



Supplemental Figure S1. Rescues of temperature sensitivity, hyper-sensitivity to excess manganese, and abnormal accumulation of 1, 3-β-glucan in the *cwh43-G753R* mutant cells by *pga3-R161C*.

The *pga3* mutations were identified as *cwh43* suppressors along with *pmr1* in this study. **(A)** WT, *cwh43-G753R*, *pga3-R161C*, and *cwh43-G753R pga3-R161C* double mutant strains were spotted at 26-36 °C. The *pga3-R161C* mutation rescued the ts phenotype of the *cwh43* mutant (Arrows). **(B)** The four strains were spotted onto EMM2 minimal media, which contains 2.6 μM MnSO₄ (normal), or onto EMM2 media containing additional manganese (2, 10, or 40 mM MnCl₂) at 26 °C. These strains were also spotted onto manganese-free EMM2 media (Mn²⁺ free). **(C)** The four strains were cultured in normal EMM2 medium at 26°C and stained for the cell wall component, 1, 3-β-glucan, using aniline blue as in Figure 6. Fluorescent (Aniline Blue) and bright field (BF) images are shown. Bar, 10 μm.