



**Supplementary Figure 2** Neuronal deletion of *spg-7* or *cco-1* by CRISPR-Cas9

induces UPR<sup>mt</sup> in distal tissues. (A) A schematic graph of the CRISPR-Cas9 vector for tissue specific knockout of genes in *C.elegans*. (B) Representative sequence alignments of *spg-7* or *cco-1* indels generated by the CRISPR-Cas9 system. The underlined sequences represent the target sites. Nucleotides denoted in blue are PAM sequences. Dashed lines represent the deleted nucleotides. The number in parentheses indicates the number of omitted nucleotides. The number of inserted (+) or deleted (-) bases is shown. (C) Second targeting sequences designed for CRISPR-Cas9 knockout of *spg-7* or *cco-1*, together with their PAM sequences. (D) Neural knockout of *spg-7* or *cco-1* by the second targeting sequence induced cell-non-autonomous UPR<sup>mt</sup>. *odr-1p::dsRed* is used as co-injection marker. (E) Fold changes of *irg-1* and *cyp-14A1* transcripts in *rab-3p::Cas9+u6p::spg-7-sg*; *hsp-*

*6p::GFP* worms compared with the control *hsp-6p::GFP* worms. A Student's t-test is used to assess significance: \* $p < 0.05$ .