

FIGURE S1: Cyclin C is exported from the nucleus in *slt2Δ* **cells under high stress. (A)** Representative images of the progression of cyclin C-YFP export in DAPI stained wild type cells. In the absence of stress cyclin is located in the nucleus (upper panels). The "intermediate" phenotype (middle panels) is characterized by cyclin C being predominantly located just alongside the nucleus (orange arrow) cyclin C and well being discreet foci in the cytoplasm (pink arrow). The "export" phenotype (bottom panels) is characterized by cyclin C being predominantly exported from the nucleus and located in the cytoplasm. (B) Field view (collapsed deconvolved 0.2 μ M slices) of fluorescence microscopy conducted on mid-log phase on *slt2Δ kdx1Δ* (RSY1737) cells expressing YFP-cyclin C (pBK37) following (2 h) 1.2 mM H₂O₂ treatment. The cells were fixed, stained with DAPI and then examined by fluorescence microscopy. (C) The percent of wild type (RSY10) and *slt2Δ* (RSY1006) cells (mean ± s.e.m.) within the population displaying at least 3 cytoplasmic cyclin C foci is given before and following H₂O₂ (0.4 and 1.2 mM) treatment for 2 h. At least 200 cells were counted per timepoint from 3 individual isolates. (D) Representative images (collapsed de-convolved 2 μ slices) of *slt2Δ* cells harboring cyclin C-YFP after 2 h 1.2mM H₂O₂ stress.





2h + 1.2mM H2O2

FIGURE S2: (A) Fixed cell images of the whole cell wild type cells (RSY10) expressing cyclin C-YFP and Nop1-RFP. Cells were harvested and stained with DAPI following 1.2mM H_2O_2 at the time points indicated. (B) Field view (collapsed deconvolved 0.2 μ M slices) of fluorescence microscopy conducted on mid-log phase on *bck1 ste11* (BLY478) cells expressing YFP-cyclin C (pBK37) following (2 h) 1.2 mM H_2O_2 treatment. The cells were fixed, stained with DAPI and then examined by fluorescence microscopy.



FIGURE S3: the cell wall sensor Sho1 may be able to transmit the stress signal to Ste11 following H₂O₂ stress. (A) *sho1* Δ (RSY1988) and *bck1* Δ *sho1* Δ (RSY1989) cultures expressing myc-cyclin C (pLR337) were grown to mid-log phase (0 hr) then treated with 1.2 mM H₂O₂ for the indicated times. Cyclin C levels were determined by Western blot analysis of immunoprecipitates. Tub1 levels were used as a loading control. (B) Cell viability assays on wild type *sho1* Δ and *bck1* Δ *sho1* Δ strains following treatment with 2mM H₂O₂ for 2 hrs. Decreasing dilutions of the cells (represented by the arrow) were plated on YPDA media and the surviving colonies photographed after 2 days at 30°C. (C) Cyclin C exhibits the "intermediate" localization phenotype in the *bck1* Δ *sho1* Δ strain following 1.2 mM H₂O₂ stress. Fluorescence microscopy was conducted on mid-log phase on *bck1* Δ *sho1* Δ cells expressing YFP-cyclin C (pBK37) following (2 h) 1.2 mM H₂O₂ treatment. The cells were fixed, stained with DAPI and then examined by fluorescence microscopy. Representative images (collapsed deconvolved 0.2 μ M slices) of the results obtained are shown.