

**Table S1:** Strains used in this study. Unless specified otherwise, all genes are expressed from the *TDH3* promoter. Parent strains are in bold.

Strain	Genotype	Plasmid
<b>RHY471</b>	<b><i>MAT<math>\alpha</math> ade2-101, ura3-52, met2, lys2-801, his3<math>\Delta</math>200</i></b>	none
RHY2739	<i>ade2-101::ADE2::GAL1-10pr::1MYC-HMG2 K6R</i>	pRH1571
RHY2740	<i>ade2-101::ADE2::GAL1-10pr::1MYC-HMG1</i>	pRH1584
<b>RHY2863</b>	<b><i>MAT<math>\alpha</math> ade2-101, ura3-52, met2, lys2-801, his3<math>\Delta</math>200, trp1::hisG, leu2<math>\Delta</math></i></b>	none
RHY6433	<i>ura3-52::URA3::1MYC-HMG2 K6R</i>	pRH2218
RHY6531	<i>ade2-101::ADE2::1MYC-HMG1</i>	pRH1593
RHY6908	<i>ade2-101::ADE2::3MYC-OLE1-2hN-GFP H161A, H166A</i>	pRH2416
RHY6906	<i>ade2-101::ADE2::3MYC-OLE1-GFP H161A, H166A</i>	pRH2411
RHY6907	<i>ade2-101::ADE2::3MYC-OLE1-CD1 H161A, H166A</i>	pRH2414
RHY6904	<i>ade2-101::ADE2::3MYC-OLE1-CD2 H161A, H166A</i>	pRH2406
RHY6123	<i>ura3-52::URA3::3MYC-OLE1 H161A, H166A</i>	pRH1828
RHY6334	<i>ade2-101::ADE2::1MYC-HMG2 K6R, D711N, E920Q (stable, inactive HMG2)</i>	pRH2108
RHY6333	<i>ura3-52::URA3::1MYC-HMG2<math>\Delta</math>618-1045 K6R (HMG2 TM)</i>	pRH2251
RHY6934	<i>ade2-101::ADE2::1MYC-HMG2<math>\Delta</math>672-1045 K6R (HMG2-TM-hN)</i>	pRH2429
RHY5590	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R</i>	pRH2171
RHY6933	<i>ade2-101::ADE2::HMG2-TM-GFP K6R</i>	pRH2427
RHY6131	<i>ura3-52::URA3::GFP</i>	pRH1743
RHY6128	<i>ura3-52::URA3::HMG2<math>\Delta</math>1-527 (CD of HMG2)</i>	pRH2229
RHY6129	<i>ura3-52::URA3::HMG2<math>\Delta</math>1-527, E711Q, D920N (inactive CD of HMG2)</i>	pRH2134
RHY6085	<i>ura3-52::URA3</i>	pRH313
RHY6442	<i>ade2-101::ADE2::1MYC-HMG2 K6R, ura3-52::URA3::1MYC-HMG2 K6R</i>	pRH2218, pRH1576
RHY6635	<i>ade2-101::ADE2::1MYC-HMG1, ura3-52::URA3::1MYC-HMG1</i>	pRH945, pRH1593
RHY6921	<i>ade2-101::ADE2::3MYC-OLE1-2hN-GFP H161A, H166A, ura3-52::URA3::3MYC-OLE1-2hN-GFP H161A, H166A</i>	pRH2416, pRH2413
RHY6922	<i>ade2-101::ADE2::3MYC-OLE1-GFP H161A, H166A, ura3-52::URA3::3MYC-OLE1-GFP H161A, H166A</i>	pRH2411, pRH2415
RHY6927	<i>ade2-101::ADE2::3MYC-OLE1-CD1 H161A, H166A, ura3-52::URA3::3MYC-OLE1-CD1 H161A, H166A</i>	pRH2414, pRH2418
RHY6928	<i>ade2-101::ADE2::3MYC-OLE1-CD2 H161A, H166A, ura3-52::URA3::3MYC-OLE1-CD2 H161A, H166A</i>	pRH2406, pRH2407
RHY6543	<i>ade2-101::ADE2::3MYC-OLE1 H161A, H166A, ura3-52::URA3::3MYC-OLE1 H161A, H166A</i>	pRH1828, pRH2107

Strain	Genotype	Plasmid
RHY6409	<i>ade2-101::ADE2::1MYC-HMG2 K6R, D711N, E920Q, ura3-52::URA3::HMG2 K6R, D711N, E920Q</i>	pRH2108, pRH2232
RHY6372	<i>ade2-101::ADE2::1MYC-HMG2Δ618-1045 K6R (HMG2 TM), ura3-52::URA3::1MYC-HMG2Δ618-1045 K6R (HMG2 TM)</i>	pRH2251, pRH2264
RHY6943	<i>ade2-101::ADE2::1MYC-HMG2Δ672-1045 K6R (HMG2 TM*), ura3-52::URA3::1MYC-HMG2Δ672-1045 K6R (HMG2-TM-hN)</i>	pRH2429, pRH2430
RHY6194	<i>ade2-101::ADE2::HMG2-TM-hN-GFP K6R, ura3-52::URA3::HMG2-TM-hN-GFP K6R</i>	pRH2171, pRH1738
RHY6942	<i>ade2-101::ADE2::HMG2-TM-GFP K6R, ura3-52::URA3::HMG2-TM-GFP K6R</i>	pRH2427, pRH2428
RHY5609	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, nem1Δ::KanMX</i>	pRH2171
RHY5594	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, hof1Δ::KanMX</i>	pRH2171
RHY5599	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, her2Δ::KanMX</i>	pRH2171
RHY6034	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, cod1/spf11Δ::KanMX</i>	pRH2171
RHY6195	<i>ade2-101::ADE2::HMG2-TM-hN-GFP K6R, ura3-52::URA3::HMG2-TM-hN-GFP K6R, cod1/spf11Δ::KanMX</i>	pRH1738, pRH2171
RHY7291	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, trp1::hisG::TRP1::HRD1-HA</i>	pRH2171, pRH1600
RHY7292	<i>ura3-52::URA3::HMG1Δ67-GFP, trp1::hisG::TRP1::HRD1-HA</i>	pRH1110, pRH1600
RHY7292	<i>ade2-101::ADE2::HMG1Δ67-GFP, TEFpr::ERG28-HA on URA3 cen plasmid</i>	pRH2171, pIU2589
RHY6833	<i>ura3-52::URA3::HMG2 K6R, psd1Δ::KanMX</i>	pRH2218
RHY7095	<i>ura3-52::URA3::HMG2 K6R, opi3Δ::KanMX</i>	pRH2218
RHY7096	<i>ura3-52::URA3::HMG2 K6R, cho2Δ::KanMX</i>	pRH2218
RHY7297	<i>ura3-52::URA3::HMG2 K6R, cki1Δ::KanMX</i>	pRH2218
RHY7301	<i>ura3-52::URA3::HMG2 K6R, cpt1Δ::KanMX</i>	pRH2218
RHY7305	<i>ura3-52::URA3::HMG2 K6R, ept1Δ::KanMX</i>	pRH2218
RHY6240	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, psd1Δ::KanMX</i>	pRH2171
RHY6823	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, opi3Δ::KanMX</i>	pRH2171
RHY6822	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, cho2Δ::KanMX</i>	pRH2171
RHY7296	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, cki1Δ::KanMX</i>	pRH2171

RHY7300	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, cpt1Δ::KanMX</i>	pRH2171
RHY7304	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R, ept1Δ::KanMX</i>	pRH2171
RHY6623	<i>ura3-52::URA3, ade2-101:ADE2, psd1Δ::KanMX</i>	pRS402, pRS403
RHY6948	<i>ura3-52::URA3::HMG2 K6R, ade2-101::ADE2::HMG2 K6R, psd1Δ::KanMX</i>	pRH1576, pRH2218
RHY7097	<i>ura3-52::URA3::HMG1, ade2-101::ADE2::HMG1</i>	pRH105-25, pRH2438
RHY6545	<i>ura3-52::URA3::1MYC-HMG2Δ1-527 (CD of HMG2), ade2-101::ADE2::HMG2Δ1-527 (CD of HMG2)</i>	pRH2229, pRH1583
<b>RH1982</b>	<b><i>MATa ade2-101, ura3-52, met2, lys2-801, his3Δ200, TRP1, leu2Δ, 3MYC-COD1/SPF1</i></b>	none
RHY7290	<i>ura3-52::URA3::HMG2-TM-hN-GFP K6R</i>	pRH2171
RHY7289	<i>ura3-52::URA3::HMG1Δ67-GFP</i>	pRH1110
<b>Y3656</b>	<b><i>MATα lys2Δ0 ura3Δ leu2Δ0 his3Δ0 met15Δ0 can1Δ::MFA1pr-HIS3-Mfalp1pr-LEU2</i></b>	none
RHY3013	<i>ADE2::NatMX::GAL1-10pr::Hmg2p-TM-hN-GFP K6R</i>	pRH2978

**Table S2:** Genes identified in the *HER* screen

---

<b>ABP1</b>	<b>ERG2</b>	RPL19B	<b>VPS25</b>
ADK1	<b>ERG28</b>	RPL21A	<b>VPS3</b>
<b>ALG8</b>	<b>ERV25</b>	RPL43A	<b>VPS36</b>
<b>APL4</b>	<b>FYV1</b>	RPP2B	<b>VRP1</b>
ARP8	GLY1	RPS1B	<b>VTA1</b>
<b>ATX2</b>	<b>GUP2</b>	RPS4A	WHI4
<b>AVT1</b>	<b>HOF1</b>	RPS9B	YMC2
<b>BDF1</b>	HTL1	<b>RSM19</b>	ZUO1
<b>BEM4</b>	IRE1	<b>RVS167</b>	<b>YBL083C</b>
<b>BNI1**</b>	LEA1	SAM2	<b>YLR374C</b>
<b>BNR1</b>	LOC1	<b>SGM1</b>	<b>YNL170W*</b>
BRE1	MGS1	<b>SFK1</b>	<b>YOR227W (HER1)</b>
BUB1	<b>MMS1</b>	SNF6	<b>YOR200W</b>
BUD27	NCE4	SOH1	<b>YMR293C (HER2)</b>
BUD32	<b>NEM1</b>	<b>COD1/SPF1</b>	<b>YMR259C</b>
CAN1	<b>NPL3</b>	<b>SPO7**</b>	<b>YPL182C</b>
<b>CHO2**</b>	NPL6	SPT2	<b>YPR153W</b>
CCE1	<b>OPI1</b>	SRO7	<b>YPR146C</b>
CLB2	<b>OPI3**</b>	SSE1	YPR127W
CPA1	PEP12	<b>TFP3</b>	YDR532C
<b>CSF1</b>	<b>PET56</b>	TPS2	<b>YNR025C</b>
<b>CSG2</b>	<b>PPS1</b>	<b>TUF1</b>	<b>YLR358C</b>
<b>DIA2</b>	RAD5	URA10	YJR014W
DOA4	<b>REF2</b>	<b>VMA2</b>	YKR096W
ECM40	<b>ROM2</b>	<b>VMA4</b>	<b>YPR045C</b>
<b>EGT2</b>	RPL13B	<b>VMA7</b>	<b>YDL206W</b>

---

**bold** – manually deleted and scored (secondary screen)

**red** – identified as *HER* genes through secondary screen

\* - overlaps with *PSD1* ORF

\*\* - not identified in primary screen, tested based on identified *HER* genes

---