|  |  |  |  |
| --- | --- | --- | --- |
| Gene | Repeat Start Location | Motifs | DNA of Motifs |
| TIR4(cell wall) | 138 | 1. SSVAPSSSEVVS2. SSVAPSSSEVVS3. SSVAPSSSEVVS4. SSVASSSSEVAS5. SSVAPSSSEVVS6. SSVASSSSEVAS7. SSVAPSSSEVVS8. SSVAPSSSEVVS9. SSVASSSSEVAS10.SSVAPSSSEVVS | 1. TCTTCTGTTGCACCATCCTCAAGTGAAGTTGTCAGC2. TCTTCCGTTGCACCATCCTCAAGTGAAGTTGTCAGC3. TCTTCCGTTGCACCATCCTCAAGTGAAGTTGTCAGC4. TCTTCCGTTGCTTCATCCTCAAGTGAAGTTGCCAGC5. TCCTCTGTTGCGCCATCCTCAAGTGAAGTTGTCAGC6. TCTTCCGTTGCTTCATCCTCAAGTGAAGTTGCCAGC7. TCCTCTGTTGCGCCATCCTCAAGTGAAGTTGTCAGC8. TCTTCCGTTGCACCATCCTCAAGTGAAGTTGTCAGC9. TCTTCCGTTGCTTCATCCTCAAGTGAAGTTGCCAGC10.TCCTCTGTTGCGCCATCCTCAAGTGAAGTTGTCAGC |
| AGA1(cell wall) | 189 | 1.TSTSPSS2. TSTSPSS3. TSTSSSS4. TSTSSSS5. TSTSSSS6. TSTSPSS7. TSTSSSL8. TSTSSSS9. TSTSQSS10.TSTSSSS11.TSTSPSS12.TSTSSSS13.TSTSPSS | 1. ACATCTACATCTCCAAGCTCT2. ACATCTACATCTCCAAGCTCT3. ACATCTACCTCATCAAGTTCG4. ACATCTACCTCATCAAGTTCG5. ACATCTACCTCATCAAGTTCG6. ACATCTACATCTCCAAGTTCG7. ACATCCACATCTTCAAGTTTG8. ACATCCACATCTTCAAGTTCT9. ACATCTACATCCCAAAGTTCT10.ACATCTACCTCATCAAGTTCG11.ACATCTACATCTCCAAGCTCT12.ACATCTACCTCATCAAGTTCA13.ACATCTACATCTCCAAGTTCT |

**Table S3: Mutation and selection in cell wall proteins in yeast by DNA analysis**

Analysis of repetitive motifs in cell wall proteins of *S. cervisiaea*. First and second columns show the name, function and starting location of the repetitive section. Third and fourth columns show the sequences at the protein and DNA levels respectively. Motifs are divided into identical sections forming groups which are colored with gray (group 1), blue (group 2) and white (group 3). The first group is taken as a reference motif and the remaining groups are compared to it in the following way: Yellow colored letters indicate mutations that cause the generation of a distinct motif, i.e. amino-acids different from group 1. Red colored letters indicate synonymous mutations within each motif group, thus do not change the motif composition at the amino-acid level, indicating that some amino-acids are protected by selection.