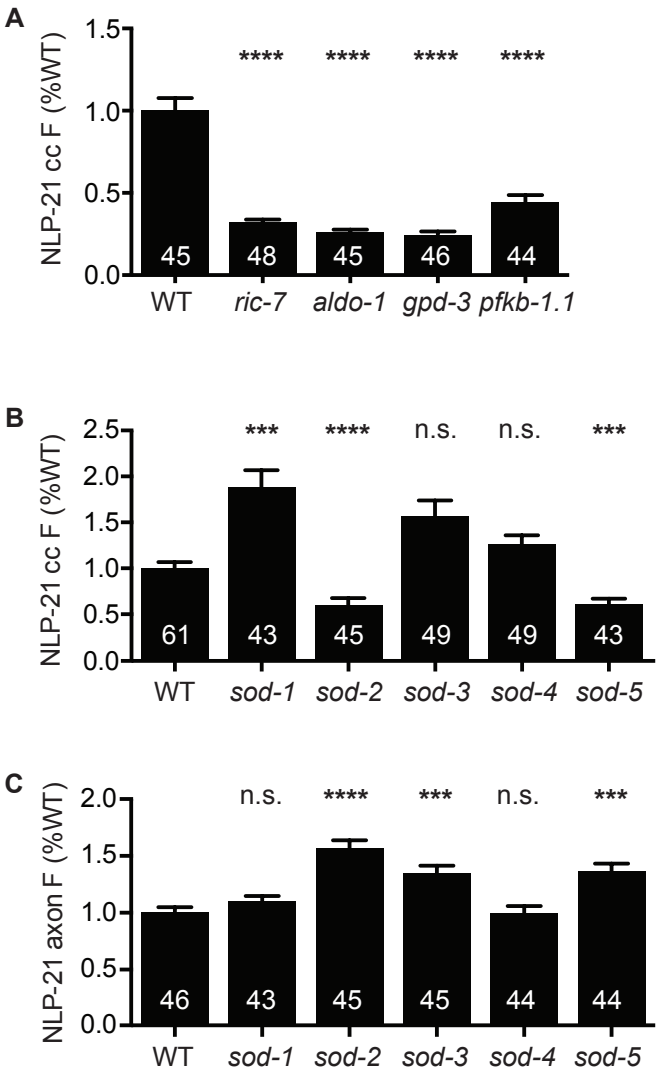

Figure S1: Neuropeptide secretion is sensitive to changes in ATP and reactive oxygen species. NLP-21 coelomocyte fluorescence (**A**, **B**) and axonal fluorescence (**C**) in mutants of glycolysis and superoxide dismutase genes. Number of animals analyzed is indicated for each genotype. Error bars indicate SEM. Values that differ significantly are indicated (****, $p < 0.0001$; ***, $p < 0.001$; n.s., not significant; Kruskal-Wallis test with Dunn test for multiple comparisons).

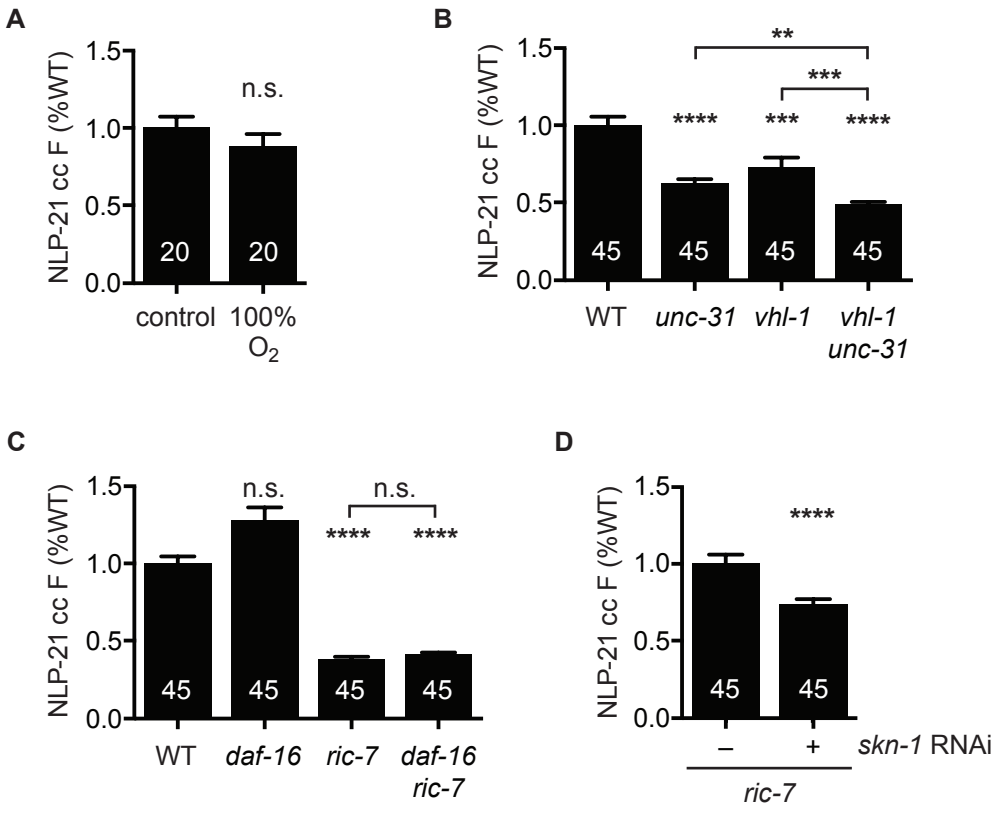

Figure S2: Neither hyperoxia nor activation of the DAF-16/FOXO or SKN-1/NRF stress responses can account for the neuropeptide secretion defect of ric-7 mutants.
(**A**) Comparison of NLP-21 coelomocyte fluorescence in worms grown at atmospheric oxygen levels and those grown at 100% oxygen for 24 hours. (**B**) Comparison of NLP-21 coelomocyte fluorescence for the indicated genotypes. The *unc-31* and *vhl-1* mutations had additive effects on NLP-21 coelomocyte fluorescence. (**C**) Comparison of NLP-21 coelomocyte fluorescence for the indicated genotypes. Mutation of *daf-16* had no effect in wildtype or in a *ric-7* mutant background. (**D**) *skn-1* RNAi reduced NLP-21 coelomocyte fluorescence in *ric-7* mutants. Number of animals analyzed is indicated for each genotype. Error bars indicate SEM. Values that differ significantly are indicated (****, $p < 0.0001$; ***, $p < 0.001$; n.s., not significant; Student's t-test (A), Kruskal-Wallis test with Dunn test for multiple comparisons (B, C), and Mann-Whitney test (D)).