

## **Supplemental Methods**

### **Stress Assays**

Paraquat assays were performed as described (Dillin 2002). For UV irradiation assays, worms were grown to day 5 of adulthood. Worms were then transferred to plates without food and exposed to 1200 J/m<sup>2</sup> of UV using an UV Stratalinker. Worms were transferred back to seeded plates and scored daily for viability. For heat-shock assays, worms were grown to day 1 of adulthood. Worms were then transferred to plates without food and placed at 33°C. Worms were checked every 2 hr for viability.

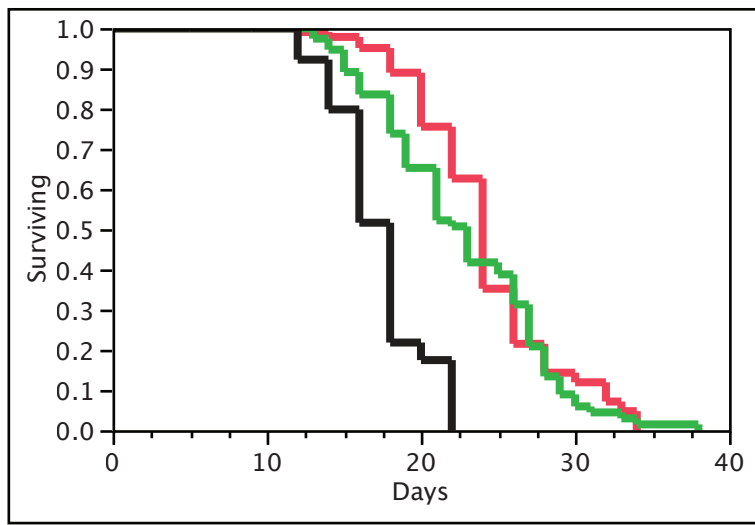
### **Reproductive assays**

Animals were synchronized. Gravid adults were allowed to lay eggs on a seeded plate. ~8-10 hours later larvae were picked to new individual plates as they hatched within 10 minute period. The fecundity of 30 animals/genotype was monitored by placing 1 animal on a plate and transferring every 12 hours to new plate. The resulting progeny were allowed to grow to adulthood and were counted.

### **Antioxidant Life spans**

Antioxidant life span analysis N-acetyl-cysteine (NAC) plates were prepared as in Schultz et al 2007. Agar with a 5mM final concentration of NAC was used from a 0.5M aqueous stock. Ascorbic acid (vitamin C) plates were made with a 5mM final concentration from a 0.5M aqueous stock. Worms were grown on antioxidant plate from hatch until the late L4 stage at which time they were transferred onto regular NGM agar plates.

A



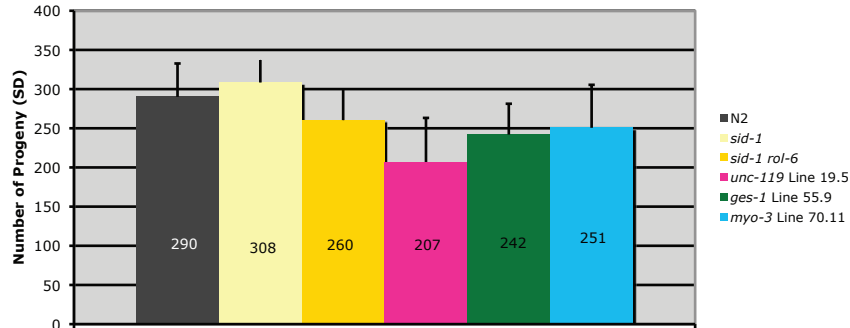
— *rab-3p::cco-1HP*  
— *rab-3p::cco-1HP*+intest. *cco-1*RNAi  
— N2 EV

B



C

Number of Progeny



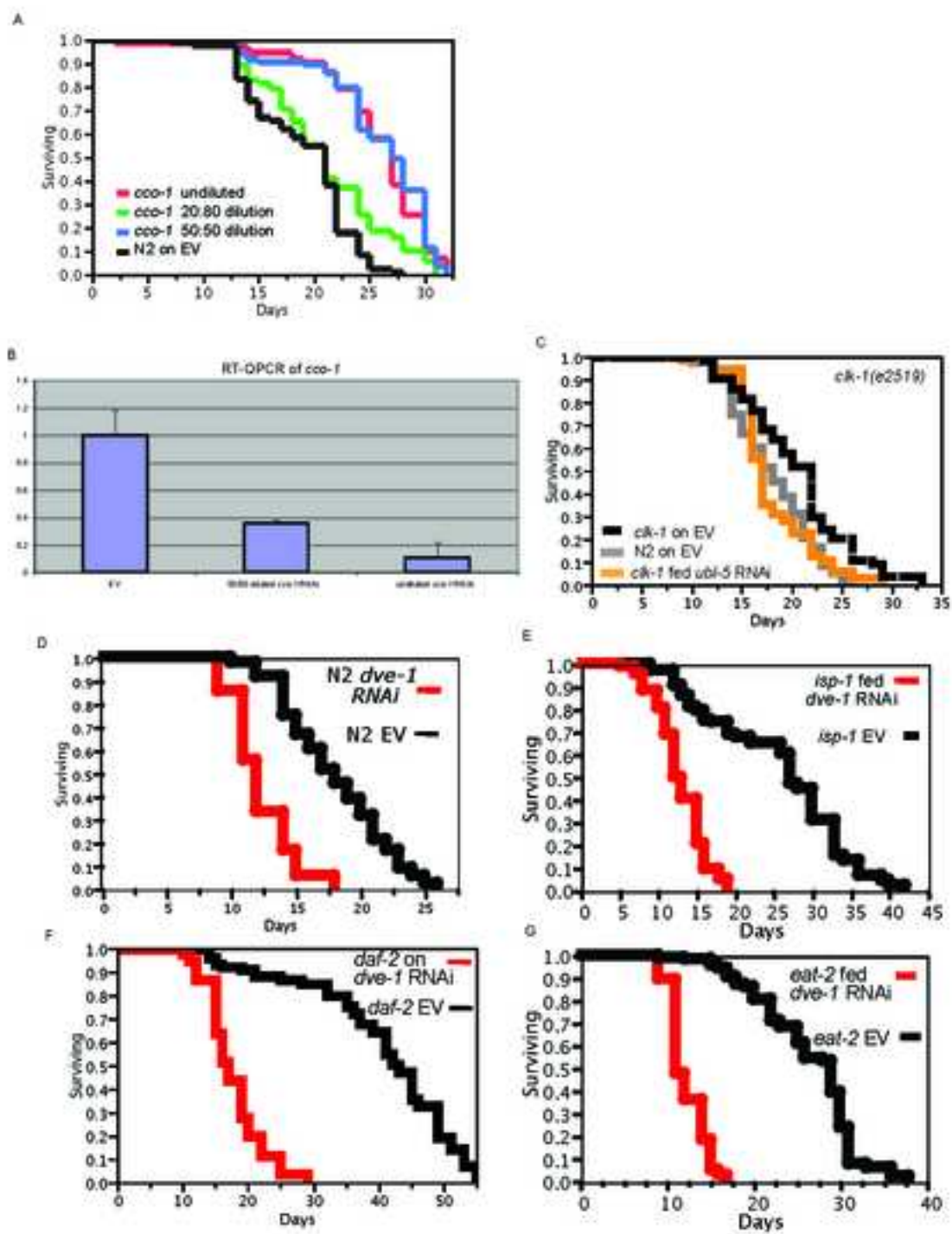


Figure S3

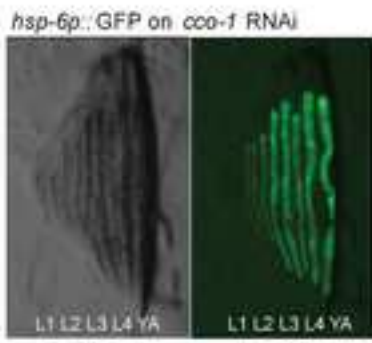
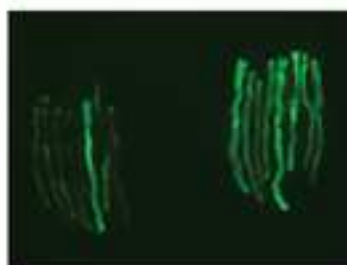


Figure S4

A



feeding *cco-1* RNAi    feeding *cco-1* RNAi  
*gly-13p::GFP-KD*    *hsp-6p::GFP*  
*hsp-6p::GFP*

B

*myo-3p::cco-1HP* x *hsp-6 p::GFP*



Figure S5

