## **Supplementary Information**

## For

## A Potential Biochemical Mechanism Underlying the Influence of Sterol Deprivation Stress on the *Caenorhabditis elegans* Longevity

*Mi Cheong Cheong*<sup>1</sup>, *Keun Na*<sup>1</sup>, *Heekyeong Kim*<sup>1</sup>, *Seul-Ki Jeong*<sup>1</sup>, *Hyoe-Jin Joo*<sup>1</sup>, *David J. Chitwood*<sup>2</sup> and *Young-Ki Paik*<sup>\*1</sup>

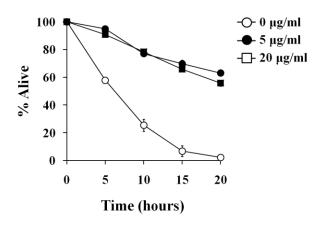
<sup>1</sup>Department of Biochemistry, College of Life Science and Biotechnology, Department of Biomedical Science, WCU Program of Graduate School and Yonsei Proteome Research Center, Yonsei University, Seoul, 120-749, Korea, <sup>2</sup>Nematology Laboratory, USDA, ARS, Bldg. 011A, Room 165-B, BARC-

West, Beltsville, MD 20705 USA

<sup>†</sup>To whom correspondence should be addressed. E-mail: <u>paikyk@yonsei.ac.kr</u> Tel: +82-2-2123-4242; Fax: +82-2-393-6589

Gene Name	DNA sequence
ins-1	(forward)5'-ACTGGATTAACCGCTTTCAAAC-3' (reverse) 5'-TCAATTATCGTCCTGATTGCAG-3'
ins-7	(forward) 5'-TTGTGGAAAAGCATGCGAATC-3' (reverse) 5'-TTAAGGACAGCACTGTTTTCG-3'
ins-18	(forward) 5'-ACGGACGCATGAAAATGTGC-3' (reverse) 5'-TTGAAGTTGACGGATTGATGG-3'
daf-28	(forward) 5'-TTCCGTATGTGTGGAGTGTC-3' (reverse) 5'-TTTGTATATACTCGGCAGTGC-3'

 Table S1.
 DNA sequence information for qRT-PCR primers used in this experiment.



## Fig. S1.Cholesterol affects oxidative stress resistance.

Cholesterol depletion cause decrease in the oxidative stress resistance in N2. Thirty worms grown on different concentration of cholesterol 0  $\mu$ g/ml, 5  $\mu$ g/ml and 20  $\mu$ g/ml, were treated with paraquat, and the experiment was performed three times (p> 0.001 at 20hr time point. Each point indicates mean value of three independent experiments (n=30) and err bar is SEM. p values were derived from a Student's t-test.