



S12 Fig. CBS-derived H₂S helps to preserve the catalase activity of KatG under iron-deficient conditions.

Catalase activity in crude extracts of $\Delta cbs\Delta katB\Delta katG$ cells containing $P_{BAD-katG}$, and having either $P_{tac-cbs}$ (cbs^+) or vector control (cbs^-), was examined. Cells were grown in M9 medium containing 0.2% casein acid hydrolysate as the sole carbon source and induced with 0.5 mM IPTG and 0.02% arabinose. Iron chelator 2,2'-bipyridine or $FeCl_3$ was added to monitor the iron content of the medium as indicated. Significance was determined by two-way ANOVA from the data of three independent experiments. Significant differences in the mean rank of the catalase activity of each strain at different iron levels are listed in alphabetical order (cbs^- , blue letters; cbs^+ , red letters), with the same letter indicating a p -value > 0.05 . Also indicated are

significant differences between cbs^- and cbs^+ strains at certain 2,2'-bipyridine concentrations; p -value, *, <0.05, **, <0.01.