

SUPPLEMENTARY MATERIALS AND METHODS

Yeast strains

Yeast strains used were BJ2168 (*MATa prc1 prb1 pep4 leu2 trp1 ura3*), YSCC026 (*MATa prc1 prb1 pep4 leu2 trp1 ura3 PRP5V5*), YSCC024 (*MATa prc1 prb1 pep4 leu2 trp1 ura3 HSH155HA*), YSCC022 (*MATa prc1 prb1 pep4 leu2 trp1 ura3 PRP9V5*), and YSCC027 (*MATa prc1 prb1 pep4 leu2 trp1 ura3 cus2::LEU2*).

Oligonucleotides

The following oligonucleotides were used:

- A19 CTAAGTCTCATGTACAAACATCGATTGCTT C
- A20 GAAGCAATCGATGTTTGTACATGAGACTTAG
- A21 CTAAGTCTCATGTACGAACATCGATTGCTTC
- A22 GAAGCAATCGATGTTTCGTACATGAGACTTAG
- A23 CTAAGTCTCATGTACCAACATCGATTGCTTC
- P5-1 GGCCGGATCCCTCTGCAAGCAAAG
- P5-2 GGCCAAGCTTTGCAGCCTTTACGACC
- P5-3 CCGGACTAGTTAGTTTTTTAGAATTTAACTCACTCG
- P5-4 CCGGCTCGAGCCAACGTGTGTTTAA
- P5-6 GGCCGGATCCGTATGGAAACTATTGATTCG
- P5-7 GTATCTGCTTCTGTG
- P5-8 CTGGCTCCAACACTAGA
- P5-9 ATCGCTCCTCTTATC
- P5-11 CGTTCGTAGTAATGGATGCGGCAGACAGGCTGTTC
- P5-12 GAACAGCCTGTCTGCCGCATCCATTACTACGAACG

P5-13 TTATTGATATATTAACACTAGATGATGGGAAATTAAGT
P5-14 ACTAAGTAATTTCCCATCATCTAGTGTTAATATATCAATAA
P5-15 CAGTGTGTTCTATTTACTGCAGGTTTTCCGAACAAACTAC
P5-16 GTAGTTTGTTCGGAAAACCTGCAGTAAATAGAACACACTG
P5-17 GAGATGGAAGTTGAGGCGCTTAGATTTAGTCTG
P5-18 CAGACTAAATCTAAGCGCCTCAACTTCCATCTC
P5-19 CCAGAGCATGATATTGAAAAAGCTGCAGCGGCTGAGTTTATGACGTCATT
G
P5-20 CAATGACGTCATAAACTCAGCCGCTGCAGCTTTTTCAATATCATGCTCTG
G
P5-21 GGCCAAGCTTAAATTTTTTCATCTTCTGAATGGC
CU-1 GGCCTCTAGACACTGGTAACTTCTC
CU-2 CAAGGGTCTGCAGCC
CU-3 GGCCGACGTCCCAGACTACGCTTAGAACTGCAGTAAAAAATG
CU-4 TGAGGATTCCTATATCC
U2-B GCCTCATTGAGGTCATTTTCAG
U2-C GAACAGACACTACACTTG

Antibodies and reagents

Anti-V5 antibody was purchased from Serotec, Inc. Anti-HA antibody was produced by immunizing mice with the KLH-conjugated HA-peptide (TY Tsao and SC Cheng, unpublished data). Anti-Prp5, anti-Lea1, anti-Prp8, anti-Ntc20, and anti-Snu14 antibodies were produced by immunizing rabbits with the *E. coli*-expressed recombinant proteins (full-length protein for Lea1 and Ntc20, and amino acid residues 1-115 for Prp8, 654-840 for Prp5, and amino acid residues 1-129 for Snu14). Protein A-Sepharose (PAS), streptavidin

Sepharose and Ni-NTA agarose were obtained from Amersham Bioscience, Sigma-Aldrich and Qiagen, respectively. The site-directed mutagenesis kit was from Stratagene.

Construction of PRP5-V5-tagged and *cus2Δ* strains

For construction of V5-tagged PRP5 yeast strain YSCC026, DNA fragment A was generated by polymerase chain reaction (PCR) using primers P5-1 and P5-2, and digested with *Bam*HI and *Hind*III, and DNA fragment B was generated with primers P5-3 and P5-4, and digested with *Spe*I and *Xho*I. Plasmid pRS406.PRP5C-V5, generated by insertion of fragment A, V5 and fragment B in sequence, into *Bam*HI/*Xho*I-site of pRS406, was linearized with *Eco*RI and transformed into yeast strain BJ2168 to displace the wild-type allele with the V5-tagged PRP5 allele by the pop-in and pop-out gene displacement method.

For construction of *cus2Δ* strain YSCC027, a *cus2::LEU2* allele was created by replacing the entire Open reading frame of *CUS2* with a 2-kb DNA fragment of the *LEU2* gene. A 0.7-kb DNA fragment C containing the promoter region of *CUS2* gene, and a 0.7-kb DNA fragment D containing the *CUS2* 3'-untranslated region, were generated by PCR using primers CU-1 and CU-2, and CU-3 and CU-4, respectively. Fragments C, *LEU2* and D are inserted in sequence into *Xho*I/*Xba*I-site of plasmid vector pBS. The resulted plasmid was digested with *Xho*I and *Xba*I, and transformed into yeast strain BJ2168. Cells were selected for leucine-prototrophy.