

**Table S8** SNPs identified in coding regions in the superior parental strain 31y10-9 when compared with the inferior parental strain NX9412-4.

| Gene ID | Name          | SNP    | function type  | codon change | amino acid change |
|---------|---------------|--------|----------------|--------------|-------------------|
| YCR035C | <i>RRP43</i>  | T100C  | non-synonymous | Tac/Cac      | Y34H              |
|         |               | C463T  | synonymous     | CtA/Tta      | —                 |
| YCR036W | <i>RBK1</i>   | A207G  | synonymous     | acA/acG      | —                 |
|         |               | T363C  | synonymous     | agT/agC      | —                 |
|         |               | C379T  | non-synonymous | Ccg/Tcg      | P127S             |
|         |               | C518T  | synonymous     | cCc/cTc      | P173L             |
| YCR037C | <i>PHO87</i>  | T132C  | synonymous     | ggT/ggC      | —                 |
|         |               | T1916C | non-synonymous | aTt/aCt      | I639T             |
| YCR042C | <i>TAF2</i>   | T1951C | non-synonymous | Tca/Cca      | S651P             |
|         |               | G2961A | synonymous     | ccG/ccA      | —                 |
| YCR043C | —             | C230G  | non-synonymous | tCt/tGt      | S77C              |
| YCR046C | <i>IMG1</i>   | T122C  | non-synonymous | aTg/aCg      | M41T              |
|         |               | T279C  | synonymous     | taT/taC      | —                 |
|         |               | T331C  | non-synonymous | Tgg/Cgg      | W111R             |
| YCR047C | <i>BUD23</i>  | T632C  | non-synonymous | gTg/gCg      | V211A             |
| YCR048W | <i>ARE1</i>   | G70C   | non-synonymous | Gcc/Ccc      | A24P              |
| YCR053W | <i>THR4</i>   | T759C  | synonymous     | taT/taC      | —                 |
| YCR054C | <i>CTR86</i>  | A1038G | synonymous     | tcA/tcG      | —                 |
|         |               | G1599A | non-synonymous | atG/atA      | M533I             |
| YCR057C | <i>PWP2</i>   | C875T  | non-synonymous | tCc/tTc      | S292F             |
| YCR060W | <i>TAH1</i>   | A94G   | non-synonymous | Act/Gct      | T32A              |
| YNL257C | <i>SIP3</i>   | T1043C | non-synonymous | tTg/tCg      | L348S             |
|         |               | A1863C | synonymous     | acA/acC      | —                 |
|         |               | T2021C | non-synonymous | gTa/gCa      | V674A             |
| YNL256W | <i>FOL1</i>   | T522G  | synonymous     | acT/acG      | —                 |
|         |               | A1354G | non-synonymous | Aaa/Gaa      | K452E             |
| YNL255C | <i>GIS2</i>   | G192A  | synonymous     | gtG/gtA      | —                 |
| YNL254C | <i>RTC4</i>   | C89T   | non-synonymous | aCg/aTg      | T30M              |
|         |               | A536G  | non-synonymous | aAa/aGa      | K179R             |
| YNL252C | <i>MRPL17</i> | C236T  | non-synonymous | tCt/tTt      | S79F              |
| YNL251C | <i>NRD1</i>   | T1011C | synonymous     | taT/taC      | —                 |
| YNL250W | <i>RAD50</i>  | G1228A | non-synonymous | Gat/Aat      | D410N             |
|         |               | T2465G | non-synonymous | aTt/aGt      | I822S             |
| YNL249C | <i>MPA43</i>  | A1066C | non-synonymous | Aaa/Caa      | K356Q             |
| YNL248C | <i>RPA49</i>  | C937T  | synonymous     | Cca/Tca      | P313S             |
| YNL247W | <i>CRS1</i>   | C992T  | non-synonymous | gCt/gTt      | A331V             |