

Supplementary materials

The following strains were used in this study:

Strain	Genotype
N2 (Bristol)	<i>C. elegans</i> wild-type
CB1370	<i>daf-2(e1370)</i> III
JR667	<i>unc-119(e2498::Tc1)</i> III; <i>wIs51[pMF1(scmp::gfp) + pDP#MM016b(unc-119p::unc-119(+))]</i> V
PD4666	<i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
EG8081	<i>unc-119(ed3)</i> III; <i>oxTi177[ttTi5605 + NeoR(+)]</i> IV
FR1382	<i>ttTi4348 I</i> ; <i>unc-119(ed3)</i> III
FR843	<i>let-418(n3536)</i> V
FR1007	<i>daf-2(e1370)</i> III; <i>let-418(n3536)</i> V
FR1209	<i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X; <i>let-418(n3536)</i> V
FR1353	<i>Si3[let-418p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> II; <i>unc-119(ed3)</i> III
FR1355	<i>Si3[let-418p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> II; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V
FR1389	<i>Si10[pie-1p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III
FR1392	<i>Si11[dpy-7p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III
FR1393	<i>Si12[myo-3p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III
FR1394	<i>Si12[myo-3p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V
FR1395	<i>Si13[elt-2p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III
FR1396	<i>Si13[elt-2p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V
FR1399	<i>Si10[pie-1p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V
FR1403	<i>Si11[dpy-7p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V
FR1425	<i>Si13[elt-2p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V; <i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
FR1427	<i>wIs51[pMF1(scmp::gfp) + pDP#MM016b(unc-119p::unc-119(+))]</i> V, <i>let-418(n3536)</i> V
FR1458	<i>Si13[elt-2p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>wIs51[pMF1(scmp::gfp) + pDP#MM016b(unc-119p::unc-119(+))]</i> V, <i>let-418(n3536)</i> V
FR1459	<i>Si11[dpy-7p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V; <i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
FR1460	<i>Si11[dpy-7p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>wIs51[pMF1(scmp::gfp) + pDP#MM016b(unc-119p::unc-119(+))]</i> V, <i>let-418(n3536)</i> V
FR1461	<i>Si12[myo-3p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V; <i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
FR1462	<i>Si12[myo-3p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>wIs51[pMF1(scmp::gfp) + pDP#MM016b(unc-119p::unc-119(+))]</i> V, <i>let-418(n3536)</i> V
FR1463	<i>Si10[pie-1p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V; <i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
FR1464	<i>Si10[pie-1p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>wIs51[pMF1(scmp::gfp) + pDP#MM016b(unc-119p::unc-119(+))]</i> V, <i>let-418(n3536)</i> V
FR1468	<i>Si18[hlh-8p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III
FR1475	<i>Si22[rgef-1p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> IV; <i>unc-119(ed3)</i> III
FR1478	<i>Si18[hlh-8p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V
FR1485	<i>Si18[hlh-8p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>wIs51[pMF1(scmp::gfp) + pDP#MM016b(unc-119p::unc-119(+))]</i> V, <i>let-418(n3536)</i> V
FR1491	<i>Si22[rgef-1p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> IV; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V
FR1492	<i>Si18[hlh-8p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V; <i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
FR1494	<i>Si13[elt-2p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>daf-2(e1370)</i> III; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V
FR1511	<i>daf-2(e1370)</i> III; <i>let-418(n3536)</i> V; <i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
FR1513	<i>Si13[elt-2p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>daf-2(e1370)</i> III; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V; <i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
FR1522	<i>Si18[hlh-8p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>daf-2(e1370)</i> III; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V; <i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
FR1523	<i>Si22[rgef-1p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> IV; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V; <i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
FR1524	<i>Si22[rgef-1p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> IV; <i>unc-119(ed3)</i> III (?); <i>wIs51[pMF1(scmp::gfp) + pDP#MM016b(unc-119p::unc-119(+))]</i> V; <i>let-418(n3536)</i> V
FR1527	<i>daf-2(e1370)</i> III; <i>ayIs6[pBH47(hlh-8p::gfp) + dpy-20(+)]</i> X
FR1528	<i>Si10[pie-1p::let-418ORF::3xFLAG::let-418 3'UTR + cb-unc-119(+)]</i> I; <i>daf-2(e1370)</i> III; <i>unc-119(ed3)</i> III (?); <i>let-418(n3536)</i> V

Expression constructs

The following plasmids were used in this study:

Plasmid name	Description
p_C33D3.1_93	<i>elt-2</i> promoter construct/ pDONRP4-P1R backbone
pCW30	<i>dpy-7</i> promoter construct/ pDONRP4-P1R backbone
pCW31	<i>myo-3</i> promoter construct/ pDONRP4-P1R backbone
pMS29	<i>rgef-1</i> promoter construct/ pDONRP4-P1R backbone
pCG142	<i>pie-1</i> promoter construct/ pDONRP4-P1R backbone
pGP6	<i>let-418</i> 3'UTR construct/ pDONRP2R-P3 backbone
pSKP-57	<i>let-418</i> ORF construct/ pDONR201 backbone
pCFJ150	destination vector containing genomic regions flanking the <i>ttTi5605</i> Mos1 insertion
pCFJ210	destination vector containing genomic regions flanking the <i>ttTi4348</i> Mos1 insertion
pMS14	<i>pie-1p::let-418 ORF::3xFLAG::let-418 3'UTR</i> in pCFJ210
pMS15	<i>dpy-7p::let-418 ORF::3xFLAG::let-418 3'UTR</i> in pCFJ210
pMS16	<i>myo-3p::let-418 ORF::3xFLAG::let-418 3'UTR</i> in pCFJ210
pMS17	<i>elt-2p::let-418 ORF::3xFLAG::let-418 3'UTR</i> in pCFJ210
pMS31	<i>rgef-1p::let-418 ORF::3xFLAG::let-418 3'UTR</i> in pCFJ150
pCW51	<i>hlh-8p::let-418 ORF::3xFLAG::let-418 3'UTR</i> in pCFJ210

Each expression construct was generated using Multisite Gateway Cloning System (Invitrogen) using plasmids containing a fragment with a tissue-specific promoter (p_C33D3.1_93, pCW30, pCW31, pMS29, pCG142), the coding sequence (containing introns) of *let-418* gene fused to 3xflag coding sequence (pSKP-57) and the *let-418* 3'UTR (pGP6), and a MosSCI (Mos1 mediated single copy insertion) compatible destination vector (pCFJ150/pCFJ210). Improved MosSCI technique [1] was used to insert transgenes into a defined site in the *C. elegans* genome. MosSCI transformation was performed based on the protocol described on www.wormbuilder.org/test-page/protocol.

The protocol for antibody-staining of formaldehyde-fixed worms is described on <http://www.wormatlas.org/antibodystaining.htm>

1. Zeiser, E.; Frokjaer-Jensen, C.; Jorgensen, E.; Ahringer, J. MosSCI and Gateway Compatible Plasmid Toolkit for Constitutive and Inducible Expression of Transgenes in the *C. elegans* Germline. *PLoS One* **2011**, *6*, e20082, doi:10.1371/journal.pone.0020082 PONE-D-11-03764 [pii].