

Table S1 Strains used in this work.

Strain	Genotypes
NHY187	<i>MATa ho::hisG leu2::hisG ura3(ΔSma-Pst) HIS4::LEU2-(NBam)</i>
NHY285	<i>MATa ho::hisG leu2::hisG ura3(ΔSma-Pst) his4X::LEU2-(NBam)-URA3</i>
TBR5190	NHY187xNHY285
TBR5514	TBR5190 but homozygous <i>sae2::KAN</i>
TBR5515	TBR5190 but homozygous <i>sae2::KAN pch2::HYG</i>
TBR5461	TBR5190 but homozygous <i>dmc1::KAN</i>
TBR5462	TBR5190 but homozygous <i>dmc1::KAN pch2::HYG</i>
TBR5520	TBR5190 but homozygous <i>rad51::NAT dmc1::KAN</i>
TBR4664	TBR5190 but homozygous <i>rad51::NAT dmc1::KAN pch2::HYG</i>
TBR5952	TBR5190 but homozygous <i>sae2::KAN spo11-HA-KAN</i>
TBR5954	TBR5190 but homozygous <i>rad51::NAT dmc1::KAN spo11-HA-KAN</i>
TBR5520	TBR5190 but homozygous <i>rad51::NAT dmc1::KAN</i>
TBR4664	TBR5190 but homozygous <i>rad51::NAT dmc1::KAN pch2::HYG</i>
TBR3451	<i>MATa ho::LYS2 lys2 ura3 leu2::hisG trp1::hisG</i>
TBR3452	<i>MATa ho::LYS2 lys2 ura3 leu2::hisG trp1::hisG</i>
TBR6621	TBR3451xTBR3452
TBR6192	TBR6621 but homozygous <i>rad51::URA3 dmc1::KAN ndt80::LEU2</i>
TBR6194	TBR6621 but homozygous <i>rad51::URA3 dmc1::KAN ndt80::LEU2 pch2::HYG</i>
TBR6396	TBR6621 but homozygous <i>rad51::URA3 dmc1::KAN ndt80::LEU2 spo11-HA-KAN</i>
TBR6397	TBR6621 but homozygous <i>rad51::URA3 dmc1::KAN ndt80::LEU2 pch2::HYG spo11-HA-KAN</i>
TBR6618	TBR6621 but homozygous <i>sae2::KAN ndt80::LEU2</i>
TBR6619	TBR6621 but homozygous <i>sae2::KAN pch2::HYG ndt80::LEU2</i>

All yeast strains are isogenic derivatives of SK1.