**Table S1. Yeast strains used in this study.**

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| Strain name | Parent strain | Cassettes | Genotype |
| CH1585 |  | None | MATa leu2-△1 trp1-△63 ura3-52 his3-200 |
| KS001 | CH1585 | UR-GAA100-A3 | MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YAM102 | KS001 | UR-GAA100-A3 | cdc13-1 P371S MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG197 | KS001 | UR-GAA150-A3 | MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG198 | KS001 | UR-GAA150-A3 | cdc13-1 P371S MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| SMY706 | CH1585 | None | MATa leu2Δ1, trp1Δ63, ura3Δ52, his3Δ200, MIP1, HAP1, |
| RMG389 | SMY706 | UR-GAA100-A3 at Chr. V non- essential arm | MATa leu2Δ1, trp1Δ63, ura3::HPH, his3Δ200, MIP1, HAP1 |
| YEG180 | RMG389 | UR-GAA100-A3 at Chr. V non- essential arm | cdc13-1 P371S MATa leu2Δ1, trp1Δ63, ura3::HPH, his3Δ200, MIP1, HAP1 |
| YEG166 | CH1585 | AD-URA3-GAA100-DE2 | MATa leu2-△1 trp1-△63 ura3-52 his3-200 |
| YEG168 | YEG166 | AD-URA3-GAA100-DE2 | cdc13-1 P371S MATa leu2-△1 trp1-△63 ura3-52 his3-200 |
| YEG145 | KS001 | UR-GAA100-A3; pYES6-GAA100 | MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG147 | YAM102 | UR-GAA100-A3; pYES6-GAA100 | cdc13-1 P371S MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG149 | YAM102 | UR-GAA100-A3 | RAD9::HPH  cdc13-1 P371S  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG150 | KS001 | UR-GAA100-A3 | RAD9::HPH  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG234 | KS001 | UR-GAA100-A3 | EXO1::NAT  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG235 | YAM102 | UR-GAA100-A3 | EXO1::NAT  cdc13-1 P371S  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG217 | KS001 | UR-GAA100-A3 | SML1::NAT  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG218 | YAM102 | UR-GAA100-A3 | SML1::NAT  cdc13-1 P371S  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG219 | YEG217 | UR-GAA100-A3 | MEC1::HPH  SML1::NAT  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG220 | YAM218 | UR-GAA100-A3 | MEC1::HPH  SML1::NAT  cdc13-1 P371S  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG236 | KS001 | UR-GAA100-A3 | rad53 K227A  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG237 | YAM102 | UR-GAA100-A3 | rad53 K227A  cdc13-1 P371S  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG228 | KS001 | UR-GAA100-A3 | POL32::NAT  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG229 | YAM102 | UR-GAA100-A3 | POL32::NAT  cdc13-1 P371S  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG151 | YAM102 | UR-GAA100-A3 | RAD52::HPH  cdc13-1 P371S MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG163 | YAM102 | UR-GAA100-A3 | RAD51::HPH  cdc13-1 P371S MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG222 | YAM102 | UR-GAA100-A3 | RAD5::HPH  cdc13-1 P371S MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG138 | KS001 | UR-GAA100-A3 | TOF1::HPH  MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG141 | YAM102 | UR-GAA100-A3 | TOF1::HPH  cdc13-1 P371S MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG144 | KS001 | UR-GAA100-A3 | cdc13-2 E252K MATa leu2-△1 trp1-△63 ura3-52 his3-200 bar1△::HIS3 |
| YEG100  (TET strain WT) | CH1585 | UR-GAA100-A3 | MATa leu2-△1 trp1-△63 ura3-52 his3-200 |
| YEG102  (TET-*CDC13*) | CH1585 | UR-GAA100-A3 | MATa leu2-△1 trp1-△63 ura3-52 his3-200 |