Table S4. Gene models identified within the 15 root QTL hotspots

|  |  |  |
| --- | --- | --- |
| QTL hotspot | Gene-ID | Human-Readable-Description |
| *rootQTL\_1B.1* | TraesCS1B01G259700.1 | Glycosyltransferase |
|  | TraesCS1B01G259800.1 | Kinesin-like protein |
|  | TraesCS1B01G259900.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS1B01G260000.1 | Cyclin family protein |
|  | TraesCS1B01G260100.1 | ARM REPEAT PROTEIN INTERACTING WITH ABF2 |
|  | TraesCS1B01G260200.1 | Beta-1,3-galactosyltransferase-like protein |
|  | TraesCS1B01G260300.1 | Protein kinase |
|  | TraesCS1B01G260400.1 | 1,4-beta-D-glucanase |
|  | TraesCS1B01G260500.1 | Endo-1,3;1,4-beta-D-glucanase |
|  | TraesCS1B01G260600.1 | Chitinase |
|  | TraesCS1B01G260700.1 | Chitinase |
|  | TraesCS1B01G260800.1 | Endo-1,31,4-beta-D-glucanase |
|  | TraesCS1B01G260900.1 | Cytochrome b-c1 complex subunit 9 |
|  | TraesCS1B01G261000.1 | Glycine-rich protein, putative |
|  | TraesCS1B01G261100.1 | AWPM-19-like membrane family protein |
|  | TraesCS1B01G261200.1 | GDSL esterase/lipase |
|  | TraesCS1B01G261300.1 | Sulfotransferase |
|  | TraesCS1B01G261400.1 | Energy-coupling factor transporter transmembrane protein EcfT |
|  | TraesCS1B01G261500.1 | DNA-directed RNA polymerase II subunit |
|  | TraesCS1B01G261600.1 | 1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase |
|  | TraesCS1B01G261700.1 | GDSL esterase/lipase |
|  | TraesCS1B01G261800.1 | Thylakoid lumen 18.3 kDa family protein |
|  | TraesCS1B01G261900.1 | High mobility group protein B2 |
|  | TraesCS1B01G262000.2 | Oxidoreductase, 2OG-Fe(II) oxygenase family protein |
|  | TraesCS1B01G262100.2 | Chaperone protein dnaJ |
|  | TraesCS1B01G262200.1 | Bax inhibitor-1 family protein |
|  | TraesCS1B01G262300.1 | Disease resistance protein |
|  | TraesCS1B01G262400.1 | NBS-LRR disease resistance protein |
|  | TraesCS1B01G262500.1 | transmembrane protein, putative (DUF594) |
|  | TraesCS1B01G262600.3 | Cation-transporting ATPase |
|  | TraesCS1B01G262700.1 | Ribosomal protein S4 |
|  | TraesCS1B01G262800.1 | 30S ribosomal protein S31, mitochondrial |
|  | TraesCS1B01G262900.1 | NADH-quinone oxidoreductase subunit D |
|  | TraesCS1B01G263000.1 | B-cell receptor-associated 31-like |
|  | TraesCS1B01G263100.1 | Basic 7S globulin |
|  | TraesCS1B01G263200.1 | Mitochondrial transcription termination factor family protein |
|  | TraesCS1B01G263300.1 | Mitochondrial transcription termination factor family protein |
|  | TraesCS1B01G263400.2 | Transducin/WD-like repeat-protein |
|  | TraesCS1B01G263500.1 | Leucine-rich repeat receptor-like kinase |
|  | TraesCS1B01G263600.1 | Pyrimidine-specific ribonucleoside hydrolase |
|  | TraesCS1B01G263700.1 | Pyrimidine-specific ribonucleoside hydrolase |
|  | TraesCS1B01G263800.1 | Pyrimidine-specific ribonucleoside hydrolase |
|  | TraesCS1B01G263900.1 | PH-response transcription factor pacC/RIM101 isoform 2 |
|  | TraesCS1B01G264000.2 | Breast carcinoma-amplified sequence 3 |
|  | TraesCS1B01G264100.1 | MEI2-like 2 protein |
|  | TraesCS1B01G264200.1 | Cytochrome P450 family protein |
|  | TraesCS1B01G264300.1 | Cytochrome P450 family protein |
|  | TraesCS1B01G264400.1 | Cytochrome P450 family protein |
|  | TraesCS1B01G264500.1 | Leucine-rich repeat protein kinase family protein |
|  | TraesCS1B01G264600.1 | Pyrophosphate-energized vacuolar membrane proton pump |
|  | TraesCS1B01G264700.1 | transmembrane protein, putative (DUF247) |
|  | TraesCS1B01G264800.1 | Carboxy-S-adenosyl-L-methionine synthase |
|  | TraesCS1B01G264900.1 | Pyruvate, phosphate dikinase |
|  | TraesCS1B01G265000.1 | Methyl-CpG-binding domain-containing family protein |
|  | TraesCS1B01G265100.1 | L-gulonolactone oxidase |
|  | TraesCS1B01G265200.1 | Methyl-CpG-binding domain-containing family protein |
|  | TraesCS1B01G265300.2 | Resistance to phytophthora 1 protein |
|  | TraesCS1B01G265400.1 | MYB-related transcription factor |
|  | TraesCS1B01G265500.1 | Cox19-like CHCH family protein |
|  | TraesCS1B01G265600.1 | Peptide methionine sulfoxide reductase msrB |
|  | TraesCS1B01G265700.1 | Mitochondrial transcription termination factor family protein |
|  | TraesCS1B01G265800.1 | L-gulonolactone oxidase |
|  | TraesCS1B01G265900.1 | Gibberellin receptor GID1a |
|  | TraesCS1B01G266000.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS1B01G266100.2 | Squamosa promoter-binding-like protein |
|  | TraesCS1B01G266200.1 | Lipase |
|  | TraesCS1B01G266300.1 | RING/U-box superfamily protein, putative |
|  | TraesCS1B01G266400.1 | GMP synthase [glutamine-hydrolyzing] |
|  | TraesCS1B01G266500.1 | 1-deoxy-D-xylulose-5-phosphate synthase |
|  | TraesCS1B01G266600.1 | Ubiquitin-associated domain-containing family protein |
|  | TraesCS1B01G266700.1 | wall-associated receptor kinase-like protein |
|  | TraesCS1B01G266800.1 | Pyrimidine-specific ribonucleoside hydrolase |
|  | TraesCS1B01G266900.1 | RAN GTPase activating protein 2 |
|  | TraesCS1B01G267000.4 | ELKS/Rab6-interacting/CAST family protein |
|  | TraesCS1B01G267100.1 | Cysteine proteinase inhibitor |
|  | TraesCS1B01G267200.2 | Microtubule associated family protein |
|  | TraesCS1B01G267300.1 | WAT1-related protein |
|  | TraesCS1B01G267400.1 | Translation initiation factor IF-2 |
|  | TraesCS1B01G267500.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS1B01G267600.1 | Alpha/beta-Hydrolases superfamily protein |
|  | TraesCS1B01G267700.1 | ATP-dependent zinc metalloprotease FtsH |
|  | TraesCS1B01G267800.1 | Glycosyltransferase |
|  | TraesCS1B01G267900.1 | Protein NRT1/ PTR FAMILY 1.1 |
|  | TraesCS1B01G268000.1 | Alpha/beta-Hydrolases superfamily protein |
|  | TraesCS1B01G268100.1 | F-box family protein |
|  | TraesCS1B01G268200.1 | Protein NRT1/ PTR FAMILY 1.1 |
|  | TraesCS1B01G268300.1 | Protein NRT1/ PTR FAMILY 1.1 |
|  | TraesCS1B01G268400.1 | D-amino acid dehydrogenase |
|  | TraesCS1B01G268500.2 | BZIP transcription factor |
|  | TraesCS1B01G268600.1 | Ubiquitin fusion degradation protein 1-like protein |
|  | TraesCS1B01G268700.1 | Nucleic acid binding protein |
|  | TraesCS1B01G268800.1 | Plasma membrane ATPase |
|  | TraesCS1B01G268900.1 | Two-component response regulator |
|  | TraesCS1B01G269100.1 | Glutathione S-transferase |
|  | TraesCS1B01G269200.1 | Mitochondrial transcription termination factor family protein |
|  | TraesCS1B01G269400.1 | Tubulin beta chain |
|  | TraesCS1B01G269500.1 | Isopentenyl-diphosphate delta-isomerase |
|  | TraesCS1B01G269600.1 | Transcription elongation factor-related family protein |
|  | TraesCS1B01G269700.3 | FBD-associated F-box protein |
|  | TraesCS1B01G269800.1 | NBS-LRR-like resistance protein |
|  | TraesCS1B01G269900.1 | Receptor-like kinase |
|  | TraesCS1B01G270000.1 | EG2771 |
|  | TraesCS1B01G270100.1 | Beta-hexosaminidase |
|  | TraesCS1B01G270200.1 | Cytochrome P450, putative |
|  | TraesCS1B01G270300.1 | Serine/threonine-protein kinase |
|  | TraesCS1B01G270400.1 | LOB domain-containing protein 2 |
|  | TraesCS1B01G270500.1 | Cytidine/deoxycytidylate deaminase family protein |
|  | TraesCS1B01G270600.1 | Regulatory particle non-ATPase 13 |
|  | TraesCS1B01G270700.1 | Serine protease |
|  | TraesCS1B01G270800.1 | Thioredoxin superfamily protein |
|  | TraesCS1B01G270900.2 | RPA-interacting protein A |
|  | TraesCS1B01G271000.1 | SAC3/GANP/Nin1/mts3/eIF-3 p25 family protein |
|  | TraesCS1B01G271100.1 | DNA topoisomerase 2 |
|  | TraesCS1B01G271200.1 | F-box family protein |
|  | TraesCS1B01G271300.1 | 2-dehydro-3-deoxyphosphooctonate aldolase |
|  | TraesCS1B01G271400.1 | Teichoic acids export ATP-binding protein TagH |
|  | TraesCS1B01G271500.1 | Stabilizer of iron transporter SufD / Polynucleotidyl transferase |
|  | TraesCS1B01G271700.1 | Guanosine nucleotide diphosphate dissociation inhibitor |
|  | TraesCS1B01G271800.2 | Guanosine nucleotide diphosphate dissociation inhibitor |
|  | TraesCS1B01G271900.1 | F-box family protein |
|  | TraesCS1B01G272000.1 | Calcineurin B-like protein |
|  | TraesCS1B01G272100.1 | GDSL esterase/lipase |
|  | TraesCS1B01G272200.2 | MLO-like protein |
|  | TraesCS1B01G272300.1 | transmembrane protein |
|  | TraesCS1B01G272400.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS1B01G272500.1 | Glycosyltransferase |
|  | TraesCS1B01G272600.1 | NAC domain-containing protein |
|  | TraesCS1B01G272700.1 | Alpha/beta-hydrolase-like protein |
|  | TraesCS1B01G272800.3 | PHD finger alfin-like protein |
|  | TraesCS1B01G272900.1 | Protein root UVB sensitive 6 |
|  | TraesCS1B01G273000.2 | Cold shock protein |
|  | TraesCS1B01G273100.2 | Cold shock protein |
|  | TraesCS1B01G273200.2 | KH domain-containing protein |
|  | TraesCS1B01G273300.1 | AGAMOUS-like MADS-box transcription factor |
|  | TraesCS1B01G273400.1 | Transmembrane protein, putative |
|  | TraesCS1B01G273500.1 | GDSL esterase/lipase |
|  | TraesCS1B01G273600.1 | UPF0301 protein |
|  | TraesCS1B01G273700.1 | Ethylene-responsive transcription factor |
|  | TraesCS1B01G273800.1 | TPX2 (Targeting protein for Xklp2) family protein |
|  | TraesCS1B01G273900.1 | Cytochrome c |
|  | TraesCS1B01G274000.2 | Zinc finger CCCH domain protein |
|  | TraesCS1B01G274100.1 | DUF538 family protein (Protein of unknown function, DUF538) |
|  | TraesCS1B01G274200.1 | Gibberellin 20 oxidase 2 |
|  | TraesCS1B01G274300.1 | NAC domain-containing protein |
|  | TraesCS1B01G274400.2 | Protein kinase superfamily protein |
|  | TraesCS1B01G274500.1 | Pectinesterase |
|  | TraesCS1B01G274600.1 | DNA helicase |
|  | TraesCS1B01G274700.2 | 60S ribosomal protein L4 |
|  | TraesCS1B01G274800.2 | Wound-responsive family protein |
|  | TraesCS1B01G274900.1 | Stress responsive alpha-beta barrel domain protein isoform 2 |
|  | TraesCS1B01G275000.1 | PISTILLATA-like MADS-box transcription factor |
|  | TraesCS1B01G275100.1 | Receptor-like kinase |
|  | TraesCS1B01G275200.1 | Amino acid permease |
|  | TraesCS1B01G275300.1 | Cytochrome P450 |
|  | TraesCS1B01G275400.1 | magnesium transporter, putative (DUF803) |
|  | TraesCS1B01G275500.1 | DUF630 family protein, putative (DUF630 and DUF632) |
|  | TraesCS1B01G275600.1 | F-box family protein |
|  | TraesCS1B01G275700.3 | Dual specificity phosphatase family protein |
|  | TraesCS1B01G275800.1 | Dirigent protein |
|  | TraesCS1B01G275900.1 | Unique short US6 glycoprotein |
|  | TraesCS1B01G276000.1 | Bidirectional sugar transporter SWEET |
|  | TraesCS1B01G276100.1 | Wound-induced protease inhibitor |
|  | TraesCS1B01G276200.1 | Wound-induced protease inhibitor |
|  | TraesCS1B01G276300.1 | Wound-induced protease inhibitor |
|  | TraesCS1B01G276400.1 | Wound-induced protease inhibitor |
|  | TraesCS1B01G276500.1 | Wound-induced protease inhibitor |
| *rootQTL\_1B.2* | TraesCS1B01G317100.1 | BZIP transcription factor |
|  | TraesCS1B01G317200.1 | Histone H3 |
|  | TraesCS1B01G317300.1 | Histone H3 |
|  | TraesCS1B01G317400.1 | Histone H3 |
|  | TraesCS1B01G317500.1 | Chlorophyll a-b binding protein, chloroplastic |
|  | TraesCS1B01G317600.1 | FBD-associated F-box protein |
|  | TraesCS1B01G317700.1 | Photosystem II reaction center protein Z |
|  | TraesCS1B01G317800.1 | FBD-associated F-box protein |
|  | TraesCS1B01G317900.1 | F-box family protein |
|  | TraesCS1B01G318000.1 | protein kinase family protein |
|  | TraesCS1B01G318100.1 | Protein KRI1 |
|  | TraesCS1B01G318200.1 | 60S ribosomal protein L30 |
|  | TraesCS1B01G318300.1 | Beta-1,3-N-acetylglucosaminyltransferase family protein |
|  | TraesCS1B01G318400.1 | Endoplasmic reticulum-Golgi intermediate compartment protein 3 |
|  | TraesCS1B01G318500.1 | F-box protein |
|  | TraesCS1B01G318600.1 | dentin sialophosphoprotein |
|  | TraesCS1B01G318700.1 | UV radiation resistance-associated |
|  | TraesCS1B01G318800.3 | MYB transcription factor |
|  | TraesCS1B01G318900.1 | N-methyl-L-tryptophan oxidase |
|  | TraesCS1B01G319000.1 | Histone-lysine N-methyltransferase, H3 lysine-9 specific |
|  | TraesCS1B01G319100.1 | Proteasome subunit alpha type |
|  | TraesCS1B01G319200.1 | Photosystem I assembly protein Ycf4 |
|  | TraesCS1B01G319300.1 | Calmodulin |
|  | TraesCS1B01G319400.1 | Calmodulin |
|  | TraesCS1B01G319500.1 | Leucine-rich repeat receptor-like protein kinase family |
|  | TraesCS1B01G319600.1 | Leucine-rich repeat receptor-like protein kinase family |
|  | TraesCS1B01G319700.1 | Leucine-rich repeat receptor-like protein kinase family |
|  | TraesCS1B01G319800.1 | protein phosphatase 2A 55 kDa regulatory subunit B alpha isoform |
|  | TraesCS1B01G319900.1 | Leucine-rich repeat receptor-like protein kinase family |
|  | TraesCS1B01G320000.2 | MYB transcription factor |
|  | TraesCS1B01G320100.1 | Sigma factor binding protein 1 |
|  | TraesCS1B01G320200.1 | Mediator of RNA polymerase II transcription subunit 12 |
|  | TraesCS1B01G320300.1 | ATP synthase gamma chain |
|  | TraesCS1B01G320400.1 | Calcium-dependent protein kinase |
|  | TraesCS1B01G320500.1 | Disease resistance protein (NBS-LRR class) family |
|  | TraesCS1B01G320600.1 | Disease resistance protein (NBS-LRR class) family |
|  | TraesCS1B01G320700.1 | crooked neck protein, putative / cell cycle protein |
|  | TraesCS1B01G320800.1 | Tubulin beta chain |
|  | TraesCS1B01G320900.1 | Cyclin |
|  | TraesCS1B01G321000.1 | Cyclin |
|  | TraesCS1B01G321100.1 | BURP domain protein RD22 |
|  | TraesCS1B01G321200.1 | ABC subfamily C transporter |
|  | TraesCS1B01G321300.1 | UDP-glycosyltransferase |
| *rootQTL\_1B.3* | TraesCS1B01G338500.1 | Cysteine protease family protein |
|  | TraesCS1B01G338600.1 | Jacalin lectin family protein |
|  | TraesCS1B01G338700.1 | B3 domain-containing protein family |
|  | TraesCS1B01G338800.1 | Thioredoxin |
|  | TraesCS1B01G338900.1 | rapid alkalinization factor 23 |
|  | TraesCS1B01G339000.1 | Thioredoxin |
|  | TraesCS1B01G339100.1 | p-loop containing nucleoside triphosphate hydrolases superfamily protein |
|  | TraesCS1B01G339200.1 | MATH domain-containing protein |
|  | TraesCS1B01G339300.1 | Ubiquitin carboxyl-terminal hydrolase 2 |
|  | TraesCS1B01G339400.1 | 30S ribosomal protein S19 |
|  | TraesCS1B01G339500.1 | Photosystem II reaction center W protein |
|  | TraesCS1B01G339600.3 | S-adenosyl-L-methionine-dependent methyltransferases superfamily protein isoform 1 |
|  | TraesCS1B01G339700.1 | Photosystem II reaction center W protein, chloroplastic |
|  | TraesCS1B01G339800.1 | Disease resistance protein RPM1 |
|  | TraesCS1B01G339900.2 | Ribosomal protein L11 methyltransferase |
|  | TraesCS1B01G340000.1 | Chitinase |
|  | TraesCS1B01G340100.1 | Citrate-binding protein |
|  | TraesCS1B01G340200.1 | Chitinase |
|  | TraesCS1B01G340300.2 | NADH-quinone oxidoreductase, subunit E |
|  | TraesCS1B01G340400.1 | tRNA pseudouridine synthase d, putative |
|  | TraesCS1B01G340500.1 | Tesmin/TSO1-like CXC domain containing protein |
|  | TraesCS1B01G340600.1 | Signal recognition particle 54 kDa protein |
|  | TraesCS1B01G340700.1 | Signal recognition particle 54 kDa protein |
|  | TraesCS1B01G340800.1 | Formin-like protein |
|  | TraesCS1B01G340900.1 | DUF1677 family protein |
|  | TraesCS1B01G341000.1 | Single-stranded DNA-binding protein |
|  | TraesCS1B01G341100.1 | Transcription initiation factor IIF subunit beta |
|  | TraesCS1B01G341200.1 | High mobility group protein B2 |
|  | TraesCS1B01G341300.1 | Kunitz trypsin inhibitor |
|  | TraesCS1B01G341400.1 | Kunitz trypsin inhibitor |
|  | TraesCS1B01G341500.1 | Kunitz trypsin inhibitor |
|  | TraesCS1B01G341600.1 | Serine/threonine-protein kinase |
|  | TraesCS1B01G341700.1 | Poly [ADP-ribose] polymerase |
|  | TraesCS1B01G341800.1 | glutathione S-transferase THETA 3 |
|  | TraesCS1B01G341900.1 | LURP-one-like protein |
|  | TraesCS1B01G342000.1 | Outer envelope protein 80, chloroplastic |
|  | TraesCS1B01G342100.2 | E3 ubiquitin-protein ligase MARCH6 |
|  | TraesCS1B01G342200.1 | Proline--tRNA ligase |
|  | TraesCS1B01G342400.2 | Coilin |
|  | TraesCS1B01G342500.1 | Ethylene-responsive transcription factor |
|  | TraesCS1B01G342600.2 | Ubiquitin carboxyl-terminal hydrolase |
|  | TraesCS1B01G342700.1 | F-box protein |
|  | TraesCS1B01G342800.2 | Serine/threonine-protein kinase |
|  | TraesCS1B01G342900.1 | P-loop containing nucleoside triphosphate hydrolases superfamily protein |
|  | TraesCS1B01G343000.1 | Tyrosine decarboxylase |
|  | TraesCS1B01G343100.2 | breast cancer associated RING 1 |
|  | TraesCS1B01G343200.1 | Transducin/WD40 repeat-like superfamily protein |
|  | TraesCS1B01G343300.1 | Photosystem II reaction center W protein, chloroplastic |
|  | TraesCS1B01G343400.1 | DNA topoisomerase |
|  | TraesCS1B01G343500.1 | Basic-leucine zipper (BZIP) transcription factor family |
| *rootQTL\_2A.1* | TraesCS2A01G023500.1 | Disease resistance protein RPP13 |
|  | TraesCS2A01G023600.1 | Jasmonate-induced protein |
|  | TraesCS2A01G023700.1 | receptor kinase 1 |
|  | TraesCS2A01G023800.1 | receptor kinase 1 |
|  | TraesCS2A01G023900.1 | receptor kinase 1 |
|  | TraesCS2A01G024000.1 | Defensin |
|  | TraesCS2A01G024100.1 | Defensin |
|  | TraesCS2A01G024200.1 | protein kinase family protein |
|  | TraesCS2A01G024300.1 | Protein kinase family protein |
|  | TraesCS2A01G024400.1 | Receptor kinase-like protein |
|  | TraesCS2A01G024500.1 | Carboxyl methyltransferase |
|  | TraesCS2A01G024600.2 | GDSL esterase/lipase |
|  | TraesCS2A01G024700.1 | Receptor-like protein kinase |
|  | TraesCS2A01G024800.2 | Vesicle-associated 1-1-like protein |
|  | TraesCS2A01G024900.1 | receptor kinase 1 |
|  | TraesCS2A01G025000.1 | Glutamyl-tRNA (Gln) amidotransferase subunit A |
|  | TraesCS2A01G025100.1 | Cytochrome P450 |
|  | TraesCS2A01G025200.1 | Glutamyl-tRNA (Gln) amidotransferase subunit A |
|  | TraesCS2A01G025300.1 | Glycine-rich protein |
|  | TraesCS2A01G025400.1 | Subtilisin-like protease |
|  | TraesCS2A01G025500.1 | Chalcone synthase |
|  | TraesCS2A01G025600.1 | Chalcone synthase |
| *rootQTL\_2A.2* | TraesCS2A01G291300.1 | Short-chain dehydrogenase/reductase |
|  | TraesCS2A01G291400.1 | OJ000315\_02.19 protein |
|  | TraesCS2A01G291500.1 | Initiation factor 4F subunit (DUF1350) |
|  | TraesCS2A01G291600.1 | UPF0496 protein |
|  | TraesCS2A01G291700.2 | Uridylate kinase |
|  | TraesCS2A01G291800.1 | Target of rapamycin complex 2 subunit MAPKAP1 |
|  | TraesCS2A01G291900.1 | Arogenate dehydratase |
|  | TraesCS2A01G292000.1 | Arogenate dehydratase |
|  | TraesCS2A01G292100.1 | Histidinol dehydrogenase |
|  | TraesCS2A01G292200.1 | ArfGap/RecO-like zinc finger domain-containing protein |
|  | TraesCS2A01G292300.1 | DUF868 family protein |
|  | TraesCS2A01G292400.1 | Cytochrome P450 |
|  | TraesCS2A01G292500.1 | B3 domain-containing protein family |
|  | TraesCS2A01G292600.1 | RAB6-interacting golgin (DUF662) |
|  | TraesCS2A01G292700.1 | DNA-binding protein |
|  | TraesCS2A01G292800.1 | Protein kinase |
|  | TraesCS2A01G292900.2 | Alkaline/neutral invertase |
|  | TraesCS2A01G293200.1 | Histone deacetylase |
|  | TraesCS2A01G293300.1 | Serine/threonine-protein phosphatase |
|  | TraesCS2A01G293400.1 | 1,4-alpha-glucan-branching enzyme |
|  | TraesCS2A01G293500.1 | RNA polymerase II C-terminal domain phosphatase-like protein |
|  | TraesCS2A01G293600.1 | F-box family protein |
|  | TraesCS2A01G293700.1 | ATP synthase subunit d, mitochondrial |
|  | TraesCS2A01G293800.1 | Late embryogenesis abundant protein |
|  | TraesCS2A01G293900.2 | Transmembrane protein, putative |
|  | TraesCS2A01G294000.1 | 60S acidic ribosomal protein |
|  | TraesCS2A01G294100.1 | Late embryogenesis abundant protein |
|  | TraesCS2A01G294200.1 | Purple acid phosphatase |
|  | TraesCS2A01G294300.1 | Restriction of telomere capping protein 1 |
|  | TraesCS2A01G294400.1 | Alpha/beta-Hydrolases superfamily protein |
|  | TraesCS2A01G294500.1 | Cell division protein ftsZ |
|  | TraesCS2A01G294600.1 | Oxysterol-binding protein 11 |
|  | TraesCS2A01G294700.1 | Glucan endo-1,3-beta-glucosidase, putative |
|  | TraesCS2A01G294800.1 | Carbonic anhydrase |
|  | TraesCS2A01G294900.1 | DNAJ heat shock N-terminal domain-containing protein |
|  | TraesCS2A01G295000.1 | Glutaredoxin family protein, putative |
|  | TraesCS2A01G295100.2 | Protein transport protein SEC24 |
|  | TraesCS2A01G295200.1 | ATP-binding ABC transporter |
|  | TraesCS2A01G295300.1 | Protein FANTASTIC FOUR 3 |
|  | TraesCS2A01G295400.1 | Cell wall invertase |
|  | TraesCS2A01G295500.1 | Transforming growth factor beta-1-induced transcript 1 protein |
|  | TraesCS2A01G295600.1 | 30S ribosomal protein S11 |
|  | TraesCS2A01G295700.1 | senescence regulator (Protein of unknown function, DUF584) |
|  | TraesCS2A01G295800.2 | Mitochondrial fission protein ELM1 |
|  | TraesCS2A01G295900.1 | OTU domain-containing protein |
|  | TraesCS2A01G296000.1 | 60S ribosomal protein L5 |
|  | TraesCS2A01G296100.1 | RNA binding protein, putative |
|  | TraesCS2A01G296200.1 | NH(3)-dependent NAD(+) synthetase |
|  | TraesCS2A01G296400.1 | Photosystem I subunit O |
|  | TraesCS2A01G296500.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS2A01G296600.1 | RING/U-box superfamily protein |
|  | TraesCS2A01G296700.1 | transcription repressor |
|  | TraesCS2A01G296800.1 | HVA22-like protein |
|  | TraesCS2A01G296900.1 | OJ991214\_12.8 protein |
|  | TraesCS2A01G297000.1 | Copper transporter family protein |
|  | TraesCS2A01G297100.1 | Protease inhibitor/seed storage/lipid transfer family protein |
|  | TraesCS2A01G297200.1 | Protease inhibitor/seed storage/lipid transfer family protein |
|  | TraesCS2A01G297300.1 | FAM210B-like protein |
|  | TraesCS2A01G297400.1 | Transcription factor |
|  | TraesCS2A01G297500.1 | Peroxiredoxin |
|  | TraesCS2A01G297600.1 | Chaperone protein clpB |
|  | TraesCS2A01G297700.1 | Late embryogenesis abundant (LEA) hydroxyproline-rich glycoprotein family |
|  | TraesCS2A01G297800.1 | Digalactosyldiacylglycerol synthase 1, chloroplastic |
|  | TraesCS2A01G297900.1 | Aluminum-activated malate transporter |
|  | TraesCS2A01G298000.1 | U-box domain-containing family protein |
|  | TraesCS2A01G298100.1 | VQ motif family protein |
|  | TraesCS2A01G298200.1 | WD-repeat protein, putative |
|  | TraesCS2A01G298300.1 | Nucleotide-diphospho-sugar transferases superfamily protein |
|  | TraesCS2A01G298400.1 | Succinate dehydrogenase subunit 5, mitochondrial |
|  | TraesCS2A01G298500.1 | Protein IDA |
|  | TraesCS2A01G298600.1 | U-box domain containing protein |
|  | TraesCS2A01G298700.1 | Basic-leucine zipper (bZIP) transcription factor family protein |
|  | TraesCS2A01G298800.1 | Histidine decarboxylase |
|  | TraesCS2A01G298900.1 | Phox (PX) domain-containing protein |
|  | TraesCS2A01G299000.1 | Ring finger protein, putative |
|  | TraesCS2A01G299100.1 | Histone H3 |
|  | TraesCS2A01G299200.1 | Serine/threonine-protein kinase |
|  | TraesCS2A01G299300.1 | Sulfotransferase |
|  | TraesCS2A01G299400.1 | Serine/threonine-protein kinase |
|  | TraesCS2A01G299500.1 | Serine/threonine-protein kinase |
|  | TraesCS2A01G299600.1 | Serine/threonine-protein kinase |
|  | TraesCS2A01G299700.1 | Serine/threonine-protein kinase |
|  | TraesCS2A01G299800.2 | Ubiquitin interaction motif-containing family protein |
|  | TraesCS2A01G299900.1 | DNA-directed RNA polymerase subunit beta |
|  | TraesCS2A01G300000.2 | Sentrin-specific protease 2 |
|  | TraesCS2A01G300100.3 | Exocyst complex component, putative |
|  | TraesCS2A01G300200.1 | Plastid-lipid associated protein PAP / fibrillin family protein |
|  | TraesCS2A01G300300.1 | WAT1-related protein |
|  | TraesCS2A01G300400.1 | Serine/threonine-protein kinase |
|  | TraesCS2A01G300500.1 | Basic blue protein |
|  | TraesCS2A01G300600.1 | Cysteine synthase |
|  | TraesCS2A01G300700.1 | ROP interactive partner 4 |
|  | TraesCS2A01G300800.1 | 3-hydroxybenzoate 6-hydroxylase 1 |
|  | TraesCS2A01G300900.1 | Oxygen-dependent choline dehydrogenase |
|  | TraesCS2A01G301000.1 | Peroxidase |
|  | TraesCS2A01G301100.1 | Phosphatidylinositol:ceramide inositolphosphotransferase |
|  | TraesCS2A01G301200.1 | Powder tolerance-related protein |
|  | TraesCS2A01G301300.2 | Protein SET DOMAIN GROUP 41 |
|  | TraesCS2A01G301400.1 | Disease resistance protein (TIR-NBS-LRR class) family |
|  | TraesCS2A01G301500.1 | Abscisic stress ripening |
|  | TraesCS2A01G301600.1 | P-loop containing nucleoside triphosphate hydrolases superfamily protein |
|  | TraesCS2A01G301800.1 | 60S ribosomal protein L35a-like protein |
|  | TraesCS2A01G301900.1 | COP9 signalosome complex subunit 8 |
|  | TraesCS2A01G302000.1 | DNA/RNA-binding protein Alba-like protein |
|  | TraesCS2A01G302100.1 | Histone-lysine N-methyltransferase |
|  | TraesCS2A01G302200.2 | Ubiquitin carboxyl-terminal hydrolase |
|  | TraesCS2A01G302300.2 | Cellulose synthase family protein, expressed |
|  | TraesCS2A01G302400.1 | Nicotinate phosphoribosyltransferase |
|  | TraesCS2A01G302500.1 | Protein kinase family protein |
|  | TraesCS2A01G302600.1 | 40S ribosomal protein S10 |
|  | TraesCS2A01G302700.1 | PI-PLC X domain-containing protein |
|  | TraesCS2A01G302800.1 | Kinase family protein |
|  | TraesCS2A01G302900.1 | Late embryogenesis abundant protein |
|  | TraesCS2A01G303000.1 | histone acetyltransferase of the CBP family 1 |
|  | TraesCS2A01G303100.1 | Subtilisin-like protease |
|  | TraesCS2A01G303200.1 | Thioredoxin |
|  | TraesCS2A01G303300.1 | eukaryotic translation initiation factor 4A1 |
|  | TraesCS2A01G303400.1 | GrpE protein homolog |
|  | TraesCS2A01G303500.1 | F-box family protein |
|  | TraesCS2A01G303600.1 | Acyl-CoA N-acyltransferases (NAT) superfamily protein |
|  | TraesCS2A01G303700.1 | ADP-ribosylation factor GTPase-activating protein |
|  | TraesCS2A01G303800.1 | RNA-binding region RNP-1 |
|  | TraesCS2A01G303900.1 | Kinase family protein |
|  | TraesCS2A01G304000.1 | Scarecrow transcription factor family protein |
|  | TraesCS2A01G304100.1 | ATP-dependent RNA helicase |
|  | TraesCS2A01G304200.1 | Neutral/alkaline invertase |
|  | TraesCS2A01G304300.1 | Protein disulfide isomerase |
|  | TraesCS2A01G304400.1 | SLL1 protein |
|  | TraesCS2A01G304600.1 | Etoposide-induced protein |
|  | TraesCS2A01G304700.1 | arginine N-methyltransferase, putative (DUF688) |
|  | TraesCS2A01G304800.1 | DUF668 family protein |
|  | TraesCS2A01G304900.1 | ATP-dependent RNA helicase DeaD |
|  | TraesCS2A01G305000.1 | RING/FYVE/PHD zinc finger protein |
|  | TraesCS2A01G305100.1 | Dynein beta chain, ciliary |
|  | TraesCS2A01G305200.2 | tRNA-2-methylthio-N(6)-dimethylallyladenosine synthase |
|  | TraesCS2A01G305300.1 | Late embryogenesis abundant protein (LEA) family protein |
|  | TraesCS2A01G305400.1 | zinc finger homeodomain 1 |
|  | TraesCS2A01G305500.2 | Kinesin-like protein |
|  | TraesCS2A01G305600.2 | Peroxidase |
|  | TraesCS2A01G305700.1 | Ascorbate peroxidase |
|  | TraesCS2A01G305800.1 | PsbP domain protein |
|  | TraesCS2A01G305900.1 | Amino acid permease |
|  | TraesCS2A01G306000.1 | Fatty acyl-CoA reductase |
|  | TraesCS2A01G306100.1 | Glutathione S-transferase |
|  | TraesCS2A01G306200.1 | Thioesterase family protein |
|  | TraesCS2A01G306300.1 | Glutamate-1-semialdehyde 2,1-aminomutase 1 |
|  | TraesCS2A01G306400.3 | Regulator of chromosome condensation (RCC1) family protein |
|  | TraesCS2A01G306500.1 | Protein disulfide-isomerase |
|  | TraesCS2A01G306600.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS2A01G306700.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS2A01G306800.1 | NAC domain-containing protein |
|  | TraesCS2A01G306900.1 | 3-isopropylmalate dehydratase small subunit |
|  | TraesCS2A01G307000.1 | U-box domain-containing protein |
|  | TraesCS2A01G307100.1 | protein kinase family protein |
|  | TraesCS2A01G307200.1 | XH/XS domain-containing family protein |
|  | TraesCS2A01G307300.1 | Ribosome maturation factor RimP |
|  | TraesCS2A01G307400.1 | Pectinesterase |
|  | TraesCS2A01G307500.1 | transmembrane protein |
|  | TraesCS2A01G307600.1 | Glycolipid transfer protein domain-containing protein |
|  | TraesCS2A01G307700.1 | Zinc finger CCCH domain-containing protein 28 |
|  | TraesCS2A01G307800.1 | Anaphase promoting complex/cyclosome subunit |
|  | TraesCS2A01G307900.1 | T-complex protein 11 |
|  | TraesCS2A01G308000.1 | T-complex protein 11 |
|  | TraesCS2A01G308100.1 | T-complex protein 11 |
|  | TraesCS2A01G308200.1 | DDT domain-containing protein |
|  | TraesCS2A01G308300.1 | Coiled-coil domain-containing protein |
|  | TraesCS2A01G308400.1 | Kinase family protein |
|  | TraesCS2A01G308500.1 | Tuftelin interacting protein 11 domain containing protein |
|  | TraesCS2A01G308600.4 | Protein TIC 40, chloroplastic |
|  | TraesCS2A01G308700.1 | Nuclear speckle splicing regulatory protein 1 |
|  | TraesCS2A01G308800.2 | Regulator of nonsense transcripts UPF3 |
|  | TraesCS2A01G308900.1 | Translocase of chloroplast |
|  | TraesCS2A01G309000.1 | GTPase Der |
|  | TraesCS2A01G309100.1 | Protein NRT1/ PTR FAMILY 1.1 |
|  | TraesCS2A01G309200.1 | Cleft lip and palate transmembrane 1 |
|  | TraesCS2A01G309300.1 | Auxin response factor |
|  | TraesCS2A01G309400.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS2A01G309500.1 | Smr domain containing protein |
|  | TraesCS2A01G309600.2 | Acyl-CoA N-acyltransferase isoform 2 |
|  | TraesCS2A01G309700.1 | Response regulator |
|  | TraesCS2A01G309800.1 | Beta-1,3-galactosyltransferase-like protein |
|  | TraesCS2A01G309900.1 | Chloride channel protein |
|  | TraesCS2A01G310100.1 | DUF538 family protein, putative (Protein of unknown function, DUF538) |
|  | TraesCS2A01G310200.1 | Endoglucanase |
|  | TraesCS2A01G310300.2 | 1,4-alpha-glucan-branching enzyme |
|  | TraesCS2A01G310400.1 | Protein phosphatase methylesterase 1 |
|  | TraesCS2A01G310500.1 | plasminogen activator inhibitor |
|  | TraesCS2A01G310600.1 | P-loop containing nucleoside triphosphate hydrolases superfamily protein |
|  | TraesCS2A01G310700.1 | Ethylene responsive transcription factor |
|  | TraesCS2A01G310800.1 | NADH-quinone oxidoreductase subunit B 2 |
|  | TraesCS2A01G310900.1 | Glutathione S-transferase family protein |
|  | TraesCS2A01G311000.3 | Ras-like protein |
|  | TraesCS2A01G311100.1 | AGAMOUS-like MADS-box transcription factor |
|  | TraesCS2A01G311200.3 | 12-oxophytodienoate reductase-like protein |
|  | TraesCS2A01G311300.1 | Sister chromatid cohesion 1 protein |
|  | TraesCS2A01G311400.1 | COX assembly mitochondrial protein 2-like protein |
|  | TraesCS2A01G311500.1 | NAC domain protein, |
|  | TraesCS2A01G311600.1 | Cytochrome P450 |
|  | TraesCS2A01G311700.1 | 60 kDa chaperonin |
|  | TraesCS2A01G311800.1 | Ring finger protein, putative |
|  | TraesCS2A01G311900.3 | Calmodulin binding protein-like protein |
|  | TraesCS2A01G312000.1 | Maturase |
|  | TraesCS2A01G312100.1 | MLO-like protein |
|  | TraesCS2A01G312200.1 | Zinc finger protein |
|  | TraesCS2A01G312300.1 | S-adenosyl-L-methionine-dependent methyltransferases superfamily protein |
|  | TraesCS2A01G312400.1 | Histone H2B |
|  | TraesCS2A01G312600.1 | Ferric reduction oxidase 7 |
|  | TraesCS2A01G312700.1 | PHD finger alfin-like protein |
|  | TraesCS2A01G312800.1 | Potassium channel |
|  | TraesCS2A01G312900.1 | Heat-shock protein, putative |
|  | TraesCS2A01G313000.1 | RmlC-like cupins superfamily protein |
|  | TraesCS2A01G313100.1 | Invertase inhibitor |
|  | TraesCS2A01G313200.1 | Plectin-like protein |
|  | TraesCS2A01G313300.1 | Trihelix transcription factor |
|  | TraesCS2A01G313400.1 | F-box protein family-like |
|  | TraesCS2A01G313500.1 | 3-oxoacyl-[acyl-carrier-protein] synthase |
|  | TraesCS2A01G313600.1 | High affinity cGMP-specific 3',5'-cyclic phosphodiesterase 9A |
|  | TraesCS2A01G313700.1 | Small nuclear ribonucleoprotein |
|  | TraesCS2A01G313800.1 | Phospholipid-transporting ATPase |
|  | TraesCS2A01G313900.1 | organic solute transporter ostalpha protein (DUF300) |
|  | TraesCS2A01G314000.1 | CTP synthase |
|  | TraesCS2A01G314100.1 | F-box family protein |
|  | TraesCS2A01G314200.1 | LURP-one-like protein |
|  | TraesCS2A01G314300.1 | Pentatricopeptide repeat-containing protein |
| *rootQTL\_2A.3* | TraesCS2A01G559700.3 | RING/FYVE/PHD zinc finger superfamily protein |
|  | TraesCS2A01G559800.1 | RING/FYVE/PHD zinc finger superfamily protein |
|  | TraesCS2A01G559900.1 | transmembrane protein, putative (DUF247) |
|  | TraesCS2A01G560000.1 | transmembrane protein, putative (DUF247) |
|  | TraesCS2A01G560100.1 | transmembrane protein, putative (DUF247) |
|  | TraesCS2A01G560200.1 | transmembrane protein, putative (DUF247) |
|  | TraesCS2A01G560300.1 | S-adenosyl-L-methionine-dependent methyltransferases superfamily protein |
|  | TraesCS2A01G560400.1 | Pentatricopeptide repeat-containing family protein |
|  | TraesCS2A01G560500.1 | Protein STAY-GREEN LIKE, chloroplastic |
|  | TraesCS2A01G560600.1 | CC-NBS-LRR disease resistance protein |
|  | TraesCS2A01G560700.2 | Disease resistance protein (NBS-LRR class) family |
|  | TraesCS2A01G560800.1 | PI-PLC X domain-containing protein |
|  | TraesCS2A01G560900.1 | Disease resistance protein (NBS-LRR class) family |
|  | TraesCS2A01G561000.1 | Lupeol synthase |
| *rootQTL\_2B.1* | TraesCS2B01G478100.1 | Calcium-dependent protein kinase |
|  | TraesCS2B01G478200.1 | Small glutamine-rich tetratricopeptide repeat-containing protein beta |
|  | TraesCS2B01G478300.1 | U-box domain-containing protein |
|  | TraesCS2B01G478400.2 | Protein phosphatase 2c, putative |
|  | TraesCS2B01G478500.1 | Lectin receptor kinase |
|  | TraesCS2B01G478600.1 | DNA-directed RNA polymerase subunit alpha |
|  | TraesCS2B01G478700.1 | MYB-related transcription factor |
|  | TraesCS2B01G478900.1 | Regulator of chromosome condensation (RCC1) family with FYVE zinc finger domain-containing protein |
|  | TraesCS2B01G479000.3 | F-box family protein |
|  | TraesCS2B01G479100.1 | F-box family protein |
|  | TraesCS2B01G479200.2 | F-box family protein |
|  | TraesCS2B01G479300.1 | F-box family protein |
|  | TraesCS2B01G479400.1 | Receptor-like protein kinase |
|  | TraesCS2B01G479500.1 | Disease resistance protein (TIR-NBS-LRR class) family |
|  | TraesCS2B01G479600.1 | RING/U-box superfamily protein |
|  | TraesCS2B01G479700.1 | Protein SET DOMAIN GROUP 40 |
|  | TraesCS2B01G479800.1 | Prefoldin subunit 2 |
|  | TraesCS2B01G479900.1 | Structural maintenance of chromosomes protein |
|  | TraesCS2B01G480000.3 | ATP-dependent zinc metalloprotease FtsH |
|  | TraesCS2B01G480100.1 | Calcium-dependent lipid-binding (CaLB domain) family protein |
|  | TraesCS2B01G480200.3 | D-2-hydroxyglutarate dehydrogenase |
|  | TraesCS2B01G480300.1 | UBiQuitin family member |
|  | TraesCS2B01G480400.1 | UBiQuitin family member |
|  | TraesCS2B01G480500.1 | Ubiquitin |
|  | TraesCS2B01G480600.1 | Ubiquitin |
|  | TraesCS2B01G480700.1 | Expansin protein |
|  | TraesCS2B01G480800.1 | filamentous hemagglutinin transporter |
|  | TraesCS2B01G480900.1 | E3 ubiquitin-protein ligase |
|  | TraesCS2B01G481000.1 | Imidazoleglycerol-phosphate dehydratase |
|  | TraesCS2B01G481100.1 | Anthocyanin 3'-O-beta-glucosyltransferase |
|  | TraesCS2B01G481200.1 | WW domain-containing protein A |
|  | TraesCS2B01G481300.1 | WW domain-containing protein A |
|  | TraesCS2B01G481400.1 | NAC domain protein |
|  | TraesCS2B01G481500.1 | Germin-like protein |
|  | TraesCS2B01G481600.1 | Germin-like protein |
|  | TraesCS2B01G481700.1 | GPI mannosyltransferase 2 |
|  | TraesCS2B01G481800.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS2B01G481900.1 | Nodulation signaling protein 1 |
| *rootQTL\_3B.1* | TraesCS3B01G108600.1 | Xyloglucan endotransglucosylase/hydrolase |
|  | TraesCS3B01G108700.1 | Xyloglucan endotransglucosylase/hydrolase |
|  | TraesCS3B01G108800.1 | Xyloglucan endotransglucosylase/hydrolase |
|  | TraesCS3B01G108900.1 | Imidazole glycerol phosphate synthase subunit HisH |
|  | TraesCS3B01G109000.1 | Zinc finger protein |
|  | TraesCS3B01G109100.1 | Xyloglucan galactosyltransferase KATAMARI1-like protein |
|  | TraesCS3B01G109200.1 | Chymotrypsin inhibitor |
|  | TraesCS3B01G109300.1 | rapid alkalinization factor 1 |
|  | TraesCS3B01G109400.1 | WD-repeat protein, putative |
|  | TraesCS3B01G109500.1 | Katanin p80 WD40 repeat-containing subunit B1 homolog |
|  | TraesCS3B01G109600.1 | Cyclin-dependent kinase G-2 |
|  | TraesCS3B01G109700.1 | Calcium-binding site, putative |
|  | TraesCS3B01G109800.1 | MYB transcription factor |
|  | TraesCS3B01G109900.1 | Cytochrome P450, putative |
|  | TraesCS3B01G110000.1 | Cytochrome P450 family protein |
|  | TraesCS3B01G110100.1 | Cellulose synthase, putative |
|  | TraesCS3B01G110200.1 | Cytochrome P450 family protein |
|  | TraesCS3B01G110300.1 | Receptor-like kinase LIP2 |
|  | TraesCS3B01G110400.1 | TPR repeat protein |
|  | TraesCS3B01G110500.1 | Receptor protein kinase, putative |
|  | TraesCS3B01G110600.1 | Alpha/beta-hydrolase superfamily protein |
|  | TraesCS3B01G110800.1 | O-fucosyltransferase family protein |
|  | TraesCS3B01G110900.1 | WD repeat domain phosphoinositide-interacting protein |
|  | TraesCS3B01G111000.1 | RING finger protein |
|  | TraesCS3B01G111100.1 | Dimeric alpha-amylase inhibitor |
|  | TraesCS3B01G111200.1 | Dimeric alpha-amylase inhibitor |
|  | TraesCS3B01G111300.1 | F-box family protein |
|  | TraesCS3B01G111400.1 | NBS-LRR disease resistance protein |
|  | TraesCS3B01G111500.1 | import inner membrane translocase subunit |
|  | TraesCS3B01G111600.1 | Amino acid permease |
|  | TraesCS3B01G111700.1 | forkhead-associated (FHA) domain-containing protein |
|  | TraesCS3B01G111800.1 | Accelerated cell death 11 |
|  | TraesCS3B01G111900.1 | F-box protein |
|  | TraesCS3B01G112000.1 | Kinase interacting (KIP1-like) family protein |
|  | TraesCS3B01G112100.1 | Kinase interacting (KIP1-like) family protein |
|  | TraesCS3B01G112200.1 | Bifunctional protein FolD |
|  | TraesCS3B01G112300.1 | Kinase family protein |
|  | TraesCS3B01G112400.1 | Serine/threonine protein phosphatase 7 long form isogeny |
|  | TraesCS3B01G112500.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS3B01G112600.1 | p0028E10.10 protein |
|  | TraesCS3B01G112700.1 | pleiotropic drug resistance 13 |
|  | TraesCS3B01G112800.1 | Transporter-related family protein |
|  | TraesCS3B01G112900.1 | Mini-chromosome maintenance complex-binding protein |
|  | TraesCS3B01G113000.1 | Proactivator polypeptide-like protein 1 |
|  | TraesCS3B01G113100.1 | WD repeat-containing protein 48 homolog |
|  | TraesCS3B01G113200.2 | Phosphatidylinositol N-acetylglucosaminyltransferase subunit H |
|  | TraesCS3B01G113300.1 | Nuclease |
|  | TraesCS3B01G113400.1 | RNA-binding (RRM/RBD/RNP motifs) family protein |
|  | TraesCS3B01G113500.1 | Nuclease |
|  | TraesCS3B01G113600.1 | Lecithin-cholesterol acyltransferase-like 1 |
|  | TraesCS3B01G113700.1 | Lecithin-cholesterol acyltransferase-like 1 |
|  | TraesCS3B01G113800.1 | Carboxymethylenebutenolidase-like protein |
|  | TraesCS3B01G113900.1 | DUF674 family protein |
|  | TraesCS3B01G114000.1 | Eukaryotic aspartyl protease family protein |
|  | TraesCS3B01G114100.1 | Splicing factor U2AF 50 kDa subunit |
|  | TraesCS3B01G114200.1 | Guanine-nucleotide-exchange protein |
|  | TraesCS3B01G114300.1 | Avr9/Cf-9 rapidly elicited protein |
|  | TraesCS3B01G114400.1 | Histone H2B |
|  | TraesCS3B01G114500.1 | Avr9/Cf-9 rapidly elicited protein |
|  | TraesCS3B01G114600.1 | Histone H2B |
|  | TraesCS3B01G114700.1 | PHD finger protein 6 |
|  | TraesCS3B01G114800.1 | multidrug resistance protein |
|  | TraesCS3B01G115000.1 | 6,7-dimethyl-8-ribityllumazine synthase |
|  | TraesCS3B01G115100.1 | Kelch-like protein |
|  | TraesCS3B01G115200.1 | protein kinase family protein |
|  | TraesCS3B01G115300.1 | neuronal PAS domain protein |
|  | TraesCS3B01G115400.1 | ethylene responsive element binding factor 2 |
|  | TraesCS3B01G115500.2 | Breast cancer type 2 susceptibility protein-like protein |
|  | TraesCS3B01G115600.1 | External alternative NAD(P)H-ubiquinone oxidoreductase B2, mitochondrial |
|  | TraesCS3B01G115700.1 | Disease resistance protein (TIR-NBS-LRR class) family |
|  | TraesCS3B01G115800.1 | Receptor kinase |
|  | TraesCS3B01G115900.1 | Dolichol-phosphate mannosyltransferase subunit 3 |
|  | TraesCS3B01G116000.1 | Golgi to ER traffic protein 4 |
|  | TraesCS3B01G116100.1 | Transmembrane protein 97 |
|  | TraesCS3B01G116200.1 | Serine carboxypeptidase, putative |
|  | TraesCS3B01G116300.1 | Serine carboxypeptidase, putative |
|  | TraesCS3B01G116400.1 | Serine carboxypeptidase, putative |
|  | TraesCS3B01G116500.2 | Protein DETOXIFICATION |
|  | TraesCS3B01G116600.1 | Peptidyl-prolyl cis-trans isomerase |
|  | TraesCS3B01G116700.1 | Protein phosphatase 2C |
|  | TraesCS3B01G116800.1 | E3 ubiquitin-protein ligase |
|  | TraesCS3B01G116900.1 | ATP-dependent RNA helicase-like protein |
|  | TraesCS3B01G117000.1 | ATP-dependent RNA helicase-like protein DB10 |
|  | TraesCS3B01G117100.1 | Pentafunctional AROM polypeptide |
|  | TraesCS3B01G117200.1 | F-box/RNI-like superfamily protein |
|  | TraesCS3B01G117300.1 | RNA binding protein, putative |
|  | TraesCS3B01G117400.1 | Pentatricopeptide repeat (PPR) superfamily protein |
|  | TraesCS3B01G117500.1 | Pollen Ole e 1 allergen and extensin family protein |
|  | TraesCS3B01G117600.1 | Pollen Ole e 1 allergen and extensin family protein |
|  | TraesCS3B01G117700.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS3B01G117800.1 | Leucine-rich repeat receptor-like protein kinase family protein |
|  | TraesCS3B01G117900.1 | Leucine-rich repeat receptor-like protein kinase family protein |
|  | TraesCS3B01G118000.1 | Leucine-rich repeat receptor-like protein kinase family protein |
|  | TraesCS3B01G118100.1 | Leucine-rich repeat receptor-like protein kinase family protein |
|  | TraesCS3B01G118200.1 | Leucine-rich repeat receptor-like protein kinase family protein |
|  | TraesCS3B01G118300.1 | Glycosyltransferase |
|  | TraesCS3B01G118400.1 | Elongation factor 4 |
|  | TraesCS3B01G118500.1 | Zinc finger CCCH domain-containing protein 4 |
|  | TraesCS3B01G118600.1 | BTR2 isoform B2Isof01 |
| *rootQTL\_3B.2* | TraesCS3B01G468900.2 | Rhodanese-like domain-containing protein 4, chloroplastic |
|  | TraesCS3B01G469000.1 | Histidine kinase |
|  | TraesCS3B01G469100.2 | calmodulin-binding transcription activator |
|  | TraesCS3B01G469200.2 | CBS domain containing protein |
|  | TraesCS3B01G469300.1 | Cysteine-rich receptor-kinase-like protein |
|  | TraesCS3B01G469400.1 | Cysteine-rich receptor-like kinase |
|  | TraesCS3B01G469500.1 | transmembrane protein, putative (DUF 3339) |
|  | TraesCS3B01G469600.1 | Transmembrane protein, putative |
|  | TraesCS3B01G469700.1 | MADS-box transcription factor |
|  | TraesCS3B01G469800.1 | 50S ribosomal protein L2 |
|  | TraesCS3B01G469900.1 | Rpl2 |
|  | TraesCS3B01G470000.1 | MADS-box transcription factor |
|  | TraesCS3B01G470100.1 | Chaperone protein dnaJ |
|  | TraesCS3B01G470200.1 | Stress enhanced protein 1, chloroplastic |
|  | TraesCS3B01G470300.2 | F box protein |
|  | TraesCS3B01G470400.1 | 50S ribosomal protein L27 |
|  | TraesCS3B01G470500.1 | 50S ribosomal protein L27, chloroplastic |
|  | TraesCS3B01G470600.1 | Transducin/WD40 repeat-like superfamily protein |
|  | TraesCS3B01G470700.1 | TCP transcription factor |
|  | TraesCS3B01G470800.2 | GYF domain-containing protein |
|  | TraesCS3B01G470900.1 | DNAse I-like superfamily protein |
|  | TraesCS3B01G471000.1 | Pollen Ole e 1 allergen/extensin |
|  | TraesCS3B01G471100.1 | Dek protein |
|  | TraesCS3B01G471200.1 | zinc knuckle (CCHC-type) family protein |
|  | TraesCS3B01G471300.1 | SAUR-like auxin-responsive family protein |
|  | TraesCS3B01G471400.1 | Regulation of nuclear pre-mRNA domain-containing protein 1B |
|  | TraesCS3B01G471500.1 | Glutathione S-transferase |
|  | TraesCS3B01G471600.1 | Glutathione S-transferase |
|  | TraesCS3B01G471700.1 | Metacaspase-1 |
|  | TraesCS3B01G471800.1 | Disease resistance family protein |
|  | TraesCS3B01G471900.1 | Glutathione S-transferase |
|  | TraesCS3B01G472000.1 | Fatty acid oxidation complex subunit alpha |
|  | TraesCS3B01G472100.1 | Phosphatidylinositol-4-phosphate 5-kinase family protein |
|  | TraesCS3B01G472200.1 | Lectin-like receptor kinase-like protein |
|  | TraesCS3B01G472300.1 | L-lactate dehydrogenase 2 |
|  | TraesCS3B01G472400.1 | Disease resistance protein RPM1 |
|  | TraesCS3B01G472500.1 | Disease resistance protein RPM1 |
|  | TraesCS3B01G472600.1 | S-acyltransferase |
|  | TraesCS3B01G472700.1 | Tetratricopeptide repeat protein 19, mitochondrial |
|  | TraesCS3B01G472800.1 | NAC domain-containing protein |
|  | TraesCS3B01G472900.1 | DNA topoisomerase |
|  | TraesCS3B01G473000.1 | YGL010w-like protein |
|  | TraesCS3B01G473100.1 | Kinase family protein |
|  | TraesCS3B01G473200.1 | Alba DNA/RNA-binding protein |
|  | TraesCS3B01G473300.1 | Ubiquitin-conjugating enzyme E2, putative |
|  | TraesCS3B01G473600.1 | Myb transcription factor |
|  | TraesCS3B01G473700.1 | RING/U-box superfamily protein |
|  | TraesCS3B01G473800.1 | Transaldolase |
|  | TraesCS3B01G473900.1 | DNA topoisomerase |
|  | TraesCS3B01G474000.1 | glycosyltransferase family exostosin protein |
|  | TraesCS3B01G474100.1 | RING/U-box superfamily protein |
|  | TraesCS3B01G474200.1 | glycosyltransferase family exostosin protein |
|  | TraesCS3B01G474300.1 | Microfibrillar-associated protein 1 |
|  | TraesCS3B01G474400.1 | Receptor-like protein kinase |
|  | TraesCS3B01G474500.1 | Receptor-like protein kinase |
|  | TraesCS3B01G474600.1 | Exostosin-1 |
|  | TraesCS3B01G474700.1 | basic helix-loop-helix (bHLH) DNA-binding superfamily protein |
|  | TraesCS3B01G474800.1 | Exostosin-1 |
|  | TraesCS3B01G474900.1 | glycosyltransferase family exostosin protein |
|  | TraesCS3B01G475000.1 | Sec14p-like phosphatidylinositol transfer family protein |
|  | TraesCS3B01G475100.1 | Sec14p-like phosphatidylinositol transfer family protein |
|  | TraesCS3B01G475200.1 | Histone-lysine N-methyltransferase, H3 lysine-9 specific |
|  | TraesCS3B01G475300.1 | Trihelix transcription factor |
|  | TraesCS3B01G475400.2 | Copper transport protein family, putative |
|  | TraesCS3B01G475500.1 | Chaperone protein DnaJ |
|  | TraesCS3B01G475600.1 | Receptor-like kinase |
|  | TraesCS3B01G475700.1 | Defensin |
|  | TraesCS3B01G475800.1 | Auxin response factor |
|  | TraesCS3B01G475900.2 | Aspartokinase |
|  | TraesCS3B01G476000.1 | Transcription factor Inducer of CBF expression 1 |
|  | TraesCS3B01G476100.1 | Coiled-coil domain-containing protein SCD2 |
|  | TraesCS3B01G476200.1 | Defensin |
|  | TraesCS3B01G476300.1 | Defensin-like protein |
|  | TraesCS3B01G476400.1 | Ribosomal RNA apurinic site specific lyase-like protein |
|  | TraesCS3B01G476500.1 | F-box protein |
|  | TraesCS3B01G476600.1 | methyl-coenzyme M reductase II subunit gamma, putative (DUF3741) |
|  | TraesCS3B01G476700.1 | Auxin response factor |
|  | TraesCS3B01G476800.1 | Prefoldin subunit 5 |
|  | TraesCS3B01G476900.1 | F-box protein family |
|  | TraesCS3B01G477000.1 | E3 ubiquitin protein ligase drip2 |
|  | TraesCS3B01G477100.2 | 8-amino-7-oxononanoate synthase |
|  | TraesCS3B01G477200.1 | Aminopeptidase |
|  | TraesCS3B01G477300.1 | NAD(P)H dehydrogenase 18 |
|  | TraesCS3B01G477400.1 | Kinase family protein |
|  | TraesCS3B01G477500.1 | cDNA clone:J013058P10, full insert sequence |
|  | TraesCS3B01G477600.1 | cDNA clone:J013058P10, full insert sequence |
|  | TraesCS3B01G477700.1 | Short-chain dehydrogenase/reductase family protein |
|  | TraesCS3B01G477800.1 | Ribosomal RNA small subunit methyltransferase A |
|  | TraesCS3B01G477900.1 | Membrane protein LEM1 |
|  | TraesCS3B01G478000.1 | protein kinase family protein |
|  | TraesCS3B01G478100.1 | Dirigent protein |
|  | TraesCS3B01G478200.1 | Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein |
|  | TraesCS3B01G478300.1 | VQ motif family protein |
|  | TraesCS3B01G478400.1 | receptor kinase 1 |
|  | TraesCS3B01G478500.1 | Dirigent protein |
|  | TraesCS3B01G478700.1 | Protein kinase family protein |
|  | TraesCS3B01G478800.1 | Dirigent protein |
|  | TraesCS3B01G478900.1 | Protein kinase family protein |
|  | TraesCS3B01G479000.1 | Dirigent protein |
|  | TraesCS3B01G479100.1 | Protein kinase family protein |
|  | TraesCS3B01G479200.1 | Dirigent protein |
|  | TraesCS3B01G479300.1 | NBS-LRR-like resistance protein |
|  | TraesCS3B01G479400.1 | HTH-type transcriptional activator RhaR |
|  | TraesCS3B01G479500.1 | 2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein |
|  | TraesCS3B01G479600.1 | 5'-methylthioadenosine/S-adenosylhomocysteine nucleosidase |
|  | TraesCS3B01G479700.1 | F-box family protein |
|  | TraesCS3B01G479800.1 | F-box family protein |
|  | TraesCS3B01G479900.1 | CBS domain-containing protein-like |
|  | TraesCS3B01G480000.1 | Phosphotyrosine protein phosphatases superfamily protein |
|  | TraesCS3B01G480100.1 | Defensin-like protein |
|  | TraesCS3B01G480200.1 | Protein DETOXIFICATION |
|  | TraesCS3B01G480300.1 | EA1-like protein 1 |
|  | TraesCS3B01G480400.1 | F-box family protein |
|  | TraesCS3B01G480500.1 | F-box family protein |
|  | TraesCS3B01G480600.1 | F-box family protein |
|  | TraesCS3B01G480700.1 | F-box family protein |
|  | TraesCS3B01G480800.1 | Proteasome subunit beta type |
|  | TraesCS3B01G480900.1 | ATP-dependent rRNA helicase SPB41 |
|  | TraesCS3B01G481000.1 | Leucine-rich receptor-like protein kinase family protein |
|  | TraesCS3B01G481100.1 | Fructose-bisphosphate aldolase |
|  | TraesCS3B01G481200.1 | F-box family protein |
|  | TraesCS3B01G481300.1 | Carboxypeptidase |
|  | TraesCS3B01G481400.1 | Pre-mRNA-splicing factor cwc22 |
|  | TraesCS3B01G481500.1 | Kelch repeat-containing F-box protein-like |
|  | TraesCS3B01G481600.1 | DNA polymerase delta subunit 1 |
|  | TraesCS3B01G481700.1 | F-box family protein-like protein |
|  | TraesCS3B01G481800.2 | Potassium transporter |
|  | TraesCS3B01G481900.1 | Werner Syndrome-like exonuclease |
|  | TraesCS3B01G482000.1 | Potassium transporter |
|  | TraesCS3B01G482200.1 | Non-specific serine/threonine protein kinase |
|  | TraesCS3B01G482300.1 | Cupredoxin superfamily protein |
|  | TraesCS3B01G482400.1 | Aspartate--tRNA(Asp/Asn) ligase |
|  | TraesCS3B01G482500.1 | exocyst subunit exo70 family protein E2 |
|  | TraesCS3B01G482600.1 | Avr9/Cf-9 rapidly elicited protein |
|  | TraesCS3B01G482700.1 | Plant invertase/pectin methylesterase inhibitor family protein, expressed |
|  | TraesCS3B01G482800.1 | Plant invertase/pectin methylesterase inhibitor |
|  | TraesCS3B01G482900.1 | Kinase, putative |
|  | TraesCS3B01G483000.1 | Kinase, putative |
|  | TraesCS3B01G483100.1 | F-box family protein |
|  | TraesCS3B01G483200.1 | F-box domain containing protein |
|  | TraesCS3B01G483300.1 | F-box family protein |
|  | TraesCS3B01G483400.1 | F-box domain containing protein |
|  | TraesCS3B01G483500.3 | Beta-glucosidase, putative |
|  | TraesCS3B01G483600.1 | NBS-LRR disease resistance protein, putative, expressed |
|  | TraesCS3B01G483700.1 | NBS-LRR disease resistance protein, putative, expressed |
|  | TraesCS3B01G483800.2 | Beta-glucosidase, putative |
|  | TraesCS3B01G483900.1 | Beta-glucosidase, putative |
|  | TraesCS3B01G484000.1 | Beta-glucosidase, putative |
|  | TraesCS3B01G484100.1 | Zinc finger homeodomain protein |
|  | TraesCS3B01G484200.2 | Beta-glucosidase, putative |
|  | TraesCS3B01G484300.1 | Tropinone reductase-like protein |
|  | TraesCS3B01G484400.1 | RING/U-box superfamily protein |
|  | TraesCS3B01G484500.1 | Alcohol dehydrogenase, putative |
|  | TraesCS3B01G484600.1 | SBP (S-ribonuclease-binding protein) family protein, putative |
|  | TraesCS3B01G484700.1 | Anthocyanin 3'-O-beta-glucosyltransferase |
|  | TraesCS3B01G484800.1 | Basic 7S globulin 2 |
|  | TraesCS3B01G484900.1 | Basic 7S globulin 2 |
|  | TraesCS3B01G485000.1 | Alcohol dehydrogenase, putative |
|  | TraesCS3B01G485100.1 | Protein DETOXIFICATION |
|  | TraesCS3B01G485200.1 | NBS-LRR disease resistance protein |
|  | TraesCS3B01G485300.1 | NBS-LRR disease resistance protein |
|  | TraesCS3B01G485400.1 | Hydroxycinnamoyl-CoA shikimate/quinate hydroxycinnamoyltransferase |
|  | TraesCS3B01G485500.1 | Hydroxycinnamoyl-CoA shikimate/quinate hydroxycinnamoyltransferase |
|  | TraesCS3B01G485600.2 | Heparan-alpha-glucosaminide N-acetyltransferase |
|  | TraesCS3B01G485700.1 | ARM repeat superfamily protein |
|  | TraesCS3B01G485800.1 | 1-acyl-sn-glycerol-3-phosphate acyltransferase |
|  | TraesCS3B01G485900.1 | Thiamin pyrophosphokinase 1 |
|  | TraesCS3B01G486000.2 | Auxin response factor |
|  | TraesCS3B01G486100.1 | Acetolactate synthase |
|  | TraesCS3B01G486200.1 | LURP-one-like protein |
|  | TraesCS3B01G486300.1 | LURP-one-like protein |
|  | TraesCS3B01G486400.1 | Hydroxycinnamoyl-CoA shikimate/quinate hydroxycinnamoyltransferase |
|  | TraesCS3B01G486500.1 | 2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein |
|  | TraesCS3B01G486600.1 | LURP-one-like protein |
|  | TraesCS3B01G486700.1 | High frequency lysogenization protein HflD homolog |
|  | TraesCS3B01G486800.1 | LURP-one-like protein |
|  | TraesCS3B01G486900.1 | LURP-one-like protein |
|  | TraesCS3B01G487000.1 | LURP-one-like protein |
|  | TraesCS3B01G487100.1 | LURP-one-like protein |
|  | TraesCS3B01G487200.1 | LURP-one-like protein |
|  | TraesCS3B01G487300.1 | Disease resistance protein (TIR-NBS-LRR class) family |
|  | TraesCS3B01G487400.2 | 5-hydroxytryptamine receptor 7 |
|  | TraesCS3B01G487500.1 | senescence-associated gene 13 |
|  | TraesCS3B01G487600.1 | HTH-type transcriptional regulator ArgP |
|  | TraesCS3B01G487700.1 | Potassium transporter |
|  | TraesCS3B01G487800.1 | Nuclear transcription factor Y protein |
|  | TraesCS3B01G487900.1 | ATP-dependent zinc metalloprotease FtsH |
|  | TraesCS3B01G488100.1 | Hydroxycinnamoyl-CoA shikimate/quinate hydroxycinnamoyltransferase |
|  | TraesCS3B01G488300.1 | Protein kinase C-binding protein NELL2 |
|  | TraesCS3B01G488400.1 | Kelch repeat and BTB domain-containing protein 1 |
|  | TraesCS3B01G488500.1 | 3-ketoacyl-CoA synthase |
|  | TraesCS3B01G488600.1 | BTB/POZ domain-containing protein KCTD7 |
|  | TraesCS3B01G488700.1 | Defensin-like family protein |
|  | TraesCS3B01G488800.1 | Defensin-like protein |
|  | TraesCS3B01G488900.1 | Rapid alkalinization factor (RALF) family protein |
|  | TraesCS3B01G489000.1 | Heavy metal transport/detoxification superfamily protein |
|  | TraesCS3B01G489100.1 | DNA topoisomerase |
|  | TraesCS3B01G489200.1 | Crossover junction endonuclease MUS81 |
|  | TraesCS3B01G489300.1 | BTB/POZ domain containing protein, expressed |
|  | TraesCS3B01G489400.1 | BTB/POZ domain containing protein, expressed |
|  | TraesCS3B01G489500.1 | Flowering-promoting factor 1-like protein 1 |
| *rootQTL\_5A.1* | TraesCS5A01G273200.1 | N-acetyl-gamma-glutamyl-phosphate reductase |
|  | TraesCS5A01G273300.1 | plant/protein (Protein of unknown function, DUF599) |
|  | TraesCS5A01G273400.1 | plant/protein (Protein of unknown function, DUF599) |
|  | TraesCS5A01G273500.1 | Protein FATTY ACID EXPORT 3, chloroplastic |
|  | TraesCS5A01G273700.1 | Ubiquitin-like-specific protease 1A |
|  | TraesCS5A01G273800.2 | Protein FATTY ACID EXPORT 3, chloroplastic |
|  | TraesCS5A01G273900.1 | 3'-N-debenzoyl-2'-deoxytaxol N-benzoyltransferase |
|  | TraesCS5A01G274000.1 | Protein FATTY ACID EXPORT 1, chloroplastic |
|  | TraesCS5A01G274100.1 | Receptor-like protein kinase |
|  | TraesCS5A01G274200.1 | Amorpha-4,11-diene synthase |
|  | TraesCS5A01G274300.1 | 50S ribosomal protein L2 |
|  | TraesCS5A01G274400.2 | p-loop containing nucleoside triphosphate hydrolases superfamily protein, putative |
|  | TraesCS5A01G274500.1 | mediator of RNA polymerase II transcription subunit |
|  | TraesCS5A01G274600.1 | Mitochondrial carrier family |
|  | TraesCS5A01G274700.1 | Pumilio-like protein |
|  | TraesCS5A01G274800.2 | ER membrane protein complex subunit 3 |
|  | TraesCS5A01G274900.1 | F-box protein |
|  | TraesCS5A01G275000.1 | F-box protein |
|  | TraesCS5A01G275100.1 | Cytochrome c oxidase assembly factor 6 homolog |
|  | TraesCS5A01G275200.1 | F-box protein |
|  | TraesCS5A01G275300.1 | NADH dehydrogenase ubiquinone complex I, assembly factor-like protein (DUF185) |
|  | TraesCS5A01G275400.1 | F-box protein |
|  | TraesCS5A01G275500.1 | F-box protein |
|  | TraesCS5A01G275600.1 | Non-specific phospholipase C4 |
|  | TraesCS5A01G275700.1 | importin subunit alpha |
|  | TraesCS5A01G275800.2 | Myosin heavy chain-related |
|  | TraesCS5A01G275900.1 | NAC domain-containing protein |
|  | TraesCS5A01G276000.1 | 30S ribosomal protein S16 |
|  | TraesCS5A01G276100.1 | Transcription factor IIIB 90 kDa subunit |
|  | TraesCS5A01G276200.3 | N-methyl-L-tryptophan oxidase |
|  | TraesCS5A01G276300.2 | N-methyl-L-tryptophan oxidase |
|  | TraesCS5A01G276400.1 | N-methyl-L-tryptophan oxidase |
|  | TraesCS5A01G276500.1 | Ubiquitin carboxyl-terminal hydrolase 2 |
|  | TraesCS5A01G276600.1 | O-fucosyltransferase family protein |
|  | TraesCS5A01G276700.4 | Calcium-transporting ATPase |
|  | TraesCS5A01G276800.5 | KH domain-containing protein |
|  | TraesCS5A01G276900.1 | F-box protein |
|  | TraesCS5A01G277000.1 | F-box protein |
|  | TraesCS5A01G277100.1 | Protein disulfide-isomerase |
|  | TraesCS5A01G277200.1 | Receptor-like kinase |
|  | TraesCS5A01G277300.1 | low-molecular-weight cysteine-rich 44 |
|  | TraesCS5A01G277400.1 | Mitochondrial carrier protein-like |
|  | TraesCS5A01G277500.1 | MTD1 |
|  | TraesCS5A01G277600.1 | Glycosyltransferase |
|  | TraesCS5A01G277900.1 | cyclin-dependent kinase inhibitor |
|  | TraesCS5A01G278000.1 | NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 12 |
|  | TraesCS5A01G278100.1 | Type I inositol-1,4,5-trisphosphate 5-phosphatase |
|  | TraesCS5A01G278200.1 | DNA topoisomerase |
|  | TraesCS5A01G278300.1 | RADIALIS-like transcription factor |
|  | TraesCS5A01G278400.1 | RADIALIS-like transcription factor |
|  | TraesCS5A01G278500.1 | RADIALIS-like transcription factor |
|  | TraesCS5A01G278600.1 | RADIALIS-like transcription factor |
|  | TraesCS5A01G278700.1 | RADIALIS-like transcription factor |
|  | TraesCS5A01G278800.1 | Cytochrome b561 and DOMON domain-containing protein |
|  | TraesCS5A01G278900.1 | Auxin-induced in root cultures protein 12 |
|  | TraesCS5A01G279000.1 | Auxin-induced in root cultures protein 12 |
|  | TraesCS5A01G279100.1 | 60S ribosomal protein L32 |
|  | TraesCS5A01G279200.2 | Basic helix-loop-helix transcription factor |
|  | TraesCS5A01G279300.1 | GRF zinc finger family protein |
|  | TraesCS5A01G279400.1 | 60S ribosomal protein L32 |
|  | TraesCS5A01G279500.1 | Peptidylprolyl isomerase |
|  | TraesCS5A01G279600.1 | VWA domain containing protein |
|  | TraesCS5A01G279700.1 | 50S ribosomal protein L6, putative, expressed |
|  | TraesCS5A01G279800.1 | Ulp1 protease family, C-terminal catalytic domain containing protein, expressed |
|  | TraesCS5A01G279900.1 | NAD(P)-binding Rossmann-fold superfamily protein |
|  | TraesCS5A01G280000.1 | F-box/RNI-like superfamily protein |
|  | TraesCS5A01G280100.1 | Transcription factor GTE8 |
|  | TraesCS5A01G280300.1 | Transcription factor GTE8 |
|  | TraesCS5A01G280400.1 | Short-chain dehydrogenase/reductase family protein |
|  | TraesCS5A01G280500.1 | Chorismate synthase |
|  | TraesCS5A01G280600.1 | B3 domain-containing protein family |
|  | TraesCS5A01G280700.1 | L-threonine 3-dehydrogenase |
|  | TraesCS5A01G280800.1 | L-threonine 3-dehydrogenase |
|  | TraesCS5A01G280900.1 | Fasciclin-like arabinogalactan-protein-like |
|  | TraesCS5A01G281000.1 | F-box protein |
|  | TraesCS5A01G281100.1 | Transport inhibitor response 1 protein |
|  | TraesCS5A01G281200.1 | 50S ribosomal L31 |
|  | TraesCS5A01G281300.1 | F-box protein |
|  | TraesCS5A01G281400.1 | F-box protein |
|  | TraesCS5A01G281500.1 | F-box protein |
|  | TraesCS5A01G281600.1 | UDP-glucuronate 4-epimerase 4 |
|  | TraesCS5A01G281700.1 | Chymotrypsin inhibitor |
|  | TraesCS5A01G281800.1 | Chymotrypsin inhibitor |
|  | TraesCS5A01G281900.1 | Chymotrypsin inhibitor |
|  | TraesCS5A01G282000.1 | cDNA clone:J013058P10, full insert sequence |
|  | TraesCS5A01G282100.1 | UPF0299 membrane protein YohJ |
|  | TraesCS5A01G282200.1 | Cyclin family protein |
|  | TraesCS5A01G282300.1 | RING/U-box superfamily protein |
|  | TraesCS5A01G282400.1 | tRNA-splicing endonuclease subunit SEN54 |
|  | TraesCS5A01G282500.1 | Ripening-related protein |
|  | TraesCS5A01G282600.1 | tRNA-splicing endonuclease subunit SEN54 |
|  | TraesCS5A01G282700.1 | 2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein |
| *rootQTL\_5B.1* | TraesCS5B01G377900.1 | Calmodulin-binding family protein, putative, expressed |
|  | TraesCS5B01G378000.1 | Homeobox leucine-zipper protein |
|  | TraesCS5B01G378100.1 | ATP-dependent RNA helicase |
|  | TraesCS5B01G378200.1 | Mitochondrial transcription termination factor-like |
|  | TraesCS5B01G378400.2 | Histidine-containing phosphotransfer protein |
|  | TraesCS5B01G378500.1 | Mitochondrial transcription termination factor-like |
|  | TraesCS5B01G378600.1 | KxDL motif protein |
|  | TraesCS5B01G378700.1 | WD-40 repeat protein |
|  | TraesCS5B01G378800.1 | ATP-dependent zinc metalloprotease FTSH protein |
| *rootQTL\_6A.1* | TraesCS6A01G050700.1 | Acyl-CoA N-acyltransferase with RING/FYVE/PHD-type zinc finger protein |
|  | TraesCS6A01G050800.1 | RING/U-box superfamily protein, putative |
|  | TraesCS6A01G050900.1 | carboxyl-terminal peptidase (DUF239) |
|  | TraesCS6A01G051000.1 | F-box protein family-like |
|  | TraesCS6A01G051100.1 | FRIGIDA interacting protein 1 |
|  | TraesCS6A01G051200.1 | Glycosyltransferase |
|  | TraesCS6A01G051300.1 | Glycosyltransferase |
|  | TraesCS6A01G051400.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS6A01G051500.1 | GDSL esterase/lipase |
|  | TraesCS6A01G051600.1 | Protein kinase |
|  | TraesCS6A01G051700.1 | NAC domain-containing protein |
|  | TraesCS6A01G051800.1 | NBS-LRR-like resistance protein |
|  | TraesCS6A01G051900.4 | NBS-LRR-like resistance protein |
|  | TraesCS6A01G052000.1 | Pentatricopeptide repeat-containing protein, putative |
|  | TraesCS6A01G052100.2 | Kinase family protein |
|  | TraesCS6A01G052200.1 | NBS-LRR-like resistance protein |
|  | TraesCS6A01G052300.1 | NBS-LRR-like resistance protein |
|  | TraesCS6A01G052400.1 | NBS-LRR-like resistance protein |
|  | TraesCS6A01G052500.1 | NBS-LRR-like resistance protein |
|  | TraesCS6A01G052700.1 | F-box family protein |
|  | TraesCS6A01G052800.1 | Peroxidase |
|  | TraesCS6A01G052900.1 | SPOC domain/transcription elongation factor S-II, putative |
|  | TraesCS6A01G053000.1 | anti-muellerian hormone type-2 receptor |
|  | TraesCS6A01G053100.1 | Sialyltransferase-like protein 2 |
|  | TraesCS6A01G053200.1 | Plant thionin family protein |
|  | TraesCS6A01G053300.1 | Carboxy-S-adenosyl-L-methionine synthase |
|  | TraesCS6A01G053400.1 | UDP-N-acetylglucosamine--N-acetylmuramyl-(pentapeptide) pyrophosphoryl-undecaprenol N-acetylglucosamine transferase |
|  | TraesCS6A01G053500.1 | Neuropeptide Y receptor type 2 |
|  | TraesCS6A01G053600.1 | Disease resistance protein (TIR-NBS-LRR class) family |
|  | TraesCS6A01G053700.1 | LOB domain-containing protein, putative |
|  | TraesCS6A01G053800.1 | AT hook motif DNA-binding family protein |
|  | TraesCS6A01G053900.1 | Nucleolar GTP-binding protein 1 |
|  | TraesCS6A01G054000.1 | Protein kinase |
|  | TraesCS6A01G054100.1 | F-box family protein |
|  | TraesCS6A01G054200.1 | F-box and associated interaction domains-containing protein |
|  | TraesCS6A01G054300.1 | F-box family protein |
|  | TraesCS6A01G054400.1 | F-box family protein |
|  | TraesCS6A01G054500.1 | Receptor-like protein kinase |
|  | TraesCS6A01G054600.1 | NBS-LRR disease resistance protein |
|  | TraesCS6A01G054700.1 | Disease resistance protein |
|  | TraesCS6A01G054800.1 | Histone-lysine N-methyltransferase |
|  | TraesCS6A01G054900.1 | Disease resistance protein RPS4 |
|  | TraesCS6A01G055000.1 | Histone H4 |
|  | TraesCS6A01G055100.1 | Ring finger protein, putative |
|  | TraesCS6A01G055200.1 | Histone H4 |
|  | TraesCS6A01G055300.2 | Rhamnogalacturonate lyase |
|  | TraesCS6A01G055400.1 | Histone H4 |
|  | TraesCS6A01G055500.1 | RING/U-box superfamily protein |
|  | TraesCS6A01G055600.1 | Lecithin-cholesterol acyltransferase-like 1 |
|  | TraesCS6A01G055700.1 | 2-oxoglutarate and Fe(II)-dependent oxygenase superfamily protein |
|  | TraesCS6A01G055800.1 | F-box domain containing protein, expressed |
|  | TraesCS6A01G055900.1 | Phototropic-responsive NPH3 family protein |
|  | TraesCS6A01G056000.1 | F-box family protein |
|  | TraesCS6A01G056100.1 | Nucleoside diphosphate-linked moiety X motif 6 |
|  | TraesCS6A01G056200.1 | NBS-LRR disease resistance protein, putative, expressed |
|  | TraesCS6A01G056300.1 | Receptor-kinase, putative |
|  | TraesCS6A01G056400.1 | SAUR-like auxin-responsive protein family |
|  | TraesCS6A01G056500.1 | Peptide transporter |
|  | TraesCS6A01G056600.1 | SAUR-like auxin-responsive protein family |
|  | TraesCS6A01G056700.1 | F-box family protein |
|  | TraesCS6A01G056800.1 | TIR-NBS-LRR class disease resistance protein |
|  | TraesCS6A01G056900.1 | Disease resistance protein (NBS-LRR class) family |
|  | TraesCS6A01G057000.1 | F-box family protein |
|  | TraesCS6A01G057100.1 | F-box family protein |
|  | TraesCS6A01G057200.1 | F-box family protein |
|  | TraesCS6A01G057300.1 | F-box and associated interaction domains-containing protein |
|  | TraesCS6A01G057400.1 | NAC domain-containing protein, putative |
|  | TraesCS6A01G057500.1 | F-box family protein |
|  | TraesCS6A01G057600.1 | F-box family protein |
|  | TraesCS6A01G057700.3 | RNA-binding KH domain-containing protein |
|  | TraesCS6A01G057800.1 | F-box family protein |
|  | TraesCS6A01G057900.1 | Protein TolB |
|  | TraesCS6A01G058000.2 | Mitochondrial transcription termination factor-like |
|  | TraesCS6A01G058100.1 | F-box family protein |
|  | TraesCS6A01G058200.2 | Copine-1 |
|  | TraesCS6A01G058300.1 | Laccase |
|  | TraesCS6A01G058400.1 | Cytochrome P450 family protein |
|  | TraesCS6A01G058500.1 | Kinase, putative |
|  | TraesCS6A01G058600.1 | Leucine-rich repeat receptor-like protein kinase family protein |
|  | TraesCS6A01G058700.1 | LURP-one-like protein |
|  | TraesCS6A01G058800.1 | Muscarinic acetylcholine receptor M3 |
|  | TraesCS6A01G058900.1 | F-box family protein |
|  | TraesCS6A01G059000.1 | Histone H4 |
|  | TraesCS6A01G059100.1 | Syntaxin, putative |
|  | TraesCS6A01G059200.1 | Zinc carboxypeptidase |
|  | TraesCS6A01G059300.1 | UDP-glycosyltransferase |
|  | TraesCS6A01G059400.1 | Acetyl-coenzyme A synthetase |
|  | TraesCS6A01G059500.1 | HAUS augmin-like complex subunit 4 |
|  | TraesCS6A01G059600.1 | Glutathione S-transferase,-like protein |
|  | TraesCS6A01G059700.1 | UDP-glycosyltransferase |
| *rootQTL\_6A.2* | TraesCS6A01G132200.1 | Lipoxygenase |
|  | TraesCS6A01G132300.1 | Lectin receptor kinase |
|  | TraesCS6A01G132400.1 | Lectin receptor kinase |
|  | TraesCS6A01G132500.1 | Lipoxygenase |
|  | TraesCS6A01G132600.2 | O-fucosyltransferase family protein |
|  | TraesCS6A01G132700.1 | SNF1-related protein kinase regulatory subunit gamma-like PV42a |
|  | TraesCS6A01G132800.1 | cDNA clone:J013058P10, full insert sequence |
|  | TraesCS6A01G132900.1 | T-box transcription factor TBX6 |
|  | TraesCS6A01G133000.1 | Regulator of Vps4 activity in the MVB pathway protein, putative |
|  | TraesCS6A01G133100.1 | Quinone oxidoreductase-like protein |
|  | TraesCS6A01G133200.1 | vacuolar ATP synthase catalytic subunit-related / V-ATPase-related / vacuolar proton pump-like protein |
|  | TraesCS6A01G133300.1 | ATP-dependent zinc metalloprotease FtsH |
|  | TraesCS6A01G133400.3 | ATP-dependent RNA helicase family protein |
|  | TraesCS6A01G133500.1 | Myosin-related family protein |
|  | TraesCS6A01G133600.1 | F-box/LRR protein, putative |
|  | TraesCS6A01G133700.1 | F-box protein |
|  | TraesCS6A01G133800.1 | Toll-like receptor 3 |
|  | TraesCS6A01G133900.1 | Nuclear pore localization protein NPL4 |
|  | TraesCS6A01G134000.1 | Sugar transporter, putative |
|  | TraesCS6A01G134100.1 | transmembrane protein, putative (DUF594) |
|  | TraesCS6A01G134200.1 | F-box family protein |
|  | TraesCS6A01G134300.2 | Subtilisin-like protease |
|  | TraesCS6A01G134400.1 | Membrane protein |
|  | TraesCS6A01G134500.1 | Wound-responsive family protein |
|  | TraesCS6A01G134600.1 | F-box family protein |
|  | TraesCS6A01G134700.1 | Transmembrane protein, putative |
|  | TraesCS6A01G134900.1 | F-box family protein |
|  | TraesCS6A01G135000.1 | myb domain protein 65 |
|  | TraesCS6A01G135100.1 | Non-specific serine/threonine protein kinase |
|  | TraesCS6A01G135200.1 | Formin-like protein |
|  | TraesCS6A01G135300.1 | Zinc finger CCCH domain-containing protein 13 |
|  | TraesCS6A01G135400.1 | F-box family protein |
|  | TraesCS6A01G135500.1 | Leucine-rich repeat receptor-like protein kinase family protein |
|  | TraesCS6A01G135600.1 | Leucine-rich repeat receptor-like protein kinase family protein |
|  | TraesCS6A01G135700.1 | PENTATRICOPEPTIDE REPEAT 596 |
|  | TraesCS6A01G135800.1 | Leucine-rich repeat receptor-like protein kinase family protein, putative |
|  | TraesCS6A01G135900.1 | ATP-dependent helicase/deoxyribonuclease subunit B |
|  | TraesCS6A01G136000.1 | ARM repeat superfamily protein |
|  | TraesCS6A01G136100.1 | Leucine-rich repeat receptor-like protein kinase family protein, putative |
|  | TraesCS6A01G136200.1 | Zinc-finger domain of monoamine-oxidase A repressor R1 protein |
|  | TraesCS6A01G136300.2 | WAP four-disulfide core domain protein 12 |
|  | TraesCS6A01G136400.1 | Leucine-rich repeat receptor-like protein kinase family protein |
|  | TraesCS6A01G136500.1 | Peroxidase |
|  | TraesCS6A01G136600.1 | Dof domain, zinc finger protein |
|  | TraesCS6A01G136700.1 | Polyubiquitin |
|  | TraesCS6A01G136800.1 | LYR motif-containing protein |
|  | TraesCS6A01G136900.1 | cytochrome-c oxidase/ electron carrier |
|  | TraesCS6A01G137000.1 | ROP interacting CRIB motif protein |
|  | TraesCS6A01G137100.1 | Early nodulin-like protein |
|  | TraesCS6A01G137200.1 | Early nodulin-like protein |
|  | TraesCS6A01G137300.1 | 30S ribosomal protein S11 |
|  | TraesCS6A01G137400.1 | ArfGap/RecO-like zinc finger domain-containing protein |
|  | TraesCS6A01G137500.1 | GDSL esterase/lipase |
|  | TraesCS6A01G137600.1 | GDSL esterase/lipase |
|  | TraesCS6A01G137700.1 | BEACH domain-containing protein lvsC |
|  | TraesCS6A01G137800.1 | MYB-related transcription factor |
|  | TraesCS6A01G137900.1 | Exosome complex component rrp4 |
|  | TraesCS6A01G138000.1 | Peroxidase |
|  | TraesCS6A01G138100.1 | Hexosyltransferase |
|  | TraesCS6A01G138200.1 | tRNA-specific 2-thiouridylase MnmA |
|  | TraesCS6A01G138300.1 | MADS-box transcription factor family protein |
|  | TraesCS6A01G138400.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS6A01G138500.1 | Ubiquitin thioesterase OTU1 |
|  | TraesCS6A01G138600.4 | Auxin response factor |
|  | TraesCS6A01G138700.1 | Glutamate-1-semialdehyde 2,1-aminomutase |
|  | TraesCS6A01G138900.1 | cleavage and polyadenylation specificity factor 30 |
|  | TraesCS6A01G139000.1 | Glutathione S-transferase |
|  | TraesCS6A01G139100.1 | Glutathione S-transferase |
|  | TraesCS6A01G139200.1 | DNA-directed RNA polymerase subunit beta' |
|  | TraesCS6A01G139300.1 | embryonic stem cell-specific 5-hydroxymethylcytosine-binding protein |
|  | TraesCS6A01G139400.2 | Receptor-like kinase |
|  | TraesCS6A01G139500.1 | Zinc-finger domain of monoamine-oxidase A repressor R1 protein |
|  | TraesCS6A01G139600.1 | serine/arginine repetitive matrix-like protein |
|  | TraesCS6A01G139700.1 | LIGHT-DEPENDENT SHORT HYPOCOTYLS-like protein (DUF640) |
|  | TraesCS6A01G139800.1 | Pectate lyase |
|  | TraesCS6A01G139900.1 | Biotin holocarboxylase synthetase 1-like protein |
|  | TraesCS6A01G140000.1 | Paired box protein Pax-9 |
|  | TraesCS6A01G140100.1 | Sulfurtransferase |
|  | TraesCS6A01G140200.1 | Sulfurtransferase |
|  | TraesCS6A01G140300.2 | ABC transporter G family member |
|  | TraesCS6A01G140400.1 | F-box family protein |
|  | TraesCS6A01G140500.1 | Tyrosyl-DNA phosphodiesterase 2 |
|  | TraesCS6A01G140600.1 | F-box and associated interaction domains-containing protein |
|  | TraesCS6A01G140700.1 | F-box protein |
|  | TraesCS6A01G140800.2 | Glutathione synthetase |
|  | TraesCS6A01G140900.1 | Pentatricopeptide repeat-containing protein |
|  | TraesCS6A01G141000.1 | F-box family protein |
| *rootQTL\_6A.3* | TraesCS6A01G404700.1 | Serine/threonine-protein phosphatase |
|  | TraesCS6A01G404800.1 | Protein SMG8 |
|  | TraesCS6A01G404900.1 | transmembrane protein, putative (DUF594) |
|  | TraesCS6A01G405000.1 | Rop guanine nucleotide exchange factor, putative |
|  | TraesCS6A01G405100.1 | Smad/FHA domain protein |
|  | TraesCS6A01G405200.1 | O-methyltransferase |
|  | TraesCS6A01G405300.1 | Disease resistance protein RPM1 |
|  | TraesCS6A01G405400.1 | RING/U-box superfamily protein |
|  | TraesCS6A01G405500.2 | Lysine-specific histone demethylase 1-3-like protein |
|  | TraesCS6A01G405600.1 | Aquaporin |
|  | TraesCS6A01G405700.1 | Aquaporin |
|  | TraesCS6A01G405800.1 | Peptidyl-prolyl cis-trans isomerase |
|  | TraesCS6A01G405900.1 | Peptidyl-prolyl cis-trans isomerase |
|  | TraesCS6A01G406000.1 | Signal peptide peptidase-like protein |
|  | TraesCS6A01G406100.1 | Glutamyl-tRNA(Gln) amidotransferase subunit C |
|  | TraesCS6A01G406200.1 | rRNA N-glycosidase |
|  | TraesCS6A01G406300.1 | Glutamyl-tRNA(Gln) amidotransferase subunit C |
|  | TraesCS6A01G406400.1 | Acyl-CoA-binding domain-containing protein 4 |
|  | TraesCS6A01G406500.1 | 50S ribosomal protein L9 |
|  | TraesCS6A01G406600.3 | Phosphatidylinositol-4-phosphate 5-kinase, putative |
|  | TraesCS6A01G406700.1 | NAC domain protein, |
|  | TraesCS6A01G406800.2 | F-box family protein |
|  | TraesCS6A01G406900.1 | F-box family protein |
|  | TraesCS6A01G407000.1 | F-box family protein |
|  | TraesCS6A01G407100.1 | 2,3-bisphosphoglycerate-independent phosphoglycerate mutase |
|  | TraesCS6A01G407200.1 | Hepatocellular carcinoma-associated antigen 59 family protein, expressed |
|  | TraesCS6A01G407300.1 | Hepatocellular carcinoma-associated antigen 59 family protein, expressed |
|  | TraesCS6A01G407500.1 | F-box family protein |
|  | TraesCS6A01G407600.1 | F-box family protein |
|  | TraesCS6A01G407700.1 | Lactoperoxidase |
|  | TraesCS6A01G407800.1 | U3 small nucleolar RNA-associated protein 25 |
|  | TraesCS6A01G407900.2 | F-box family protein |
|  | TraesCS6A01G408000.1 | F-box family protein |
|  | TraesCS6A01G408100.1 | F-box family protein |
|  | TraesCS6A01G408200.1 | Ribonuclease 3 |
|  | TraesCS6A01G408300.1 | Xyloglucan endotransglucosylase/hydrolase |
|  | TraesCS6A01G408400.1 | Photosystem II 22 kDa, chloroplastic |
|  | TraesCS6A01G408500.1 | F-box family protein |
|  | TraesCS6A01G408600.1 | Receptor lectin kinase |
|  | TraesCS6A01G408700.1 | Lectin-like receptor kinase family protein, putative |
|  | TraesCS6A01G408800.1 | Receptor-like protein kinase |
|  | TraesCS6A01G408900.1 | Lectin-like receptor kinase family protein, putative |
|  | TraesCS6A01G409000.1 | Receptor-like protein kinase |
|  | TraesCS6A01G409100.1 | ATP-dependent RNA helicase |
|  | TraesCS6A01G409200.1 | ADP-L-glycero-D-manno-heptose-6-epimerase |
|  | TraesCS6A01G409300.1 | Clavata3/ESR (CLE) gene family member |
|  | TraesCS6A01G409400.2 | Titan9, putative |
|  | TraesCS6A01G409500.1 | Transmembrane protein, putative |
|  | TraesCS6A01G409600.1 | Electron transfer flavoprotein beta-subunit |
|  | TraesCS6A01G409700.1 | Myb/SANT-like DNA-binding domain protein |
|  | TraesCS6A01G409800.1 | ABC transporter ATP-binding protein ARB1 |
|  | TraesCS6A01G409900.1 | F-box/LRR-repeat protein |
|  | TraesCS6A01G410000.1 | Ankyrin repeat protein |
|  | TraesCS6A01G410100.1 | Embryogenesis transmembrane protein-like |
|  | TraesCS6A01G410200.1 | Leucine-rich repeat receptor-like protein kinase family protein, putative |
|  | TraesCS6A01G410300.1 | Uridylate kinase |
|  | TraesCS6A01G410400.1 | Glycerol-3-phosphate acyltransferase |
|  | TraesCS6A01G410500.1 | sulfate transporter 4;2 |
|  | TraesCS6A01G410600.2 | Prolyl 4-hydroxylase alpha subunit, putative |
|  | TraesCS6A01G410700.2 | Sucrose transporter |
|  | TraesCS6A01G410800.1 | BAG family molecular chaperone regulator 5 |
|  | TraesCS6A01G410900.1 | BAG family molecular chaperone regulator 5 |
|  | TraesCS6A01G411000.1 | Splicing factor 3B subunit 2 |
|  | TraesCS6A01G411100.1 | Prefoldin chaperone subunit family protein |
|  | TraesCS6A01G411200.1 | Disease resistance protein (NBS-LRR class) family |
|  | TraesCS6A01G411300.1 | Disease resistance protein (NBS-LRR class) family |
|  | TraesCS6A01G411400.1 | B0809H07.3 protein |
|  | TraesCS6A01G411500.1 | Protease HtpX homolog |
|  | TraesCS6A01G411600.1 | NBS-LRR disease resistance protein-like protein |
|  | TraesCS6A01G411700.1 | NBS-LRR disease resistance protein-like protein |
|  | TraesCS6A01G411800.1 | disease resistance family protein / LRR family protein |
|  | TraesCS6A01G411900.1 | Protein kinase family protein |
|  | TraesCS6A01G412000.1 | CC-NBS-LRR disease resistance protein |
|  | TraesCS6A01G412100.1 | Testis-expressed sequence 2 protein |
|  | TraesCS6A01G412200.1 | Ankyrin repeat family protein-like |
|  | TraesCS6A01G412300.1 | Plant/F9H3-4 protein |
|  | TraesCS6A01G412400.1 | Ankyrin repeat family protein, putative |
|  | TraesCS6A01G412500.2 | Ankyrin repeat protein family-like protein |
|  | TraesCS6A01G412600.1 | Ankyrin repeat-containing protein |
|  | TraesCS6A01G412700.1 | Protein kinase |
|  | TraesCS6A01G412800.1 | Transcription factor, putative |
|  | TraesCS6A01G412900.1 | Peroxidase |
|  | TraesCS6A01G413000.1 | Bric-a-brac protein |
|  | TraesCS6A01G413100.1 | Protein kinase superfamily protein |
|  | TraesCS6A01G413200.1 | Gibberellin-regulated family protein |
|  | TraesCS6A01G413300.1 | 4-hydroxybenzoate octaprenyltransferase |
|  | TraesCS6A01G413400.1 | Replication protein A 32 kDa subunit |
|  | TraesCS6A01G413500.1 | Ripening-related protein |
|  | TraesCS6A01G413600.1 | Tyrosine--tRNA ligase |
|  | TraesCS6A01G413700.1 | Calcium-dependent lipid-binding (CaLB domain) family protein |
|  | TraesCS6A01G413800.1 | DNA-directed RNA polymerase subunit gamma |
|  | TraesCS6A01G413900.1 | F-box protein |
|  | TraesCS6A01G414000.1 | Disease resistance protein RPM1 |
|  | TraesCS6A01G414100.1 | Disease resistance protein RPM1 |
|  | TraesCS6A01G414200.1 | Disease resistance protein RPM1 |
|  | TraesCS6A01G414300.1 | Disease resistance protein RPM1 |
|  | TraesCS6A01G414400.1 | Disease resistance protein RPM1 |
|  | TraesCS6A01G414500.1 | AP-5 complex subunit beta-1 |
|  | TraesCS6A01G414600.1 | transmembrane protein, putative (DUF594) |
|  | TraesCS6A01G414700.1 | receptor-like protein kinase 1 |
|  | TraesCS6A01G414800.1 | transmembrane protein, putative (DUF594) |
|  | TraesCS6A01G414900.1 | protein kinase family protein |
|  | TraesCS6A01G415000.1 | NBS-LRR disease resistance protein |
|  | TraesCS6A01G415100.1 | transmembrane protein, putative (DUF594) |
|  | TraesCS6A01G415200.1 | U-box domain-containing protein 62 |
|  | TraesCS6A01G415300.1 | Mediator of RNA polymerase II transcription subunit 32 |
|  | TraesCS6A01G415400.1 | Glyceraldehyde-3-phosphate dehydrogenase 1 |
|  | TraesCS6A01G415500.2 | 3-ketoacyl-CoA synthase |
|  | TraesCS6A01G415600.1 | Cobyric acid synthase |
|  | TraesCS6A01G415700.1 | Protein translocase subunit SecA |
|  | TraesCS6A01G415800.1 | Sentrin-specific protease |
|  | TraesCS6A01G415900.1 | B3 domain-containing protein |
|  | TraesCS6A01G416000.1 | heparan-alpha-glucosaminide N-acetyltransferase-like protein (DUF1624) |
|  | TraesCS6A01G416100.1 | Pectinesterase inhibitor |
|  | TraesCS6A01G416200.1 | Dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 kDa subunit |
|  | TraesCS6A01G416300.1 | Mitochondrial intermediate peptidase |
|  | TraesCS6A01G416400.1 | Response regulator |
|  | TraesCS6A01G416500.1 | integral membrane metal-binding family protein (DUF2296) |
|  | TraesCS6A01G416600.1 | Ig heavy chain C region |
|  | TraesCS6A01G416700.1 | ATP-dependent RNA helicase |
|  | TraesCS6A01G416800.1 | DNA helicase ROCK-N-ROLLERS |
|  | TraesCS6A01G416900.1 | F-box/RNI-like/FBD-like domains-containing protein |
|  | TraesCS6A01G417000.1 | zinc finger (C3HC4-type RING finger) family protein |
|  | TraesCS6A01G417100.1 | Invertase inhibitor |
|  | TraesCS6A01G417200.1 | RING/U-box superfamily protein |
|  | TraesCS6A01G417300.1 | Receptor-like kinase |
|  | TraesCS6A01G417400.1 | F-box protein |
|  | TraesCS6A01G417500.1 | Protein furry homolog-like protein |
|  | TraesCS6A01G417600.1 | Zinc finger CCCH domain-containing protein 19 |
|  | TraesCS6A01G417700.1 | Regulator of chromosome condensation (RCC1) family protein |
|  | TraesCS6A01G417800.1 | Ras and Rab interactor 1 |
|  | TraesCS6A01G417900.1 | Receptor protein kinase, putative |
|  | TraesCS6A01G418000.1 | S-adenosylmethionine synthase |
|  | TraesCS6A01G418100.1 | DNA topoisomerase |
|  | TraesCS6A01G418200.1 | transmembrane protein, putative (DUF594) |
|  | TraesCS6A01G418300.1 | low-temperature-induced protein |
|  | TraesCS6A01G418400.1 | Epimerase family protein |
|  | TraesCS6A01G418500.1 | Cation/H(+) antiporter |
|  | TraesCS6A01G418600.1 | TSA: Wollemia nobilis Ref\_Wollemi\_Transcript\_29242\_1275 transcribed RNA sequence |
|  | TraesCS6A01G418700.1 | Werner Syndrome-like exonuclease |
|  | TraesCS6A01G418800.1 | Protein DETOXIFICATION |
|  | TraesCS6A01G418900.1 | CCR4-NOT transcription complex subunit 2 |
|  | TraesCS6A01G419000.1 | Leucine-rich repeat receptor-like protein kinase family protein |
|  | TraesCS6A01G419100.1 | Alpha-1,3-mannosyl-glycoprotein 2-beta-N-acetylglucosaminyltransferase |
|  | TraesCS6A01G419200.1 | U-box domain-containing protein |
|  | TraesCS6A01G419300.1 | Glycosyltransferase |
|  | TraesCS6A01G419400.1 | Protein O-linked-mannose beta-1,4-N-acetylglucosaminyltransferase 2 |
|  | TraesCS6A01G419500.1 | O-linked-mannose beta-1,4-N-acetylglucosaminyltransferase-like protein |
|  | TraesCS6A01G419600.1 | PRLI-interacting factor |
|  | TraesCS6A01G419700.1 | Metal tolerance-like protein |
|  | TraesCS6A01G419800.1 | BTB/POZ domain containing protein |
|  | TraesCS6A01G419900.1 | Callose synthase |
|  | TraesCS6A01G420000.1 | Outer envelope pore protein |
|  | TraesCS6A01G420100.1 | Callose synthase |
|  | TraesCS6A01G420200.1 | Ring finger protein |
|  | TraesCS6A01G420300.1 | myosin-like protein XIG |
|  | TraesCS6A01G420400.1 | Monosaccharide-sensing protein 2 |
|  | TraesCS6A01G420500.1 | DNA topoisomerase |
|  | TraesCS6A01G420600.1 | Protein sawadee homeodomain-like 2 |
|  | TraesCS6A01G420700.1 | Protein SAWADEE HOMEODOMAIN-like protein 2 |
|  | TraesCS6A01G420800.1 | DNA-BINDING TRANSCRIPTION FACTOR 2 |
|  | TraesCS6A01G420900.1 | Protein SAWADEE HOMEODOMAIN-like protein 2 |
|  | TraesCS6A01G421000.1 | Calcium-dependent protein kinase |
|  | TraesCS6A01G421100.1 | Homoserine kinase |
|  | TraesCS6A01G421200.1 | Auxin Efflux Carrier family protein |
|  | TraesCS6A01G421300.1 | Chaperone protein dnaJ |
|  | TraesCS6A01G421400.2 | F-box domain containing protein |
|  | TraesCS6A01G421500.1 | DNA-directed RNA polymerase subunit beta |
|  | TraesCS6A01G421600.1 | DNA-directed RNA polymerase subunit beta |
|  | TraesCS6A01G421700.1 | DNA-directed RNA polymerase subunit beta |
| *rootQTL\_7A.1* | TraesCS7A01G540100.1 | Ankyrin repeat protein family-like protein |
|  | TraesCS7A01G540200.3 | Receptor-like protein kinase |
|  | TraesCS7A01G540300.1 | receptor kinase 1 |
|  | TraesCS7A01G540400.2 | Receptor-like protein kinase |
|  | TraesCS7A01G540500.1 | Vesicle-associated protein 1-1 |
|  | TraesCS7A01G540600.1 | NBS-LRR disease resistance protein homologue |
|  | TraesCS7A01G540700.1 | receptor kinase 1 |
|  | TraesCS7A01G540800.1 | Tethering factor for nuclear proteasome STS1 |
|  | TraesCS7A01G540900.1 | receptor kinase 1 |
|  | TraesCS7A01G541000.1 | Receptor-like protein kinase |
|  | TraesCS7A01G541100.1 | receptor kinase 1 |
|  | TraesCS7A01G541200.1 | Protein kinase family protein |
|  | TraesCS7A01G541300.1 | Disease resistance protein RPM1 |
|  | TraesCS7A01G541400.1 | receptor kinase 1 |
|  | TraesCS7A01G541500.1 | transmembrane protein, putative (DUF594) |
|  | TraesCS7A01G541600.1 | Zinc finger-like protein |
|  | TraesCS7A01G541700.1 | Zinc finger family protein |
|  | TraesCS7A01G541800.1 | Zinc finger-like protein |
|  | TraesCS7A01G541900.1 | Zinc finger-like protein |
|  | TraesCS7A01G542000.1 | 1,4-dihydroxy-2-naphthoyl-CoA synthase |
|  | TraesCS7A01G542100.1 | Zinc finger-like protein |
|  | TraesCS7A01G542200.1 | Zinc finger family protein |
|  | TraesCS7A01G542300.1 | Zinc finger-like protein |
|  | TraesCS7A01G542400.1 | Zinc finger-like protein |
|  | TraesCS7A01G542500.2 | UPF0496 protein |
|  | TraesCS7A01G542600.1 | Blue copper protein |
|  | TraesCS7A01G542700.1 | Transcription factor |
|  | TraesCS7A01G542800.1 | Lateral signaling target 2-like protein |
|  | TraesCS7A01G542900.2 | DUF616 protein |
|  | TraesCS7A01G543000.1 | DDB1-and CUL4-associated factor |
|  | TraesCS7A01G543100.1 | DDB1-and CUL4-associated factor 8 |
|  | TraesCS7A01G543200.1 | transmembrane protein, putative (DUF594) |
|  | TraesCS7A01G543300.1 | Basic helix-loop-helix transcription factor |
|  | TraesCS7A01G543400.2 | Serine/threonine-protein kinase |
|  | TraesCS7A01G543500.1 | DNA-directed RNA polymerase subunit |
|  | TraesCS7A01G543600.1 | Galactose oxidase/kelch repeat superfamily protein |
|  | TraesCS7A01G543700.1 | Phosphoglycerate kinase |
|  | TraesCS7A01G543800.1 | WW domain-containing protein |
|  | TraesCS7A01G543900.1 | plant UBX domain-containing protein 2 |
|  | TraesCS7A01G544000.1 | Protein kinase family protein |
|  | TraesCS7A01G544100.1 | Serine/threonine-protein kinase |
|  | TraesCS7A01G544200.1 | Serine/threonine-protein kinase |
|  | TraesCS7A01G544300.1 | GDSL esterase/lipase |
|  | TraesCS7A01G544400.1 | F-box protein |
|  | TraesCS7A01G544500.1 | Phosphoribosyl 1,2-cyclic phosphate 1,2-diphosphodiesterase |
|  | TraesCS7A01G544600.1 | receptor kinase 1 |
|  | TraesCS7A01G544700.1 | DNA helicase |
|  | TraesCS7A01G544800.1 | ARM repeat superfamily protein |
|  | TraesCS7A01G544900.1 | Phospholipase D |
|  | TraesCS7A01G545000.1 | Phospholipase D |
|  | TraesCS7A01G545100.1 | Thiosulfate sulfurtransferase GlpE |
|  | TraesCS7A01G545200.1 | Thiosulfate sulfurtransferase GlpE |
|  | TraesCS7A01G545300.1 | auxin response factor 2 |
|  | TraesCS7A01G545400.1 | 11S globulin seed storage protein 2 |
|  | TraesCS7A01G545500.1 | Aspartate kinase 3 isoform 3 |
|  | TraesCS7A01G545600.1 | 11S globulin seed storage protein 2 |
|  | TraesCS7A01G545700.1 | 26S protease regulatory subunit |
|  | TraesCS7A01G545800.1 | Expansin-like protein |
|  | TraesCS7A01G545900.1 | Expansin-like protein |
|  | TraesCS7A01G546000.1 | Expansin-like protein |
|  | TraesCS7A01G546100.1 | Aluminum activated malate transporter family protein |
|  | TraesCS7A01G546200.1 | Expansin-like protein |
|  | TraesCS7A01G546300.1 | Expansin-like protein |
|  | TraesCS7A01G546400.1 | NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 2 |
|  | TraesCS7A01G546500.1 | mediator of RNA polymerase II transcription subunit |
|  | TraesCS7A01G546600.1 | DUF241 domain protein (DUF241) |
|  | TraesCS7A01G546700.1 | DUF241 domain protein (DUF241) |
|  | TraesCS7A01G546800.1 | DUF241 domain protein (DUF241) |
|  | TraesCS7A01G546900.1 | BTB/POZ domain containing protein |
|  | TraesCS7A01G547000.1 | BTB/POZ domain containing protein, expressed |
|  | TraesCS7A01G547100.1 | BTB/POZ domain containing protein, expressed |
|  | TraesCS7A01G547200.1 | BTB/POZ domain containing protein, expressed |
|  | TraesCS7A01G547300.1 | DUF241 domain protein (DUF241) |
|  | TraesCS7A01G547400.1 | DUF241 domain protein |
|  | TraesCS7A01G547500.1 | ATP-dependent zinc metalloprotease FTSH |
|  | TraesCS7A01G547600.1 | Ulp1 protease family, C-terminal catalytic domain containing protein, expressed |
|  | TraesCS7A01G547700.1 | Sentrin-specific protease |
|  | TraesCS7A01G548000.1 | Chitinase |
|  | TraesCS7A01G548100.1 | Endochitinase (Chitinase) |
|  | TraesCS7A01G548200.1 | Chitinase |
|  | TraesCS7A01G548300.1 | Zinc finger family protein |
|  | TraesCS7A01G548400.1 | Zinc finger family protein |
|  | TraesCS7A01G548500.1 | Zinc finger family protein |
|  | TraesCS7A01G548600.1 | Zinc finger family protein |
|  | TraesCS7A01G548700.1 | Zinc finger family protein |
|  | TraesCS7A01G548800.1 | Zinc finger family protein |
|  | TraesCS7A01G548900.1 | Zinc finger family protein |
|  | TraesCS7A01G549000.1 | NAC domain-containing protein |
|  | TraesCS7A01G549100.2 | 1,4-alpha-glucan branching enzyme |
|  | TraesCS7A01G549200.1 | 1,4-alpha-glucan branching enzyme |
|  | TraesCS7A01G549300.2 | 1,4-alpha-glucan branching enzyme |
|  | TraesCS7A01G549400.1 | Transmembrane protein 184C |
|  | TraesCS7A01G549500.1 | Cyclin |
|  | TraesCS7A01G549600.1 | Signal recognition particle 14 kDa protein |
|  | TraesCS7A01G549700.1 | U-box domain-containing protein |
|  | TraesCS7A01G549800.1 | Catalase |
|  | TraesCS7A01G549900.1 | Catalase |
|  | TraesCS7A01G550000.1 | Receptor-kinase, putative |
|  | TraesCS7A01G550100.1 | Receptor-kinase, putative |
|  | TraesCS7A01G550200.1 | Hexosyltransferase |
|  | TraesCS7A01G550300.1 | Protein kinase |
|  | TraesCS7A01G550400.1 | transducin family protein / WD-40 repeat family protein |
|  | TraesCS7A01G550500.1 | ATP-dependent Clp protease proteolytic subunit |
|  | TraesCS7A01G550600.1 | Cysteine protease, putative |
|  | TraesCS7A01G550700.1 | ATP-dependent Clp protease proteolytic subunit |
|  | TraesCS7A01G550800.1 | BTB/POZ domain containing protein |
|  | TraesCS7A01G550900.1 | Glycosyltransferase family 92 protein |
|  | TraesCS7A01G551000.1 | AGAMOUS-like MADS-box protein |
|  | TraesCS7A01G551100.1 | Lysine ketoglutarate reductase trans-splicing protein (DUF707) |
|  | TraesCS7A01G551200.1 | Ser/Thr-rich protein T10 in DGCR region |
|  | TraesCS7A01G551300.1 | tRNA-splicing endonuclease, putative |
|  | TraesCS7A01G551400.1 | Ring finger protein, putative |
|  | TraesCS7A01G551500.1 | Lysine ketoglutarate reductase trans-splicing protein (DUF707) |
|  | TraesCS7A01G551600.1 | Lysine ketoglutarate reductase trans-splicing protein (DUF707) |
|  | TraesCS7A01G551700.1 | Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein |
|  | TraesCS7A01G551800.1 | Xylosyltransferase 1 |
|  | TraesCS7A01G551900.1 | Disease resistance protein (NBS-LRR class) family |
|  | TraesCS7A01G552000.1 | Flavin-containing monooxygenase |
|  | TraesCS7A01G552100.1 | Chitinase |
|  | TraesCS7A01G552200.1 | Flavin-containing monooxygenase |
|  | TraesCS7A01G552300.1 | Ankyrin repeat family protein |
|  | TraesCS7A01G552400.1 | High mobility group protein |
|  | TraesCS7A01G552500.1 | Phosphatidylinositol N-acetyglucosaminlytransferase subunit P-like protein |
|  | TraesCS7A01G552600.1 | Copalyl diphosphate synthase-like protein |
|  | TraesCS7A01G552700.1 | Copalyl diphosphate synthase-like protein |
|  | TraesCS7A01G552800.1 | BURP domain protein RD22 |
|  | TraesCS7A01G552900.1 | F-box protein |
|  | TraesCS7A01G553000.1 | Aquaporin |
|  | TraesCS7A01G553100.1 | Calcium-binding EF hand protein-like |
|  | TraesCS7A01G553200.1 | Kinesin-like |
|  | TraesCS7A01G553400.1 | F-box family protein |
|  | TraesCS7A01G553500.1 | Heat shock family protein |
|  | TraesCS7A01G553600.1 | Disease resistance protein RPM1 |
|  | TraesCS7A01G553700.1 | Disease resistance protein (NBS-LRR class) family |
|  | TraesCS7A01G553800.1 | MYB-related protein |
|  | TraesCS7A01G553900.1 | Nodulin-like / Major Facilitator Superfamily protein |
|  | TraesCS7A01G554000.1 | SPX domain-containing protein |
|  | TraesCS7A01G554100.1 | SPX domain-containing protein |
|  | TraesCS7A01G554200.1 | NBS-LRR disease resistance protein-like protein |
|  | TraesCS7A01G554300.1 | transmembrane protein, putative (DUF594) |
|  | TraesCS7A01G554400.1 | Disease resistance protein (TIR-NBS-LRR class) |
|  | TraesCS7A01G554500.1 | Protein DETOXIFICATION |
|  | TraesCS7A01G554600.1 | eukaryotic release factor 1-1 |
|  | TraesCS7A01G554700.1 | Dirigent protein |
|  | TraesCS7A01G554800.1 | SPX domain-containing protein |
|  | TraesCS7A01G554900.1 | Bifunctional lycopene cyclase/phytoene synthase |
|  | TraesCS7A01G555000.1 | Dirigent protein |
|  | TraesCS7A01G555100.1 | Dirigent protein |
|  | TraesCS7A01G555200.1 | Disease resistance protein (NBS-LRR class) family |
|  | TraesCS7A01G555300.1 | NBS-LRR disease resistance protein-like protein |
|  | TraesCS7A01G555400.1 | disease resistance protein (TIR-NBS-LRR class) |
|  | TraesCS7A01G555500.1 | Nodulin-like / Major Facilitator Superfamily protein |
|  | TraesCS7A01G555600.1 | Cellulose synthase-like protein |
|  | TraesCS7A01G555700.1 | Callose synthase |
|  | TraesCS7A01G555800.1 | Ring finger protein |
|  | TraesCS7A01G555900.1 | Ring finger protein |
|  | TraesCS7A01G556000.1 | Ring finger protein |
|  | TraesCS7A01G556100.1 | Ring finger protein |
|  | TraesCS7A01G556200.1 | Ring finger protein |
|  | TraesCS7A01G556300.1 | LONGIFOLIA protein |
|  | TraesCS7A01G556400.1 | Ring finger protein |
|  | TraesCS7A01G556500.1 | Ring finger protein |
|  | TraesCS7A01G556600.1 | Ring finger protein |
|  | TraesCS7A01G556700.1 | Ring finger protein |
|  | TraesCS7A01G556800.1 | Monosaccharide-sensing protein 2 |
|  | TraesCS7A01G556900.1 | Hemoglobin and hemoglobin-haptoglobin-binding protein A |
|  | TraesCS7A01G557000.1 | thiamine-phosphate synthase |
|  | TraesCS7A01G557100.1 | Chloroplastic group IIA intron splicing facilitator CRS1, chloroplastic |
|  | TraesCS7A01G557200.1 | F-box family protein |
|  | TraesCS7A01G557300.2 | Phytoene synthase |
|  | TraesCS7A01G557400.1 | Protein argonaute |
|  | TraesCS7A01G557500.1 | Dynamin-related protein |
|  | TraesCS7A01G557600.1 | Sucrose synthase |
|  | TraesCS7A01G557700.2 | NBS-LRR disease resistance protein |
|  | TraesCS7A01G557800.2 | Chromodomain-helicase-DNA-binding family protein |
|  | TraesCS7A01G557900.1 | 'putative beta-1,3-glucanase |
|  | TraesCS7A01G558000.1 | MADS-box transcription factor family protein |
|  | TraesCS7A01G558100.1 | PPR containing protein |
|  | TraesCS7A01G558200.1 | 4-hydroxy-4-methyl-2-oxoglutarate aldolase |
|  | TraesCS7A01G558300.1 | 4-hydroxy-4-methyl-2-oxoglutarate aldolase |
|  | TraesCS7A01G558400.1 | UDP-glycosyltransferase |
|  | TraesCS7A01G558500.1 | Thaumatin-like protein |
|  | TraesCS7A01G558600.1 | Glycosyltransferase |
|  | TraesCS7A01G558700.1 | basic helix-loop-helix (bHLH) DNA-binding superfamily protein |