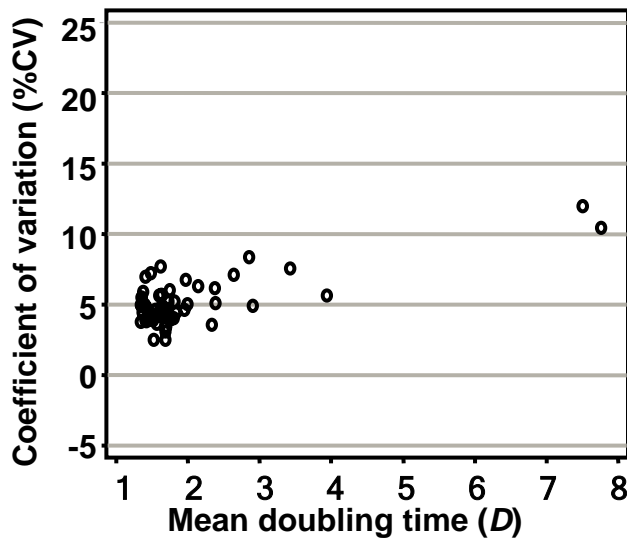
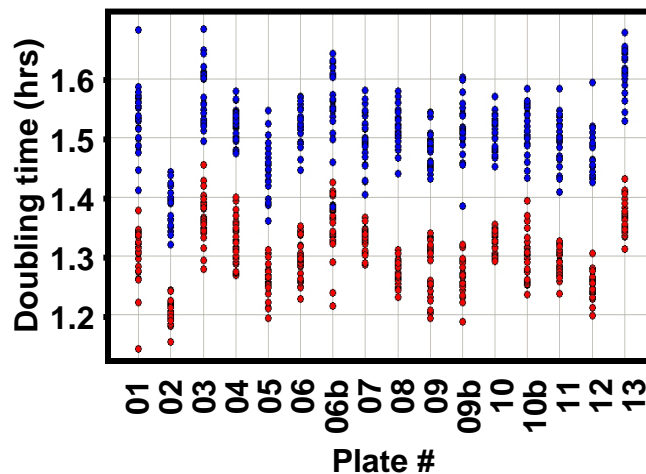
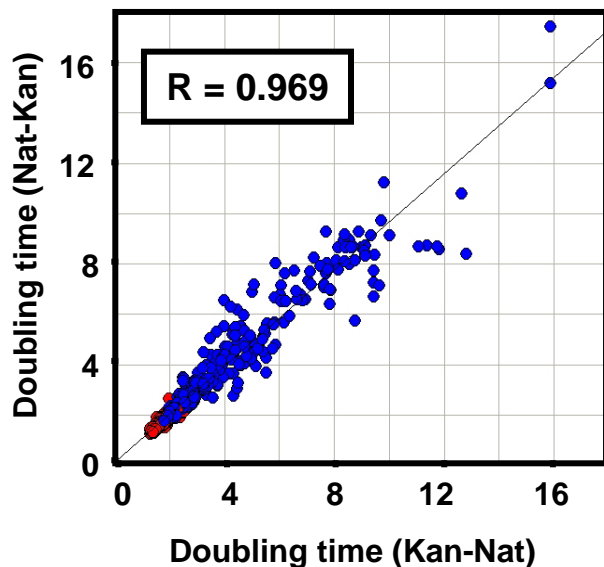


A.**B.****C.**

Supplementary Figure 1. 96-well growth assay for individual yeast deletion strains.

A. Doubling time (D), the time to double the number of yeast cells during exponential growth, was measured in 100 μ l liquid cultures in 96 well plates. The plot shows the mean doubling time versus the coefficient of variation (%CV) calculated from no less than 5 replicates of 26 single deletion strains grown in the presence and absence of 0.002% MMS. %CV = (standard deviation / mean) \times 100.

B. Doubling time of wild-type replicate controls on each plate of deletion strains measured in the presence (blue) and absence (red) of 0.002% MMS. The observed "plate-to-plate" variation in growth rate is normalized when the fitness is calculated, as the fitness (W) of each strain is calculated using the wild-type controls from that plate only.

C. Correlation of doubling times between reciprocal double deletion mutants, measured in the presence (blue) and absence (red) of MMS. The doubling time of Kan^r-Nat^r double mutants are plotted on the y-axis and the doubling time of Nat^r-Kan^r mutants on the x-axis. The correlation coefficient is shown in the upper left.