***synVI* extended yeast strain table**

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| --- | --- | --- | --- | --- |
| **Strain** | **Description** | **Parent** | **Genotype** | **Reference** |
| ***synVI* construction** | | | | |
| BY4741 | wild type *MAT***a** |  | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0* | (*1*) |
| BY4742 | wild type *MATα* |  | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0* | (*1*) |
| BY4743 | wild type *MAT***a**/ *MATα* |  | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0* | (*1*) |
| yLM097 | Starting strain for building *synVI* |  | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 yfl054CΔ::kanMX* | (*2*) |
| yJS272 | Megachunk A incorporated | yLM097 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.A::LEU2* | (*3*) |
| yLM067 | Megachunk B incorporated | yJS272 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.B::URA3* | This study |
| yLM068 | Megachunk C incorporated | yLM067 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.C::LEU2* | This study |
| yLM085 | Megachunk D incorporated | yLM068 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.D::URA3* | This study |
| yLM086 | Megachunk E incorporated | yLM085 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.E::LEU2* | This study |
| yLM088 | Megachunk F incorporated | yLM086 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.F::URA3* | This study |
| yLM090 | Megachunk G incorporated | yLM088 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.G::LEU2* | This study |
| yLM091 | Megachunk H incorporated | yLM090 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.H::URA3* | This study |
| yLM093 | Megachunk I incorporated, missing rightmost loxPsym site | yLM091 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.I* | This study |
| yLM175 | Megachunk I incorporated | yLM091 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI* | This study |
| yLM096 | Chr5:289709-290199 deleted | yLM093 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.I chr5∆289709-290199* | This study |
| ***synVI MOB2* mapping and correction** | | | | |
| yLM189 | *synVI ρ0* | yLM175 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI ρ0* | This study |
| yLM264 | *synVI ρ0* x BY4742 | yLM189 x BY4742 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI* | This study |
| yLM190-192; 200-240 | *synVI ρ0*x 4742 tetrads to identify *MOB2* mutations | yLM264 | Genotypes available upon request | This study |
| yLM196 | *synVI/synVI* | yLM175 x yLM245 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/synVI* | This study |
| yLM285 | *synVI/VI* | yLM175 x BY4742 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI* | This study |
| yLM286, yLM287 | *synVI/VI WT.MOB2/syn.mob2Δ* | yLM285 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI syn.mob2Δ::URA3/WT.MOB2* | This study |
| yLM288, yLM289 | *synVI/VI* *SYN.MOB2/wt.mob2Δ* | yLM285 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI wt.mob2Δ::URA3/SYN.MOB2* | This study |
| yLM245 | *pGAL-CEN6* | BY4742 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 pGAL-CEN6::URA3* | This study |
| yLM290 | *WT.MOB2*/*wt.mob2Δ* | BY4742 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 wt.mob2Δ::URA3/WT.MOB2* | This study |
| yLM294 | *synVI/synVI* *SYN.MOB2*/*syn.mob2Δ* | yLM196 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI syn.mob2Δ::URA3/SYN.MOB2* | This study |
| yLM300 | *synVI/synVI* *SYN.MOB2*/*WT.MOB2* | yLM294 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI SYN.MOB2/WT.MOB2* | This study |
| yLM298 | *VI/VI* *WT.MOB2*/*SYN.MOB2* | yLM290 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 VI/VI WT.MOB2/SYN.MOB2* | This study |
| yLM321 | *synVI WT.MOB2* | yLM300 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI WT.MOB2* | This study |
| yLM330 | *VI SYN.MOB2* | yLM298 | *MAT***a** *leu2∆0 MET15 lys2∆0 his3∆1 ura3∆0 VI SYN.MOB2* | This study |
| yLM360 | *synVI/synVI SYN.MOB2/SYN.MOB2.intron.2nt* | yLM294 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI SYN.MOB2/SYN.MOB2.intron.2nt* | This study |
| yLM366 | *synVI SYN.MOB2.intron.2nt* | yLM360 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN.MOB2.intron.2nt* | This study |
| yLM361 | *synVI/synVI SYN.MOB2/SYN.MOB2.intron* | yLM294 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI SYN.MOB2/SYN.MOB2.intron* | This study |
| yLM383 | *synVI SYN.MOB2.intron* | yLM361 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN.MOB2.intron* | This study |
| yLM396 | *synVI/synVI SYN.MOB2/SYN.MOB2.2nt* | yLM294 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI SYN.MOB2/SYN.MOB2.2nt* | This study |
| yLM402 | *synVI SYN.MOB2.2nt* | yLM396 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI synMOB2.2nt* | This study |
| ***synVI* glycerol negative growth suppression defect mapping** | | | | |
| yLM548 | *VI rim15Δ* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 rim15Δ::URA3* | This study |
| yLM554 | *synVI rim15Δ* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI rim15Δ::URA3* | This study |
| yLM545 | *VI msh4Δ* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 msh4Δ::URA3* | This study |
| yLM551 | *synVI msh4Δ* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI msh4::URA3* | This study |
| yLM748 | *VI tK(CUU)FΔ* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 tK(CUU)F::URA3* | This study |
| yLM749 | *synVI tK(CUU)FΔ* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI tK(CUU)F∆::URA3* | This study |
| yLM698 | *VI yfr045wΔ* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 yfr045W∆::URA3* | This study |
| yLM699 | *synVI yfr045wΔ* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI yfr045W∆::URA3* | This study |
| yLM700 | *VI SYN.YFR045W* | yLM698 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 SYN.YFR045W* | This study |
| yLM701 | *synVI WT.YFR045W* | yLM699 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI WT.YFR045W* | This study |
| yLM578 | *synVI/VI* | yLM402 x BY4742 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI* | This study |
| yLM579 | *synVI/VI* | yLM402 x BY4742 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/VI* | This study |
| yLM717 | *ring VI* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 ring.VI.yTelo::URA3* | This study |
| yLM728 | *ring synVI* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 ring.synVI.yTelo::URA3* | This study |
| yLM664 | *Triplication synVI* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI.triplication::URA3* | This study |
| yLM837 | *VI +[H2]* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 [H2-pRS413]* | This study |
| yLM838 | *VI + [H3]* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 [H3-pRS413]* | This study |
| yLM839 | *VI + [H4]* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 [H4-pRS413]* | This study |
| yLM842 | *synVI + [H2]* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI [H2-pRS413]* | This study |
| yLM843 | *synVI + [H3]* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI [H3-pRS413]* | This study |
| yLM844 | *synVI + [H4]* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI [H4-pRS413]* | This study |
| yLM704 | *VI + [empty]* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 [pLM200-KanMX]* | This study |
| yLM871 | *VI + [SYN.YFR047C]* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 [SYN.YFR047C-KanMX]* | This study |
| yLM872 | *VI + [SYN.YFR048W]* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 [SYN.YFR048W-KanMX]* | This study |
| yLM873 | *VI + [SYN.YFR049W]* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 [SYN.YFR049W-KanMX]* | This study |
| yLM831 | *VI + [SYN.YFR050C]* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 [SYN.YFR050C-KanMX]* | This study |
| yLM874 | *VI + [SYN.YFR051C]* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 [SYN.YFR051C-KanMX]* | This study |
| yLM832 | *VI + [SYN.YFR052W]* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 [SYN.YFR052W-KanMX]* | This study |
| yLM707 | *synVI + [empty]* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI [pLM200-KanMX]* | This study |
| yLM875 | *synVI + [SYN.YFR047C]* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI [SYN.YFR047C-KanMX]* | This study |
| yLM876 | *synVI + [SYN.YFR048W]* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI [SYN.YFR048W-KanMX]* | This study |
| yLM877 | *synVI + [SYN.YFR049W]* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI [SYN.YFR049W-KanMX]* | This study |
| yLM829 | *synVI + [SYN.YFR050C]* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI [SYN.YFR050C-KanMX]* | This study |
| yLM878 | *synVI + [SYN.YFR051C]* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI [SYN.YFR051C-KanMX]* | This study |
| yLM830 | *synVI + [SYN.YFR052W]* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI [SYN.YFR052W-KanMX]* | This study |
| ***PRE4* characterization** | | | | |
| yLM450 | *synVI ρ0* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI ρ0* | This study |
| yLM544 | *synVI/synVI* | yLM450 x yLM245 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/synVI* | This study |
| yLM770 | *VI/VI WT.PRE4/ pre4∆* | BY4743 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 PRE4/pre4Δ::URA3* | This study |
| yLM772 | *synVI/synVI SYN.PRE4/ syn.pre4∆* | yLM544 | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/synVI SYN.PRE4/syn.pre4Δ::URA3* | This study |
| yLM819 | *VI wt.pre4∆ + [WT.PRE4]* | yLM770 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 wt.pre4Δ::URA3 [WT.PRE4-KanMX]* | This study |
| yLM823 | *synVI syn. pre4∆ + [WT.PRE4]* | yLM544 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI syn.pre4Δ::URA3 [WT.PRE4-KanMX]* | This study |
| yLM848 | *synVI WT.PRE4* | yLM544 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI WT.PRE4* | This study |
| yLM849 | *VI SYN.PRE4* | yLM770 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 SYN.PRE4* | This study |
| yLM851 | *VI SYN-WT.PRE4* | yLM819 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 SYN-WT.PRE4* | This study |
| yLM852 | *VI WT-SYN.PRE4* | yLM819 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 WT-SYN.PRE4* | This study |
| yLM853 | *synVI SYN-WT.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.PRE4* | This study |
| yLM854 | *synVI WT-SYN.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI WT-SYN.PRE4* | This study |
| yLM945\* | *synVI* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI* | This study |
| yLM949\* | *synVI WT.PRE4* | yLM848 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI WT.PRE4* | This study |
| yLM953\* | *synVI SYN-WT.PRE4* | yLM853 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.PRE4* | This study |
| yLM957\* | *synVI WT-SYN.PRE4* | yLM854 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI WT-SYN.PRE4* | This study |
| yLM883 | *VI HA-WT.PRE4* | yLM819 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 HA-WT.PRE4* | This study |
| yLM882 | *synVI HA-WT.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI HA-WT.PRE4* | This study |
| yLM867 | *VI HA-SYN.PRE4* | yLM861 | *MAT***a** *leu2∆0 MET15 lys2∆0 his3∆1 ura3∆0 HA-SYN.PRE4* | This study |
| yLM866 | *synVI HA-SYN.PRE4* | yLM860 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 HA-SYN.PRE4* | This study |
| yLM1212 | *VI HA-WT.SYN-PRE4* | yLM819 | *MAT***a** *leu2∆0 MET15 lys2∆0 his3∆1 ura3∆0 HA-WT.SYN-PRE4* | This study |
| yLM1214 | *synVI HA-WT.SYN-PRE4* | yLM823 | *MAT***a** *leu2∆0 MET15 lys2∆0 his3∆1 ura3∆0 synVI HA-WT.SYN-PRE4* | This study |
| yLM1216 | *VI HA-SYN.WT-PRE4* | yLM819 | *MAT***a** *leu2∆0 MET15 lys2∆0 his3∆1 ura3∆0 HA-SYN.WT-PRE4* | This study |
| yLM1218 | *synVI HA-SYN.WT-PRE4* | yLM823 | *MAT***a** *leu2∆0 MET15 lys2∆0 his3∆1 ura3∆0 synVI HA-SYN.WT-PRE4* | This study |
| yLM1004 | *synVI SYN-WT1.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.codon1-PRE4* | This study |
| yLM1006 | *synVI SYN-WT2.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.codon2-PRE4* | This study |
| yLM1008 | *synVI SYN-WT3.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.codon3-PRE4* | This study |
| yLM1010 | *synVI SYN-WT4.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.codon4-PRE4* | This study |
| yLM1012 | *synVI SYN-WT5.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.codon5-PRE4* | This study |
| yLM1014 | *synVI SYN-WT6.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.codon6-PRE4* | This study |
| yLM1016 | *synVI SYN-WT7.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.codon7-PRE4* | This study |
| yLM1018 | *synVI SYN-WT8.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.codon8-PRE4* | This study |
| yLM1020 | *synVI SYN-WT9.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.codon9-PRE4* | This study |
| yLM1022 | *synVI SYN-WT10.PRE4* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN-WT.codon10-PRE4* | This study |
| yLM965 | *synVI SYN.PRE4.WT.RSSR* | yLM823 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI SYN.PRE4.WT.RSSR* | This study |
| yLM898 | *VI WT.PRE4.SYN.RSSR* | yLM819 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 WT.PRE4.SYN.RSSR* | This study |
| yLM1236 | *VI HA-SYN.PRE4 [empty]* | yLM867 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 HA-SYN.PRE4 [pLM200-KanMX]* | This study |
| yLM1237 | *VI HA-SYN.PRE4 [tRNA array]* | yLM867 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 HA-SYN.PRE4 [synVI tRNA array]* | This study |
| yLM1238 | *synVI HA-SYN.PRE4 [empty]* | yLM866 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI HA-SYN.PRE4 [pLM200-KanMX]* | This study |
| yLM1239 | *synVI HA-SYN.PRE4 [tRNA array]* | yLM867 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI HA-SYN.PRE4 [synVI tRNA array]* | This study |
| yLM1240 | *VI HA-WT.PRE4 [empty]* | yLM867 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 HA-WT.PRE4 [pLM200-KanMX]* | This study |
| yLM1241 | *VI HA-WT.PRE4 [tRNA array]* | yLM867 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 HA-WT.PRE4 [synVI tRNA array]* | This study |
| yLM1242 | *synVI HA-WT.PRE4 [empty]* | yLM866 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI HA-WT.PRE4 [pLM200-KanMX]* | This study |
| yLM1243 | *synVI HA-WT.PRE4 [tRNA array]* | yLM867 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI HA-WT.PRE4 [synVI tRNA array]* | This study |
| **His2 protein level in *synVI*** | | | | |
| yLM1130 | *VI his2∆* | BY4741 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 his2∆::URA3* | This study |
| yLM1131 | *synVI his2∆* | yLM953 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI his2∆::URA3* | This study |
| yLM1147 | *VI WT.HIS2-HA* | yLM1130 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 WT.HIS2-HA* | This study |
| yLM1150 | *VI SYN.HIS2-HA* | yLM1130 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 SYN.HIS2-HA* | This study |
| yLM1153 | *synVI WT.HIS2-HA* | yLM1131 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI WT.HIS2-HA* | This study |
| yLM1156 | *synVI SYN.HIS2-HA* | yLM1131 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI WT.HIS2-HA* | This study |
| yLM1168 | *VI WT.HIS2-HA tA(AGC)F∆* | yLM1147 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 WT.HIS2-HA tA(AGC)F∆::URA3* | This study |
| yLM1170 | *VI SYN.HIS2-HA tA(AGC)F∆* | yLM1150 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 SYN.HIS2-HA tA(AGC)F∆::URA3* | This study |
| yLM1172 | *synVI WT.HIS2-HA 5’loxP∆* | yLM1153 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI WT.HIS2-HA 5’loxP∆::URA3* | This study |
| yLM1174 | *synVI SYN.HIS2-HA 5’loxP∆* | yLM1156 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI WT.HIS2-HA 5’loxP∆::URA3* | This study |
| yLM1198 | *VI WT.HIS2-HA* | yLM1168 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 WT.HIS2-HA* | This study |
| yLM1199 | *VI loxP::WT.HIS2-HA* | yLM1168 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 loxP::WT.HIS2-HA* | This study |
| yLM1200 | *VI SYN.HIS2-HA* | yLM1170 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 SYN.HIS2-HA* |  |
| yLM1201 | *VI loxP::SYN.HIS2-HA* | yLM1170 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 loxP::SYN.HIS2-HA* | This study |
| yLM1202 | *synVI loxP::WT.HIS2-HA* | yLM1172 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI loxp::WT.HIS2-HA* | This study |
| yLM1203 | *synVI tA(AGC)F WT.HIS2-HA* | yLM1172 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI tA(AGC)F WT.HIS2-HA* | This study |
| yLM1204 | *synVI loxP::SYN.HIS2-HA* | yLM1174 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI loxp::SYN.HIS2-HA* | This study |
| yLM1205 | *synVI tA(AGC)F SYN.HIS2-HA* | yLM1174 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI tA(AGC)F WT.HIS2-HA* | This study |
| ***synIXR*** |  |  |  |  |
| yJS698 | Starting strain for integrating *synIXR-BAC* |  | *MAT***a** *leu2∆0 lys2∆0 met15∆0 his3∆1 ura3∆0 yil001W∆::URA3 yir039c∆::KanMX* | This study |
| yLM030 | *IXL-synIXR* | yJS698 | *MAT***a** *leu2∆0 lys2∆0 met15∆0 his3∆1 ura3∆0 IXL-synIXR::LEU2* | This study |
| yLM046 | *IXL-synIXR* | yLM030 | *MAT***a** *leu2∆0 lys2∆0 met15∆0 his3∆1 ura3∆0 IXL-synIXR::URA3* | This study |
| yLM461 | *IXL-synIXR* | yLM046 | *MAT***a** *leu2∆0 lys2∆0 met15∆0 his3∆1 ura3∆0 IXL-synIXR* | This study |
| ***Poly-syn*** |  |  |  |  |
| yLM422 | *synIII* | yLM197 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho::ura3* | This study |
| yLM399 | *synVI* | yLM396 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synVI* | This study |
| yLM638 | *synIII pGAL-CEN6* | yLM422 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho::ura3 pGAL-CEN6::URA3(Kl)* | This study |
| yLM639 | *synIII pGAL-CEN9* | yLM422 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho::ura3 pGAL-CEN9::URA3(Kl)* | This study |
| yLM632 | *synVI pGAL-CEN3* | yLM402 | *MAT***a** *leu2∆0 LYS2 met15∆0 his3∆1 ura3∆0 synVI pGAL-CEN3::URA3(Kl)* | This study |
| yLM635 | *synVI pGAL-CEN9* | yLM399 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synVI pGAL-CEN9::URA3(Kl)* | This study |
| yLM636 | *synIXR pGAL-CEN3* | yLM461 | *MAT***a** *leu2∆0 lys2∆0 met15∆0 his3∆1 ura3∆0 IXL-synIXR pGAL-CEN3::URA3(Kl)* | This study |
| yLM637 | *synIXR pGAL-CEN6* | yLM461 | *MAT***a** *leu2∆0 lys2∆0 met15∆0 his3∆1 ura3∆0 IXL-synIXR pGAL-CEN6::URA3(Kl)* | This study |
| yLM642# | *synIII/synIII synVI/synVI* | yLM638 x yLM632 | *MAT*α/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synIII/synIII synVI/synVI SYN.SUP61::ho::ura3/ho* | This study |
| yLM680# | *synIII/synIII synIXR/synIXR* | yLM639 x yLM636 | *MAT*α/α *leu2∆0 LYS2/lys2Δ0 met15∆0 his3∆1 ura3∆0 synIII/synIII synVI/synVI* | This study |
| yLM644# | *synVI/synVI synIXR/synIXR* | yLM635 x yLM637 | *MAT***a**/α *leu2∆0 lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synVI/synVI IXL-synIXR/IXL-synIXR* | This study |
| yLM890# | *synIII synVI* |  | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII synVI SYN.WT-PRE4 SYN.SUP61::ho::ura3* | This study |
| yLM758# | *synIII synIXR* | yLM680 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII IXL-synIXR SYN.SUP61::ho::ura3* | This study |
| yLM892# | *synVI synIXR* |  | *MAT***a** *leu2∆0 lys2∆0 met15∆0 his3∆1 ura3∆0 synVI SYN.WT-PRE4 IXL-synIXR* | This study |
| yLM675# | *synIII synIII synVI synVI synIXR synIXR*  *[MAT***a***::pRS413]* |  | *MAT***a**/α *leu2∆0 LYS2/lys2Δ0 met15∆0/MET15 his3∆1 ura3∆0 synIII/synIII synVI/synVI synIXR/synIXR SYN.SUP61::ho::ura3/ho [MAT****a****::pRS413]* | This study |
| yLM896# | *synIII synVI synIXR* |  | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho::ura3 synVI SYN-WT.PRE4 IXL-synIXR* | This study |
| yZY175 | *synIII synVI synIXR* | yLM896 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho synVI SYN-WT.PRE4 IXL-synIXR* | This study |
| ***synIII synVI synIXR* protein expression direct testing** | | | | |
| yLM1104 yLM1105 | *HIS2-HA* | BY4741 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 HIS2-3HA::HIS3* | This study |
| yLM1106 yLM1107 | *SAC7-HA* | BY4741 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 SAC7-3HA::HIS3* | This study |
| yLM1108 yLM1109 | *SNU114-HA* | BY4741 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 SNU114-3HA::HIS3* | This study |
| yLM1110 yLM1111 | *CHS2-HA* | BY4741 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 CHS2-3HA::HIS3* | This study |
| yLM1112 yLM1113 | *HAS1-HA* | BY4741 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 HAS1-3HA::HIS3* | This study |
| yLM1114 yLM1115 | *COX5A-HA* | BY4741 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 COX5A-3HA::HIS3* | This study |
| yLM1116 yLM1117 | *synIII synVI synIXR HIS2-HA* | yLM896 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho::ura3 synVI SYN-WT.PRE4 synIXR HIS2-3HA::HIS3* | This study |
| yLM1118 yLM1119 | *synIII synVI synIXR SAC7-HA* | yLM896 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho::ura3 synVI SYN-WT.PRE4 synIXR SAC7-3HA::HIS3* | This study |
| yLM1120 yLM1121 | *synIII synVI synIXR SNU114-HA* | yLM896 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho::ura3 synVI SYN-WT.PRE4 synIXR SNU114-3HA::HIS3* | This study |
| yLM1122 yLM1123 | *synIII synVI synIXR CHS2-HA* | yLM896 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho::ura3 synVI SYN-WT.PRE4 synIXR CHS2-3HA::HIS3* | This study |
| yLM1124 yLM1125 | *synIII synVI synIXR HAS1-HA* | yLM896 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho::ura3 synVI SYN-WT.PRE4 synIXR HAS1-3HA::HIS3* | This study |
| yLM1126 yLM1127 | *synIII synVI synIXR COX5A-HA* | yLM896 | *MAT*α *leu2∆0 lys2∆0 MET15 his3∆1 ura3∆0 synIII SYN.SUP61::ho::ura3 synVI SYN-WT.PRE4 synIXR COX5A-3HA::HIS3* | This study |
|  |  |  |  |  |

\* derived from a *ρ0* endoreduplication backcross of the indicated parental strain to a *MATα* *pGAL-CEN6*

# post-galactose destabilization of native chromosomes with *pGAL-CENx*

1. C. B. Brachmann *et al.*, Designer deletion strains derived from Saccharomyces cerevisiae S288C: a useful set of strains and plasmids for PCR-mediated gene disruption and other applications. *Yeast* **14**, 115-132 (1998).

2. E. A. Winzeler *et al.*, Functional characterization of the S. cerevisiae genome by gene deletion and parallel analysis. *Science* **285**, 901-906 (1999).

3. J. S. Dymond *et al.*, Synthetic chromosome arms function in yeast and generate phenotypic diversity by design. *Nature* **477**, 471-476 (2011).