**TableS5. Differentially expressed proteins in YM158 between WL and CK**

|  |  |  |  |
| --- | --- | --- | --- |
| Gene ID | log2\_FC(WL/CK) | Protein Description | Functional Category |
| UP-regulated |
| TRIAE\_CS42\_2BL\_TGACv1\_131998\_AA0434300.1 | 0.509707606 | Carboxypeptidase | metabolic |
| TRIAE\_CS42\_5AL\_TGACv1\_376019\_AA1230850.1 | 0.280552167 | Glycosyltransferase  | metabolic |
| TRIAE\_CS42\_7AS\_TGACv1\_569693\_AA1821940.1 | 0.352030127 | hypothetical protein |  |
| TRIAE\_CS42\_4BL\_TGACv1\_320837\_AA1049910.1 | 0.490230478 | predicted protein  |  |
| TRIAE\_CS42\_2AL\_TGACv1\_094081\_AA0292320.2 | 0.4423414 | Uncharacterized protein |  |
| TRIAE\_CS42\_4BS\_TGACv1\_329474\_AA1101780.1 | 0.435063523 | [predicted protein](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  |  |
| TRIAE\_CS42\_4BS\_TGACv1\_329474\_AA1101780.3 | 0.435063523 | [predicted protein](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  |  |
| TRIAE\_CS42\_1AL\_TGACv1\_002075\_AA0038500.1 | 0.40152957 | Uncharacterized protein |  |
| TRIAE\_CS42\_1AL\_TGACv1\_002075\_AA0038500.2 | 0.40152957 | Uncharacterized protein |  |
| TRIAE\_CS42\_6AS\_TGACv1\_485670\_AA1549870.1 | 0.314682113 | Uncharacterized protein |  |
| TRIAE\_CS42\_4AL\_TGACv1\_288845\_AA0959550.1 | 0.285455908 | Uncharacterized protein |  |
| TRIAE\_CS42\_5BL\_TGACv1\_405828\_AA1335990.1 | 0.285455908 | Uncharacterized protein |  |
| TRIAE\_CS42\_5DL\_TGACv1\_435646\_AA1453010.1 | 0.285455908 | Uncharacterized protein |  |
| Down-regulated |
| TRIAE\_CS42\_4BS\_TGACv1\_328833\_AA1094200.2 | -0.263525202 | Aminopeptidase  | catabolic  |
| TRIAE\_CS42\_4BS\_TGACv1\_328833\_AA1094200.3 | -0.263525202 | Aminopeptidase  | catabolic  |
| TRIAE\_CS42\_1AL\_TGACv1\_002534\_AA0042890.1 | -0.267560436 | solanesyl-diphosphate synthase 2, chloroplastic  | chloroplast |
| TRIAE\_CS42\_1BL\_TGACv1\_030959\_AA0104550.1 | -0.267560436 | [solanesyl-diphosphate synthase 2, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_1DL\_TGACv1\_063491\_AA0227880.1 | -0.267560436 | [solanesyl-diphosphate synthase 2, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_1DL\_TGACv1\_063491\_AA0227880.2 | -0.267560436 | [solanesyl-diphosphate synthase 2, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_3B\_TGACv1\_221690\_AA0747520.1 | -0.274196878 | PsbP domain-containing protein 6, chloroplastic  | metabolic |
| TRIAE\_CS42\_3DL\_TGACv1\_250418\_AA0867860.1 | -0.274196878 | PsbP domain-containing protein 6, chloroplastic  | metabolic |
| TRIAE\_CS42\_4AL\_TGACv1\_289784\_AA0976760.1 | -0.283679679 | DEAD-box ATP-dependent RNA helicase 3, chloroplastic | metabolic |  |  |
| TRIAE\_CS42\_7AL\_TGACv1\_558524\_AA1794020.1 | -0.288476783 | DAG protein, chloroplastic-like  | chloroplast |  |  |
| TRIAE\_CS42\_7AL\_TGACv1\_558524\_AA1794020.2 | -0.288476783 | DAG protein, chloroplastic-like  | chloroplast |
| TRIAE\_CS42\_7AL\_TGACv1\_558524\_AA1794020.3 | -0.288476783 | DAG protein, chloroplastic-like  | chloroplast |
| TRIAE\_CS42\_7BL\_TGACv1\_577507\_AA1877300.1 | -0.288476783 | [multiple organellar RNA editing factor 9, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_7BL\_TGACv1\_577507\_AA1877300.2 | -0.288476783 | [multiple organellar RNA editing factor 9, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_7BL\_TGACv1\_577507\_AA1877300.3 | -0.288476783 | [multiple organellar RNA editing factor 9, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_7DL\_TGACv1\_602578\_AA1961500.1 | -0.288476783 | [multiple organellar RNA editing factor 9, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_7DL\_TGACv1\_602578\_AA1961500.2 | -0.288476783 | [multiple organellar RNA editing factor 9, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_7DL\_TGACv1\_602578\_AA1961500.3 | -0.288476783 | [multiple organellar RNA editing factor 9, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_7DL\_TGACv1\_602578\_AA1961500.4 | -0.288476783 | [multiple organellar RNA editing factor 9, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_3AL\_TGACv1\_195570\_AA0651350.1 | -0.31447229 | Fe-S cluster assembly factor HCF101, chloroplastic  | chloroplast |
| TRIAE\_CS42\_3AL\_TGACv1\_195570\_AA0651350.2 | -0.31447229 | Fe-S cluster assembly factor HCF101, chloroplastic  | chloroplast |
| TRIAE\_CS42\_3AL\_TGACv1\_195570\_AA0651350.3 | -0.31447229 | Fe-S cluster assembly factor HCF101, chloroplastic  | chloroplast |
| TRIAE\_CS42\_3DL\_TGACv1\_250912\_AA0874940.1 | -0.31447229 | [fe-S cluster assembly factor HCF101, chloroplastic isoform X1](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_3DL\_TGACv1\_250912\_AA0874940.2 | -0.31447229 | [fe-S cluster assembly factor HCF101, chloroplastic isoform X1](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | chloroplast |
| TRIAE\_CS42\_5AL\_TGACv1\_374690\_AA1206680.1 | -0.314957245 | Chlorophyll a-b binding protein 4, chloroplastic | stress response |
| TRIAE\_CS42\_5AL\_TGACv1\_374690\_AA1206680.2 | -0.314957245 | Chlorophyll a-b binding protein 4, chloroplastic | stress response |
| TRIAE\_CS42\_5AL\_TGACv1\_374690\_AA1206680.5 | -0.314957245 | Chlorophyll a-b binding protein 4, chloroplastic | stress response |
| TRIAE\_CS42\_5BL\_TGACv1\_404484\_AA1301600.1 | -0.314957245 | Chlorophyll a-b binding protein 4, chloroplastic | stress response |
| TRIAE\_CS42\_4AL\_TGACv1\_291921\_AA0997070.1 | -0.328991487 | acyl-CoA-binding protein-like  | stress response |
| TRIAE\_CS42\_2BL\_TGACv1\_130632\_AA0415000.1 | -0.355889613 | thylakoid lumenal 29 kDa protein, chloroplastic  | stress response |
| TRIAE\_CS42\_6AS\_TGACv1\_487122\_AA1568340.1 | -0.418426951 | [3-isopropylmalate dehydratase large subunit, chloroplastic](https://blast.ncbi.nlm.nih.gov/Blast.cgi) | chloroplast |
| TRIAE\_CS42\_7BL\_TGACv1\_578978\_AA1902600.1 | -0.482933438 | [dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 kDa subunit](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | metabolic |
| TRIAE\_CS42\_7BL\_TGACv1\_578978\_AA1902600.3 | -0.482933438 | [dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 kDa subunit](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | metabolic |
| TRIAE\_CS42\_7DL\_TGACv1\_605357\_AA2006220.1 | -0.482933438 | [dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 kDa subunit](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  | metabolic |
| TRIAE\_CS42\_2BL\_TGACv1\_131439\_AA0427700.2 | -0.488747185 | Superoxide dismutase [Mn], mitochondrial | redox |
| TRIAE\_CS42\_2AL\_TGACv1\_093548\_AA0282400.1 | -0.589265845 | Aminomethyltransferase, mitochondrial | redox |
| TRIAE\_CS42\_2DS\_TGACv1\_177289\_AA0572380.1 | -0.276311518 | [predicted protein](https://blast.ncbi.nlm.nih.gov/Blast.cgi)  |  |
| TRIAE\_CS42\_2DS\_TGACv1\_177289\_AA0572380.2 | -0.276311518 | [predicted protein](https://blast.ncbi.nlm.nih.gov/Blast.cgi) |  |
| TRIAE\_CS42\_4AS\_TGACv1\_306673\_AA1011900.1 | -0.289333751 | uncharacterized protein |  |
| TRIAE\_CS42\_4DL\_TGACv1\_343777\_AA1139610.1 | -0.289333751 | uncharacterized protein |  |
| TRIAE\_CS42\_6BS\_TGACv1\_514577\_AA1661740.1 | -0.316296227 | Uncharacterized protein |  |
| TRIAE\_CS42\_7DL\_TGACv1\_606336\_AA2009860.1 | -0.324626586 | Uncharacterized protein |  |
| TRIAE\_CS42\_7DL\_TGACv1\_606336\_AA2009860.2 | -0.324626586 | Uncharacterized protein |  |
| TRIAE\_CS42\_3B\_TGACv1\_222346\_AA0762680.1 | -0.34684867 | Uncharacterized protein |  |
| TRIAE\_CS42\_3DL\_TGACv1\_249129\_AA0838870.1 | -0.34684867 | Uncharacterized protein |  |
| TRIAE\_CS42\_3DL\_TGACv1\_249129\_AA0838870.2 | -0.34684867 | Uncharacterized protein |  |