

**Table S1: The primers**

<b>Genes</b>	<b>Forward primer sequence</b>	<b>Reverse primer sequence</b>
<i>act-1</i>	ACGACGAGTCCGGCCCATCC	GAAAGCTGGTGGTGACGATGGTT
<i>tba-1</i>	TCAACACTGCCATCGCCGCC	TCCAAGCGAGACCAGGCTTCAG
<i>irg-1</i>	AAGCAGCATGCGTATTTTCA	GCAGCTTCTCCTTTTCTCC
<i>hsf-1</i>	CAGCCAACAGGGAATCAAAT	TGCTGCTCCAGAACTGAAA
<i>C29F3.7</i>	GATCGGCAACTTTACCTCCA	AATTGTGGCGGATATTCTGG
<i>lys-1</i>	TTCGGATCTTTCAAGAAGGC	GGGATTCCAACAACGTAAA
<i>spp-1</i>	TGAACATCGGAACTCTTTGC	TCAGCTCTTCCTCACACTCG
<i>abf-1</i>	TGCCTTCTCCTTGTTCTCCT	ATCCTCTGCATTACCGGAAC
<i>pmk-1</i>	CGACTCCACGAGAAGGAT	ATATGTACGACGGGCATG
<i>sek-1</i>	TGCTCAACGAGCTAGACG	ATGTTCGACGGTTTCACG
<i>nsy-1</i>	TGCGATGAACTACTACGG	CACCCAAATGACCAAATA
<i>skn-1</i>	AGGCTCAACCTCAGAACATG	TACGAGTAGGCGGTCATTTT
<i>atf-7</i>	CTGGAGAACTTGACGTGGCA	ATCCGACATTGTTCCGGCAT
<i>ctl-1</i>	GAATGTGAAGAATTATTTGCTGA	AACTCGATTCTTGGGACGAT
<i>ctl-2</i>	CAAGGAACTACTTCGCTGAGG	AATGAGTGTCGGTGTACGAGAA
<i>ctl-3</i>	GAATGTGAAGAATTATTTGCTGA	AACTCGATTCTTGGGACGAT
<i>gst-4</i>	GATACTTGGCAAGAAAATTTGGAC	TTGATCTACAATTGAATCAGCGTAA
<i>gst-5</i>	GCCAGCATTGAAAGAAACCT	TTTTTCCGTTGAGCTTGAAC
<i>gst-9</i>	CAAGAATTTATTGATGAGCGTATTTCT	ACTTGTCCAAATGGGGTCATA
<i>gst-10</i>	ACTGGAGCAATTATGCGTCA	CTCCCTCGAAGAACATGTCTG
<i>sod-1</i>	ACGCTCGTCACGCTTTAC	TCTTCTGCCTTGTCTCCG
<i>sod-2</i>	GGCATCAACTGTCGCTGT	ACAAGTCCAGTTGTTGCC
<i>sod-3</i>	TGACATCACTATTGCGGT	GGGACCATTCTTCCAAA
<i>sod-4</i>	CACCAGATGACTCGAACA	AATGAGGCAAGAGAGTCG

**Table S2: Mean survival time of nematodes under PA14 infection**

Figure	strains	treatments	mean survival time (h)	P value (vs radiation group)
Fig1. a	N2	control	82.44±2.16	**
		radiation	58.20±2.22	
		radiation+0.1mg/mL ASPS	70.32±2.51	**
		radiation+0.5mg/mL ASPS	72.00±2.59	**
		radiation+1mg/mL ASPS	75.00±2.57	**
		radiation+2mg/mL ASPS	70.65±2.32	**
Fig1. b	N2	control	82.15±2.13	**
		radiation	57.12±2.18	
		radiation+0.1mg/mL Flavone	59.22±2.10	
		radiation+0.5mg/mL Flavone	60.56±2.05	
		radiation+1mg/mL Flavone	59.72±2.07	
Fig1. c	N2	control	82.79±2.62	**
		radiation	58.34±2.43	
		radiation+0.05mg/mL Syringin	58.96±2.10	
		radiation+0.1mg/mL Syringin	59.87±2.08	
		radiation+0.5mg/mL Syringin	59.63±2.21	
Fig1. d	N2	control	81.94±2.16	**
		radiation	58.34±2.51	
		radiation+0.05mg/mL SaponinE	59.13±2.31	
		radiation+0.1mg/mL SaponinE	60.47±2.26	
		radiation+0.5mg/mL SaponinE	59.78±2.34	
Fig4. a	N2	control	82.44±2.16	**
		radiation	58.20±2.22	
		radiation+1mg/mL ASPS	75.32±2.51	**
Fig4. b	<i>pmk-1</i>	control	54.00±1.69	**
		radiation	33.00±1.19	
		radiation+1mg/mL ASPS	35.40±1.28	
Fig4. c	<i>nsy-1</i>	control	54.36±1.71	**
		radiation	34.48±1.25	
		radiation+1mg/mL ASPS	35.20±1.34	

Fig4. d	<i>sek-1</i>	control	53.72±1.22	**
		radiation	34.63±1.07	
		radiation+1mg/mL ASPS	35.09±1.31	
Fig5. a	<i>pmk-1Is(Pges-1-pmk-1)</i>	control	80.03±2.08	**
		radiation	57.31±2.17	
		radiation+1mg/mL ASPS	74.38±2.3	**
Fig5. b	<i>pmk-1Is(Punc-14-pmk-1)</i>	control	54.87±1.16	**
		radiation	34.93±1.09	
		radiation+1mg/mL ASPS	35.62±1.27	
Fig6. a	<i>skn-1</i>	control	64.83±1.34	**
		radiation	41.35±1.23	
		radiation+1mg/mL ASPS	45.40±1.34	
Fig6. b	<i>atf-7</i>	control	53.89±1.33	**
		radiation	33.63±1.09	
		radiation+1mg/mL ASPS	35.07±1.21	

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\*\*p<0.01 (log-rank test)