

## **Supplemental Information**

### **Chd1 and yFACT act in opposition in regulating transcription**

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**Supplemental Table 1. Strain List.**

DY150	<i>MATa ade2 can1 his3 leu2 trp1 ura3</i>
DY5925	<i>MATa gcn5::HIS3 ade2 can1 his3 leu2 trp1 ura3</i>
DY5926	<i>MATα gcn5::HIS3 ade2 can1 his3 leu2 trp1 ura3</i>
DY6235	<i>MATα ADA2-Myc::TRP1 ade2 can1 his3 leu2 trp1 ura3</i>
DY6612	<i>MATa nhp6a::URA3 nhp6b::ADE2 ade2 can1 his3 leu2 trp1 ura3</i>
DY6957	<i>MATa chd1::TRP1 ade2 ade3 can1 his3 leu2 trp1 ura3</i>
DY7379	<i>MATa pob3(L78R) ade2 can1 his3 leu2 lys2 met15 trp1 ura3</i>
DY7656	<i>MATa isw1::ADE2 isw2::LEU2 ade2 can1 his3 leu2 trp1 ura3</i>
DY7836	<i>MATα htz1::KanMX ade2 can1 his3 leu2 lys2 trp1 ura3</i>
DY8107	<i>MATa spt16-11 ade2 can1 his3 leu2 lys2 met15 trp1 ura3</i>
DY8117	<i>MATα spt16-11 ade2 can1 his3 leu2 lys2 met15 ura3</i>
DY8156	<i>MATα elp3::LEU2 ade2 can1 his3 leu2 lys2 met15 trp1 ura3</i>
DY8185	<i>MATa spt16-11 elp3::LEU2 ade2 can1 his3 leu2 lys2 met15 trp1</i>
DY8552	<i>MATa spt15::ADE2 spt16::HIS3 + YCp-URA3(SPT15, SPT16) ade2 can1 his3 leu2</i> <i>trp1 ura3</i>
DY8690	<i>MATa set2::KanMX ade2 can1 his3 leu2 trp1 ura3</i>
DY8700	<i>MATa spt16-11 toa2::His3MX + YCp-URA3(TOA2) ade2 can1 his3 leu2 met15 trp1</i> <i>ura3</i>
DY8777	<i>MATa spt16-11 set2::KanMX ade2 can1 his3 leu2 ura3</i>
DY8799	<i>MATa spt16-11 set2::ADE2 ade2 can1 his3 leu2 lys2 met15 trp1 ura3</i>
DY8808	<i>MATa nhp6a::URA3 nhp6b::ADE2 spt16-11 ade2 can1 his3 leu2 trp1 ura3</i>

- DY8862 **MATa** *hht1-hhf1::LEU2 hht2-hhf2::kanMX3 + YCp-TRP1(HHT2-HHF2) ade2 can1 his3 leu2 lys2 trp1 ura3*
- DY8863 **MATa** *hht1-hhf1::LEU2 hht2-hhf2::kanMX3 + YCp-TRP1(HHT2[K4R]-HHF2) ade2 can1 his3 leu2 lys2 trp1 ura3*
- DY8865 **MATa** *spt16-11 hht1-hhf1::LEU2 hht2-hhf2::kanMX3 + YCp-TRP1(HHT2-HHF2) ade2 can1 his3 leu2 lys2 trp1 ura3*
- DY8866 **MATa** *spt16-11 hht1-hhf1::LEU2 hht2-hhf2::kanMX3 + YCp-TRP1(HHT2[K4R]-HHF2) ade2 can1 his3 leu2 lys2 trp1 ura3*
- DY8875 **MATa** *set1::TRP1 ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY8878 **MATa** *pob3(L78R) set2::KanMX ade2 can1 his3 leu2 met15 trp1 ura3*
- DY9055 **MATa** *spt16-11 isw1::ADE2 ade2 can1 his3 leu2 trp1*
- DY9151 **MAT $\alpha$**  *spt16-11 chd1::TRP1 ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY9152 **MATa** *spt16-11 chd1::TRP1 ade2 ade3 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY9153 **MATa** *spt16-11 chd1::TRP1 set2::ADE2 ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY9206 **MATa** *spt16-11 set1::TRP1 ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY9271 **MATa** *spt16-11 chd1::LEU2 set1::TRP1 ade2 ade3 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY9458 **MATa** *pob3(L78R) chd1::TRP1 ade2 can1 his3 leu2 lys2 trp1 ura3*
- DY9547 **MATa** *chd1::TRP1 pob3(L78R) set2::KanMX ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY9591 **MATa** *HIS3::GAL1::YLR454w ade2 can1 his3 leu2 trp1 ura3*
- DY9808 **MAT $\alpha$**  *spt16-11 htz1::KanMX ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY9811 **MAT $\alpha$**  *spt16-11 chd1::TRP1 htz1::KanMX ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY9816 **MAT $\alpha$**  *isw1::ADE2 ade2 can1 his3 leu2 trp1 ura3*

- DY9820 *MAT $\alpha$*  *spt16-11 isw1::ADE2 isw2::LEU2 ade2 can1 his3 leu2 trp1 ura3*
- DY9823 *MAT $\alpha$*  *chd1::TRP1 isw1::ADE2 isw2::LEU2 ade2 can1 his3 leu2 trp1 ura3*
- DY9827 *MAT $\alpha$*  *chd1::TRP1 isw1::ADE2 ade2 can1 his3 leu2 trp1 ura3*
- DY9831 *MAT $\alpha$*  *spt16-11 chd1::TRP1 isw1::ADE2 isw2::LEU2 ade2 can1 his3 leu2 trp1 ura3*
- DY9834 *MAT $\alpha$*  *spt16-11 chd1::TRP1 isw1::ADE2 ade2 can1 his3 leu2 trp1 ura3*
- DY9838 *MAT $\alpha$*  *chd1::TRP1 set2::KanMX ade2 can1 his3 leu2 trp1 ura3*
- DY9873 *MAT $\alpha$*  *gcn5::HIS3 chd1::TRP1 ade2 can1 his3 leu2 trp1 ura3*
- DY9959 *MAT $\alpha$*  *chd1::TRP1 HIS3::GAL1::YLR454w ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY9965 *MAT $\alpha$*  *spt16-11 chd1::TRP1 elp3::LEU2 ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY9972 *MAT $\alpha$*  *pob3(L78R) HIS3::GAL1::YLR454w ade2 can1 his3 leu2 lys2 trp1 ura3*
- DY10020 *MAT $\alpha$*  *pob3(L78R) chd1::TRP1 HIS3::GAL1::YLR454w ade2 can1 his3 leu2 lys2 trp1 ura3*
- DY10141 *MAT $\alpha$*  *spt15::ADE2 spt16::HIS3 chd1::KanMX + YCp-URA3(SPT15, SPT16) ade2 can1 his3 leu2 met15 trp1 ura3*
- DY10214 *MAT $\alpha$*  *spt16-11 toa2::His3MX + YCp-URA3(TOA2) chd1::TRP1 ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY10221 *MAT $\alpha$*  *chd1::HIS3 ADA2-Myc::TRP1 ade2 can1 his3 leu2 met15 trp1 ura3*
- DY10227 *MAT $\alpha$*  *pob3(L78R) ADA2-Myc::TRP1 ade2 can1 his3 leu2 lys2 trp1 ura3*
- DY10229 *MAT $\alpha$*  *pob3(L78R) chd1::HIS3 ADA2-Myc::TRP1 ade2 can1 his3 leu2 lys2 met15 trp1 ura3*
- DY10472 *MAT $\alpha$*  *chd1::HIS3 spt16-11 hht1-hhf1::LEU2 hht2-hhf2::kanMX3 + YCp-TRP1(HHT2-HHF2) ade2 can1 his3 leu2 trp1 ura3*
- DY11500 *MAT $\alpha$*  *gcn5::LYS2 chd1::TRP1 ade2 can1 his3 leu2 lys2 met15 trp1 ura3*

- DY11617 **MATa** *chd1::LEU2 URA3::CHD1-HA spt16-11 ade2 can1 his3 leu2 lys2 met15 trp1*
- DY11619 **MAT $\alpha$**  *chd1::LEU2 URA3::CHD1-HA spt16-11 set2::ADE2 ade2 can1 his3 leu2 lys2  
met15 trp1*
- DY11624 **MATa** *chd1::LEU2 URA3::CHD1(CD1+2 $\Delta$ )-HA spt16-11 ade2 can1 his3 leu2  
met15 trp1*
- DY11626 **MATa** *chd1::LEU2 URA3::CHD1(CD1+2 $\Delta$ )-HA spt16-11 set2::ADE2 ade2 can1  
his3 leu2 lys2 met15 trp1*
- DY11643 **MATa** *chd1::LEU2 URA3::CHD1(K407R)-HA spt16-11 ade2 can1 his3 leu2 lys2  
met15 trp1*
- DY11645 **MATa** *chd1::LEU2 URA3::CHD1(K407R)-HA spt16-11 set2::ADE2 ade2 can1 his3  
leu2 met15 trp1*
- DY11694 **MATa** *gcn5::HIS3 chd1::TRP1 URA3::CHD1(CD1+2 $\Delta$ )-HA ade2 can1 his3 leu2  
trp1*
- DY11703 **MATa** *gcn5::HIS3 chd1::TRP1 URA3::CHD1(K407R)-HA ade2 can1 his3 leu2  
met15 trp1*
- DY11716 **MATa** *gcn5::HIS3 chd1::LEU2 URA3::CHD1-HA ade2 can1 his3 leu2 lys2 trp1*
- DY11724 **MATa** *pob3(L78R) chd1::TRP1 URA3::CHD1-HA ade2 can1 his3 leu2 lys2 trp1*
- DY11736 **MATa** *pob3(L78R) chd1::TRP1 URA3::CHD1(CD1+2 $\Delta$ )-HA ade2 can1 his3 leu2  
lys2 met15 trp1*
- DY11770 **MATa** *pob3(L78R) chd1::TRP1 URA3::CHD1(K407R)-HA ade2 can1 his3 leu2 lys2  
met15 trp1*

## Supplemental Table 2. Plasmid List.

### Plasmid Description Source

YEpl24	YEpl- <i>URA3</i> Vector	(Botstein et al., 1979)
pAJ741	<i>CHD1</i> in YEpl- <i>URA3</i> plasmid	(Tran et al., 2000)
M4471	TBP(E93G) in YCp- <i>TRP1</i> plasmid	(Eriksson et al., 2004)
M4475	TBP(G147W) in YCp- <i>TRP1</i> plasmid	(Eriksson et al., 2004)
pDE58-1	TBP(G174E) in YCp- <i>TRP1</i> plasmid	(Eisenmann et al., 1992)
M4493	TBP(K138T,Y139A) in YCp- <i>TRP1</i> plasmid	(Stargell and Struhl, 1995)
M4599	<i>toa2</i> (F71E) in YCp- <i>LEU2</i> plasmid	(Ozer et al., 1998)
M4601	<i>toa2</i> (W76A) in YCp- <i>LEU2</i> plasmid	(Ozer et al., 1998)
M4603	<i>toa2</i> (W76F) in YCp- <i>LEU2</i> plasmid	(Ozer et al., 1998)
M4606	<i>toa2</i> (Y10G,R11Δ) in YCp- <i>LEU2</i> plasmid	(Biswas et al., 2004)
pTF128-16ABC	<i>spt16-16a</i> (R204W,A273V,C290V,D318V) in YCp- <i>LEU2</i> plasmid	(Formosa et al., 2001)
pTF128-22	<i>spt16-11</i> (A417V) in YCp- <i>LEU2</i> plasmid	(Formosa et al., 2001)
pTF128-24	<i>spt16-24</i> (T434I) in YCp- <i>LEU2</i> plasmid	(Formosa et al., 2001)

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