

Supplementary Table 1. This table includes all primers used in RT-qPCR experiments.

Gene	Gene ID	Direction	Primer sequences (5' - 3')
<i>action</i>	181097	Forward	GATGTCGCCGAGGAGAAGCAAC
		Reverse	ACTGGGGTAGAGTGGAGCTTGG
<i>ctl-1</i>	259738	Forward	GCGGATACCGTACTCGTGAT
		Reverse	GTGGCTGCTCGTAGTTGTGA
<i>ctl-2</i>	175085	Forward	TCCGTGACCCTATCCACTTC
		Reverse	TGGGATCCGTATCCATTCAT
<i>ctl-3</i>	175086	Forward	GCGGATACCGTACTCGTGAT
		Reverse	GTGGCTGCTCGTAGTTGTGA
<i>sod-1</i>	174141	Forward	CGTAGGCGATCTAGGAAATGTG
		Reverse	AACAACCATAGATCGGCCAACG
<i>sod-2</i>	172632	Forward	CTTCAAACACCGTTCGCTG
		Reverse	CAGTGGAACAAGTCCAGTT
<i>sod-3</i>	181748	Forward	TTCAAAGGAGCTGATGGACACT
		Reverse	AAGTGGGACCATTCCCTCCAA
<i>gst-4</i>	177886	Forward	GATGCTCGTGCTCTTGCTG
		Reverse	CCGAATTGTTCTCCATCGAC
<i>gst-7</i>	173842	Forward	GGACAAGACTTCGAGGACAAC
		Reverse	AACTGACGAGCCAAGTAACG
<i>gst-10</i>	178725	Forward	AAGAGATTGTGCAGACTGGAG
		Reverse	AGAACATGTCGAGGAAGGTTG
<i>nhr-49</i>	172839	Forward	CGGTGTCGGATCAAACGGTA
		Reverse	GAAGTTGTCGCATTGGCCAG
<i>fat-5</i>	180162	Forward	GCTCTACACATTGGAGCCCT
		Reverse	GTGTGCAGGAGGAATACCCA
<i>fat-6</i>	178122	Forward	AGAGGAGAGCAAGAAGATCCCA
		Reverse	TCACGGTTTGCCATTTGCC

<i>fat-7</i>	179100	Forward	CGCAGCCATTGGACTTTACG
		Reverse	CTGTTGATGCACCAAGTGGC

Supplementary Table 2. Effect of different bacteria on the lifespan of *C. elegans* under different stressors

Injury mode	Group	N	Mean lifespan (h/days) ±SEM	% of control	Maximum lifespan(hours)	P value
oxidative stress	OP50	75	1.50 ± 0.50 ^a	100.0	4	-
	LS232	76	2.50 ± 0.50 ^b	140.0	5	<i>P</i> = 0.0092
Metal stress	OP50	70	12.33 ± 0.58 ^a	100.0	21	-
	LS232	75	14.00 ± 1.00 ^b	111.9	23	<i>P</i> = 0.0087
Osmotic stress	OP50	72	2.00 ± 0.50 ^a	100.0	5	-
	LS232	76	3.15 ± 0.58 ^b	136.5	7	<i>P</i> = 0.0038

Three replicates were carried out. Values with different letters in column are significantly different ($p < 0.05$). Significant differences were analyzed by log-rank (Mantel–Cox) tests.

Supplementary Table 3. Effect of different bacteria on the lifespan of *nhr-49(nr2041)* mutant

Strain	Group	N	Mean lifespan (days)	Maximum lifespans	Genetic requirement
<i>nhr-49(nr2041)</i>	OP50	70	9.00 ± 1.00 ^a	16	NO
	LS232	73	9.50 ± 0.87 ^a	16	

Three replicates were carried out. Values with different letters in column are significantly different