

Supporting Information:

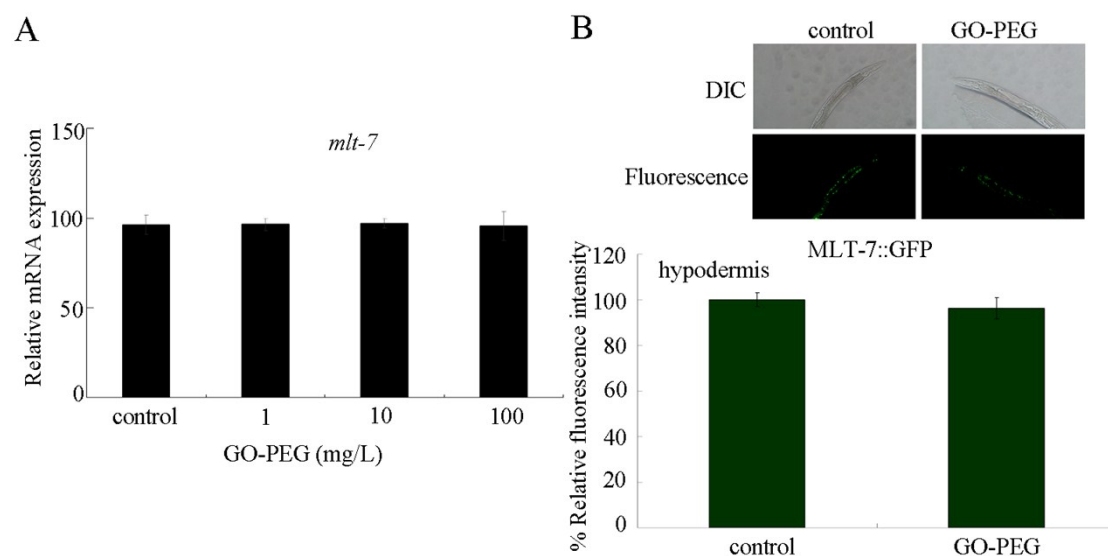


Fig. S1. Effect of GO-PEG exposure on MLT-7 expression in wild-type nematodes. (A) Effect of GO-PEG exposure on transcriptional expression of *mlt-7*. (B) Effect of GO-PEG exposure on MLT-7::GFP expression. Prolonged exposure was performed from L1-larvae to adult day-1. GO-PEG exposure concentration was 10 mg/L. Bars represent means $\pm$ SD.

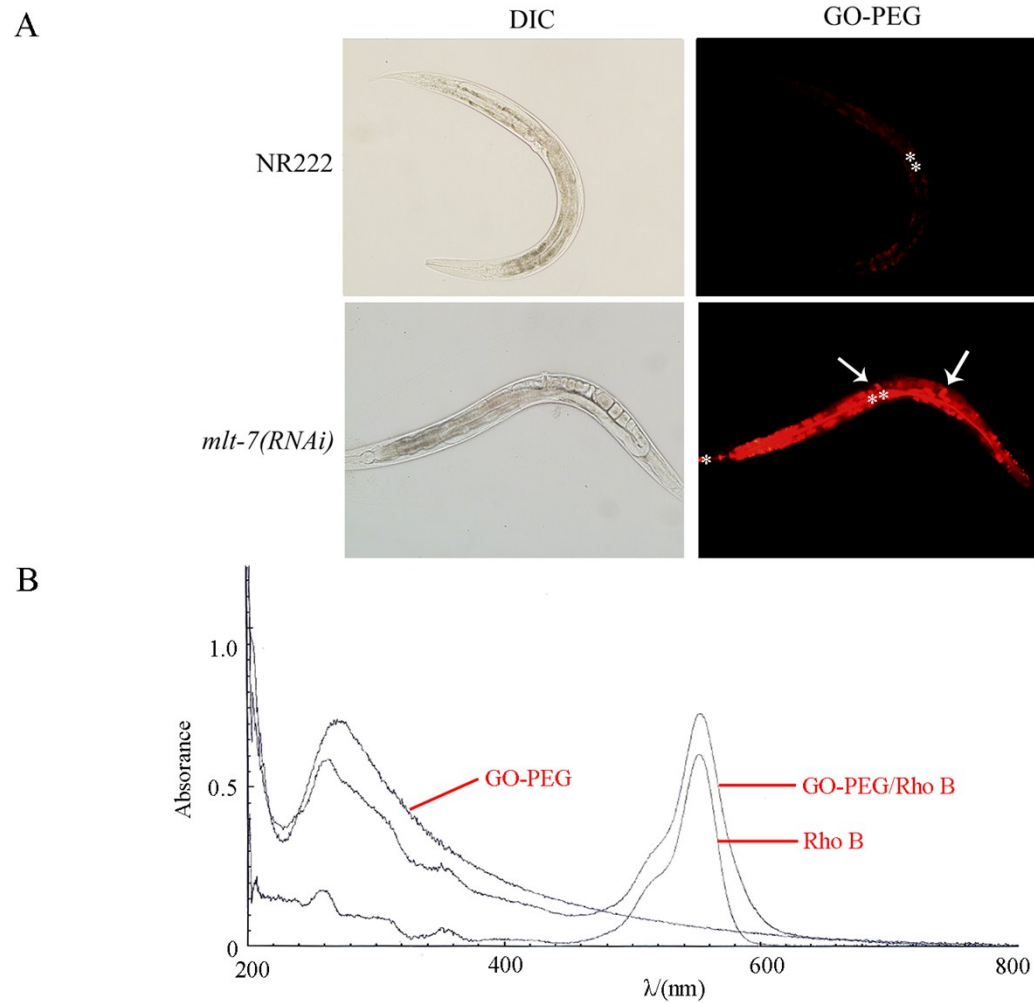


Fig. S2. Effect of epidermal-specific RNAi knockdown of *mlt-7* on GO-PEG translocation in nematodes. (A) Effect of epidermal-specific RNAi knockdown of *mlt-7* on GO-PEG translocation. Asterisks indicate the pharynx (*) in the head and the intestine (**) in the mid-region, respectively. Arrowheads indicates the spermatheca. Prolonged exposure was performed from L2-larvae to adult day-1. GO-PEG exposure concentration was 10 mg/L. (B) UV/Vis spectra of RhoB before and after adsorption on GO-PEG.

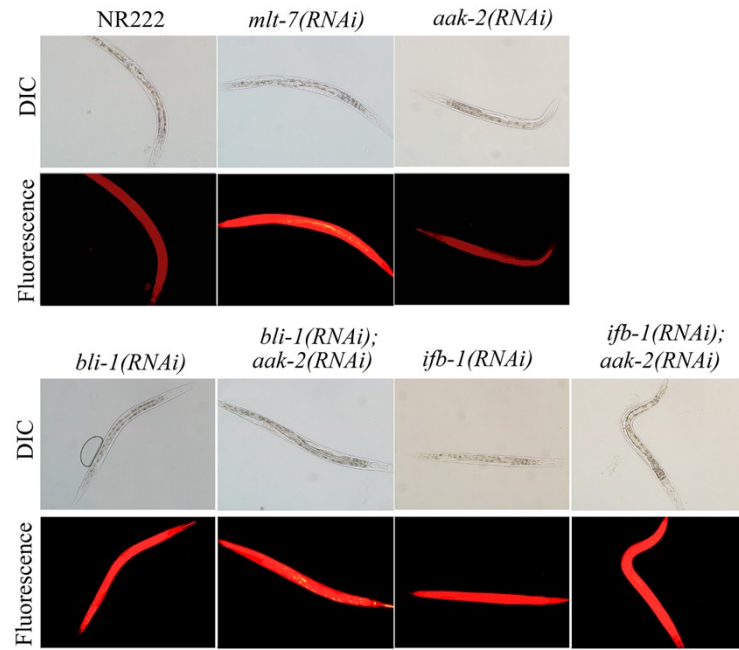


Fig. S3. Rho B distribution in NR222, and nematodes with epidermal-specific RNAi knockdown of certain gene(s).

Table S1. Primer information for qRT-PCR

Gene	Forward primer (5'-3')	Reverse primer(5'-3')
<i>mlt-7</i>	TGACGGTGTCTTCAAGTCCG	GCGGGTGAAGATTCCAGGAT
<i>aak-1</i>	GTGCTGCGTCCGTATCAGTA	ACGAATTGGAGCTTCGGGTT
<i>aak-2</i>	TCTTCCGCCATCCGCATATC	CCTCTTCATCGGGTCTACGC
<i>bli-1</i>	CTGCTCAGCCGAATCATTGC	TGTCCGTTCACTCCTTGCTC
<i>ifb-1</i>	AGGCACCAATGTCAGGAGGA	ACGGTGTCTGGCAACTTTCA
<i>mup-4</i>	CACAGTTGCCCAGCAAATC	GCGAGCGTTTTTGTCACT
<i>let-805</i>	CGCTCGCACTCTCTACTCAG	TTGAACAGCCAACCCCAACT
<i>sma-1</i>	GTCGGCGATGGTATTATGCT	CACGCTCCTCCTCATCTTCA
<i>zyg-9</i>	GTCGGCCGTACAATGCAATC	AAAACCGTCGGGCATTTTGG
<i>unc-52</i>	AGTGCTCTGTTCAAGGAGCC	TAGTGGTTCGGGTTTTGCGA
<i>vab-10a</i>	AAGCCATCAACCGCAACTAC	CACCACGGACGACTTTCACT
<i>tba-1</i>	TCAAACTGCCATCGCCGCC	TCCAAGCGAGACCAGGCTTCAG

Table S2. Primer information for vector constructions

Gene	Forward primer (5'-3')	Reverse primer(5'-3')
<i>PmIt-7</i>	ATACTGCAGCATGTGGTTTTCCCT TTTAA	CGATCTAGAGGTGTTTCCTCTCCAGT AGTT
<i>mlt-7</i>	ATACCCGGGATGAGAAGACTCCA TCGAAA	ATACCCGGGCTAGAGAGCTCTCCACT TTG