

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

Strain	Genotype	Source
Y825	<i>ura3-52 leu2_0 MATa</i>	M. Snyder (Stanford, CA)
HLY337	<i>ura3-52 trp1-1 MATα</i>	G. Fink (MIT, MA)
yCK021	<i>ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK009	<i>_rgt1::KanMX6/_rg11::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK017	<i>_itr1::KanMX6/_itr1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK036	<i>_hxt1::KanMX6/_hxt1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK037	<i>_lrg1::KanMX6/_lrg1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK038	<i>_npr3::KanMX6/_npr3::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK039	<i>_pdr5::KanMX6/_pdr5::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK040	<i>_rbs1::KanMX6/_rbs1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK041	<i>_rck2::KanMX6/_rck2::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK042	<i>_tpo4::KanMX6/_tpo4::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK098	<i>_gpr1::KanMX6/_gpr1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK100	<i>_prb1::KanMX6/_prb1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK108	<i>_bud6::KanMX6/_bud6::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study
yCK110	<i>_scp160::KanMX6/_scp160::KanMX6 ura3-52/ura3- 52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATα</i>	This study

yCK112	<i>_sks1::KanMX6/_sks1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MAT<math>\alpha</math></i>	This study
yCK118	<i>_ptr2::KanMX6/_ptr2::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MAT<math>\alpha</math></i>	This study
yCK124	<i>_mds3::KanMX6/_mds3::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MAT<math>\alpha</math></i>	This study
yCK151	<i>_pda1::KanMX6/_pda1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MAT<math>\alpha</math></i>	This study
yCK169	<i>_mga1::KanMX6/_mga1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MAT<math>\alpha</math></i>	This study
yCK170	<i>_phd1::KanMX6/_phd1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MAT<math>\alpha</math></i>	This study
yCK172	<i>_tec1::KanMX6/_tec1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MAT<math>\alpha</math></i>	This study
yCK189	<i>NPR3-S486A/NPR3-S486A ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
yCK236	<i>_mfg1::KanMX6/_mfg1::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
yCK237	<i>_mss11::KanMX6/_mss11::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
CS337	<i>_tpk2::KanMX6/_tpk2::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
CS343	<i>_ras2::KanMX6/_ras2::KanMX6 ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
yCK263	<i>PDA1-S313A/PDA1-S313A ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
yCK264	<i>PDA1-Y309A/PDA1-Y309A ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
yCK274	<i>ITR1-S26A/ITR1-S26A ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
yCK275	<i>SKS1-K39R/SKS1-K39R ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
yCK283	<i>LRG1-S605A/LRG1-S605A ura3-52/ura3-52</i>	This study

	<i>leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	
yCK284	<i>PDA1-Y309A-S313A/PDA1-Y309A-S313A ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
yCK293	<i>BUD6-S347A/BUD6-S347A ura3-52/ura3-52 leu2_0/LEU2 TRP1/trp1-1 MATa/MATA</i>	This study
yCK300	<i>PDA1-3HA-KanMX6 ura3-52 leu2_0 MATa</i>	This study
yCK302	<i>PDA1-Y309A-3HA-KanMX6 ura3-52 leu2_0 MATa</i>	This study
yCK304	<i>PDA1-S313A-3HA-KanMX6 ura3-52 leu2_0 MATa</i>	This study
yCK306	<i>PDA1-Y309A-S313A-3HA-KanMX6 ura3-52 leu2_0 MATa</i>	This study
BWP17	<i>ura3::_imm434/ura3::_imm434 his1::hisG/his1::hisG arg4::hisG/arg4::hisG</i>	FGSC (UMKC, MO)
yCK307	<i>sha3::CdHIS1/SHA3 ura3::_imm434/ura3::_imm434 his1::hisG/his1::hisG arg4::hisG/arg4::hisG</i>	This Study

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