A, S1B |
| CX14887 | *kyIs598[gpa-6*p*::GCaMP2.2b, unc-122*p*:dsRed]* | (Larsch et al., 2013) | 1C, 1D, 2F, 3E, 3F, S1C, S2B |
| PHX3508 | *odr-10(syb3508) (odr-10::t2A::mNeonGreen)* | (McLachlan et al., 2022) | 2A, 2B, 3A, 3B |
| PY12004 | *odr-10(oy158) [odr-10::gfp11]; oyEx681 [gpa-46*p*::gfp1-10; gpa-46*p*::mks-5::tagRFP, unc-122*p*::dsRed]* | This work; gift from J. Kaplan | 2C, 2D, 3C, 3D, 4D, S2A |
| PY12009 | *oyEx683 [gpa-4Δ6*p*::odr-10::tagRFP, unc-122*p*::gfp]* 5 ng/l | This work | 2E |
| PY12010 | *oyEx683 [gpa-4Δ6*p*::odr-10::tagRFP, unc-122*p*::gfp; kyIs598[gpa-6*p*::GCaMP2.2b, unc-122*p*:dsRed]* 5 ng/l | This work | 2F, S2B |
| PY12412 | *oyEx684 [gpa-4Δ6*p*::odr-10::tagRFP, unc-122*p*::gfp; kyIs598[gpa-6*p*::GCaMP2.2b, unc-122*p*:dsRed]* 30 ng/l | This work | 2F, S2B |
| PY12400 | *odr-10(syb3508) (odr-10::t2A::mNeonGreen); daf-2(e1368); daf-16(ot975) [daf-16::mNeptune2.5::AID];* *oyEx687* [*gpa-4Δ6*p*::tir1::SL2::mScarlet, unc-122*p*::dsRed]* | This work; (Aghayeva et al., 2020; Aghayeva et al., 2021; McLachlan et al., 2022) | 4A, 4B |
| PY12413 | *kyIs598[gpa-6*p*::GCaMP2.2b, unc-122*p*:dsRed]*; *odr-10(ky32)* | This work | S2C, S2D |
| PY12402 | *odr-10(oy170)* *odr-10*pΔ*daf-16*; *odr-10(oy158); oyEx681 [gpa-4Δ6*p*:: gfp1-10; gpa-4Δ6*p*::mks-5::tagRFP, unc-122*p*::dsRed* | This work | 4E |
| PY10421 | *oyIs88 [gpa-4Δ6*p*::myrGFP]* | (Maurya and Sengupta, 2021) | 5A, 5B, 5C, 5D, S3 |
| PY12403 | *srd-27(syb2465) (srd-27::t2A::NeonGreen); oyEx688 [gpa-4Δ6*p*::tagRFP, unc-122*p*::gfp]* | (McLachlan et al., 2022) | 6A, 6B |
| PY12404 | *srd-28(syb2320) (srd-28::t2A::NeonGreen); oyEx688 [gpa-4Δ6*p*::tagRFP, unc-122*p*::gfp]* | (McLachlan et al., 2022) | 6A, 6C |
| PY12405 | *str-44(syb1869) (str-44::t2A::NeonGreen); oyEx688 [gpa-4Δ6*p*::tagRFP, unc-122*p*::gfp]* | (McLachlan et al., 2022) | 6A, 6D |
| PY12406 | *srd-28(syb2320) (srd-28::t2A::NeonGreen); daf-2(e1368); daf-16(ot975 [daf-16::mNeptune2.5::AID]; oyEx687*[*gpa-4Δ6*p*::tir1::SL2::mScarlet, unc-122*p*::dsRed*] | This work; (Aghayeva et al., 2020; Aghayeva et al., 2021; McLachlan et al., 2022) | 6E |