**Table S6** The common and specific key genes detected by RNA-seq under drought stress

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Terms | Gene ID | Gene description | Leaf | Root |
| Signal transduction | MAPK signaling pathway | maker-VaccDscaff10-augustus-gene-118.26 | Receptor-like serine/threonine-protein kinase SD1-7 | - | + |
|  |  | maker-VaccDscaff21-augustus-gene-152.24 | Heat shock cognate 70 kDa protein | - | + |
|  |  | maker-VaccDscaff7-snap-gene-6.39 | Probable serine/threonine-protein kinase PBL21 | - | + |
|  |  | maker-VaccDscaff24-augustus-gene-198.33 | Cysteine-rich receptor-like protein kinase | + | - |
|  |  | maker-VaccDscaff1-augustus-gene-163.30 | heat shock cognate 70 kDa protein 2 | + | - |
|  | Plant hormone signal transduction | maker-VaccDscaff37-augustus-gene-302.23 | Probable xyloglucan endotransglucosylase/hydrolase protein 23A | + | - |
|  |  | maker-VaccDscaff27-augustus-gene-241.33 | Two-component response regulator ARR5 | + | - |
|  |  | maker-VaccDscaff8-augustus-gene-19.29 | probable xyloglucan endotransglucosylase/hydrolase protein 23B | + | - |
|  |  | maker-VaccDscaff61-augustus-gene-8.73(*VcXTH3*) | Xyloglucan endotransglucosylase/hydrolase 3 | + | + |
|  | MAPK signaling pathway and Plant hormone signal transduction | maker-VaccDscaff17-snap-gene-122.35 | BRASSINOSTEROID INSENSITIVE 1-associated receptor kinase 1 | + | - |
|  |  | maker-VaccDscaff40-snap-gene-196.26 | Abscisic acid receptor like | + | - |
|  |  | maker-VaccDscaff20-augustus-gene-11.27(*VcPP2C51*) | probable protein phosphatase 2C 8 | + | + |
|  | Reactive oxygen species metabolic and biosynthetic process | maker-VaccDscaff17-augustus-gene-11.18(*VcPNC1*) | Peroxidase 1 | + | + |
|  |  | maker-VaccDscaff18-augustus-gene-13.41(*VcPER64*) | Peroxidase 64 | - | + |
|  |  | augustus\_masked-VaccDscaff26-processed-gene-26.2(*VcPER5-2*) | Peroxidase 5A | - | + |
|  |  | augustus\_masked-VaccDscaff26-processed-gene-27.0(*VcPER5-1*) | Peroxidase 5B | - | + |
|  | Calcium signaling pathway | maker-VaccDscaff4-augustus-gene-166.29 | Calcium permeable stress-gated cation channel 1 | - | + |
| Transcription factors | AP2/ERF family | snap\_masked-VaccDscaff20-processed-gene-198.14 | Pathogenesis-related genes transcriptional activator PTI5 | + | - |
|  |  | maker-VaccDscaff8-augustus-gene-249.8 | Ethylene-responsive transcription factor RAP2-7 like | + | - |
|  |  | maker-VaccDscaff3-augustus-gene-84.42(*VcABR1*) | Ethylene-responsive transcription factor ABR1A | + | + |
|  |  | maker-VaccDscaff6-augustus-gene-309.20 | Ethylene-responsive transcription factor ABR1B | - | + |
|  |  | maker-VaccDscaff39-augustus-gene-110.27 | Ethylene-responsive transcription factor ABR1C | - | + |
|  | MYB family | maker-VaccDscaff7-augustus-gene-342.27 | Transcription factor MYB48 | - | + |
|  |  | maker-VaccDscaff25-augustus-gene-144.17 | Transcription factor MYB2 | - | + |
|  |  | maker-VaccDscaff4-augustus-gene-1.22 | Transcription factor MYB78 | + | - |
|  |  | maker-VaccDscaff10-augustus-gene-393.29(*VcMYB108*) | Transcription factor MYB108 | + | + |
|  |  | maker-VaccDscaff9-augustus-gene-244.22(*VcMYB93*) | Two-component response regulator ORR21 | + | + |
|  | bHLH family | maker-VaccDscaff46-augustus-gene-159.22 | Transcription factor bHLH78A | + | - |
|  |  | maker-VaccDscaff47-augustus-gene-136.28 | Transcription factor bHLH78B | + | - |
|  | WRKY family | maker-VaccDscaff43-augustus-gene-91.28 | Laccase-3 | + | - |
|  |  | maker-VaccDscaff9-augustus-gene-223.19 | Probable WRKY transcription factor 75 | - | + |
|  | bZIP family | maker-VaccDscaff7-snap-gene-24.27(*VcABF2*) | ABSCISIC ACID-INSENSITIVE 5-like protein 5 | + | + |
|  | MYB\_related family | maker-VaccDscaff11-augustus-gene-183.34 | Transcription factor MYB74 | - | + |
| Metabolism and biosynthesis | Monoterpenoid biosynthesis | maker-VaccDscaff35-snap-gene-88.44 | Uncharacterized protein LOC105156792 | + | - |
|  |  | maker-VaccDscaff4-augustus-gene-177.21 | Linalool synthase B | + | - |
|  |  | maker-VaccDscaff4-augustus-gene-177.22 | Linalool synthase A | + | - |
|  |  | maker-VaccDscaff4-augustus-gene-178.26 | Linalool synthase C | + | - |
|  | phenylpropanoid biosynthesis | maker-VaccDscaff17-augustus-gene-11.18\*(*VcPNC1*) | Peroxidase 1 | + | + |
|  |  | augustus\_masked-VaccDscaff26-processed-gene-26.2\* | Peroxidase 5A | - | + |
|  |  | augustus\_masked-VaccDscaff26-processed-gene-27.0\* | Peroxidase 5B | - | + |
|  | Fatty acid biosynthesis; | maker-VaccDscaff36-augustus-gene-293.30 | Stearoyl-[acyl-carrier-protein] 9-desaturase A | - | + |
|  |  | maker-VaccDscaff9-augustus-gene-104.33 | Stearoyl-[acyl-carrier-protein] 9-desaturase B | - | + |
|  | Tyrosine metabolism | maker-VaccDscaff38-augustus-gene-122.30 | Alcohol dehydrogenase 1A | - | + |
|  |  | maker-VaccDscaff140-augustus-gene-2.69 | Alcohol dehydrogenase 1C | - | + |
|  | Cutin, suberine and wax biosynthesis | maker-VaccDscaff28-augustus-gene-272.32 | Fatty acyl-CoA reductase 3 | + | - |
|  |  | maker-VaccDscaff21-snap-gene-110.18 | Cytochrome P450 94A1 | + | - |
|  | Starch and sucrose metabolism | maker-VaccDscaff33-augustus-gene-254.24 | Trehalose-phosphate phosphatase A2 | + | - |
|  |  | maker-VaccDscaff26-augustus-gene-83.16 | Trehalose-phosphate phosphatase A1 | + | - |
|  | Flavonoid biosynthesis | maker-VaccDscaff24-augustus-gene-335.35(*VcCYP75A1*) | Flavonoid 3',5'-hydroxylase | + | + |
|  |  | maker-VaccDscaff13-snap-gene-341.30 | Caffeoyl-CoA O-methyltransferase | - | + |
|  |  | maker-VaccDscaff32-augustus-gene-318.21 | Chalcone synthase 1 | - | + |

+: The gene was identified in this plant tissue; −: The gene has not been identified in this plant tissue.

\*: Important genes also identified in other category.

.