

TABLE S1**Strains and genetic crosses used in this study**

¹ Haploids (parental)	² Genotype
ND9	<i>MATa; ura3-52; ade2-101; leu2Δ; TRP1; his4-r; can1-R; CYH2-s; lys2-801</i>
ND44	<i>MATα; ura3-52; ade2-101; leu2Δ; trp1-h; HIS4; CAN1-s; cyh2-R; lys2-r2</i>
Diploids (crosses)	
PCF254 × PCF257	XVR Gap 1<(KIURA3::leu2-C) XVR Gap 1<(KIURA3::leu2-B)
PCF400 × PCF477	XVR Gap 3<(KIURA3::leu2-C) XVR Gap 3<(KIURA3::leu2-B)
PCF406 × PCF480	XVR Gap 4<(KIURA3::leu2-C) XVR Gap 4<(KIURA3::leu2-B)
PCF491 × PCF490	XVR Gap 6<(KIURA3::leu2-C) XVR Gap 6<(KIURA3::leu2-B)
PCF414 × PCF495	XVR Gap 7<(KIURA3::leu2-C) XVR Gap 7<(KIURA3::leu2-B)
PCF417 × PCF499	XVR Gap 8<(KIURA3::leu2-C) XVR Gap 8<(KIURA3::leu2-B)
PCF263 × PCF269	XVR Gap 9<(KIURA3::leu2-C) XVR Gap 9<(KIURA3::leu2-B)
PCF876 × PCF509	XVR Site 11<(KIURA3::leu2-C) XVR Site 11<(KIURA3::leu2-B)
PCF265 × PCF266	XVR Site 12<(KIURA3::leu2-C) XVR Site 12<(KIURA3::leu2-B)
PCF1126 × PCF1120	XVR Site 11<(KIURA3::leu2-C) XVR Gap 1<(KIURA3::leu2-B)
PCF1146 × PCF1129	XVR Site 12<(KIURA3::leu2-C) XVR Gap 1<(KIURA3::leu2-B)
PCF432 × PCF507	XVIL Gap 1<(KIURA3::leu2-C) XVR Gap 1<(KIURA3::leu2-B)
PCF984 × PCF1022	XVIL Site 11<(KIURA3::leu2-C) XVR Site 11<(KIURA3::leu2-B)
PCF327 × PCF334	XVIL Site 12<(KIURA3::leu2-C) XVIL Site 12<(KIURA3::leu2-B)
PCF437 × PCF504	XIIIR Gap 1<(KIURA3::leu2-C) XIIIR Gap 1<(KIURA3::leu2-B)
PCF524 × PCF1084	XIIIR Site 12<(KIURA3::leu2-C) XIIIR Site 12<(KIURA3::leu2-B)
PCF955 × PCF1013	XIIIR Site 12<(KIURA3::leu2-C) XIIIR Site 12<(KIURA3::leu2-B)
PCF941 × PCF1041	XIIIR Site 12<(KIURA3::leu2-C) XIIIR Site 12<(KIURA3::leu2-B)
PCF367 × PCF359	VIIR Site 12<(KIURA3::leu2-C) VIIR Site 12<(KIURA3::leu2-B)
PCF226 × PCF220	XIIIL Site 12<(KIURA3::leu2-C) XIIIL Site 12<(KIURA3::leu2-B)
PCF382 × PCF373	XVIR Site 12<(KIURA3::leu2-C) XVIR Site 12<(KIURA3::leu2-B)

PCF950 × PCF1009	VR Site 11<(KIURA3::leu2-C) VR Site 11<(KIURA3::leu2-B)
PCF1081 × PCF1082	VR Site 12<(KIURA3::leu2-C) VR Site 12<(KIURA3::leu2-B)
PCF1136 × PCF1111	XVR Gap 1<(KIURA3::leu2-C) XVR Gap 1<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1101 × PCF1117	XVR Site 12<(KIURA3::leu2-C) XVR Site 12<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1105 × PCF1138	XVIL Gap 1<(KIURA3::leu2-C) XVIL Gap 1<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1114 × PCF1103	XVIL Site 12<(KIURA3::leu2-C) XVIL Site 12<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1105 × PCF1111	XVIL Gap 1<(KIURA3::leu2-C) XVR Gap 1<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1136 × PCF1138	XVR Gap 1<(KIURA3::leu2-C) XVIL Gap 1<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1105 × PCF1117	XVIL Gap 1<(KIURA3::leu2-C) XVR Site 12<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1101 × PCF1138	XVR Site 12<(KIURA3::leu2-C) XVIL Gap 1<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1114 × PCF1111	XVIL Site 12<(KIURA3::leu2-C) XVR Gap 1<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1136 × PCF1103	XVR Gap 1<(KIURA3::leu2-C) XVIL Site 12<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1114 × PCF1117	XVIL Gap 1<(KIURA3::leu2-C) XVR Site 12<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1101 × PCF1103	XVR Site 12<(KIURA3::leu2-C) XVIL Site 12<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1101 × PCF1111	XVR Site 12<(KIURA3::leu2-C) XVR Gap 1<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1136 × PCF1117	XVR Gap 1<(KIURA3::leu2-C) XVR Site 12<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1114 × PCF1138	XVIL Gap 1<(KIURA3::leu2-C) XVIL Gap 1<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1105 × PCF1103	XVIL Gap 1<(KIURA3::leu2-C) XVIL Site 12<(KIURA3::leu2-B) yku70Δ::NatMX4/yku70Δ::NatMX4
PCF1146 × PCF1129	XVR Site 12<(KIURA3::leu2-C; core X-y'acsΔ:: KanMX4) XVR Site 12<(KIURA3::leu2-B; core X-y'acsΔ:: KanMX4)
PCF1146 × PCF1129	XVR Site 12<(KIURA3::leu2-C; core X-y'acsΔ:: KanMX4) XVR Site 12<(KIURA3::leu2-B; core X-y'acsΔ:: KanMX4) yku80Δ::NatMX4/yku80Δ::NatMX4
PCF1131 × PCF1153	XVR Site 12<(KIURA3::leu2-C; Gap 8-y'acsΔ:: KanMX4) XVR Site 12<(KIURA3::leu2-B; Gap 8-y'acsΔ:: KanMX4)
PCF1131 × PCF1153	XVR Site 12<(KIURA3::leu2-C; Gap 8-y'acsΔ:: KanMX4) XVR Site 12<(KIURA3::leu2-B; Gap 8-y'acsΔ:: KanMX4) yku80Δ::NatMX4/yku80Δ::NatMX4
PCF1135 × PCF1119	XVR Site 12<(KIURA3::leu2-C) XVR Site 12<(KIURA3::leu2-B)
PCF524 × PCF490	XIIIR Site 12<(KIURA3::leu2-C) XVR Gap 6<(KIURA3::leu2-C)
PCF524 × PCF490	XIIIR Site 12<(KIURA3::leu2-C) XVR Gap 6<(KIURA3::leu2-B) yku80Δ::KanMX6/yku80Δ::KanMX6
PCF491 × PCF490	XVR Gap 6<(KIURA3::leu2-C) XVR Gap 6<(KIURA3::leu2-B)
PCF491 × PCF490	XVR Gap 6<(KIURA3::leu2-C) XVR Gap 6<(KIURA3::leu2-B) yku80Δ::KanMX6/yku80Δ::KanMX6

PCF876 × PCF509	XVR Site 11<(KIURA3::leu2-C) XVR Site 11<(KIURA3::leu2-B)
PCF876 × PCF509	XVR Site 11<(KIURA3::leu2-C) XVR Site 11<(KIURA3::leu2-B) yku80Δ::KanMX6/yku80Δ::KanMX6
PCF524 × PCF507	XIIIIR Site 12<(KIURA3::leu2-C) XVR Gap 1<(KIURA3::leu2-B)
PCF524 × PCF507	XIIIIR Site 12<(KIURA3::leu2-C) XVR Gap 1<(KIURA3::leu2-B) yku80Δ::KanMX6/yku80Δ::KanMX6

¹ND9 and ND44 are the two parental strains that were used for *leu2-C* or *leu2-B* insertions. Following successful insertion of each heteroallele the parental strains were crossed to generate the diploids for analysis of recombination rates. ²All diploid genotypes are therefore ND9×ND44 and denote insert sites for the *leu2* heteroalleles (see Figure 1A).