



Supplementary Figure 9. *RIM15* complement strain rescues *rim15Δ* ASR defects. We restored *RIM15* at the endogenous locus on the *rim15Δ* background and compared its ASR effect to that in the wild type and *rim15Δ* strains. Concentrations of H_2O_2 were calibrated to achieve a similar basal survival rates (open circles, Kruskal-Wallis rank sum test among the three groups $P = 0.27$). ASR-scores for the three strains are (95% CI and Wilcoxon signed-rank test P -values in the parenthesis): wild type 9.5 ([5.3, 16.9], $P=0.048$); *rim15::RIM15* 11.6 ([8.6, 15.2], $P=0.048$); *rim15Δ* 5.3 ([3.4, 7.5], $P=0.048$). Based on Mann-Whitney U test, the ASR-score is not significantly different between either *rim15Δ* and wild type, or *rim15::RIM15* and wild type (Holm-Bonferroni-corrected P -values = 0.6 and 0.3, respectively). *rim15Δ* has relatively weak effects on ASR (Fig. 6D) and the wild type's survival rates with primary stress has relatively large variance in this experiment. Both could result in the lack of statistical significance in the comparison between *rim15Δ* and wild type. Instead, the difference in ASR-score between *rim15Δ* and *rim15::RIM15* has a P -value of 0.045. Combined, we conclude that *rim15Δ* reduces ASR and the complement strain rescues the defect.