**Supplemental Table S1. Strains used in this study.**

Figure 1

DY150 *MAT***a** *ade2 can1 his3 leu2 trp1 ura3*

DY411 *MAT***a** *swi5::hisG ade2 can1 his3 leu2 trp1 ura3*

DY5287 *MAT***a** *sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY6758 *MAT***a** *swi6::TRP1 ade2 can1 his3 leu2 trp1 ura3*

DY8023 *MAT***a** *swi6::TRP1 sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

DY16483 *MAT***a** *HO::(LX5 sbf)::KanMX(3') ade2 can1 his3 leu2 trp1 ura3*

DY16810 *MAT***a** *sin4::LEU2 HO::(LX5 sbf)::KanMX(3') ade2 can1 his3 leu2 lys2 trp1 ura3*

DY15186 *MAT***a** *HO(700 bp CDC39 at -1082)::KanMX(3') ade2 can1 his3 leu2 trp1 ura3*

DY16804 *MAT***a** *sin4::LEU2* *HO(700 bp CDC39 at -1082)::KanMX(3') ade2 can1 his3 leu2 lys2 trp1 ura3*

DY15053 *MAT***a** *HO(1300 bp CDC39 at -1082)::KanMX(3') ade2 can1 his3 leu2 trp1 ura3*

DY16802 *MAT***a** *sin4::LEU2 HO(1300 bp CDC39 at -1082)::KanMX(3') ade2 can1 his3 leu2 trp1 ura3*

Figure 2

DY16942 *MAT***a** *SWI4-V5::His3MX ade2 can1 his3 leu2 trp1 ura3*

DY18274 *MAT***a** *SWI4-V5::His3MX sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY17901 *MAT***a** *HO(700 bp CDC39 at -1082)::KanMX(3') SWI4-V5::His3MX ade2 can1 his3 leu2 trp1 ura3*

DY18418 *MAT***a** *SWI4-V5::His3MX HO(700 bp CDC39 at -1082)::KanMX(3') sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY17505 *MAT***a** *SWI4-V5::His3MX HO::(LX5 sbf)::KanMX(3') ade2 can1 his3 leu2 trp1 ura3*

DY18423 *MAT***a** *SWI4-V5::His3MX HO::(LX5 sbf)::KanMX(3') sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

Figure 3A

DY150 *MAT***a** *ade2 can1 his3 leu2 trp1 ura3*

DY5287 *MAT***a** *sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY10318 *MAT***a** *swi5::TRP1 ade2 can1 his3 leu2 trp1 ura3*

DY5292 *MAT***a** *swi5::hisG-URA3-hisG sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY16483 *MAT***a** *HO::(LX5 sbf)::KanMX(3') ade2 can1 his3 leu2 trp1 ura3*

DY16810 *MAT***a** *sin4::LEU2 HO::(LX5 sbf)::KanMX(3') ade2 can1 his3 leu2 lys2 trp1 ura3*

DY16937 *MAT***a** *swi5::TRP1 HO::(LX5 sbf)::KanMX(3') ade2 can1 his3 leu2 trp1 ura3*

DY16935 *MAT***a** *swi5::TRP1 HO::(LX5 sbf)::KanMX (3') sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

Figure 3B

DY150 *MAT***a** *ade2 can1 his3 leu2 trp1 ura3*

DY18587 *MAT***a** *SWI5-V5::His3MX ade2 can1 his3 leu2 trp1 ura3*

DY18694 *MAT***a** *SWI5-V5::His3MX sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

Figure 3C

DY18692 *MAT***a** *GALp::CDC20::ADE2 SWI5-V5::His3MX ade2 can1 his3 leu2 trp1 ura3*

DY18693 *MAT***a** *GALp::CDC20::ADE2 SWI5-V5::His3MX sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

Figure 3D

DY150 *MAT***a** *ade2 can1 his3 leu2 trp1 ura3*

DY5287 *MAT***a** *sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY17597 *MAT***a** *gal11::NatMX ade2 can1 his3 leu2 lys2 trp1 ura3*

DY17602 *MAT***a** *gal11::NatMX sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY16483 *MAT***a** *HO::(LX5 sbf)::KanMX(3') ade2 can1 his3 leu2 trp1 ura3*

DY16810 *MAT***a** *HO::(LX5 sbf)::KanMX(3') sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY17598 *MAT***a** *gal11::NatMX HO::(LX5 sbf)::KanMX(3') ade2 can1 his3 leu2 lys2 trp1 ura3*

DY17600 *MAT***a** *gal11::NatMX HO::(LX5 sbf)::KanMX(3') sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

Figure 4

DY150 *MAT***a** *ade2 can1 his3 leu2 trp1 ura3*

DY1696 *MAT***a** *sin4::URA3 ade2 can1 his3 leu2 trp1 ura3*

DY6019 *MAT***a** *srb10::LEU2 ade2 can1 his3 leu2 trp1 ura3*

DY15179 *MAT***a** *sin4::URA3 srb10::LEU2 ade2 can1 his3 leu2 trp1 ura3*

DY16483 *MAT***a** *HO::(LX5 sbf)::KanMX(3') ade2 can1 his3 leu2 trp1 ura3*

DY18588 *MAT***a** *HO::(LX5 sbf)::KanMX(3') sin4::URA3 ade2 can1 his3 leu2 trp1 ura3*

DY18589 *MAT***a** *HO::(LX5 sbf)::KanMX(3') srb10::LEU2 ade2 can1 his3 leu2 trp1 ura3*

DY18590 *MAT***a** *HO::(LX5 sbf)::KanMX(3') sin4::URA3 srb10::LEU2 ade2 can1 his3 leu2 trp1 ura3*

Figure 5A

DY18326 *MAT***a** *SWI2-V5::HphMX ade2 can1 his3 leu2 lys2 met15 trp1 ura3*

DY18441 *MAT***a** *SWI2-V5::HphMX sin4::LEU2 can1 his3 leu2 trp1 ura3*

DY18334 *MAT***a** *GCN5-V5::HphMX ade2 can1 his3 leu2 met15 trp1 ura3*

DY18432 *MAT***a** *GCN5-V5::HphMX sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

DY18447 *MAT***a** *GAL11-V5::HphMX ade2 can1 his3 leu2 trp1 ura3*

DY18431 *MAT***a** *GAL11-V5::HphMX sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

Figure 5B

Total Guess as t*o strains*

DY18326 *MAT***a** *SWI2-V5::HphMX ade2 can1 his3 leu2 lys2 met15 trp1 ura3*

DY19405 *MAT* *SWI2-V5::HphMX gal11::NatMX ade2 can1 his3 leu2 lys2 trp1 ura3*

DY18438 *MAT* *SWI2-V5::HphMX sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

DY19403 *MAT***a** *SWI2-V5::HphMX gal11::NatMX sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

Figure 5C

DY18688 *MAT***a** *GALp::CDC20::ADE2 GAL11-V5::HphMX ade2 can1 his3 leu2 trp1 ura3*

DY18691 *MAT***a** *GALp::CDC20::ADE2 GAL11-V5::HphMX sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

DY18583 *MAT***a** *GALp::CDC20::ADE2 SWI2-V5::HphMX ade2 can1 his3 leu2 lys2 trp1 ura3*

DY18585 *MAT***a** *GALp::CDC20::ADE2 SWI2-V5::HphMX sin4::URA3 ade2 can1 his3 leu2 trp1 ura3*

DY18360 *MAT***a** *GALp::CDC20::ADE2 GCN5-V5::HphMX ade2 can1 his3 leu2 lys2 met15 trp1 ura3*

DY18876 *MAT***a** *GALp::CDC20::ADE2 GCN5-V5::HphMX sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

Figure 6

DY6669 *MAT***a** *GALp::CDC20::ADE2 ade2 can1 his3 leu2 trp1 ura3*

DY18278 *MAT***a** *GALp::CDC20::ADE2 sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

Figure 7A

DY19207 *MAT***a** *SWI2-V5::HphMX ade2 can1 his3 leu2 trp1 ura3*

DY18441 *MAT***a** *SWI2-V5::HphMX sin4::LEU2 can1 his3 leu2 trp1 ura3*

DY19211 *MAT***a** *SWI2-V5::HphMX gcn5::TRP1 ade2 can1 his3 leu2 trp1 ura3*

DY19403 *MAT***a** *SWI2-V5::HphMX gal11::NatMX sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

DY19406 *MAT***a** *SWI2-V5::HphMX gal11::NatMX ade2 can1 his3 leu2 lys2 trp1 ura3*

DY19391 *MAT***a** *SWI2-V5::HphMX sin4::LEU2 gcn5::TRP1 ade2 can1 his3 leu2 trp1 ura3*

Figure 7B

DY18334 *MAT***a** *GCN5-V5::HphMX ade2 can1 his3 leu2 met15 trp1 ura3*

DY18432 *MAT***a** *GCN5-V5::HphMX sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

DY19486 *MAT***a** *GCN5-V5::HphMX swi2-314 ade2 can1 his3 leu2 trp1 ura3*

DY19488 *MAT***a** *GCN5-V5::HphMX sin4::LEU2 swi2-314 ade2 can1 his3 leu2 trp1 ura3*

Figure 7C

DY14360 *MAT***a** *HO-GFP-NLS-PEST::NatMX4 MYO1-MYO1-mCherry:: His3MX can1 his3 leu2 trp1 ura3*

DY14742 *MAT***a** *HO-GFP-NLS-PEST::NatMX4 MYO1-MYO1-mCherry:: His3MX sin4::LEU2 can1 his3 leu2 trp1 ura3*

DY18303 *MAT***a** *HO-GFP-NLS-PEST::NatMX4 MYO1-MYO1-mCherry:: His3MX swi2-314 can1 his3 leu2 lys2 trp1 ura3*

DY18305 *MAT***a** *HO-GFP-NLS-PEST::NatMX4 MYO1-MYO1-mCherry:: His3MX swi2-314 sin4::LEU2 can1 his3 leu2 lys2 trp1 ura3*

DY14488 *MAT***a** *HO-GFP-NLS-PEST::NatMX4 MYO1-MYO1-mCherry:: His3MX gcn5::TRP1 can1 his3 leu2 lys2 trp1 ura3*

DY14744 *MAT***a** *HO-GFP-NLS-PEST::NatMX4 MYO1-MYO1-mCherry:: His3MX gcn5::TRP1 sin4::LEU2 can1 his3 leu2 trp1 ura3*

Figure 8A

DY19510 *MAT***a** *ho(m-2700)::KanMX(3') Swi2-FLAG(3)::NatMX GAL11-V5::HphMX SRB4-Myc(9)::TRP1 ade2 can1 his3 leu2 trp1 ura3*

DY19512 *MAT***a** *ho(m-2700)::KanMX(3') Swi2-FLAG(3)::NatMX GAL11-V5::HphMX SRB4-Myc(9)::TRP1 sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

Figure 8B

DY19510 *MAT***a** *ho(m-2700)::KanMX(3') Swi2-FLAG(3)::NatMX GAL11-V5::HphMX SRB4-Myc(9)::TRP1 ade2 can1 his3 leu2 trp1 ura3*

DY19512 *MAT***a** *ho(m-2700)::KanMX(3') Swi2-FLAG(3)::NatMX GAL11-V5::HphMX SRB4-Myc(9)::TRP1 sin4::LEU2 ade2 can1 his3 leu2 trp1 ura3*

Suppl Fig S1

DY17461 *MAT***a** *GALp::CDC20::ADE2 SWI4-V5::His3MX ade2 can1 his3 leu2 trp1 ura3*

DY18282 *MAT***a** *GALp::CDC20::ADE2 SWI4-V5::His3MX sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

Suppl Fig S2

DY150 *MAT***a** *ade2 can1 his3 leu2 trp1 ura3*

DY5266 *MAT***a** *ash1::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY5287 *MAT***a** *sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY6842 *MAT***a** *ash1::LEU2 sin4::TRP1 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY15186 *MAT***a** *HO(700 bp CDC39 at -1082)::KanMX(3') ade2 can1 his3 leu2 trp1 ura3*

DY17301 *MAT***a** *ash1::URA3 HO(700 bp CDC39 at -1082)::KanMX(3') ade2 can1 his3 leu2 lys2 trp1 ura3*

DY16804 *MAT***a** *sin4::LEU2 HO(700 bp CDC39 at -1082)::KanMX(3') ade2 can1 his3 leu2 lys2 trp1 ura3*

DY17299 *MAT***a** *ash1::URA3 sin4::LEU2 HO(700 bp CDC39 at -1082)::KanMX(3') ade2 can1 his3 leu2 lys2 trp1 ura3*

Suppl Fig S3

DY18190 *MAT***a** *GAL11-V5::HphMX SRB4-Myc(9)::TRP1 Nut1::Flag::KanMX ade2 can1 his3 leu2 trp1 ura3*

DY19599 *MAT***a** *GAL11-V5::HphMX SRB4-Myc(9)::TRP1 Nut1::Flag::KanMX sin3::URA3 ade2 can1 his3 leu2 trp1 ura3*

Suppl Fig S4

DY150 *MAT***a** *ade2 can1 his3 leu2 trp1 ura3*

DY5287 *MAT***a** *sin4::LEU2 ade2 can1 his3 leu2 lys2 trp1 ura3*

DY6023 *MAT***a** *med2::HIS3 ade2 can1 his3 leu2 trp1 ura3*

DY6195 *MAT***a** *med2::TRP1 sin4::URA3 ade2 can1 his3 leu2 trp1 ura3*

DY6861 *MAT***a** *pgd1::LEU2 ade2 can1 his3 leu2 trp1 ura3*

DY6943 *MAT***a** *pgd1::LEU2 sin4::TRP1 ade2 can1 his3 leu2 trp1 ura3*