

S1 Table. Yeast strains used in this study.

Strain	Genotype	
EAY3252	<i>MATa ho::hisG, ura3, leu2::hisG, trp1::hisG, ADE2, HIS4, CEN8Tomato::LEU2, MLH3, lys2::insE-A14</i>	
EAY3255	<i>MATa ho::hisG, ura3, leu2::hisG, trp1::hisG, ADE2, his4xB, CEN8Tomato::LEU2, mlh3Δ::NATMX, lys2::insE-A14</i>	
		amino acid substitution
EAY3490-91	Same as EAY3255, but <i>mlh3-1::KANMX</i>	H4A,R6A,K7A
EAY3492-93	Same as EAY3255, but <i>mlh3-2::KANMX</i>	E14A,R15A,K17A
EAY3494-95	Same as EAY3255, but <i>mlh3-3::KANMX</i>	R30A,E31A
EAY3496-97	Same as EAY3255, but <i>mlh3-4::KANMX</i>	D38A,H40A
EAY3498-99	Same as EAY3255, but <i>mlh3-5::KANMX</i>	D59A,D60A
EAY3500-01	Same as EAY3255, but <i>mlh3-6::KANMX</i>	R66A,D68A
EAY3502-03	Same as EAY3255, but <i>mlh3-7::KANMX</i>	K80A,R82A,K83A
EAY3504-05	Same as EAY3255, but <i>mlh3-8::KANMX</i>	R96A,D98A
EAY3506-07	Same as EAY3255, but <i>mlh3-9::KANMX</i>	K114A,K115A,K166A,D117A
EAY3508-09	Same as EAY3255, but <i>mlh3-10::KANMX</i>	R124A,K125A
EAY3510-11	Same as EAY3255, but <i>mlh3-11::KANMX</i>	R151A,R152A,K154A
EAY3512-13	Same as EAY3255, but <i>mlh3-12::KANMX</i>	E162A,D163A
EAY3514-15	Same as EAY3255, but <i>mlh3-13::KANMX</i>	R171A,R172A,R173A
EAY3516-17	Same as EAY3255, but <i>mlh3-14::KANMX</i>	K176A,E177A,E178A
EAY3518-19	Same as EAY3255, but <i>mlh3-15::KANMX</i>	K188A,D190A
EAY3520-21	Same as EAY3255, but <i>mlh3-16::KANMX</i>	D209A,K210A,R212A
EAY3522-23	Same as EAY3255, but <i>mlh3-17::KANMX</i>	R220A,K222A
EAY3524-25	Same as EAY3255, but <i>mlh3-18::KANMX</i>	K230A, H231A
EAY3526-27	Same as EAY3255, but <i>mlh3-19::KANMX</i>	K252A, K253A
EAY3528-29	Same as EAY3255, but <i>mlh3-20::KANMX</i>	R273A, K275A, D276A
EAY3530-31	Same as EAY3255, but <i>mlh3-21::KANMX</i>	R285A, R286A
EAY3532-33	Same as EAY3255, but <i>mlh3-22::KANMX</i>	E307A, K308A
EAY3534-35	Same as EAY3255, but <i>mlh3-23::KANMX</i>	K314A, K316A
EAY3536-37	Same as EAY3255, but <i>mlh3-24::KANMX</i>	R323A, H325A
EAY3538-39	Same as EAY3255, but <i>mlh3-25::KANMX</i>	D331A, R333A
EAY3540-41	Same as EAY3255, but <i>mlh3-26::KANMX</i>	D339A, D340A
EAY3542-43	Same as EAY3255, but <i>mlh3-27::KANMX</i>	K347A, K348A
EAY3544-45	Same as EAY3255, but <i>mlh3-28::KANMX</i>	H354A, R356A
EAY3546-47	Same as EAY3255, but <i>mlh3-29::KANMX</i>	D379A, K380A, D382A
EAY3548-49	Same as EAY3255, but <i>mlh3-30::KANMX</i>	D399A, R401A
EAY3550-51	Same as EAY3255, but <i>mlh3-31::KANMX</i>	K406A, R407A
EAY3552-53	Same as EAY3255, but <i>mlh3-32::KANMX</i>	K414A, K416A
EAY3554-55	Same as EAY3255, but <i>mlh3-33::KANMX</i>	E442A, K443A, K445A
EAY3556-57	Same as EAY3255, but <i>mlh3-34::KANMX</i>	R448A, D450A
EAY3558-59	Same as EAY3255, but <i>mlh3-35::KANMX</i>	E471D, D472A, D474A
EAY3560-61	Same as EAY3255, but <i>mlh3-36::KANMX</i>	K492A, E494A
EAY3562-63	Same as EAY3255, but <i>mlh3-37::KANMX</i>	D500A, K501A, K502A
EAY3564-65	Same as EAY3255, but <i>mlh3-38::KANMX</i>	H514A, R516A
EAY3566-67	Same as EAY3255, but <i>mlh3-39::KANMX</i>	D523A, H525A
EAY3568-69	Same as EAY3255, but <i>mlh3-40::KANMX</i>	D528A, E529A, R530A
EAY3570-71	Same as EAY3255, but <i>mlh3-41::KANMX</i>	R532A, E534A, E535A
EAY3572-73	Same as EAY3255, but <i>mlh3-42::KANMX</i>	R552A, D553A, K555A, D556A
EAY3574-75	Same as EAY3255, but <i>mlh3-43::KANMX</i>	D562A, R563A, E565A
EAY3576-77	Same as EAY3255, but <i>mlh3-44::KANMX</i>	K570A, H571A

EAY3578-79	Same as EAY3255, but <i>mlh3-45::KANMX</i>	K577A, K578A
EAY3580-81	Same as EAY3255, but <i>mlh3-46::KANMX</i>	E596A, K598A
EAY3582-83	Same as EAY3255, but <i>mlh3-47::KANMX</i>	D611A, K612A, D613A
EAY3584-85	Same as EAY3255, but <i>mlh3-48::KANMX</i>	H622A, H624A, D625A
EAY3586-87	Same as EAY3255, but <i>mlh3-49::KANMX</i>	K627A, D628A, K630A, K631A
EAY3588-89	Same as EAY3255, but <i>mlh3-50::KANMX</i>	H638A, E640A, H642A
EAY3590-91	Same as EAY3255, but <i>mlh3-51::KANMX</i>	D646A, K647A
EAY3592-93	Same as EAY3255, but <i>mlh3-52::KANMX</i>	H662A, E663A
EAY3594-95	Same as EAY3255, but <i>mlh3-53::KANMX</i>	D678A, E679A
EAY3596-97	Same as EAY3255, but <i>mlh3-54::KANMX</i>	R682A, E684A
EAY3598-99	Same as EAY3255, but <i>mlh3-55::KANMX</i>	R694A, H696A
EAY3600-01	Same as EAY3255, but <i>mlh3-56::KANMX</i>	E713A, K715A
EAY3701-02	Same as EAY3255, but <i>mlh3-57::KANMX</i>	C670A
EAY3703-04	Same as EAY3255, but <i>mlh3-58::KANMX</i>	C701A
EAY3705-06	Same as EAY3255, but <i>mlh3-59::KANMX</i>	H703A
EAY3707-08	Same as EAY3255, but <i>mlh3-60::KANMX</i>	716-DWSSFSKDYEI
EAY3819-20	Same as EAY3255, but <i>mlh3-D523N::KANMX</i>	
EAY3339	<i>MATa ho::LYS2, lys2, ura3, leu2::hisG, trp1::hisG, THR1::m-Cerulean-TRP1</i>	
EAY3486	Same as EAY3339, but <i>mlh3Δ::NATMX</i>	
EAY1112	<i>MATa ho::hisG, trp1::hisG, leu2::hisG, lys2, ura3, ade2::hisG, his3Δ::hisG, TRP1insertion@CENXV</i>	
EAY1848	Same as EAY1112, but <i>mlh3Δ::KANMX</i>	
EAY3712	Same as EAY1112, but <i>mlh3Δ::URA3</i>	
EAY3713-14	Same as EAY1112, but <i>mlh3-6::KANMX</i>	
EAY3715-16	Same as EAY1112, but <i>mlh3-23::KANMX</i>	
EAY3717-18	Same as EAY1112, but <i>mlh3-32::KANMX</i>	
EAY3719-20	Same as EAY1112, but <i>mlh3-42::KANMX</i>	
EAY3721-22	Same as EAY1112, but <i>mlh3-45::KANMX</i>	
EAY3723-24	Same as EAY1112, but <i>mlh3-54::KANMX</i>	
EAY2413	<i>MATa trp1::hisG, leu2::hisG, ho::hisG, ura3, lys2, URA3insertion@CENXV, LEU2insertion@chromXV, LYS2 insertion at position 505193 on chromosome XV, mlh3Δ::NATMX</i>	
S288c	<i>MATa ho lys5</i>	
YJM789	<i>MATa ho::hisG lys2 cyh</i>	
KTY618	Same as YJM789, but <i>SK1-MLH1::natMX4, mlh3Δ::kanMX4</i>	
KTY610	Same as S288c, but <i>SK1-MLH3::kanMX4, mlh1Δ::hphMX4</i>	
KTY616	Same as S288c, but <i>SK1-mlh3-23::kanMX4, mlh1Δ::hphMX4</i>	
KTY614	Same as S288c, but <i>SK1-mlh3-32::kanMX4, mlh1Δ::hphMX4</i>	
KTY621	Same as S288c, but <i>SK1-mlh3-D523N::kanMX4, mlh1Δ::hphMX4</i>	
KTY626	Same as S288c, but <i>mlh3Δ::kanMX4, mlh1Δ::hphMX4</i>	

EAY3252, EAY3255 and derivatives, and EAY3486 are SK1 strains that contain spore autonomous fluorescent markers described in Thacker et al. [56]. EAY1112 and EAY2413 contain chromosome XV markers described in Argueso et al. [7]. KTY strains were used for whole genome recombination mapping as described in Krishnaprasad et al. [64] and Oke et al. [34].