## **Supporting Information**

## Carter et al. 10.1073/pnas.0903869106

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**Fig. S1.** Srs2–13XMyc expression levels. Shown are protein blots using  $\alpha$ -myc antibody (9E10) against Srs2–13XMyc. Whole cell extracts were prepared from the indicated strains (same as Fig. 1) following growth conditions identical to those used for ChIP experiments. Nine micrograms of total protein per sample were loaded. Lanes with cell extracts obtained from cultures grown in galactose are labeled with +.



Fig. S2. DSB induction in ChIP strains. DNA-blot analysis of *Styl*-digested chromosomal DNA from the indicated strains (same as Fig. 1). Growth conditions were identical to those used for ChIP. A *MAT*-specific probe was used. The size of the parental band and the HO-digested band are indicated.

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Fig. S3. UV sensitivity assay. Ten-fold serial dilutions of the indicated strains (UMY2026, UMY2107, SAY1030, SAY1032, SAY1024, SAY1026, and SAY1028) were spotted on YEPD plates, irradiated at 0, 10, or 20 J/m<sup>2</sup> and incubated in the dark at 30 °C for 48 h.

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## Table S1. Strains used in this study

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Strain	Genotype	Source
JKM115	MAT $\alpha$ Δho Δhml::ade1 Δhmr::ADE1 ade1–100 leu2,	(1)
	–3, –112 lys5 ura3–52 trp1::hisG	
PJ69–4A	MATa his3–200 leu2–3,-112 ade2 trp1–901	(2)
	ura3–52 gal4 gal80 GAL2-ADE2 LYS2::GAL1-HIS3 met2::GAL7-lacZ	
YW465	MAT $lpha$ ade2 $\Delta 0$ his3 $\Delta 200$ leu2 met15 $\Delta 0$ trp1 $\Delta 63$ ura3 $\Delta 0$	(3)
UMY2060	MATa ade2 ura3–52 leu2–3,-112 trp1–289 his3∆1	Gift from A. Byström
	lys2-Bglll hom3–10	
UMY2107	MATa ade2 ura3–52 leu2–3,-112 trp1–289 his3∆1	Gift from A. Byström
	lys2-Bglll hom3–10 rad6::URA3	
SAY215	MATa can1–100 his3–11 leu2–3,-112 lys2 $\Delta$ trp1–1	(4)
	ura3–1 nej1::kanMX	
SAY230	MATa can1–100 his3–11, –15 leu2–3,-112 trp1–1	Gift from L. Symington
	ura3–1 ade2 5'-URA3-ade2 3' lys2 $\Delta$ rad52::TRP1	
SAY264	MAT $\alpha$ Δho Δhml::ade1 Δhmr::ADE1 ade1–100 leu2,	(4)
	—3, —112 lys5 ura3—52 trp1::hisG nej1::kanMX	
SAY272	MAT $\alpha$ Δho Δhml::ade1 Δhmr::ADE1 ade1–100 leu2,	This study
	–3, –112 lys5 ura3–52 trp1::hisG srs2::hisG	
SAY274	MAT $\alpha$ Δho Δhml::ade1 Δhmr::ADE1 ade1–100 leu2,	This study
	–3, –112 lys5 ura3–52 trp1::hisG srs2::hisG nej1::kanMX	
SAY282	MAT $\alpha$ Δho Δhml::ade1 Δhmr::ADE1 ade1–100 leu2,	This study
	—3, —112 lys5 trp1::hisG ura3–52::URA3-pGAL-HO	
SAY961	MATa his3–200 leu2–3,-112 ade2 trp1–901 ura3–52 gal4	This study
	gal80 GAL2-ADE2 LYS2::GAL1-HIS3 met2::GAL7-lacZ dun1::kanMX	
SAY1024	MATa ade2 ura3–52 leu2–3,-112 trp1–289 his3∆1 lys2-BgllI	This study
	hom3–10 srs2::NAT	
SAY1026	MATa ade2 ura3–52 leu2–3,-112 trp1–289 his3∆1 lys2-BgIII	This study
	hom3–10 rad6::URA3 srs2::NAT	
SAY1028	MATa ade2 ura3–52 leu2–3,-112 trp1–289 his3∆1 lys2-BgIII	This study
	hom3–10 rad6::URA3 nej1::kanMX srs2::NAT	
SAY1030	MATa ade2 ura3–52 leu2–3,-112 trp1–289 his3∆1 lys2-BgIII	This study
	hom3–10 nej1::kanMX	
SAY1032	MATa ade2 ura3–52 leu2–3,-112 trp1–289 his3∆1 lys2-BgIII	This study
	hom3–10 rad6::URA3 nej1::kanMX	
SAY1103	MAT $\alpha$ ade2 $\Delta$ 0 his3 $\Delta$ 200 leu2 met15 $\Delta$ 0 trp1 $\Delta$ 63 ura3 $\Delta$ 0 srs2::NAT	This study
SAY1104	MAT $lpha$ ade2 $\Delta 0$ his3 $\Delta 200$ leu2 met15 $\Delta 0$ trp1 $\Delta 63$ ura3 $\Delta 0$ dun1::NAT	This study
SAY1105	MAT $\alpha$ ade2 $\Delta$ 0 his3 $\Delta$ 200 leu2 met15 $\Delta$ 0 trp1 $\Delta$ 63 ura3 $\Delta$ 0 nej1::NAT	This study
SAY1110	MAT $\alpha$ $\Delta$ ho $\Delta$ hml::ade1 $\Delta$ hmr::ADE1 ade1–100 leu2 –3,	This study
	–112 lys5 trp1::hisG ura3–52::URA3-pGal-HO SRS2–13XMYC-kanMX	
SAY1124	MAT $_{lpha}$ ade2 $_{\Delta}0$ his3 $_{\Delta}200$ leu2 met15 $_{\Delta}0$ trp1 $_{\Delta}63$ ura3 $_{\Delta}0$ rad52::TRP1	This study
SAY1126	MAT $_{\alpha}$ $\Delta$ ho $\Delta$ hm!::ade1 $\Delta$ hmr::ADE1 ade1–100 leu2 –3,	This study
C 43/4 4 C C	–112 lys5 trp1::hisG ura3–52::URA3-pGal-HO nej1::NAT SRS2–13XMYC-kanMX	
SAY1180	MAT $\alpha$ $\Delta$ ho $\Delta$ hml::ade1 $\Delta$ hmr::ADE1 ade1-100 leu2 -3,	This study
	–112 lys5 trp1::hisG ura3-52::URA3-pGal-HO dun1::NAT SRS2-13XMYC-kanMX	
SAY1193	$MA1\alpha$ ade2 $\Delta 0$ hiss $\Delta 200$ leu $2$ met $5\Delta 0$ trp $1\Delta 63$ ura $3\Delta 0$ srs2::NA1 rad $51$ ::kan $MX$	This study
SAY1196	MAI $\alpha$ $\Delta$ ho $\Delta$ hmi::adel $\Delta$ hmr::ADEl adel-100 leuz -3,	This study
	-112 lys5 trp1::hisG ura3-52::URA3-pGaI-HO siz1::NA1 SR52-13XMYC-kanMX	
SAY1197	INAT $\alpha$ DND DNMI::ade1 DNMI::ADE1 ade1-100 leu2 -3, 142-NEM 2074A (EU2) has the technology and the comparison of the c	This study
	- 112::NEJ1-29/AA-LEU2 lys5 trp1::hisG ura3-52::URA3-pGal-HO nej1::NA1 SRS2-13XMYC-kanMX	<b>-</b> 1 · · ·
SAY1198	INIA I $\alpha$ ade2 $\Delta U$ his3 $\Delta 200$ leu2 met15 $\Delta U$ trp1 $\Delta 63$ ura3 $\Delta U$ nej1::kanMX srs2::NA1	This study
SAY 1199	$WAT \alpha$ ade2 $\Delta U$ nis3 $\Delta 200$ leu2 met15 $\Delta U$ trp1 $\Delta 63$ ::NEJ1–29/I8AA-1KP1 Ura3 $\Delta U$ nej1::NA1	This study
SAY1362	MAT $\alpha$ ade2 $\Delta$ U nis3 $\Delta$ 200 leu2 met15 $\Delta$ U trp1 $\Delta$ 63 ura3 $\Delta$ U nej1::NAT rad51::KanMX	inis study

Moore J K, Haber JE (1996) *Mol Cell Biol* 16:164–173.
James P, Halladay, J, Craig EA (1996) *Genetics* 144:1425–1436.
Daley JM, Wilson TE (2005) *Mol Cell Biol* 25:896–906.
Kegel A, Sjöstrand JO, Åström SU (2001) *Curr Biol* 11:1611–1617.