**Table S2 Strains and plasmids used in this study**

|  |  |
| --- | --- |
| Strains |  |
| FY23 (S288c background) | *MATa* *ura3-52 leu2Δ1 trp1Δ63* |
| EAY1269 | FY23, *lys2::insE-A14* |
|  |  |
| SJR328 | *MATα*, *ade2-101, his3Δ200, ura3-Nhe, lys2*Δ*RV::hisG, leu2-R* |
| SJR769 | SJR328, cβ2/cβ2*:LEU2*, homologous 350 bp substrates |
| GCY615 | SJR328, cβ2/cβ2-ns*:LEU2*, 1.3% sequence divergent, predicted to form four, base-base mismatches in the 350 bp cβ2 substrates |
| GCY559 | SJR328, cβ2/cβ2-4L*:LEU2*, predicted to form four 4-nt loops in the 350 bp cβ2 substrates |
| EAY3830  EAY3994 | SJR769, *msh3Δ::hisG*  GCY615, *msh3Δ::hisG* |
| EAY3832 | GCY559, *msh3Δ::hisG* |
| EAY3995  EAY3997  EAY3999  JAY1201 | SJR769, *msh6Δ::hisG*  GCY615, *msh6Δ::hisG*  GCY559, *msh6Δ::hisG*  (*MATa/α*, *his7-2/his7-2*, *ade5-1/ade5-1*, *leu2-3*,*-112*/*leu2-3*,*-112*, *trpl-289*/*trp1-289*, *MAL13*/*mal13::CORE2*, *ura3-52*/*ura3-52*) |
| BJ5464 | *MAT, ura3-52, trp1, leu21, his3200, pep4::HIS3, prb11.6R, GAL* |
| *2µ* Plasmids |  |
| pRS424 | *2µ, TRP1* |
| pRS426 | *2µ, URA3* |
| pEAM249 | *MSH2, 2µ, TRP1* |
| pEAM42 | *MSH2, 2µ, URA3* |
| pEAM251 | *MSH3, 2µ, TRP1* |
| pEAM252 | *MSH3, 2µ, URA3* |
| pEAM99 | *MSH6, 2µ, TRP1* |
| pEAM250 | *MSH6, 2µ, URA3* |
| pEAM271 | *MSH2, MSH6, 2µ, TRP1* |
| pEAM272 | *MSH2, MSH6, 2µ, URA3* |
| pEAM273 | *MSH2, msh6-KQFF>AAAA, 2µ, URA3* |
| pEAM58 | *MLH1, PMS1, 2µ, TRP1* |
| pEAM275 | *MLH1, PMS1, 2µ, URA3* |
| pEAM77 | *EXO1, 2µ, URA3* |
| pEAM254 | *POL30, 2µ, TRP1* |
| pEAM276 | *POL30, 2µ, URA3* |
| pEAM253 | *SGS1, 2µ, TRP1* |
| pEAM88 | *SGS1, 2µ, URA3* |
| pEAM274  *ARS-CEN* plasmids  pRS316  pRS414  pEAA38  pEAA207 | *MSH6, SGS1, 2µ, URA3*  *ARS-CEN*, *URA3*  *ARS-CEN*, *TRP1*  *MSH2*, *ARS-CEN*, *URA3*  *MSH6*, *ARS-CEN*, *TRP1* |

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