

## **Development related transcripts\_MapMan**

| <b>BinCode</b> | <b>BinName</b>  |
|----------------|---|
|                | 33.1 development.storage proteins                     |
|                | 33.1 development.storage proteins                     |
|                | 33.3 development.squamosa promoter binding like (SPL) |
|                | 33.3 development.squamosa promoter binding like (SPL) |
|                | 33.99 development.unspecified                         |

## **Cell division\_MapMan**

| <b>BinCode</b> | <b>BinName</b>     |
|----------------|--------------------|
|                | 31.2 cell.division |
|                | 31.2 cell.division |

## 31.2 cell.division

### Biotic stress

| BinCode | BinName                   |
|---------|---------------------------|
| 20.1    | stress.biotic             |
| 20.1.2  | stress.biotic.receptors   |
| 20.1.7  | stress.biotic.PR-proteins |
| 20.1.7  | stress.biotic.PR-proteins |

### Heat Stress \_MapMan

| BinCode | BinName             |
|---------|---------------------|
| 20.2.1  | stress.abiotic.heat |

### Cell cycle transcripts

| BinCode | BinName    |
|---------|------------|
| 31.3    | cell.cycle |

## Cold Stress transcripts\_MapMan

| BinCode | BinName             |
|---------|---------------------|
| 20.2.2  | stress.abiotic.cold |

## Drought/Salt stress

BinCode BinName  
20.2.3 stress.abiotic.drought/salt

## Cell organization \_ MapMan

## Unassigned ontology

## Protein Degradation

## Protein modification

29.4 protein.postranslational modification

29.4 protein.postranslational modification

## Regulation

| BinCode  | BinName   |
|----------|---|
| 30.1     | signalling.in sugar and nutrient physiology                           |
| 30.1     | signalling.in sugar and nutrient physiology                           |
| 30.2.3   | signalling.receptor kinases.leucine rich repeat III                   |
| 30.2.8.2 | signalling.receptor kinases.leucine rich repeat VIII.VIII-2           |
| 30.2.11  | signalling.receptor kinases.leucine rich repeat XI                    |
| 30.2.13  | signalling.receptor kinases.leucine rich repeat XIII                  |
| 30.2.17  | signalling.receptor kinases.DUF 26                                    |
| 30.2.23  | signalling.receptor kinases.RKF3 like                                 |
| 30.2.25  | signalling.receptor kinases.wall associated kinase                    |
| 30.2.99  | signalling.receptor kinases.misc                                      |
| 30.3     | signalling.calcium  |
| 30.4.1   | signalling.phosphinositides.phosphatidylinositol-4-phosphate 5-kinase |
| 30.5     | signalling.G-proteins   |
| 30.6     | signalling.MAP kinases  |
| 30.11    | signalling.light  |
| 30.11    | signalling.light  |

## RNA Processing

| BinCode   | BinName                               |
|-----------|---------------------------------------|
| 27.1      | RNA.processing                        |
| 27.1      | RNA.processing                        |
| 27.1      | RNA.processing                        |
| 27.1.1    | RNA.processing.splicing               |
| 27.1.2    | RNA.processing.RNA helicase           |
| 27.1.3.17 | RNA.processing.3' end processing.PabN |
| 27.1.3.17 | RNA.processing.3' end processing.PabN |
| 27.1.19   | RNA.processing.ribonucleases          |
| 27.1.19   | RNA.processing.ribonucleases          |
| 27.1.19   | RNA.processing.ribonucleases          |

## Regulation of transcription

- 27.3.7 RNA.regulation of transcription.C2C2(Zn) CO-like, Constans-like zinc finger f  
27.3.7 RNA.regulation of transcription.C2C2(Zn) CO-like, Constans-like zinc finger f  
27.3.7 RNA.regulation of transcription.C2C2(Zn) CO-like, Constans-like zinc finger f  
27.3.7 RNA.regulation of transcription.C2C2(Zn) CO-like, Constans-like zinc finger f  
27.3.8 RNA.regulation of transcription.C2C2(Zn) DOF zinc finger family  
27.3.8 RNA.regulation of transcription.C2C2(Zn) DOF zinc finger family  
27.3.8 RNA.regulation of transcription.C2C2(Zn) DOF zinc finger family  
27.3.9 RNA.regulation of transcription.C2C2(Zn) GATA transcription factor family  
27.3.9 RNA.regulation of transcription.C2C2(Zn) GATA transcription factor family  
27.3.11 RNA.regulation of transcription.C2H2 zinc finger family  
27.3.12 RNA.regulation of transcription.C3H zinc finger family  
27.3.15 RNA.regulation of transcription.CCAAT box binding factor family, HAP3  
27.3.20 RNA.regulation of transcription.G2-like transcription factor family, GARP  
27.3.20 RNA.regulation of transcription.G2-like transcription factor family, GARP  
27.3.21 RNA.regulation of transcription.GRAS transcription factor family  
27.3.22 RNA.regulation of transcription.HB,Homeobox transcription factor family  
27.3.24 RNA.regulation of transcription.MADS box transcription factor family  
27.3.25 RNA.regulation of transcription.MYB domain transcription factor family  
27.3.26 RNA.regulation of transcription.MYB-related transcription factor family

|         |   |
|---------|---|
| 27.3.26 | RNA.regulation of transcription.MYB-related transcription factor family         |
| 27.3.27 | RNA.regulation of transcription.NAC domain transcription factor family          |
| 27.3.27 | RNA.regulation of transcription.NAC domain transcription factor family          |
| 27.3.29 | RNA.regulation of transcription.TCP transcription factor family                 |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.Trihelix, Triple-Helix transcription factor fan |
| 27.3.30 | RNA.regulation of transcription.WRKY domain transcription factor family         |
| 27.3.32 | RNA.regulation of transcription.WRKY domain transcription factor family         |
| 27.3.32 | RNA.regulation of transcription.WRKY domain transcription factor family         |
| 27.3.32 | RNA.regulation of transcription.WRKY domain transcription factor family         |
| 27.3.32 | RNA.regulation of transcription.WRKY domain transcription factor family         |
| 27.3.32 | RNA.regulation of transcription.WRKY domain transcription factor family         |
| 27.3.32 | RNA.regulation of transcription.WRKY domain transcription factor family         |
| 27.3.35 | RNA.regulation of transcription.bZIP transcription factor family                |
| 27.3.35 | RNA.regulation of transcription.bZIP transcription factor family                |
| 27.3.37 | RNA.regulation of transcription.AS2,Lateral Organ Boundaries Gene Family        |
| 27.3.47 | RNA.regulation of transcription.ELF3  |
| 27.3.51 | RNA.regulation of transcription.General Transcription, TBP-binding protein      |
| 27.3.55 | RNA.regulation of transcription.HDA   |
| 27.3.59 | RNA.regulation of transcription.Methyl binding domain proteins                  |
| 27.3.59 | RNA.regulation of transcription.Methyl binding domain proteins                  |
| 27.3.60 | RNA.regulation of transcription.NIN-like bZIP-related family                    |
| 27.3.64 | RNA.regulation of transcription.PHOR1   |
| 27.3.67 | RNA.regulation of transcription.putative transcription regulator                |
| 27.3.67 | RNA.regulation of transcription.putative transcription regulator                |

## Unkown Proteins

| BinCode | BinName              |
|---------|----------------------|
| 35.2    | not assigned.unknown |

















## **Redox\_Trancripts**

| BinCode | BinName                                   |
|---------|---|
| 21.2    | redox.ascorbate and glutathione           |
| 21.2    | redox.ascorbate and glutathione           |
| 21.2    | redox.ascorbate and glutathione           |
| 21.2.1  | redox.ascorbate and glutathione.ascorbate |
| 21.2.1  | redox.ascorbate and glutathione.ascorbate |
| 21.2.1  | redox.ascorbate and glutathione.ascorbate |
| 21.4    | redox.glutaredoxins                       |

## **Metal associated transcripts**

| BinCode | BinName                                       |
|---------|---|
| 15.2    | metal handling.binding, chelation and storage |
| 15.3    | metal handling.regulation                     |
| 15.1    | metal handling.acquisition                    |
| 15.2    | metal handling.binding, chelation and storage |
| 15.2    | metal handling.binding, chelation and storage |
| 15.2    | metal handling.binding, chelation and storage |
| 15.2    | metal handling.binding, chelation and storage |
| 15.2    | metal handling.binding, chelation and storage |

## **Transport transcripts**

| BinCode | BinName                              |
|---------|--------------------------------------|
| 34      | transport                            |
| 34.1.3  | transport.p- and v-ATPases.inhibitor |
| 34.2    | transport.sugars                     |
| 34.2    | transport.sugars                     |
| 34.2    | transport.sugars                     |
| 34.3    | transport.amino acids                |
| 34.3    | transport.amino acids                |

## Cell wall\_Arabinogalactan

10.5.1.1 cell wall.cell wall proteins.AGPs.AGP  
10.5.1.1 cell wall.cell wall proteins.AGPs.AGP

### **Cell wall\_cellulose synthesis**

| BinCode | BinName  |
|---------|--|
|         | 10.2 cell wall.cellulose synthesis               |
|         | 10.2 cell wall.cellulose synthesis               |
|         | 10.2 cell wall.cellulose synthesis               |
| 10.2.1  | cell wall.cellulose synthesis.cellulose synthase |
| 10.2.1  | cell wall.cellulose synthesis.cellulose synthase |

### **Cell wall\_Polygalactouran Synthesis**

| BinCode | BinName   |
|---------|---|
| 10.6.3  | cell wall.degradation.pectate lyases and polygalacturonases |
| 10.6.3  | cell wall.degradation.pectate lyases and polygalacturonases |
| 10.6.3  | cell wall.degradation.pectate lyases and polygalacturonases |
| 10.6.3  | cell wall.degradation.pectate lyases and polygalacturonases |
| 10.6.3  | cell wall.degradation.pectate lyases and polygalacturonases |
| 10.6.3  | cell wall.degradation.pectate lyases and polygalacturonases |

### **Cell wall\_Xyloglucan synthesis**

| BinCode | BinName                     |
|---------|-----------------------------|
|         | 10.7 cell wall.modification |

### **Starch biosynthesis**

| BinCode | BinName |
|---------|---------|
|---------|---------|

|           |   |
|-----------|---|
| 2.2.2.1.1 | major CHO metabolism.degradation.starch.starch cleavage.alpha amylase |
| 2.2.2.1.2 | major CHO metabolism.degradation.starch.starch cleavage.beta amylase  |
| 2.2.2.6   | major CHO metabolism.degradation.starch.transporter                   |
| 2.2.2.8   | major CHO metabolism.degradation.starch.ISA3                          |

## Sucrose biosynthesis

|           |  |
|-----------|--|
| BinCode   | BinName  |
| 2.2.1.3.1 | major CHO metabolism.degradation.sucrose.invertases.neutral  |
| 2.2.1.3.3 | major CHO metabolism.degradation.sucrose.invertases.vacuolar |
| 2.2.1.4   | major CHO metabolism.degradation.sucrose.hexokinase          |
| 2.2.1.4   | major CHO metabolism.degradation.sucrose.hexokinase          |

## Phenolics biosynthesis

|         |                                     |
|---------|-------------------------------------|
| BinCode | BinName                             |
| 16.1    | secondary metabolism.simple phenols |

## Phenylpropanoid biosynthesis

|           |   |
|-----------|---|
| BinCode   | BinName   |
| 16.2      | secondary metabolism.phenylpropanoids                             |
| 16.2      | secondary metabolism.phenylpropanoids                             |
| 16.2      | secondary metabolism.phenylpropanoids                             |
| 16.2.1.3  | secondary metabolism.phenylpropanoids.lignin biosynthesis.4CL     |
| 16.2.1.3  | secondary metabolism.phenylpropanoids.lignin biosynthesis.4CL     |
| 16.2.1.6  | secondary metabolism.phenylpropanoids.lignin biosynthesis.CCoAOMT |
| 16.2.1.10 | secondary metabolism.phenylpropanoids.lignin biosynthesis.CAD     |
| 16.2.1.10 | secondary metabolism.phenylpropanoids.lignin biosynthesis.CAD     |

## Flavonoids biosynthesis

|         |  |
|---------|--|
| BinCode | BinName                                      |
| 16.8.1  | secondary metabolism.flavonoids.anthocyanins |
| 16.8.1  | secondary metabolism.flavonoids.anthocyanins |

16.8.1 secondary metabolism.flavonoids.anthocyanins  
16.8.1 secondary metabolism.flavonoids.anthocyanins  
16.8.1.21 secondary metabolism.flavonoids.anthocyanins.anthocyanin 5-aromatic acy  
16.8.1.21 secondary metabolism.flavonoids.anthocyanins.anthocyanin 5-aromatic acy  
16.8.3.1 secondary metabolism.flavonoids.dihydroflavonols.dihydroflavonol 4-reduc  
16.8.4.3 secondary metabolism.flavonoids.flavonols.flavonol-3-O-rhamnosyltransfer  
16.8.8.2 secondary metabolism.flavonoids.flavonoid glycosylations.flavonol-3-O-glyc

## **Terpene biosynthesis**

| BinCode   | BinName   |
|-----------|---|
| 16.1.1    | secondary metabolism.isoprenoids.non-mevalonate pathway                                     |
| 16.1.1    | secondary metabolism.isoprenoids.non-mevalonate pathway                                     |
| 16.1.1.10 | secondary metabolism.isoprenoids.non-mevalonate pathway.geranylgeranyl diphosphate synthase |
| 16.1.5    | secondary metabolism.isoprenoids.terpenoids   |
| 16.1.5    | secondary metabolism.isoprenoids.terpenoids   |
| 16.1.5    | secondary metabolism.isoprenoids.terpenoids   |

## **N Misc\_Glucosinolate synthesis**

| BinCode       | BinName  |
|---------------|--|
| 16.5.1.1.1.1  | secondary metabolism.sulfur-containing.glucosinolates.synthesis.aliphatic.k  |
| 16.5.1.1.1.2  | secondary metabolism.sulfur-containing.glucosinolates.synthesis.aliphatic.r  |
| 16.5.1.1.1.7  | secondary metabolism.sulfur-containing.glucosinolates.synthesis.aliphatic.C  |
| 16.5.1.1.1.10 | secondary metabolism.sulfur-containing.glucosinolates.synthesis.aliphatic.f  |
| 16.5.1.1.1.10 | secondary metabolism.sulfur-containing.glucosinolates.synthesis.aliphatic.f  |
| 16.5.1.1.1.10 | secondary metabolism.sulfur-containing.glucosinolates.synthesis.aliphatic.f  |
| 16.5.1.1.1.11 | secondary metabolism.sulfur-containing.glucosinolates.synthesis.aliphatic.g  |
| 16.5.1.1.1.13 | secondary metabolism.sulfur-containing.glucosinolates.synthesis.aliphatic.z  |
| 16.5.1.1.3.2  | secondary metabolism.sulfur-containing.glucosinolates.synthesis.indole.CYI   |
| 16.5.1.2.1    | secondary metabolism.sulfur-containing.glucosinolates.regulation.aliphatic   |
| 16.5.1.2.1    | secondary metabolism.sulfur-containing.glucosinolates.regulation.aliphatic   |
| 16.5.1.3.1    | secondary metabolism.sulfur-containing.glucosinolates.degradation.myrosinase |
| 16.5.1.3.1    | secondary metabolism.sulfur-containing.glucosinolates.degradation.myrosinase |
| 16.5.1.3.2.1  | secondary metabolism.sulfur-containing.glucosinolates.degradation.nitriles   |
| 16.5.1.3.3    | secondary metabolism.sulfur-containing.glucosinolates.degradation.nitrilases |

## **DNA Synthesis**

| BinCode | BinName |
|---------|---------|
|---------|---------|

28.1 DNA.synthesis/chromatin structure  
28.1 DNA.synthesis/chromatin structure  
28.1 DNA.synthesis/chromatin structure  
28.1.1 DNA.synthesis/chromatin structure.retrotransposon/transposase  
28.1.1 DNA.synthesis/chromatin structure.retrotransposon/transposase  
28.1.1 DNA.synthesis/chromatin structure.retrotransposon/transposase  
28.1.1 DNA.synthesis/chromatin structure.retrotransposon/transposase  
28.1.1.3 DNA.synthesis/chromatin structure.retrotransposon/transposase.copia-like  
28.1.1.3 DNA.synthesis/chromatin structure.retrotransposon/transposase.copia-like  
28.1.1.3 DNA.synthesis/chromatin structure.retrotransposon/transposase.copia-like  
28.1.1.4 DNA.synthesis/chromatin structure.retrotransposon/transposase.hat-like tr  
28.1.1.5 DNA.synthesis/chromatin structure.retrotransposon/transposase.CACTA-l  
28.1.3.1 DNA.synthesis/chromatin structure.histone.H1  
28.1.3.2.1 DNA.synthesis/chromatin structure.histone.core.H2A  
28.1.3.2.3 DNA.synthesis/chromatin structure.histone.core.H3  
28.1.3.2.4 DNA.synthesis/chromatin structure.histone.core.H4

### Lys biosynthesis

BinCode BinName  
13.2.3.5 amino acid metabolism.degradation.aspartate family.lysine

### Arg\_biosynthesis

BinCode BinName  
13.2.2.3 amino acid metabolism.degradation.glutamate family.arginine

### Mitochondrial electron transport

BinCode BinName  
9.1.2 mitochondrial electron transport / ATP synthesis.NADH-DH.localisation not  
9.1.2 mitochondrial electron transport / ATP synthesis.NADH-DH.localisation not  
9.1.2 mitochondrial electron transport / ATP synthesis.NADH-DH.localisation not  
9.9 mitochondrial electron transport / ATP synthesis.F1-ATPase

### Light reactions

BinCode BinName  
1.1.1.2 PS.lightreaction.photosystem II.PSII polypeptide subunits  
1.1.2.2 PS.lightreaction.photosystem I.PSI polypeptide subunits  
1.1.2.2 PS.lightreaction.photosystem I.PSI polypeptide subunits

|         |   |
|---------|---|
| 1.1.2.2 | PS.lightreaction.photosystem I.PSI polypeptide subunits |
| 1.1.2.2 | PS.lightreaction.photosystem I.PSI polypeptide subunits |
| 1.1.3.4 | PS.lightreaction.cytochrome b6/f.apocytochrome f (CYF)  |
| 1.1.6   | PS.lightreaction.NADH DH                                |

### Auxin synthesis

| BinCode | BinName   |
|---------|---|
| 17.2.1  | hormone metabolism.auxin.synthesis-degradation                  |
| 17.2.3  | hormone metabolism.auxin.induced-regulated-responsive-activated |

### Abscisic acid biosynthesis transcripts\_MapMan

| BinCode    | BinName   |
|------------|---|
| 17.1.1.2.1 | hormone metabolism.abscisic acid.synthesis-degradation.degradation.8-hy |
| 17.1.2     | hormone metabolism.abscisic acid.signal transduction                    |
| 17.1.3     | hormone metabolism.abscisic acid.induced-regulated-responsive-activated |

### Ethylene Biosynthesis pathway

| BinCode | BinName  |
|---------|--|
| 17.5.1  | hormone metabolism.ethylene.synthesis-degradation                  |
| 17.5.2  | hormone metabolism.ethylene.signal transduction                    |
| 17.5.2  | hormone metabolism.ethylene.signal transduction                    |
| 17.5.2  | hormone metabolism.ethylene.signal transduction                    |
| 17.5.3  | hormone metabolism.ethylene.induced-regulated-responsive-activated |
| 17.5.3  | hormone metabolism.ethylene.induced-regulated-responsive-activated |

## Overall hormone biosynthesis

| BinCode     | BinName   |
|-------------|---|
| 17.1.1.2.1  | hormone metabolism.abscisic acid.synthesis-degradation.degradation.8-hydroxy-<br>hormone metabolism.abscisic acid.signal transduction |
| 17.1.2      | hormone metabolism.abscisic acid.signal transduction  |
| 17.1.3      | hormone metabolism.abscisic acid.induced-regulated-responsive-activated   |
| 17.2.1      | hormone metabolism.auxin.synthesis-degradation  |
| 17.2.3      | hormone metabolism.auxin.induced-regulated-responsive-activated   |
| 17.3.1.1.3  | hormone metabolism.brassinosteroid.synthesis-degradation.BRs.CPD  |
| 17.3.1.1.99 | hormone metabolism.brassinosteroid.synthesis-degradation.BRs.other  |
| 17.3.1.2.99 | hormone metabolism.brassinosteroid.synthesis-degradation.sterols.other  |
| 17.4.1      | hormone metabolism.cytokinin.synthesis-degradation  |
| 17.5.1      | hormone metabolism.ethylene.synthesis-degradation   |
| 17.5.2      | hormone metabolism.ethylene.signal transduction   |
| 17.5.2      | hormone metabolism.ethylene.signal transduction   |
| 17.5.2      | hormone metabolism.ethylene.signal transduction   |
| 17.5.3      | hormone metabolism.ethylene.induced-regulated-responsive-activated  |
| 17.5.3      | hormone metabolism.ethylene.induced-regulated-responsive-activated  |
| 17.6.1      | hormone metabolism.gibberelin.synthesis-degradation   |
| 17.6.1.11   | hormone metabolism.gibberelin.synthesis-degradation.GA20 oxidase  |
| 17.6.3      | hormone metabolism.gibberelin.induced-regulated-responsive-activated  |
| 17.6.3      | hormone metabolism.gibberelin.induced-regulated-responsive-activated  |
| 17.7.1.2    | hormone metabolism.jasmonate.synthesis-degradation.lipoxygenase   |
| 17.7.1.5    | hormone metabolism.jasmonate.synthesis-degradation.12-Oxo-PDA-reduct  |
| 17.7.1.10   | hormone metabolism.jasmonate.synthesis-degradation.jasmonate-O-methyltransferase  |
| 17.7.3      | hormone metabolism.jasmonate.induced-regulated-responsive-activated   |
| 17.7.3      | hormone metabolism.jasmonate.induced-regulated-responsive-activated   |

17.7.3 hormone metabolism.jasmonate.induced-regulated-responsive-activated  
17.8.1 hormone metabolism.salicylic acid.synthesis-degradation  
17.8.1 hormone metabolism.salicylic acid.synthesis-degradation  
17.8.1.1.7 hormone metabolism.salicylic acid.synthesis-degradation.synthesis.methyl-

| <b>id</b> | <b>Type</b> |
|-----------|-------------|
| at5g24770 | Transcript  |
| at5g24780 | Transcript  |
| at2g42200 | Transcript  |
| at3g15270 | Transcript  |
| at1g01720 | Transcript  |
| at1g05420 | Transcript  |
| at1g12260 | Transcript  |
| at1g13245 | Transcript  |
| at1g19200 | Transcript  |
| at1g26600 | Transcript  |
| at1g52890 | Transcript  |
| at1g56200 | Transcript  |
| at1g69320 | Transcript  |
| at1g69970 | Transcript  |
| at1g71930 | Transcript  |
| at2g16660 | Transcript  |
| at2g41380 | Transcript  |
| at2g45330 | Transcript  |
| at3g03200 | Transcript  |
| at3g15400 | Transcript  |
| at3g53210 | Transcript  |
| at3g61190 | Transcript  |
| at4g24220 | Transcript  |
| at4g28190 | Transcript  |
| at4g35783 | Transcript  |
| at5g09805 | Transcript  |
| at5g15800 | Transcript  |
| at5g41090 | Transcript  |
| at5g43070 | Transcript  |
| at5g50800 | Transcript  |
| at5g60910 | Transcript  |
| at5g62210 | Transcript  |
| at5g64667 | Transcript  |

| <b>id</b> | <b>type</b> |
|-----------|-------------|
| at3g02510 | Transcript  |
| at5g43070 | Transcript  |

at5g60870 Transcript

| id        | type       |
|-----------|------------|
| at1g19610 | Transcript |
| at1g19670 | Transcript |
| at1g20030 | Transcript |
| at1g58848 | Transcript |
| at1g66100 | Transcript |
| at1g73620 | Transcript |
| at1g77700 | Transcript |
| at2g14610 | Transcript |
| at4g09950 | Transcript |
| at4g19810 | Transcript |
| at4g19820 | Transcript |
| at4g24180 | Transcript |
| at4g37000 | Transcript |
| at4g39030 | Transcript |
| at5g40020 | Transcript |
| at1g65390 | Transcript |
| at1g58807 | Transcript |
| at1g65870 | Transcript |

| id        | type       |
|-----------|------------|
| at1g07400 | Transcript |
| at1g54050 | Transcript |
| at1g56300 | Transcript |
| at1g77020 | Transcript |
| at3g62190 | Transcript |
| at5g64360 | Transcript |

| id        | type       |
|-----------|------------|
| at1g77390 | Transcript |
| at2g23430 | Transcript |
| at2g42260 | Transcript |
| at4g03270 | Transcript |
| at5g65420 | Transcript |

| id        | type       |
|-----------|------------|
| at2g42530 | Transcript |
| at2g42540 | Transcript |
| at4g38680 | Transcript |
| at5g52310 | Transcript |

| id        | type       |
|-----------|------------|
| at4g15910 | Transcript |

| id        | type       |
|-----------|------------|
| at1g06530 | Transcript |
| at1g12710 | Transcript |
| at1g43700 | Transcript |
| at1g71790 | Transcript |
| at2g02350 | Transcript |
| at2g38750 | Transcript |
| at2g38760 | Transcript |
| at2g42170 | Transcript |
| at3g60840 | Transcript |
| at4g08580 | Transcript |
| at4g14390 | Transcript |
| at4g19150 | Transcript |
| at5g15970 | Transcript |
| at5g20110 | Transcript |
| at5g52120 | Transcript |
| at5g54720 | Transcript |
| at5g64920 | Transcript |

| id        | type       |
|-----------|------------|
| at1g03620 | Transcript |
| at1g05135 | Transcript |
| at1g08160 | Transcript |
| at1g10657 | Transcript |
| at1g14880 | Transcript |
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| at1g52040 | Transcript |
| at1g54010 | Transcript |
| at1g54040 | Transcript |
| at3g44300 | Transcript |

|    |      |
|----|------|
| id | type |
|----|------|

|           |            |
|-----------|------------|
| at1g11190 | Transcript |
| at1g49450 | Transcript |
| at4g04410 | Transcript |
| at2g10410 | Transcript |
| at3g02515 | Transcript |
| at3g42658 | Transcript |
| at5g28913 | Transcript |
| at2g07080 | Transcript |
| at3g21050 | Transcript |
| at3g43690 | Transcript |
| at5g64685 | Transcript |
| at3g43828 | Transcript |
| at2g18050 | Transcript |
| at4g13570 | Transcript |
| at1g09200 | Transcript |
| at1g07660 | Transcript |

|           |            |
|-----------|------------|
| id        | type       |
| at4g33150 | Transcript |

|           |            |
|-----------|------------|
| id        | type       |
| at4g08870 | Transcript |

|           |            |
|-----------|------------|
| id        | type       |
| at2g07711 | Transcript |
| at3g62790 | Transcript |
| at5g52840 | Transcript |
| atmg01080 | Transcript |

|           |            |
|-----------|------------|
| id        | type       |
| at2g30790 | Transcript |
| atcg00020 | Transcript |
| atcg00280 | Transcript |
| atcg00680 | Transcript |
| atcg00340 | Transcript |
| atcg00350 | Transcript |

|           |            |
|-----------|------------|
| atcg00630 | Transcript |
| atcg01060 | Transcript |
| atcg00540 | Transcript |
| atcg01080 | Transcript |

|           |            |
|-----------|------------|
| id        | type       |
| at1g05560 | Transcript |
| at1g44350 | Transcript |
| at1g51760 | Transcript |
| at1g51780 | Transcript |
| at3g02875 | Transcript |
| at3g44300 | Transcript |
| at1g19840 | Transcript |
| at2g45210 | Transcript |
| at4g34780 | Transcript |
| at4g34800 | Transcript |

|           |            |
|-----------|------------|
| id        | type       |
| at4g19230 | Transcript |
| at4g34000 | Transcript |
| at4g36720 | Transcript |
| at5g08350 | Transcript |
| at5g15960 | Transcript |
| at5g23350 | Transcript |
| at5g23370 | Transcript |
| at5g59220 | Transcript |

|           |            |
|-----------|------------|
| id        | type       |
| at2g25450 | Transcript |
| at2g44840 | Transcript |
| at4g05170 | Transcript |
| at5g61600 | Transcript |
| at3g62550 | Transcript |
| at4g37150 | Transcript |

| id        | type       |
|-----------|------------|
| at4g19230 | Transcript |
| at4g34000 | Transcript |
| at4g36720 | Transcript |
| at5g08350 | Transcript |
| at5g15960 | Transcript |
| at5g23350 | Transcript |
| at5g23370 | Transcript |
| at5g59220 | Transcript |
| at1g05560 | Transcript |
| at1g44350 | Transcript |
| at1g51760 | Transcript |
| at1g51780 | Transcript |
| at3g02875 | Transcript |
| at3g44300 | Transcript |
| at1g19840 | Transcript |
| at2g45210 | Transcript |
| at4g34780 | Transcript |
| at4g34800 | Transcript |
| at5g05690 | Transcript |
| at4g36380 | Transcript |
| at5g24155 | Transcript |
| at1g75450 | Transcript |
| at2g25450 | Transcript |
| at2g44840 | Transcript |
| at4g05170 | Transcript |
| at5g61600 | Transcript |
| at3g62550 | Transcript |
| at4g37150 | Transcript |
| at4g03060 | Transcript |
| at4g25420 | Transcript |
| at1g22690 | Transcript |
| at5g59845 | Transcript |
| at3g45140 | Transcript |
| at2g06050 | Transcript |
| at1g19640 | Transcript |
| at1g54040 | Transcript |
| at3g16460 | Transcript |

|           |            |
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| at3g16470 | Transcript |
| at1g05680 | Transcript |
| at5g38780 | Transcript |
| at3g11480 | Transcript |

## Description

Symbols: VSP2, ATVSP2 | VSP2 (VEGETATIVE STORAGE PROTEIN 2); acid phosphatase | chr5:8500476-{  
Symbols: VSP1, ATVSP1 | VSP1 (VEGETATIVE STORAGE PROTEIN 1); acid phosphatase/ transcription fac  
Symbols: SPL9 | SPL9 (SQUAMOSA PROMOTER BINDING PROTEIN-LIKE 9); transcription factor | chr2:1'·  
Symbols: SPL5 | SPL5 (SQUAMOSA PROMOTER BINDING PROTEIN-LIKE 5); DNA binding / transcription ·  
Symbols: ATAF1, ANAC002 | ATAF1; transcription activator/ transcription factor | chr1:268330-269819  
Symbols: ATOFP12, OFP12 | OFP12 (OVATE FAMILY PROTEIN 12) | chr1:1590073-1590753 FORWARD  
Symbols: VND4, EMB2749, ANAC007 | ANAC007 (ARABIDOPSIS NAC 007); transcription factor | chr1:4  
Symbols: RTFL17, DVL4 | RTFL17 (ROTUNDIFOLIA LIKE 17) | chr1:4525486-4526064 REVERSE  
senescence-associated protein-related | chr1:6625020-6625856 REVERSE  
Symbols: CLE9 | CLE9 (CLAVATA3/ESR-RELATED 9); protein binding / receptor binding | chr1:9191607-  
Symbols: ANAC019 | ANAC019 (Arabidopsis NAC domain containing protein 19); transcription factor |  
Symbols: emb1303 | emb1303 (embryo defective 1303) | chr1:21030794-21032078 FORWARD  
Symbols: CLE10 | CLE10 (CLAVATA3/ESR-RELATED 10); protein binding / receptor binding | chr1:26061  
Symbols: CLE26 | CLE26 (CLAVATA3/ESR-RELATED 26); protein binding / receptor binding | chr1:26353  
Symbols: VND7, ANAC030 | VND7 (VASCULAR RELATED NAC-DOMAIN PROTEIN 7); transcription activa  
nodulin family protein | chr2:7218706-7221625 REVERSE  
embryo-abundant protein-related | chr2:17251941-17253057 FORWARD  
Symbols: emb1067 | emb1067 (embryo defective 1067); tRNA 2'-phosphotransferase/ transferase, tra  
Symbols: anac045 | anac045 (Arabidopsis NAC domain containing protein 45); transcription factor | ch  
Symbols: ATA20 | ATA20 | chr3:5201644-5203197 FORWARD  
nodulin MtN21 family protein | chr3:19720165-19721875 FORWARD  
Symbols: BAP1 | BAP1 (BON ASSOCIATION PROTEIN 1); phospholipid binding / protein binding | chr3:2  
Symbols: VEP1, AWI31 | VEP1 (VEIN PATTERNING 1); binding / catalytic | chr4:12564945-12566755 FO  
Symbols: ULT1, ULT | ULT1 (ULTRAPETALA1); DNA binding | chr4:13985461-13987261 FORWARD  
Symbols: RTFL6, DVL17 | RTFL6 (ROTUNDIFOLIA LIKE 6) | chr4:16952406-16952800 FORWARD  
Symbols: IDL3 | IDL3 (INFLORESCENCE DEFICIENT IN ABSCISSION (IDA)-LIKE 3) | chr5:3047218-3047517  
Symbols: SEP1, AGL2 | SEP1 (SEPALLATA1); DNA binding / transcription factor | chr5:5151334-515415·  
Symbols: anac095 | anac095 (Arabidopsis NAC domain containing protein 95); transcription factor | ch  
Symbols: WPP1 | WPP1 (WPP domain protein 1) | chr5:17289100-17289776 REVERSE  
nodulin MtN3 family protein | chr5:20665077-20667304 REVERSE  
Symbols: AGL8, FUL | AGL8 (agamous-like 8); transcription factor | chr5:24502482-24506143 REVERSE  
embryo-specific protein-related | chr5:24986327-24987489 REVERSE  
Symbols: IDL2 | IDL2 (INFLORESCENCE DEFICIENT IN ABSCISSION (IDA)-LIKE 2) | chr5:25850656-258513

## description

regulator of chromosome condensation (RCC1) family protein | chr3:521794-524631 REVERSE  
Symbols: WPP1 | WPP1 (WPP domain protein 1) | chr5:17289100-17289776 REVERSE

regulator of chromosome condensation (RCC1) family protein | chr5:24485655-24487784 REVERSE

#### description

Symbols: LCR78, PDF1.4 | PDF1.4 | chr1:6781483-6782039 REVERSE

Symbols: ATCLH1, CORI1, ATHCOR1 | ATCLH1 (ARABIDOPSIS THALIANA CORONATINE-INDUCED PROTEIN) pathogenesis-related thaumatin family protein | chr1:6945425-6947344 FORWARD

ATP binding / protein binding | chr1:21791783-21797050 FORWARD

thionin, putative | chr1:24605671-24606537 REVERSE

thaumatin-like protein, putative / pathogenesis-related protein, putative | chr1:27681408-27683130 FORWARD pathogenesis-related thaumatin family protein | chr1:29204747-29206217 FORWARD

Symbols: PR1, PR 1, ATPR1 | PR1 (PATHOGENESIS-RELATED GENE 1) | chr2:6241704-6242463 REVERSE avirulence-responsive family protein / avirulence induced gene (AIG1) family protein | chr4:6234762-6 glycosyl hydrolase family 18 protein | chr4:10763934-10765753 REVERSE

glycosyl hydrolase family 18 protein | chr4:10767436-10768614 REVERSE

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: response to other organism; LOCATED IN:

Symbols: ACD2, ATRCCR | ACD2 (ACCELERATED CELL DEATH 2); red chlorophyll catabolite reductase | chr1:16022753-16024316 FORWARD

Symbols: EDS5, SID1 | EDS5 (ENHANCED DISEASE SUSCEPTIBILITY 5); antiporter/ multidrug efflux pump | pathogenesis-related thaumatin family protein | chr5:16022753-16024316 REVERSE

Symbols: ATPP2-A5 | ATPP2-A5 (ARABIDOPSIS THALIANA PHLOEM PROTEIN 2 A5); carbohydrate binding protein / disease resistance protein (CC-NBS-LRR class), putative / PRM1 homolog, putative | chr1:21780574-21 disease resistance-responsive family protein | chr1:24503624-24504193 FORWARD

#### description

17.8 kDa class I heat shock protein (HSP17.8-CI) | chr1:2274943-2275758 FORWARD

17.4 kDa class III heat shock protein (HSP17.4-CIII) | chr1:20179422-20180281 REVERSE

DNAJ heat shock N-terminal domain-containing protein | chr1:21078820-21080423 REVERSE

DNAJ heat shock N-terminal domain-containing protein | chr1:28944843-28947031 REVERSE

DNAJ heat shock N-terminal domain-containing protein | chr3:23021121-23023332 FORWARD

DNAJ heat shock N-terminal domain-containing protein | chr5:25737071-25738667 REVERSE

#### description

Symbols: CYCA1;2, CYCA1 | CYCA1;2 (CYCLIN A1;2); cyclin-dependent protein kinase regulator | chr1:20179422-20180281 FORWARD

Symbols: ICK1, KRP1 | ICK1; cyclin-dependent protein kinase inhibitor | chr2:9976746-9978021 REVERSE

Symbols: UVI4, PYM | UVI4 (UV-B-INSENSITIVE 4) | chr2:17601955-17603633 REVERSE

Symbols: CYCD6;1 | CYCD6;1 (Cyclin D6;1); cyclin-dependent protein kinase | chr4:1432375-1433691 FORWARD

Symbols: CYCD4;1 | CYCD4;1 (CYCLIN D4;1); cyclin-dependent protein kinase regulator | chr5:2614147 REVERSE

description

Symbols: COR15B | COR15B (COLD REGULATED 15B) | chr2:17709036-17709945 REVERSE

Symbols: COR15A, COR15 | COR15A (COLD-REGULATED 15A) | chr2:17711037-17712092 REVERSE

Symbols: GRP2, CSDP2, CSP2, ATCSP2 | GRP2 (GLYCINE RICH PROTEIN 2); double-stranded DNA binding

Symbols: COR78, LTI78, RD29A, LTI140 | LTI78 (LOW-TEMPERATURE-INDUCED 78) | chr5:21240849-21

description

Symbols: ATDI21, DI21 | ATDI21 (ARABIDOPSIS THALIANA DROUGHT-INDUCED 21) | chr4:9028461-902

description

myosin heavy chain-related | chr1:2001594-2002596 FORWARD

Symbols: AtPP2-A12 | AtPP2-A12 (Phloem protein 2-A12); carbohydrate binding | chr1:4326739-43284

Symbols: VIP1 | VIP1 (VIRE2-INTERACTING PROTEIN 1); protein binding / transcription factor | chr1:16-

F-actin capping protein beta subunit family protein | chr1:26996809-26998977 FORWARD

Symbols: SKIP3, AtPP2-B9 | SKIP3 (SKP1 INTERACTING PARTNER 3); carbohydrate binding | chr2:61780

Symbols: ANNAT4 | ANNAT4 (ANNEXIN ARABIDOPSIS 4); calcium ion binding / calcium-dependent pho

Symbols: ANNAT3 | ANNAT3 (ANNEXIN ARABIDOPSIS 3); calcium ion binding / calcium-dependent pho  
actin, putative | chr2:17577714-17580392 FORWARD

Symbols: MAP65-4 | MAP65-4 (MICROTUBULE-ASSOCIATED PROTEIN 65-4) | chr3:22477573-2248046:  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
ankyrin repeat family protein | chr4:8289644-8292083 FORWARD

ankyrin repeat family protein | chr4:10471331-10472742 REVERSE

Symbols: KIN2, COR6.6 | KIN2 | chr5:5211911-5212665 FORWARD

dynein light chain, putative | chr5:6791487-6793346 REVERSE

Symbols: AtPP2-A14 | AtPP2-A14 (Phloem protein 2-A14); carbohydrate binding | chr5:21176422-2118:  
ankyrin repeat family protein | chr5:22232195-22232949 REVERSE

Symbols: CIP8 | CIP8 (COP1-INTERACTING PROTEIN 8); protein binding / zinc ion binding | chr5:259438

description

phagocytosis and cell motility protein ELMO1-related | chr1:904319-906013 REVERSE

pseudogene of unknown protein | chr1:1477500-1478821 REVERSE

harpin-induced protein-related / HIN1-related / harpin-responsive protein-related | chr1:2559487-256

unknown protein | chr1:3530467-3531821 FORWARD

unknown protein | chr1:5132535-5133716 REVERSE

protein-protein interaction regulator family protein | chr1:5228336-5231061 REVERSE

other RNA | chr1:5297875-5298166 REVERSE

VQ motif-containing protein | chr1:7469002-7469721 REVERSE

Symbols: LYM1 | LYM1 (LYSM DOMAIN GPI-ANCHORED PROTEIN 1 PRECURSOR) | chr1:7680481-76826  
unknown protein | chr1:8712478-8713032 REVERSE

unknown protein | chr1:10095797-10096374 FORWARD

Symbols: COR414-TM1 | COR414-TM1 | chr1:10288197-10289621 REVERSE

Biotin/lipoate A/B protein ligase family; FUNCTIONS IN: octanoyltransferase activity, catalytic activity; I  
membrane trafficking VPS53 family protein | chr1:18896323-18900268 FORWARD

reticulon family protein (RTNLB14) | chr1:25572185-25572921 FORWARD

hydrolase, alpha/beta fold family protein | chr1:27341079-27342455 FORWARD

esterase/lipase/thioesterase family protein | chr1:27931836-27934268 FORWARD

dolichol phosphate-mannose biosynthesis regulatory protein-related | chr1:27948123-27951668 REVE

Symbols: CP12-3 | CP12-3 | chr1:28728253-28728853 FORWARD

peptidoglycan-binding LysM domain-containing protein | chr1:29173457-29175530 FORWARD

## description

Symbols: AtMC9 | AtMC9 (metacaspase 9); cysteine-type peptidase | chr5:1153790-1155040 FORWAR

Symbols: SDD1 | SDD1 (STOMATAL DENSITY AND DISTRIBUTION); serine-type endopeptidase | chr1:1C

Symbols: XCP2 | XCP2 (xylem cysteine peptidase 2); cysteine-type peptidase/ peptidase | chr1:725217  
cysteine proteinase, putative | chr3:17905725-17907561 FORWARD

cysteine proteinase, putative | chr4:6887254-6889059 FORWARD

Symbols: XCP1 | XCP1 (XYLEM CYSTEINE PEPTIDASE 1); cysteine-type endopeptidase/ cysteine-type pe

Symbols: SCPL13 | serine-type carboxypeptidase | chr2:9778877-9783251 FORWARD

Symbols: SCPL9 | serine carboxypeptidase S10 family protein | chr2:9798843-9802674 FORWARD

serpin, putative / serine protease inhibitor, putative | chr2:11229087-11230491 REVERSE

catalytic/ protein binding / serine-type endopeptidase/ serine-type peptidase | chr5:9789899-979229

AAA-type ATPase family protein | chr3:10685524-10687364 FORWARD

Symbols: UBQ6 | UBQ6; protein binding | chr2:19344668-19345345 FORWARD

ubiquitin family protein | chr5:4630997-4631742 FORWARD

Symbols: UBC5 | UBC5 (ubiquitin-conjugating enzyme 5); ubiquitin-protein ligase | chr1:23667616-236

Symbols: UBC17 | UBC17 (UBIQUITIN-CONJUGATING ENZYME 17); small conjugating protein ligase/ ub  
zinc finger (C3HC4-type RING finger) family protein | chr1:553181-555854 REVERSE

zinc finger (C3HC4-type RING finger) family protein | chr1:8484703-8486002 REVERSE

zinc finger (C3HC4-type RING finger) family protein | chr1:18201889-18202764 FORWARD

zinc finger (C3HC4-type RING finger) family protein | chr1:18209261-18210128 FORWARD

zinc finger (C3HC4-type RING finger) family protein | chr1:22242748-22243731 REVERSE

zinc finger (C3HC4-type RING finger) family protein | chr1:27157875-27159558 FORWARD

zinc finger (C3HC4-type RING finger) family protein | chr2:14440648-14442005 FORWARD

zinc finger (C3HC4-type RING finger) family protein | chr2:15764728-15765553 FORWARD

zinc finger (C3HC4-type RING finger) family protein | chr3:3479979-3480455 FORWARD  
zinc finger (C3HC4-type RING finger) family protein | chr3:17178697-17180067 REVERSE  
Symbols: ORL1, VIM6, ORTHL | ORTHL (ORTHRUS-LIKE); ubiquitin-protein ligase/ zinc ion binding | chr2:17178697-17180067 FORWARD  
zinc finger (C3HC4-type RING finger) family protein | chr5:206432-208611 FORWARD  
zinc finger (C3HC4-type RING finger) family protein | chr5:338899-340253 FORWARD  
zinc finger (C3HC4-type RING finger) family protein | chr5:375215-377208 FORWARD  
zinc finger (C3HC4-type RING finger) family protein | chr5:5161724-5163030 FORWARD  
zinc finger (C3HC4-type RING finger) family protein | chr5:20167002-20169474 REVERSE  
unknown protein | chr1:3627726-3630765 FORWARD  
kelch repeat-containing F-box family protein | chr1:9336057-9337786 REVERSE  
kelch repeat-containing F-box family protein | chr1:9519108-9520520 FORWARD  
F-box family protein | chr1:11221335-11222786 REVERSE  
Symbols: ATSKP2;2, SKP2B | SKP2B; ubiquitin-protein ligase | chr1:28940750-28942596 FORWARD  
F-box family protein | chr2:7403856-7405219 FORWARD  
F-box family protein | chr2:11683862-11684967 REVERSE  
F-box family protein | chr3:6289227-6290383 REVERSE  
F-box family protein | chr3:8313334-8314422 FORWARD  
kelch repeat-containing F-box family protein | chr3:22142900-22144439 FORWARD  
kelch repeat-containing F-box family protein | chr4:1335729-1337368 REVERSE  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
kelch repeat-containing F-box family protein | chr4:18380526-18381905 REVERSE  
kelch repeat-containing F-box family protein | chr4:18389436-18390539 REVERSE  
kelch repeat-containing F-box family protein | chr5:9484734-9486149 REVERSE  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

#### description

protein kinase family protein | chr1:4572419-4576632 REVERSE  
Symbols: ATMYC2, RD22BP1, JAI1, JIN1, MYC2, ZBF1 | MYC2; DNA binding / transcription activator/ transactivator | chr1:4572419-4576632 FORWARD  
Symbols: PXMT1 | PXMT1; S-adenosylmethionine-dependent methyltransferase | chr1:24873291-24873291 FORWARD  
Symbols: CIPK11, PKS5, SIP4, SNRK3.22 | SIP4 (SOS3-INTERACTING PROTEIN 4); kinase/ protein kinase | chr1:24873291-24873291 FORWARD  
Symbols: MAPKKK17 | MAPKKK17; ATP binding / kinase/ protein kinase/ protein serine/threonine kinase | chr2:13987767-13990976 FORWARD  
protein phosphatase 2C, putative / PP2C, putative | chr3:1640393-1643253 REVERSE  
protein kinase family protein | chr3:21392671-21393744 FORWARD  
protein kinase family protein | chr4:7598093-7599257 REVERSE  
Symbols: CIPK4, SnRK3.3 | CIPK4 (CBL-interacting protein kinase 4); ATP binding / kinase/ protein kinase | chr4:7598093-7599257 FORWARD  
palmitoyl protein thioesterase family protein | chr4:9745006-9746966 REVERSE  
protein phosphatase 2C PPH1 / PP2C PPH1 (PPH1) | chr4:13851862-13854191 REVERSE  
Symbols: RIC7 | RIC7 (ROP-INTERACTIVE CRIB MOTIF-CONTAINING PROTEIN 7); protein binding | chr4:13851862-13854191 FORWARD

protein phosphatase 2C, putative / PP2C, putative | chr4:15904444-15906010 REVERSE

Symbols: MAPKKK19 | MAPKKK19; ATP binding / kinase/ protein kinase/ protein serine/threonine kinase

## description

Symbols: EXO | EXO (EXORDIUM) | chr4:5740297-5741524 FORWARD

photoassimilate-responsive protein, putative | chr5:21263936-21265264 REVERSE

leucine-rich repeat transmembrane protein kinase, putative | chr1:24930665-24932918 REVERSE

leucine-rich repeat family protein / protein kinase family protein | chr3:4988107-4994058 FORWARD

Symbols: LRR XI-23 | LRR XI-23; ATP binding / kinase/ protein kinase/ protein serine/threonine kinase | protein kinase family protein | chr1:29539089-29540709 REVERSE

LOCATED IN: endomembrane system; CONTAINS InterPro DOMAIN/s: Protein of unknown function DU

Symbols: RKF3 | RKF3 (RECEPTOR-LIKE KINASE IN IN FLOWERS 3); kinase/ receptor signaling protein serine/threonine kinase

Symbols: WAK3 | WAK3 (wall associated kinase 3); kinase/ protein serine/threonine kinase | chr1:7434-7444 FORWARD

leucine-rich repeat protein kinase, putative | chr1:19237407-19241883 REVERSE

Symbols: AtRLP24 | AtRLP24 (Receptor Like Protein 24); kinase/ protein binding | chr2:14013874-1401401

protein kinase-related | chr3:17005483-17008424 REVERSE

protein kinase family protein | chr4:6441673-6443435 REVERSE

Symbols: TSA1 | TSA1 (TSK-ASSOCIATING PROTEIN 1); calcium ion binding / protein binding | chr1:19510-19511 FORWARD

Symbols: RD20 | RD20 (RESPONSIVE TO DESSICATION 20); calcium ion binding | chr2:14144831-14146 FORWARD

calcium-binding EF hand family protein | chr3:11005779-11006414 FORWARD

calmodulin-binding family protein | chr3:19593173-19595822 REVERSE

Symbols: CML39, CML37 | CML37 (CALMODULIN LIKE 37); calcium ion binding | chr5:16942576-16943 FORWARD

Symbols: PBP1 | PBP1 (PINOID-BINDING PROTEIN 1); calcium ion binding / protein binding | chr5:2212-2213 FORWARD

Symbols: BON1, CPN1, BON | BON1 (BONZAI 1); calcium-dependent phospholipid binding | chr5:2485-2486 FORWARD

Symbols: ATBAG7 | ATBAG7 (ARABIDOPSIS THALIANA BCL-2-ASSOCIATED ATHANOGENE 7); calmodulin-binding protein | chr5:2500-2501 FORWARD

Symbols: PIP5K5 | PIP5K5 (PHOSPHATIDYLINOSITOL- 4-PHOSPHATE 5-KINASE 5); 1-phosphatidylinositol-4-phosphate kinase type 5

Symbols: ATROPGEF11, ROPGEF11 | ROPGEF11 (RHO GUANYL-NUCLEOTIDE EXCHANGE FACTOR 11); Rho guanine nucleotide exchange factor

Symbols: ATRAB18C, ATRABC2B | ATRABC2B (ARABIDOPSIS RAB GTPASE HOMOLOG C2B); ATP binding

Symbols: PRN, PRN1, ATPIRIN1 | PRN (PIRIN); calmodulin binding | chr3:21894134-21895623 FORWARD

nucleotide binding | chr4:15920230-15922658 FORWARD

Symbols: PRA1.G2 | PRA1.G2 (PRENYLATED RAB ACCEPTOR 1.G2) | chr5:22758768-22759371 REVERSE

protein kinase, putative | chr4:12080060-12084256 FORWARD

Symbols: FHL | FHL (FAR-RED-ELONGATED HYPOCOTYL1-LIKE); protein binding | chr5:437460-438894 FORWARD

phototropic-responsive NPH3 family protein | chr5:19353676-19356300 FORWARD

description

small nuclear ribonucleoprotein, putative / snRNP, putative / Sm protein, putative | chr1:6608115-660  
Symbols: PAB6 | PAB6 (POLY(A) BINDING PROTEIN 6); RNA binding / translation initiation factor | chr3  
Symbols: U2.6 | U2.6; snRNA | chr3:21004259-21004809 FORWARD  
splicing factor Prp18 family protein | chr1:754371-756303 REVERSE  
Symbols: ATU2AF35A | ATU2AF35A; RNA binding / nucleic acid binding / nucleotide binding / zinc ion |  
Symbols: RSZ33, ATRSZ33 | RSZ33; nucleic acid binding / nucleotide binding / zinc ion binding | chr2:15  
Symbols: SCL30 | SCL30; RNA binding / nucleic acid binding / nucleotide binding | chr3:20560808-2056  
Symbols: SRZ-22, SRZ22, RSZP22 | SRZ-22; protein binding | chr4:15306654-15308347 FORWARD  
Symbols: ATU2AF35B, U2AF35B | U2AF35B; RNA binding / nucleic acid binding / nucleotide binding / z  
RNA helicase, putative | chr4:9388071-9390774 REVERSE  
polyadenylate-binding protein family protein / PABP family protein | chr5:3255434-3257807 REVERSE  
polyadenylate-binding protein family protein / PABP family protein | chr5:26080231-26083017 REVER  
Symbols: RNS3 | RNS3 (RIBONUCLEASE 3); RNA binding / endoribonuclease/ ribonuclease T2 | chr1:92  
Symbols: RNS1, ATRNS1 | RNS1 (RIBONUCLEASE 1); endoribonuclease/ ribonuclease | chr2:873506-87  
endoribonuclease L-PSP family protein | chr3:7109949-7111824 REVERSE

description

Symbols: PTAC6 | PTAC6 (PLASTID TRANSCRIPTIONALLY ACTIVE6) | chr1:7571185-7573846 REVERSE  
BolA-like family protein | chr5:3057646-3058821 REVERSE  
DNA-binding protein, putative | chr2:15148259-15151575 REVERSE  
Symbols: AL4 | AL4 (ALFIN-LIKE 4); DNA binding / methylated histone residue binding | chr5:9158318-  
Symbols: RAP2.6 | RAP2.6 (related to AP2 6); DNA binding / transcription factor | chr1:16263813-1626  
Symbols: RAP2.1 | RAP2.1 (related to AP2 1); DNA binding / transcription factor | chr1:17265701-1726  
Symbols: ORA47 | ORA47; DNA binding / transcription factor | chr1:28144132-28145049 FORWARD  
AP2 domain-containing transcription factor | chr2:9443128-9444423 REVERSE  
AP2 domain-containing transcription factor, putative | chr2:9937998-9938875 FORWARD  
AP2 domain-containing transcription factor family protein | chr2:14258509-14260733 REVERSE  
Symbols: RAP2.9 | RAP2.9 (related to AP2 9); DNA binding / transcription factor | chr4:4073962-40745  
Symbols: RAP2.10 | RAP2.10 (related to AP2 10); DNA binding / transcription factor | chr4:17388814-1  
Symbols: Rap2.6L | Rap2.6L (related to AP2 6L); DNA binding / transcription factor | chr5:4272060-427  
transcription factor | chr1:3493940-3495144 REVERSE  
DNA binding / transcription factor | chr1:3506186-3509006 FORWARD  
basic helix-loop-helix (bHLH) family protein | chr1:13039916-13042102 FORWARD  
Symbols: PIL1 | PIL1 (PHYTOCHROME INTERACTING FACTOR 3-LIKE 1); transcription factor | chr2:1929  
transcription factor | chr3:1727306-1728296 FORWARD  
Symbols: MUTE | MUTE (MUTE); DNA binding / transcription factor | chr3:1846531-1848230 FORWAR  
Symbols: SPCH | SPCH (SPEECHLESS); DNA binding / transcription factor | chr5:21586606-21588941 RE

zinc finger (B-box type) family protein | chr1:8933716-8935460 REVERSE  
zinc finger (B-box type) family protein | chr1:9775528-9777810 REVERSE  
zinc finger (B-box type) family protein | chr1:25709114-25710907 REVERSE  
Symbols: ATCOL4, COL4 | zinc finger (B-box type) family protein | chr5:8589234-8591236 FORWARD  
Dof-type zinc finger domain-containing protein | chr1:17525365-17526306 FORWARD  
Dof-type zinc finger domain-containing protein | chr5:539249-541112 REVERSE  
Symbols: OBP4 | OBP4; DNA binding / transcription factor | chr5:24480449-24481873 FORWARD  
transcription factor | chr2:7982868-7984096 REVERSE  
zinc finger (GATA type) family protein | chr4:17268906-17269743 REVERSE  
zinc finger (CCCH-type) family protein | chr1:10344046-10345651 FORWARD  
zinc finger (C2H2 type) family protein (ZAT11) | chr2:15706357-15707224 FORWARD  
zinc finger (C2H2 type) family protein | chr5:880225-881305 FORWARD  
Symbols: C2H2, CZF2, ZAT6 | ZAT6 (ZINC FINGER OF ARABIDOPSIS THALIANA 6); nucleic acid binding / t  
Symbols: AZF3 | AZF3 (ARABIDOPSIS ZINC-FINGER PROTEIN 3); DNA binding / nucleic acid binding / tra  
Symbols: AZF1 | AZF1 (ARABIDOPSIS ZINC-FINGER PROTEIN 1); DNA binding / nucleic acid binding / tra  
RNA recognition motif (RRM)-containing protein | chr3:17351141-17352822 REVERSE  
Symbols: NF-YB11 | NF-YB11 (NUCLEAR FACTOR Y, SUBUNIT B11); transcription factor | chr2:1174498:  
Symbols: PCL1, LUX | PCL1 (PHYTOCLOCK 1); DNA binding / transcription factor | chr3:17183090-1718:  
myb family transcription factor | chr5:2103162-2105898 FORWARD  
Symbols: RGL3 | RGL3 (RGA-LIKE PROTEIN 3); transcription factor | chr5:5764063-5766077 REVERSE  
Homeobox-leucine zipper protein family; FUNCTIONS IN: sequence-specific DNA binding, transcription  
Symbols: HAT9 | HAT9; DNA binding / transcription factor | chr2:9704706-9706150 REVERSE  
transposable element gene | chr3:5814748-5816592 FORWARD  
Symbols: WOX1 | WOX1 (WUSCHEL related homeobox 1); transcription factor | chr3:6161137-616327  
Symbols: SEP3, AGL9 | SEP3 (SEPALLATA3); DNA binding / protein binding / transcription factor | chr1:  
unknown protein | chr1:22061083-22061481 REVERSE  
Symbols: SEP1, AGL2 | SEP1 (SEPALLATA1); DNA binding / transcription factor | chr5:5151334-515415  
Symbols: AGL62 | AGL62 (Agamous-like 62); DNA binding / transcription factor | chr5:24306294-24307  
Symbols: AGL31, MAF2 | AGL31 (AGAMOUS LIKE MADS-BOX PROTEIN 31); transcription factor | chr5:2  
Symbols: AtMYB47 | AtMYB47 (myb domain protein 47); DNA binding / transcription factor | chr1:645  
Symbols: MYB95, ATMYB95, ATMYBCP66 | MYB95 (myb domain protein 95); DNA binding / transcripti  
myb family transcription factor / ELM2 domain-containing protein | chr2:1045456-1047684 REVERSE  
Symbols: AtMYB70 | AtMYB70 (myb domain protein 70); DNA binding / transcription factor | chr2:990  
Symbols: ATMYB2, MYB2 | MYB2 (MYB DOMAIN PROTEIN 2); DNA binding / calmodulin binding / trans  
Symbols: MYB15, ATY19, ATMYB15 | MYB15 (MYB DOMAIN PROTEIN 15); DNA binding / transcription  
Symbols: MYB111, ATMYB48, PFG3, ATMYB48-3 | MYB111 (MYB DOMAIN PROTEIN 111); DNA binding  
Symbols: MYB29, ATMYB29, PMG2 | ATMYB29 (ARABIDOPSIS THALIANA MYB DOMAIN PROTEIN 29); C  
Symbols: MYB76, AtMYB76 | MYB76 (myb domain protein 76); DNA binding / transcription factor | chi  
Symbols: MYB59, ATMYB59-3 | MYB59 (MYB DOMAIN PROTEIN 59); DNA binding / transcription factor  
Symbols: ATMYBR1, ATMYB44, MYBR1 | MYBR1 (MYB DOMAIN PROTEIN R1); DNA binding / transcript  
Symbols: ETC1 | ETC1 (ENHANCER OF TRY AND CPC 1); DNA binding / transcription factor | chr1:14715

Symbols: ATRL3 | ATRL3 (ARABIDOPSIS RAD-LIKE 3); DNA binding / transcription factor | chr4:1725466  
Symbols: anac045 | anac045 (Arabidopsis NAC domain containing protein 45); transcription factor | ch  
Symbols: ATNAC3, ANAC055 | ANAC055 (ARABIDOPSIS NAC DOMAIN CONTAINING PROTEIN 55); trans  
TCP family transcription factor, putative | chr2:18820242-18821889 REVERSE  
Symbols: ASIL1 | ASIL1 (ARABIDOPSIS 6B-INTERACTING PROTEIN 1-LIKE 1); sequence-specific DNA bind  
DNA-binding protein-related | chr2:16018357-16019500 FORWARD  
transcription factor | chr2:18437333-18438565 REVERSE  
transcription factor | chr3:3096415-3098071 REVERSE  
transcription factor | chr3:3476187-3477405 REVERSE  
transcription factor | chr3:4707113-4708848 REVERSE  
hydroxyproline-rich glycoprotein family protein | chr3:9073623-9074682 FORWARD  
glycine-rich protein | chr4:14307249-14307973 FORWARD  
transcription factor | chr4:15183188-15184961 REVERSE  
transcription factor | chr5:1639032-1640606 REVERSE  
Symbols: WRKY63, ATWRKY63 | WRKY63; transcription factor | chr1:24848320-24849364 FORWARD  
Symbols: WRKY45, ATWRKY45 | WRKY45; transcription factor | chr3:326397-327412 REVERSE  
Symbols: WRKY69, ATWRKY69 | WRKY69; transcription factor | chr3:21715007-21716916 FORWARD  
Symbols: WRKY29, ATWRKY29 | WRKY29; transcription factor | chr4:12291820-12293096 FORWARD  
Symbols: WRKY13, ATWRKY13 | WRKY13; transcription factor | chr4:18332878-18334789 REVERSE  
Symbols: WRKY30, ATWRKY30 | WRKY30; transcription factor | chr5:8153115-8154709 REVERSE  
Symbols: EEL, ATBZIP12, DPBF4 | EEL (ENHANCED EM LEVEL); DNA binding / transcription factor | chr2  
Symbols: GBF3 | GBF3 (G-BOX BINDING FACTOR 3); sequence-specific DNA binding / transcription fact  
Symbols: LBD41 | LBD41 (LOB DOMAIN-CONTAINING PROTEIN 41) | chr3:536505-537998 REVERSE  
Symbols: ELF3, PYK20 | ELF3 (EARLY FLOWERING 3); protein C-terminus binding / transcription factor |  
Symbols: TAF14 | TAF14 (TBP-associated factor 14) | chr2:7829035-7830059 FORWARD  
Symbols: HDA08, HDA8, ATHDA8 | HDA08; histone deacetylase | chr1:2672451-2674628 FORWARD  
Symbols: MBD8 | MBD8; methyl-CpG binding | chr1:7881537-7883742 REVERSE  
Symbols: MBD11, ATMBD11 | MBD11; DNA binding / methyl-CpG binding | chr3:5343016-5344700 FO  
RWP-RK domain-containing protein | chr1:27993032-27994178 REVERSE  
Symbols: PUB22 | PUB22 (PLANT U-BOX 22); ubiquitin-protein ligase | chr3:19440739-19442383 REVE  
nucleic acid binding | chr1:7004879-7007651 REVERSE  
Remorin family protein; CONTAINS InterPro DOMAIN/s: Remorin, C-terminal (InterPro:IPR005516); BE

#### description

unknown protein | chr1:99922-101834 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr1:773411-775344 FORWARD  
nucleic acid binding / ribonuclease H | chr1:3263877-3264788 REVERSE  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

unknown protein | chr1:3670278-3671187 REVERSE  
unknown protein | chr1:3740765-3744675 FORWARD  
unknown protein | chr1:3832623-3834191 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr1:3870833-3871570 FORWARD  
unknown protein | chr1:3945737-3946613 FORWARD  
unknown protein | chr1:4378939-4379516 REVERSE  
unknown protein | chr1:4794756-4796594 FORWARD  
unknown protein | chr1:5242198-5243227 REVERSE

The protein encoded by this gene was identified as a part of pollen proteome by mass spec analysis. It  
unknown protein | chr1:5448726-5450177 FORWARD  
unknown protein | chr1:5639032-5640173 FORWARD  
unknown protein | chr1:5786560-5787112 REVERSE

Symbols: JAZ5, TIFY11A | JAZ5 (JASMONATE-ZIM-DOMAIN PROTEIN 5) | chr1:5955488-5957212 REVERE  
unknown protein | chr1:6135803-6138432 REVERSE  
unknown protein | chr1:6282252-6283293 REVERSE  
unknown protein | chr1:6710961-6711787 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr1:7106922-7107617 REVERSE

pseudogene of unknown protein | chr1:7537087-7537649 REVERSE  
unknown protein | chr1:8911130-8912398 REVERSE  
unknown protein | chr1:9067039-9068207 FORWARD

Symbols: KDR | KDR (KIDARI); transcription regulator | chr1:9351454-9352761 FORWARD  
binding | chr1:9412820-9417504 REVERSE

unknown protein | chr1:9483157-9484368 FORWARD  
INVOLVED IN: biological\_process unknown; LOCATED IN: cellular\_component unknown; EXPRESSED IN  
unknown protein | chr1:9846884-9847923 REVERSE

nucleic acid binding / zinc ion binding | chr1:10332371-10335694 FORWARD  
unknown protein | chr1:10355703-10356482 REVERSE  
unknown protein | chr1:10993195-10994125 REVERSE

DNA binding | chr1:11163858-11164928 REVERSE

INVOLVED IN: N-terminal protein myristoylation; LOCATED IN: plasma membrane; EXPRESSED IN: 14 p  
unknown protein | chr1:11797335-11798602 FORWARD

Leucine-rich repeat (LRR) family protein; LOCATED IN: endomembrane system; CONTAINS InterPro DO  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr1:12514106-12516521 REVERSE

unknown protein | chr1:14293064-14296191 REVERSE

transposable element gene | chr1:16470872-16471248 FORWARD

Symbols: TED6 | TED6 (TRACHEARY ELEMENT DIFFERENTIATION-RELATED 6) | chr1:16575895-1657641  
unknown protein | chr1:17154921-17159397 REVERSE  
unknown protein | chr1:17687269-17688816 FORWARD

unknown protein | chr1:17847356-17848564 FORWARD  
unknown protein | chr1:18310494-18311634 FORWARD  
unknown protein | chr1:18388792-18390496 REVERSE  
unknown protein | chr1:19418306-19419853 FORWARD  
unknown protein | chr1:19579886-19580686 REVERSE  
unknown protein | chr1:19706085-19706706 FORWARD

Symbols: ATMRD1, MRD1 | unknown protein | chr1:19963214-19964712 REVERSE

unknown protein | chr1:20014410-20014923 REVERSE  
unknown protein | chr1:20122426-20122866 REVERSE  
unknown protein | chr1:20207020-20207540 FORWARD  
unknown protein | chr1:20617313-20618005 FORWARD

Symbols: NDF5 | carbohydrate binding / catalytic | chr1:20674783-20676351 FORWARD

unknown protein | chr1:21191121-21192217 REVERSE  
unknown protein | chr1:21580417-21580641 REVERSE

Symbols: MEE9 | MEE9 (maternal effect embryo arrest 9) | chr1:22409472-22410654 FORWARD

unknown protein | chr1:22729816-22731182 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN pseudogene of S-adenosylmethionine-dependent methyltransferase/rRNA (adenine-N6,N6-)-dimethyl Unknown gene | chr1:23984011-23984795 FORWARD

unknown protein | chr1:24036021-24037401 FORWARD  
unknown protein | chr1:24038034-24039177 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; EXPRESSED IN unknown protein | chr1:25614197-25615403 REVERSE

unknown protein | chr1:25711869-25712238 REVERSE  
unknown protein | chr1:25892086-25892798 FORWARD

Symbols: AFP1 | AFP1 (ABI FIVE BINDING PROTEIN) | chr1:26039048-26040720 FORWARD

unknown protein | chr1:26072284-26076254 REVERSE

Symbols: JAZ9, TIFY7 | TIFY7 | chr1:26654768-26657064 FORWARD

unknown protein | chr1:26789236-26790160 REVERSE

unknown protein | chr1:26809841-26811842 REVERSE

unknown protein | chr1:27528052-27530946 REVERSE

unknown protein | chr1:27849230-27849812 FORWARD

unknown protein | chr1:28219382-28220227 FORWARD

unknown protein | chr1:28274588-28275990 FORWARD

unknown protein | chr1:28593250-28594742 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

unknown protein | chr1:30014361-30015078 FORWARD

unknown protein | chr1:30139101-30140204 FORWARD

unknown protein | chr1:30397128-30398210 FORWARD

unknown protein | chr2:6571-6672 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr2:332194-332781 REVERSE

unknown protein | chr2:421624-422626 REVERSE

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr2:1933272-1934212 REVERSE

transposable element gene | chr2:2297816-2298721 FORWARD

unknown protein | chr2:3246037-3246366 REVERSE

unknown protein | chr2:4304947-4305887 REVERSE

unknown protein | chr2:4805684-4807310 REVERSE

unknown protein | chr2:5049953-5050087 REVERSE

unknown protein | chr2:6947309-6947688 FORWARD

unknown protein | chr2:7545538-7546374 REVERSE

unknown protein | chr2:7573835-7575939 REVERSE

unknown protein | chr2:7584505-7588008 REVERSE

LOCATED IN: cellular\_component unknown; EXPRESSED IN: 23 plant structures; EXPRESSED DURING: 1  
unknown protein | chr2:8830565-8831533 REVERSE

Symbols: EPF1 | EPF1 (EPIDERMAL PATTERNING FACTOR 1) | chr2:8983074-8983612 REVERSE

unknown protein | chr2:9386516-9388183 FORWARD

unknown protein | chr2:9695932-9696909 FORWARD

unknown protein | chr2:10906428-10907288 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

LOCATED IN: chloroplast; EXPRESSED IN: 21 plant structures; EXPRESSED DURING: 13 growth stages; C|  
unknown protein | chr2:13580600-13581112 FORWARD

unknown protein | chr2:13581581-13582126 FORWARD

unknown protein | chr2:14152706-14154530 REVERSE

unknown protein | chr2:14324309-14325192 REVERSE

unknown protein | chr2:14387421-14390230 REVERSE

Symbols: JAZ7, TIFY5B | JAZ7 (JASMONATE-ZIM-DOMAIN PROTEIN 7) | chr2:14573080-14573856 FOR

unknown protein | chr2:14783291-14784710 FORWARD

unknown protein | chr2:15286498-15288990 FORWARD

unknown protein | chr2:15554917-15556831 REVERSE

unknown protein | chr2:15686758-15688003 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; EXPRESSED I

unknown protein | chr2:16224072-16225296 FORWARD

unknown protein | chr2:16541084-16543338 FORWARD

transferase, transferring glycosyl groups | chr2:17360491-17362535 FORWARD

unknown protein | chr2:17428098-17428812 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; EXPRESSED I

Symbols: LSH10 | LSH10 (LIGHT SENSITIVE HYPOCOTYLS 10) | chr2:17747917-17750440 FORWARD

Symbols: CPuORF17 | CPuORF17 (Conserved peptide upstream open reading frame 17) | chr2:178915( |  
Symbols: ARL | ARL (ARGOS-LIKE) | chr2:18237152-18238173 FORWARD  
unknown protein | chr2:18382070-18383513 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr2:18755045-18756302 REVERSE  
unknown protein | chr2:18921024-18922179 REVERSE  
unknown protein | chr2:19148730-19150995 FORWARD  
unknown protein | chr2:19485875-19486553 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr3:324581-325087 REVERSE  
unknown protein | chr3:488780-489471 FORWARD  
INVOLVED IN: biological\_process unknown; LOCATED IN: cellular\_component unknown; CONTAINS Int|  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr3:822937-824546 REVERSE  
unknown protein | chr3:1347646-1349202 FORWARD  
Encodes a defensin-like (DEFL) family protein. | chr3:1693552-1694138 FORWARD  
unknown protein | chr3:1823099-1824216 REVERSE  
unknown protein | chr3:2167730-2169222 FORWARD  
nucleic acid binding | chr3:2223001-2225254 REVERSE  
unknown protein | chr3:2807667-2808268 REVERSE  
unknown protein | chr3:3069231-3071429 FORWARD  
unknown protein | chr3:3645022-3647542 REVERSE  
3'-5' exonuclease/ nucleic acid binding | chr3:3954695-3955423 REVERSE  
unknown protein | chr3:4392956-4393961 REVERSE  
unknown protein | chr3:4710483-4711969 FORWARD  
unknown protein | chr3:4851696-4851812 FORWARD  
unknown protein | chr3:5045110-5045328 FORWARD  
unknown protein | chr3:5258876-5259082 FORWARD  
unknown protein | chr3:5451864-5452316 REVERSE  
unknown protein | chr3:5676829-5677921 FORWARD  
unknown protein | chr3:5681419-5682331 FORWARD  
unknown protein | chr3:5852152-5853080 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr3:6479688-6480378 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr3:6825521-6826006 REVERSE  
unknown protein | chr3:6965647-6967248 FORWARD  
unknown protein | chr3:7591483-7592322 REVERSE  
unknown protein | chr3:8410433-8412193 FORWARD  
unknown protein | chr3:8646892-8647908 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

unknown protein | chr3:8952006-8952572 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr3:9276845-9278629 FORWARD

unknown protein | chr3:9463316-9464283 REVERSE

unknown protein | chr3:9676982-9679900 FORWARD

unknown protein | chr3:9972508-9974225 REVERSE

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; EXPRESSED IN  
unknown protein | chr3:10045186-10047343 REVERSE

unknown protein | chr3:10061545-10062731 FORWARD

transcription regulator | chr3:10855632-10856624 REVERSE

Symbols: AFP3 | AFP3 (ABI FIVE BINDING PROTEIN 3) | chr3:11382214-11384004 REVERSE

unknown protein | chr3:11452942-11453037 REVERSE

unknown protein | chr3:17650260-17651765 REVERSE

unknown protein | chr3:17707918-17708909 REVERSE

unknown protein | chr3:17772057-17774739 FORWARD

unknown protein | chr3:19273494-19275269 REVERSE

unknown protein | chr3:19312718-19313224 FORWARD

unknown protein | chr3:19323332-19323827 FORWARD

unknown protein | chr3:19323772-19325668 REVERSE

Overexpression leads to PEL (Pseudo-Etiolation in Light) phenotype. | chr3:20473541-20474763 REVEF

Symbols: ESK1 | ESK1 (ESKIMO 1) | chr3:20780315-20783233 FORWARD

unknown protein | chr3:20896481-20897593 FORWARD

Symbols: ARGOS | ARGOS (AUXIN-REGULATED GENE INVOLVED IN ORGAN SIZE) | chr3:22129726-2213

unknown protein | chr3:22281916-22282017 REVERSE

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

unknown protein | chr3:22922550-22922940 FORWARD

unknown protein | chr3:22932496-22933362 REVERSE

unknown protein | chr3:23333513-23334034 REVERSE

Unknown gene | chr3:23459182-23459800 REVERSE

unknown protein | chr4:466391-468294 REVERSE

unknown protein | chr4:711192-712643 REVERSE

unknown protein | chr4:1119849-1119989 REVERSE

unknown protein | chr4:2327044-2328264 REVERSE

unknown protein | chr4:2506163-2506786 FORWARD

unknown protein.

unknown protein | chr4:5448133-5448523 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

unknown protein | chr4:6872151-6873541 REVERSE

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

unknown protein | chr4:7594944-7595463 REVERSE

Symbols: CLE44 | CLE44 (CLAVATA3/ESR-RELATED 44) | chr4:7662371-7663177 REVERSE

unknown protein | chr4:7753311-7754086 FORWARD

Symbols: SMAP1 | SMAP1 (SMALL ACIDIC PROTEIN 1) | chr4:7864394-7864924 FORWARD

unknown protein | chr4:7866719-7868742 FORWARD

unknown protein | chr4:7869874-7870750 FORWARD

Protein containing PAM2 motif which mediates interaction with the PABC domain of polyadenyl bindir pseudogene, hypothetical protein, similar to putative reverse transcriptase | chr4:8458474-8458755 R

unknown protein | chr4:9179244-9179833 REVERSE

unknown protein | chr4:9192336-9192568 REVERSE

unknown protein | chr4:9311355-9315813 FORWARD

unknown protein | chr4:9749728-9751709 REVERSE

unknown protein | chr4:9924698-9926372 REVERSE

binding | chr4:9965742-9966969 FORWARD

unknown protein | chr4:10181334-10182140 REVERSE

unknown protein | chr4:10209174-10209733 FORWARD

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

unknown protein | chr4:10598445-10599151 REVERSE

unknown protein | chr4:11545926-11546434 FORWARD

unknown protein | chr4:11636084-11636473 REVERSE

unknown protein | chr4:12414230-12415049 FORWARD

unknown protein | chr4:12519932-12520813 REVERSE

unknown protein | chr4:13090209-13091798 REVERSE

other RNA | chr4:13293941-13296465 FORWARD

unknown protein | chr4:13813044-13813516 FORWARD

unknown protein | chr4:13933232-13935315 REVERSE

unknown protein | chr4:13960032-13960483 FORWARD

unknown protein | chr4:14011844-14012583 REVERSE

unknown protein | chr4:14713518-14713661 REVERSE

unknown protein | chr4:14806345-14807425 FORWARD

unknown protein | chr4:15202296-15203431 FORWARD

unknown protein | chr4:15276180-15277219 REVERSE

EXPRESSED IN: 22 plant structures; EXPRESSED DURING: 13 growth stages; BEST Arabidopsis thaliana p

unknown protein | chr4:16135400-16135914 FORWARD

Symbols: MAPKKK21 | MAPKKK21; ATP binding / protein kinase/ protein serine/threonine kinase | chr

unknown protein | chr4:17433643-17437069 REVERSE

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

unknown protein | chr4:17936921-17938728 REVERSE

unknown protein | chr5:5256-5891 REVERSE

unknown protein | chr5:412031-412698 REVERSE

unknown protein | chr5:573054-573558 REVERSE

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN

unknown protein | chr5:762787-763321 REVERSE

FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN unknown protein | chr5:1557037-1557998 REVERSE  
DNA binding | chr5:1576982-1578754 REVERSE  
unknown protein | chr5:1757098-1760666 REVERSE  
unknown protein | chr5:1876034-1876637 REVERSE  
unknown protein | chr5:1884928-1887121 REVERSE  
Symbols: CPuORF21 | CPuORF21 (Conserved peptide upstream open reading frame 21) | chr5:299591  
unknown protein | chr5:3058997-3061970 FORWARD  
unknown protein | chr5:3241518-3242266 REVERSE  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN unknown protein | chr5:4234486-4235346 FORWARD  
unknown protein | chr5:4263493-4265337 FORWARD  
unknown protein | chr5:4277939-4279446 REVERSE  
unknown protein | chr5:4442014-4444935 FORWARD  
unknown protein | chr5:4553964-4554176 REVERSE  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN unknown protein | chr5:4646781-4647444 REVERSE  
unknown protein | chr5:4898737-4900581 FORWARD  
unknown protein | chr5:5260604-5262840 REVERSE  
unknown protein | chr5:5572576-5573070 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN unknown protein | chr5:5978678-5980376 FORWARD  
unknown protein | chr5:6310064-6310846 FORWARD  
unknown protein | chr5:6470129-6471062 FORWARD  
unknown protein | chr5:6718341-6718995 FORWARD  
unknown protein | chr5:6740777-6743773 REVERSE  
unknown protein | chr5:6797440-6798899 FORWARD  
unknown protein | chr5:6993114-6993873 REVERSE  
ubiquitin thiolesterase | chr5:7261600-7263513 FORWARD  
unknown protein | chr5:7433790-7434935 FORWARD  
unknown protein | chr5:7483253-7483811 FORWARD  
unknown protein | chr5:7668229-7669315 REVERSE  
other RNA | chr5:7794142-7795010 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN Symbols: LSU4 | LSU4 (RESPONSE TO LOW SULFUR 4) | chr5:8440694-8441218 REVERSE  
other RNA | chr5:8468331-8469262 REVERSE  
unknown protein | chr5:8723958-8725771 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN unknown protein | chr5:9874824-9876464 REVERSE  
transposable element gene | chr5:12971144-12973180 FORWARD  
other RNA | chr5:13085037-13086565 FORWARD

Symbols: WSD1 | WSD1; diacylglycerol O-acyltransferase/ long-chain-alcohol O-fatty-acyltransferase | transposable element gene | chr5:15561465-15562122 FORWARD  
unknown protein | chr5:16414038-16414504 FORWARD  
unknown protein | chr5:16414848-16415220 REVERSE  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr5:18421744-18421962 FORWARD  
unknown protein | chr5:18556975-18558097 REVERSE  
unknown protein | chr5:19403173-19404088 REVERSE  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr5:20097040-20097486 REVERSE  
unknown protein | chr5:20489094-20489727 REVERSE  
DNA binding | chr5:20724578-20726479 FORWARD  
unknown protein | chr5:20877967-20878464 REVERSE  
unknown protein | chr5:21009592-21010345 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr5:21595994-21598224 FORWARD  
unknown protein | chr5:21811633-21814908 FORWARD  
unknown protein | chr5:21848135-21850111 FORWARD  
unknown protein | chr5:21872794-21873303 REVERSE  
RNA binding | chr5:22293325-22295144 FORWARD  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr5:22885192-22886541 FORWARD  
unknown protein | chr5:23098959-23099368 FORWARD  
unknown protein | chr5:23126922-23127654 REVERSE  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: N-terminal protein myristylation; LOCAT  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr5:23485500-23486818 FORWARD  
unknown protein | chr5:23793129-23794245 FORWARD  
antiporter/ drug transporter | chr5:24301633-24303068 FORWARD  
unknown protein | chr5:24418229-24422234 REVERSE  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
FUNCTIONS IN: molecular\_function unknown; INVOLVED IN: biological\_process unknown; LOCATED IN  
unknown protein | chr5:25541576-25542893 FORWARD  
unknown protein | chr5:25748202-25748297 REVERSE  
unknown protein | chr5:26052245-26052644 REVERSE  
unknown protein | chr5:26095147-26095771 REVERSE  
unknown protein | chr5:26207654-26207962 FORWARD  
unknown protein | chr5:26462585-26464131 FORWARD  
unknown protein | chr5:26934153-26934952 REVERSE  
unknown protein | chr5:26964770-26965996 REVERSE  
Symbols: YCF10 | hypothetical protein | chrC:60741-61430 FORWARD

#### description

2-oxoglutarate-dependent dioxygenase, putative | chr1:2025601-2027271 FORWARD

2-oxoglutarate-dependent dioxygenase, putative | chr1:2032338-2034018 FORWARD

LOCATED IN: endomembrane system, integral to membrane; EXPRESSED IN: 16 plant structures; EXPRESSION DOMAIN: 16 plant structures

Symbols: DHAR1, ATDHAR1 | DHAR1 (dehydroascorbate reductase); copper ion binding / glutathione c

Symbols: MDHAR, ATMDAR3 | MDHAR (MONODEHYDROASCORBATE REDUCTASE); monodehydroascorbate reductase

Symbols: APX5 | APX5 (ASCORBATE PEROXIDASE 5); L-ascorbate peroxidase/ heme binding / peroxidase

Symbols: GRX480 | GRX480; electron carrier/ protein disulfide oxidoreductase | chr1:10013474-10014

glutaredoxin family protein | chr1:11858211-11859292 FORWARD

glutaredoxin family protein | chr1:23953233-23954492 FORWARD

glutaredoxin family protein | chr3:10848669-10850122 FORWARD

glutaredoxin family protein | chr3:23268710-23269324 FORWARD

glutaredoxin family protein | chr4:8925806-8926310 FORWARD

#### description

Symbols: GL22 | GL22 (GERMIN-LIKE PROTEIN SUBFAMILY 2 MEMBER 2 PRECURSOR.); manganese ion binding

Symbols: ILR2 | ILR2 (IAA-LEUCINE RESISTANT 2) | chr3:6341918-6343178 REVERSE

cytochrome c oxidase copper chaperone family protein | chr1:19760001-19761452 REVERSE

Symbols: CUTA | CUTA; copper ion binding | chr2:14269581-14271723 FORWARD

copper-binding family protein | chr3:18152288-18153375 REVERSE

heavy-metal-associated domain-containing protein / copper chaperone (CCH)-related | chr4:16685720 REVERSE

Symbols: MT1C | MT1C; copper ion binding | chr1:2341542-2342123 FORWARD

metal ion binding | chr2:7920508-7922326 REVERSE

#### description

LOCATED IN: membrane; CONTAINS InterPro DOMAIN/s: Protein of unknown function DUF250 (InterPro IPR00250)

F1F0-ATPase inhibitor protein, putative | chr5:1372147-1373619 FORWARD

nucleotide-sugar transmembrane transporter | chr1:2242256-2244428 REVERSE

sugar transporter family protein | chr1:2848348-2852270 FORWARD

OST3/OST6 family protein | chr1:22814390-22815430 FORWARD

amino acid transporter family protein | chr1:2583654-2586744 REVERSE

amino acid transporter family protein | chr5:427833-430695 FORWARD

Symbols: RCP1, MEX1 | RCP1 (ROOT CAP 1); maltose transmembrane transporter | chr5:5772583-577: mitochondrial phosphate transporter, putative | chr3:18114526-18116499 REVERSE  
unknown protein | chr3:23168061-23169187 FORWARD  
mitochondrial substrate carrier family protein | chr5:25958025-25960644 REVERSE  
cation efflux family protein | chr1:5578431-5580693 FORWARD  
Symbols: COPT2 | COPT2; copper ion transmembrane transporter/ high affinity copper ion transmemb proton-dependent oligopeptide transport (POT) family protein | chr1:6520748-6523368 FORWARD  
proton-dependent oligopeptide transport (POT) family protein | chr1:12127389-12130407 REVERSE  
proton-dependent oligopeptide transport (POT) family protein | chr1:21968071-21972411 FORWARD  
proton-dependent oligopeptide transport (POT) family protein | chr2:15864396-15866408 REVERSE  
Symbols: NHX4, ATNHX4 | NHX4 (SODIUM HYDROGEN EXCHANGER 4); sodium ion transmembrane tra ChaC-like family protein | chr4:15185886-15188484 FORWARD  
magnesium transporter CorA-like family protein (MRS2-2) | chr5:25806769-25809641 REVERSE  
potassium channel tetramerisation domain-containing protein | chr4:15054873-15056826 FORWARD  
Symbols: ATNAP5 | ATNAP5; ATPase, coupled to transmembrane movement of substances / transport ABC transporter family protein | chr3:19399378-19402953 FORWARD  
MATE efflux protein-related | chr4:14368919-14370892 FORWARD  
Symbols: PIP2F, PIP2;4 | PIP2;4 (PLASMA MEMBRANE INTRINSIC PROTEIN 2;4); water channel | chr5:2:  
Symbols: CXIP4 | CXIP4 (CAX INTERACTING PROTEIN 4); nucleic acid binding / zinc ion binding | chr2:12 choline transporter-related | chr1:8955308-8957949 REVERSE  
AWPM-19-like membrane family protein | chr1:10323655-10324743 FORWARD  
MATE efflux family protein | chr1:24901978-24904443 FORWARD  
antiporter/ drug transporter/ transporter | chr2:1353755-1355790 REVERSE  
auxin efflux carrier family protein | chr2:7606757-7609261 FORWARD  
MATE efflux family protein | chr4:11625362-11629337 REVERSE  
Symbols: ATTIL, TIL | TIL (TEMPERATURE-INDUCED LIPOCALIN); binding / transporter | chr5:23500061- metal ion binding | chr5:26430202-26430912 FORWARD

#### description

Symbols: FLA9 | FLA9 (FASCICLIN-LIKE ARABINOOGALACTAN 9) | chr1:982506-983540 REVERSE  
Symbols: AGP5 | AGP5 (ARABINOGLACTAN-PROTEIN 5) | chr1:12917149-12917763 FORWARD  
Symbols: AGP19, ATAGP19 | AGP19 (ARABINOGLACTAN-PROTEIN 19) | chr1:25809298-25810130 FO  
Symbols: FLA7 | FLA7 (FASCICLIN-LIKE ARABINOOGALACTAN 7) | chr2:1676742-1678455 FORWARD  
Symbols: AGP17, ATAGP17 | AGP17 (ARABINOGLACTAN PROTEIN 17) | chr2:9844350-9845385 FORW  
Symbols: FLA8, AGP8 | FLA8 (FASCICLIN-LIKE ARABINOGLACTAN PROTEIN 8) | chr2:18742540-187441  
Symbols: AGP10, ATAGP10 | AGP10 (ARABINOGLACTAN PROTEIN 10) | chr4:5792207-5792790 FORW  
arabinogalactan-protein family | chr4:9556978-9557812 FORWARD  
Symbols: AGP18, ATAGP18 | AGP18 (ARABINOGLACTAN PROTEIN 18) | chr4:17605758-17606755 RE\



Symbols: ATAMY1, AMY1 | AMY1 (ALPHA-AMYLASE-LIKE); alpha-amylase | chr4:12851969-12853845 FORWARD

Symbols: ATBETA-AMY, AT-BETA-AMY, RAM1, BMY1, BAM5 | BAM5 (BETA-AMYLASE 5); beta-amylase

Symbols: RCP1, MEX1 | RCP1 (ROOT CAP 1); maltose transmembrane transporter | chr5:5772583-5775002 FORWARD

Symbols: ATISA3, ISA3 | ISA3 (ISOAMYLASE 3); alpha-amylase/ isoamylase | chr4:5784074-5789002 FORWARD

#### description

beta-fructofuranosidase, putative / invertase, putative / saccharase, putative / beta-fructosidase, putative / beta-fructosidase (BFRUCT3) / beta-fructofuranosidase / invertase, vacuolar | chr1:23199718-2320376 FORWARD

Symbols: HKL1 | HKL1 (HEXOKINASE-LIKE 1); ATP binding / fructokinase/ glucokinase/ hexokinase | chr3:699489 FORWARD

Symbols: ATHXK4, HKL2 | ATHXK4; ATP binding / fructokinase/ glucokinase/ hexokinase | chr3:699489 FORWARD

#### description

O-methyltransferase family 2 protein | chr1:28822186-28823673 REVERSE

Symbols: LAC2, ATLAC2 | LAC2 (laccase 2); laccase | chr2:12524889-12527747 REVERSE

Symbols: IRX12, LAC4 | IRX12 (IRREGULAR XYLEM 12); laccase | chr2:15934460-15937616 FORWARD

Symbols: LAC10 | LAC10 (laccase 10); laccase | chr5:72392-74756 FORWARD

Symbols: LAC11 | LAC11 (laccase 11); laccase | chr5:777021-779424 REVERSE

Symbols: LAC17, ATLAC17 | LAC17 (laccase 17); laccase | chr5:24167996-24170462 FORWARD

#### description

Symbols: ATPRR1, PRR1 | PRR1 (PINORESINOL REDUCTASE 1); pinoresinol reductase | chr1:11546338-11546338 transferase family protein | chr3:18637854-18639185 FORWARD

transferase family protein | chr5:5365669-5367385 REVERSE

Symbols: 4CL3 | 4CL3; 4-coumarate-CoA ligase | chr1:24167202-24171502 REVERSE

4-coumarate--CoA ligase family protein / 4-coumaroyl-CoA synthase family protein | chr5:15213765-15213765 REVERSE

Symbols: ATTSM1, TSM1 | TSM1; N1,N5,N10-tris-(5-hydroxyferuloyl)spermidine O-methyltransferase/ methyltransferase | chr5:15213765-15213765 REVERSE

Symbols: CAD5, ATCAD5, CAD-5 | ATCAD5 (CINNAMYL ALCOHOL DEHYDROGENASE 5); cinnamyl-alcohol dehydrogenase | chr5:15213765-15213765 REVERSE

Symbols: ELI3-2, ELI3, ATCAD8, CAD-B2 | ELI3-2 (ELICITOR-ACTIVATED GENE 3-2); aryl-alcohol dehydrogenase | chr5:15213765-15213765 REVERSE

#### description

Symbols: PAP1, MYB75, SIAA1, ATMYP75 | PAP1 (PRODUCTION OF ANTHOCYANIN PIGMENT 1); DNA binding protein, oxidoreductase, 2OG-Fe(II) oxygenase family protein | chr2:16012535-16014753 REVERSE

oxidoreductase, 2OG-Fe(II) oxygenase family protein | chr3:20766735-20769324 REVERSE  
oxidoreductase, 2OG-Fe(II) oxygenase family protein | chr5:1672120-1674739 FORWARD  
transferase family protein | chr1:1009542-1011056 REVERSE

Symbols: AACT1 | AACT1 (anthocyanin 5-aromatic acyltransferase 1); transferase/ transferase, transferase dihydroflavonol 4-reductase family / dihydrokaempferol 4-reductase family | chr4:16833933-1683561

Symbols: UGT78D2 | UGT78D2 (UDP-GLUCOSYL TRANSFERASE 78D2); UDP-glycosyltransferase/ anthocyanin UDP-glucoronosyl/UDP-glucosyl transferase family protein | chr1:1820308-1821894 REVERSE

#### description

geranylgeranyl transferase type II beta subunit, putative / RAB geranylgeranyltransferase beta subunit, geranylgeranyl transferase alpha subunit-related / RAB geranylgeranyltransferase alpha subunit-related

Symbols: GGPS6 | GGPS6 (geranylgeranyl pyrophosphate synthase 6); farnesyltranstransferase | chr1:1820308-1821894 REVERSE

Symbols: TPS10 | TPS10 (terpene synthase 10); (E)-beta-ocimene synthase/ myrcene synthase | chr2:1820308-1821894 REVERSE

Symbols: LAS1 | LAS1; lanosterol synthase | chr3:16512271-16517522 REVERSE

Symbols: ATTPS03 | ATTPS03; (E)-beta-ocimene synthase/ myrcene synthase | chr4:9407768-9410877

#### description

Symbols: BCAT4 | BCAT4 (BRANCHED-CHAIN AMINOTRANSFERASE4); catalytic/ methionine-oxo-acid transaminase

Symbols: MAM1, IMS3 | MAM1 (METHYLTHIOALKYLMALATE SYNTHASE 1); 2-isopropylmalate synthase

Symbols: CYP83A1, REF2 | CYP83A1 (CYTOCHROME P450 83A1); oxidoreductase, acting on paired donors

Symbols: FMO GS-OX2 | FMO GS-OX2 (FLAVIN-MONOOXYGENASE GLUCOSINOLATE S-OXYGENASE 2); oxidoreductase, acting on paired donors

Symbols: FMO GS-OX3 | FMO GS-OX3 (FLAVIN-MONOOXYGENASE GLUCOSINOLATE S-OXYGENASE 3); oxidoreductase, acting on paired donors

Symbols: FMO GS-OX1 | FMO GS-OX1 (FLAVIN-MONOOXYGENASE GLUCOSINOLATE S-OXYGENASE 1); oxidoreductase, acting on paired donors

Symbols: AOP2 | AOP2 (ALKENYL HYDROXALKYL PRODUCING 2); oxidoreductase, acting on paired donors

2-oxoglutarate-dependent dioxygenase, putative | chr2:10829916-10831655 REVERSE

Symbols: CYP79B3 | CYP79B3; electron carrier/ heme binding / iron ion binding / monooxygenase/ oxygenase

Symbols: MYB29, ATM MYB29, PMG2 | ATM MYB29 (ARABIDOPSIS THALIANA MYB DOMAIN PROTEIN 29); DNA binding

Symbols: MYB76, AtMYB76 | MYB76 (myb domain protein 76); DNA binding / transcription factor | chr1:19350375-19350376

myrosinase-associated protein, putative | chr1:20158664-20160815 REVERSE

Symbols: ESP, TASTY | ESP (EPITHIOSPECIFIER PROTEIN); enzyme regulator | chr1:20170715-20173949

Symbols: NIT2 | NIT2 (nitrilase 2); indole-3-acetonitrile nitrilase/ indole-3-acetonitrile nitrile hydratase, indole-3-acetonitrile nitrilase

#### description

Symbols: BFN1, ENDO1 | BFN1 (BIFUNCTIONAL NUCLEASE I); T/G mismatch-specific endonuclease/ enc  
transducin family protein / WD-40 repeat family protein | chr1:18305541-18307557 FORWARD  
transposable element gene | chr4:2189515-2193763 FORWARD  
Symbols: SADHU1-1 | transposable element gene | chr2:4005995-4007044 REVERSE  
Symbols: SADHU6-1 | transposable element gene | chr3:525370-526255 FORWARD  
Symbols: SADHU3-2 | transposable element gene | chr3:14749400-14750294 REVERSE  
Symbols: SADHU4-1 | transposable element gene | chr5:10933823-10934730 REVERSE  
transposable element gene | chr2:2936239-2938827 FORWARD  
transposable element gene | chr3:7375158-7376420 FORWARD  
transposable element gene | chr3:15598179-15600798 FORWARD  
transposable element gene | chr5:25855347-25857377 REVERSE  
transposable element gene | chr3:15677383-15678009 REVERSE  
Symbols: HIS1-3 | HIS1-3 (HISTONE H1-3); DNA binding / nucleosomal DNA binding | chr2:7846050-78·  
Symbols: HTA4 | HTA4; DNA binding | chr4:7884516-7885664 FORWARD  
histone H3 | chr1:2971593-2972199 REVERSE  
histone H4 | chr1:2368837-2369734 FORWARD

description  
lysine-ketoglutarate reductase/saccharopine dehydrogenase bifunctional enzyme | chr4:15985189-15·

description  
arginase, putative | chr4:5646439-5648727 REVERSE

description  
pseudogene, similar to NADH dehydrogenase subunit 5, blastp match of 97% identity and 2.2e-244 P-v  
NADH-ubiquinone oxidoreductase-related | chr3:23223061-23224308 REVERSE  
NADH-ubiquinone oxidoreductase-related | chr5:21413646-21415006 FORWARD  
Symbols: ATP9 | subunit 9 of mitochondrial F0-ATPase | chrM:278649-279152 FORWARD

description  
Symbols: PSBP-2 | PSBP-2 (photosystem II subunit P-2); calcium ion binding | chr2:13119047-1312009|  
Symbols: PSBA | Encodes chlorophyll binding protein D1, a part of the photosystem II reaction center o  
Symbols: PSBC | chloroplast gene encoding a CP43 subunit of the photosystem II reaction center. prom  
Symbols: PSBB | encodes for CP47, subunit of the photosystem II reaction center. | chrC:72371-73897  
Symbols: PSAB | Encodes the D1 subunit of photosystem I and II reaction centers. | chrC:37375-39579  
Symbols: PSAA | Encodes psaA protein comprising the reaction center for photosystem I along with ps.

Symbols: PSAJ | Encodes subunit J of photosystem I. | chrC:66929-67063 FORWARD

Symbols: PSAC | Encodes the PsaC subunit of photosystem I. | chrC:117318-117563 REVERSE

Symbols: PETA | Encodes cytochrome f apoprotein; involved in photosynthetic electron transport chain | chrC:118377-118907 FORWARD

Symbols: NDHG | NADH dehydrogenase ND6 | chrC:118377-118907 REVERSE

#### description

Symbols: UGT1, UGT75B1 | UGT75B1 (UDP-GLUCOSYLTRANSFERASE 75B1); UDP-glucose:4-aminobenz

Symbols: ILL6 | ILL6; IAA-amino acid conjugate hydrolase/ metallopeptidase | chr1:16834210-1683828

Symbols: IAR3, JR3 | IAR3 (IAA-ALANINE RESISTANT 3); IAA-Ala conjugate hydrolase/ metallopeptidase

Symbols: ILL5 | ILL5; IAA-amino acid conjugate hydrolase/ metallopeptidase | chr1:19204512-1920658

Symbols: ILR1 | ILR1 (IAA-LEUCINE RESISTANT 1); IAA-Leu conjugate hydrolase/ IAA-Phe conjugate hyd

Symbols: NIT2 | NIT2 (nitrilase 2); indole-3-acetonitrile nitrilase/ indole-3-acetonitrile nitrile hydratase

auxin-responsive family protein | chr1:6872794-6873255 REVERSE

auxin-responsive protein-related | chr2:18641566-18642704 FORWARD

auxin-responsive family protein | chr4:16592397-16592717 REVERSE

auxin-responsive family protein | chr4:16596860-16597144 FORWARD

#### description

Symbols: CYP707A1 | CYP707A1; (+)-abscisic acid 8'-hydroxylase/ oxygen binding | chr4:10521379-105

Symbols: ABF3, DPBF5 | ABF3 (ABSCISIC ACID RESPONSIVE ELEMENTS-BINDING FACTOR 3); DNA bindir

Symbols: HVA22K | HVA22K (HVA22-LIKE PROTEIN K) | chr4:17307769-17309867 FORWARD

GRAM domain-containing protein / ABA-responsive protein-related | chr5:2686245-2687251 REVERSE

Symbols: KIN1 | KIN1 | chr5:5209898-5210727 FORWARD

GRAM domain-containing protein / ABA-responsive protein-related | chr5:7858253-7859387 REVERSE

GRAM domain-containing protein / ABA-responsive protein-related | chr5:7863331-7864271 REVERSE

protein phosphatase 2C, putative / PP2C, putative | chr5:23894404-23896619 REVERSE

#### description

2-oxoglutarate-dependent dioxygenase, putative | chr2:10829916-10831655 REVERSE

Symbols: ATERF13, EREBP, ERF13 | ERF13 (ETHYLENE-RESPONSIVE ELEMENT BINDING FACTOR 13); DN  
DNA binding / transcription factor | chr4:2667990-2669364 REVERSE

Symbols: ERF104 | ethylene-responsive element-binding family protein | chr5:24766386-24767430 RE

universal stress protein (USP) family protein | chr3:23135984-23137173 FORWARD

Symbols: ATMES9, MES9 | MES9 (METHYL ESTERASE 9); hydrolase, acting on ester bonds / methyl indo

## description

Symbols: CYP707A1 | CYP707A1; (+)-abscisic acid 8'-hydroxylase/ oxygen binding | chr4:10521379-105  
Symbols: ABF3, DPBF5 | ABF3 (ABSCISIC ACID RESPONSIVE ELEMENTS-BINDING FACTOR 3); DNA bindir  
Symbols: HVA22K | HVA22K (HVA22-LIKE PROTEIN K) | chr4:17307769-17309867 FORWARD  
GRAM domain-containing protein / ABA-responsive protein-related | chr5:2686245-2687251 REVERSE  
Symbols: KIN1 | KIN1 | chr5:5209898-5210727 FORWARD  
GRAM domain-containing protein / ABA-responsive protein-related | chr5:7858253-7859387 REVERSE  
GRAM domain-containing protein / ABA-responsive protein-related | chr5:7863331-7864271 REVERSE  
protein phosphatase 2C, putative / PP2C, putative | chr5:23894404-23896619 REVERSE  
Symbols: UGT1, UGT75B1 | UGT75B1 (UDP-GLUCOSYLTRANSFERASE 75B1); UDP-glucose:4-aminobenz  
Symbols: ILL6 | ILL6; IAA-amino acid conjugate hydrolase/ metallopeptidase | chr1:16834210-1683828  
Symbols: IAR3, JR3 | IAR3 (IAA-ALANINE RESISTANT 3); IAA-Ala conjugate hydrolase/ metallopeptidase  
Symbols: ILL5 | ILL5; IAA-amino acid conjugate hydrolase/ metallopeptidase | chr1:19204512-1920658  
Symbols: ILR1 | ILR1 (IAA-LEUCINE RESISTANT 1); IAA-Leu conjugate hydrolase/ IAA-Phe conjugate hyd  
Symbols: NIT2 | NIT2 (nitrilase 2); indole-3-acetonitrile nitrilase/ indole-3-acetonitrile nitrile hydratase,  
auxin-responsive family protein | chr1:6872794-6873255 REVERSE  
auxin-responsive protein-related | chr2:18641566-18642704 FORWARD  
auxin-responsive family protein | chr4:16592397-16592717 REVERSE  
auxin-responsive family protein | chr4:16596860-16597144 FORWARD  
Symbols: CPD, CYP90A, CYP90, CBB3, DWF3, CYP90A1 | CPD (CONSTITUTIVE PHOTOMORPHOGENIC DV  
Symbols: ROT3 | ROT3 (ROTUNDIFOLIA 3); oxidoreductase, acting on paired donors, with incorporatio  
squalene monooxygenase, putative / squalene epoxidase, putative | chr5:8180118-8181027 REVERSE  
Symbols: CKX5, ATCKX5, ATCKX6 | CKX5 (CYTOKININ OXIDASE 5); cytokinin dehydrogenase | chr1:2831  
2-oxoglutarate-dependent dioxygenase, putative | chr2:10829916-10831655 REVERSE  
Symbols: ATERF13, EREBP, ERF13 | ERF13 (ETHYLENE-RESPONSIVE ELEMENT BINDING FACTOR 13); DN  
DNA binding / transcription factor | chr4:2667990-2669364 REVERSE  
Symbols: ERF104 | ethylene-responsive element-binding family protein | chr5:24766386-24767430 RE  
universal stress protein (USP) family protein | chr3:23135984-23137173 FORWARD  
Symbols: ATMES9, MES9 | MES9 (METHYL ESTERASE 9); hydrolase, acting on ester bonds / methyl indo  
Symbols: AOP2 | AOP2 (ALKENYL HYDROXALKYL PRODUCING 2); oxidoreductase, acting on paired dono  
Symbols: GA5, GA20OX1, AT2301, ATGA20OX1 | GA20OX1; gibberellin 20-oxidase | chr4:12990884-12  
gibberellin-responsive protein, putative | chr1:8027298-8028125 FORWARD  
gibberellin-regulated family protein | chr5:24111324-24112020 FORWARD  
Symbols: LOX2, ATLOX2 | LOX2 (LIPOXYGENASE 2); lipoxygenase | chr3:16525410-16529352 FORWARD  
Symbols: OPR3 | OPR3 (OPDA-REDUCTASE 3); 12-oxophytodienoate reductase | chr2:2359115-236218  
Symbols: JMT | JMT (JASMONIC ACID CARBOXYL METHYLTRANSFERASE); jasmonate O-methyltransfera  
Symbols: ESP, TASTY | ESP (EPITHIOSPECIFIER PROTEIN); enzyme regulator | chr1:20170715-20173949  
jacalin lectin family protein | chr3:5592582-5595710 FORWARD

Symbols: JR1 | JR1 | chr3:5595938-5598044 REVERSE

UDP-glucuronosyl/UDP-glucosyl transferase family protein | chr1:1703092-1704691 REVERSE

S-adenosyl-L-methionine:carboxyl methyltransferase family protein | chr5:15530015-15531522 FORW

Symbols: BSMT1, ATBSMT1 | BSMT1; S-adenosylmethionine-dependent methyltransferase | chr3:3614-3614 REVERSE

log2\_fold change

3.15638  
3.12987  
1.20839  
1.50469  
1.09387  
-1.98766  
-1.62434  
1.02536  
1.00219  
-1.58521  
2.20315  
1.12764  
-1.52125  
-1.13795  
-1.11131  
1.03622  
1.08253  
1.08363  
-1.22059  
1.50898  
1.10344  
1.16651  
1.01699  
1.22913  
2.14935  
-2.89875  
1.70725

inf

-1.04128  
-1.21937  
1.88121  
-1.46358  
-1.16083

log2\_fold change

1.46289  
-1.04128

1.04403

log2\_fold change

2.03939  
1.5608  
1.53978  
1.29601  
1.20016  
-1.21617  
-1.66602  
-2.40485  
-1.35058  
-1.9121  
-1.12992  
-1.64285  
1.12311  
1.09045  
-1.28473  
-1.15905  
1.11664  
-1.73882

log2\_fold change

1.99185  
1.90882  
1.44351  
-1.06727  
1.0113  
1.0287

log2\_fold change

-1.37709  
1.05064  
1.20131  
-1.40933  
1.18572

log2\_fold change

|         |
|---------|
| 1.43547 |
| 2.12301 |
| 1.06675 |
| 1.16667 |

log2\_fold change

|         |
|---------|
| 1.51773 |
|---------|

log2\_fold change

|          |
|----------|
| 1.04038  |
| 1.12758  |
| 1.06009  |
| 1.25943  |
| 1.91681  |
| 1.75456  |
| 2.07282  |
| 1.19261  |
| -1.10517 |
| 1.20524  |
| -1.32013 |
| 1.3889   |
| 1.54072  |
| 1.56587  |
| 1.13025  |
| -1.17728 |
| 1.082    |

log2\_fold change

|          |
|----------|
| 1.89947  |
| 1.7897   |
| -1.3483  |
| 1.01001  |
| -1.25187 |
| 1.18288  |

2.39344  
-1.84919  
-1.29049  
-1.32498  
1.59569  
1.08713  
-2.12416  
1.14552  
-1.66756  
1.14574  
-1.14282  
-1.03287  
1.20873  
-1.20249

log2\_fold change

-2.3909  
-1.33388  
-1.66461  
1.38988  
2.92822  
-1.35554  
1.01463  
1.60405  
-1.89174  
1.27661  
-2.49273  
3.63877  
1.22586  
1.08961  
-1.6778  
1.02479  
1.19772  
-1.57327  
-1.37158  
-1.64586  
1.37268  
1.06131  
1.1002

1.16035  
1.03134  
1.15115  
1.10128  
1.89472  
1.04571  
1.07052  
2.03639  
1.0873  
1.3461  
1.40055  
1.27874  
1.13058  
1.09587  
1.70307  
1.15621  
1.31732  
1.20071  
1.74448  
1.01861  
1.47988  
1.09688  
1.31274  
1.01556

log2\_fold change

1.147  
1.83347  
-1.03356  
1.86233  
2.09352  
-1.16717  
1.43642  
-1.37473  
-1.45975  
1.16184  
1.03028  
1.04823  
-1.13457

-1.90806  
2.23363

log2\_fold change

-1.74198  
1.34978  
-1.236  
-1.65376  
0.313837  
-1.00524  
-1.03028  
1.1814  
-1.13069  
1.1054  
-1.12591  
1.24686  
2.38942  
1.42175  
1.00595  
1.43225  
1.06147  
1.09206  
1.21267  
1.09545  
1.0296  
1.00362  
1.13903  
1.58068  
3.04564  
2.70247  
1.43914  
-1.58505  
1.20054  
1.52682  
-1.07091

log2\_fold change

1.03274  
1.71604

Inf

1.04518  
1.08867  
1.02624  
1.01309  
1.01722  
1.1342  
1.01023  
1.1927  
1.06778  
-2.64418  
2.96913  
1.05889

log2\_fold change

1.05331  
1.40825  
1.03882  
1.30651  
1.77261  
1.13429  
1.35594  
1.72533  
1.14835  
-1.28413  
1.21607  
1.46958  
2.28145  
3.14301  
1.27682  
1.32599  
-1.37855  
1.49228  
-1.3742  
-1.16366

1.1068  
1.59055  
1.47686  
1.22618  
1.135  
-1.13789  
1.00092  
-1.15863  
-2.39598  
1.22396  
1.07592  
-1.06011  
1.01558  
1.08569  
-1.32776  
1.272  
1.06183  
1.00501  
-1.10181  
1.66102  
-1.06739  
1.32624  
1.32962  
-1.46543  
2.24922  
1.04343  
1.70725  
1.31879  
1.28147  
1.70289  
1.43569  
1.17276  
1.08316  
1.15482  
1.96538  
1.05358  
1.39232  
1.57678  
1.54878  
1.18991  
2.65302

-2.3261  
-1.22059  
1.09833  
1.79873  
1.08115  
1.27439  
1.21614  
2.75716  
1.02794  
1.14069  
1.42686  
2.99952  
1.01391  
1.26703  
-1.31196  
1.78579  
1.04799  
-1.48748  
-1.51886  
-1.00862  
1.76315  
1.03183  
1.96676  
1.15464  
1.84268  
1.02025  
1.09232  
1.52277  
2.27795  
-1.20116  
1.24232  
-1.24915

log2\_fold change

1.05067  
1.32767  
1.04578  
-1.48008  
1.31057

-1.41684  
1.09729  
1.45898  
1.2651  
-1.93794  
1.1344  
-1.19574  
1.08732  
1.13982  
1.73013  
2.04129  
1.15355  
1.26019  
1.27397  
1.14928  
1.35209  
2.64116  
1.18985  
1.77163  
1.00048  
1.287  
1.09177  
-1.11031  
1.40718  
1.00512  
1.21352  
1.6761  
1.0976  
2.09693  
1.11031  
1.53874  
1.13394  
1.09499  
-1.26433  
-1.27638  
1.01246  
-1.66986  
1.208  
-2.17742  
1.06464  
1.12827

|     |          |
|-----|----------|
|     | 1.03615  |
|     | -1.09863 |
|     | 1.43847  |
|     | -1.09834 |
|     | 1.18493  |
|     | -1.60776 |
|     | -3.79043 |
|     | 1.55374  |
|     | 1.37927  |
|     | 1.24691  |
|     | -1.33878 |
|     | 1.02208  |
|     | -2.08471 |
|     | 1.29282  |
|     | 1.05569  |
|     | 1.36179  |
|     | -1.00373 |
|     | 2.11919  |
|     | 1.42564  |
|     | 1.04122  |
|     | 1.51706  |
|     | 1.80056  |
|     | 1.12346  |
|     | 1.09533  |
|     | 1.16529  |
| inf |          |
| inf |          |
|     | 1.55131  |
|     | 1.0004   |
|     | 1.16581  |
|     | 1.42196  |
|     | 1.03797  |
|     | 1.23558  |
|     | -1.64262 |
|     | 1.44987  |
|     | 1.00794  |
|     | 1.01196  |
|     | 1.04195  |
|     | 1.49807  |
|     | 1.47837  |
|     | 1.00821  |

|  |          |
|--|----------|
|  | 3.89646  |
|  | 1.1934   |
|  | 1.1123   |
|  | 1.13945  |
|  | 1.03651  |
|  | 1.16748  |
|  | 2.58565  |
|  | 1.88678  |
|  | 1.356    |
|  | 1.0318   |
|  | -1.35998 |
|  | 2.33865  |
|  | 1.00614  |
|  | 1.31102  |
|  | 1.23076  |
|  | 1.21783  |
|  | 1.39392  |
|  | -1.13309 |
|  | 1.70653  |
|  | 1.31894  |
|  | 1.11131  |
|  | 1.07747  |
|  | 1.07534  |
|  | 1.01264  |
|  | -2.60708 |
|  | -1.27841 |
|  | 1.75109  |
|  | 1.05181  |
|  | 1.65295  |
|  | 1.08527  |
|  | 3.51154  |
|  | 1.04043  |
|  | 1.11361  |
|  | -1.01462 |
|  | 1.33151  |
|  | 1.30524  |
|  | -1.13865 |
|  | 1.11991  |
|  | 1.50294  |
|  | 1.74486  |
|  | 1.00966  |

|     |          |
|-----|----------|
|     | 1.64054  |
|     | -1.05518 |
|     | 1.05947  |
|     | 1.10102  |
|     | 1.05468  |
|     | 1.10659  |
|     | 1.03323  |
|     | 1.51251  |
|     | 1.1258   |
|     | -1.0864  |
|     | 1.54299  |
|     | 1.05123  |
|     | 1.09668  |
|     | 1.29086  |
|     | 1.26476  |
| inf |          |
|     | -1.14826 |
|     | 1.52134  |
|     | 1.4401   |
|     | 1.10903  |
|     | 1.23595  |
|     | 1.47588  |
|     | -1.55431 |
|     | 1.03733  |
|     | -1.22673 |
| inf |          |
|     | -2.15929 |
| inf |          |
|     | -1.63629 |
|     | -1.49396 |
|     | -2.38297 |
|     | 1.38103  |
|     | 1.22281  |
|     | -1.03734 |
|     | -1.28055 |
|     | 1.21269  |
|     | 1.05633  |
|     | -2.71775 |
|     | 2.14185  |
|     | 1.5142   |
|     | -5.13702 |

|     |          |
|-----|----------|
|     | -1.76029 |
|     | 1.10812  |
|     | -1.02247 |
|     | 1.23391  |
|     | -1.11577 |
|     | 1.21909  |
|     | 1.12776  |
|     | 1.03724  |
|     | 2.13513  |
|     | -1.66028 |
|     | 1.57879  |
| inf |          |
|     | 1.31387  |
|     | 1.38963  |
|     | 1.06211  |
|     | 1.19149  |
|     | 1.2814   |
|     | 1.2328   |
|     | 1.02371  |
|     | 1.13675  |
|     | -1.01225 |
|     | 1.62283  |
|     | -3.22481 |
|     | 1.73555  |
|     | -1.10205 |
|     | -1.11045 |
|     | 1.52112  |
|     | 1.2982   |
|     | 1.47229  |
|     | 1.46311  |
|     | 1.34369  |
|     | 3.36905  |
|     | 1.32388  |
|     | 1.82822  |
|     | 1.49207  |
|     | 1.7387   |
|     | 3.16744  |
|     | 1.50216  |
| inf |          |
|     | 1.32101  |
|     | 1.34303  |

|     |          |
|-----|----------|
|     | 1.09753  |
|     | 1.00884  |
|     | 1.06547  |
|     | 1.3109   |
|     | 1.1799   |
| inf |          |
| inf |          |
| inf |          |
|     | 1.24124  |
|     | 1.02278  |
|     | -1.17215 |
|     | 1.11285  |
|     | -2.83296 |
|     | -1.28162 |
|     | 1.03369  |
|     | -2.25048 |
|     | -1.45206 |
|     | 1.99852  |
|     | 1.07537  |
|     | 2.34778  |
|     | 1.04903  |
|     | 1.4852   |
|     | -1.07196 |
|     | 1.42998  |
|     | 1.11482  |
|     | 1.52329  |
|     | -1.52672 |
|     | -1.39501 |
|     | -1.32393 |
|     | 1.12354  |
|     | 1.5424   |
|     | 2.18036  |
|     | 2.4904   |
|     | 1.02511  |
|     | -1.07876 |
|     | 1.05762  |
|     | 1.63744  |
|     | -2.10524 |
|     | -1.29259 |
|     | 1.05086  |
|     | 1.28618  |

|     |          |
|-----|----------|
|     | 1.00873  |
|     | 1.31566  |
|     | 1.3188   |
|     | 1.91396  |
|     | 1.10942  |
|     | 1.44528  |
|     | 1.23761  |
|     | -1.10448 |
|     | -1.48779 |
|     | 1.83759  |
|     | -1.56047 |
|     | 1.0065   |
|     | 1.47495  |
|     | 1.00287  |
|     | -1.32338 |
|     | 1.10596  |
|     | 1.61499  |
|     | 2.3119   |
|     | 1.32746  |
|     | 1.05919  |
|     | 1.13319  |
|     | 1.01599  |
|     | 1.02337  |
|     | -1.38508 |
|     | -1.15513 |
|     | 1.91343  |
|     | 1.03911  |
|     | 1.00647  |
|     | 1.44177  |
| inf |          |
|     | 1.26771  |
|     | -1.36147 |
|     | 2.46227  |
|     | 1.12473  |
|     | 1.02267  |
|     | 1.03281  |
|     | 1.07782  |
|     | 1.58341  |
|     | 1.30518  |
|     | 1.56924  |
|     | 1.37937  |

|     |          |
|-----|----------|
|     | 1.1131   |
|     | 2.83377  |
|     | -1.03194 |
|     | -1.6835  |
|     | -1.71736 |
|     | -2.18402 |
|     | -1.27664 |
|     | -1.51267 |
|     | -1.14846 |
|     | 2.3182   |
|     | 1.70587  |
|     | 2.57505  |
|     | 1.26079  |
|     | 1.01158  |
|     | 1.38186  |
|     | 1.17564  |
| Inf |          |
|     | 1.20656  |
|     | 1.35326  |
|     | 1.33089  |
|     | -1.77275 |
|     | 1.02121  |
|     | -1.56029 |
|     | 2.19933  |
|     | 1.05938  |
|     | -1.00958 |
|     | 1.1011   |
|     | 1.12098  |
|     | 1.11818  |
|     | -1.4837  |
|     | 1.01596  |
|     | 2.14024  |
|     | 1.72505  |
|     | 2.36181  |
|     | 1.3664   |
|     | 1.41371  |
|     | 1.19908  |
|     | 1.20173  |
|     | 1.98007  |
|     | 1.10812  |
|     | 1.24616  |

log2\_fold change

1.04042  
1.18772  
-1.08103  
1.5068  
1.03407  
-1.72914  
3.14265  
1.04047  
1.03017  
1.13738  
-1.93666  
-1.29063

log2\_fold change

-2.59085  
-1.42713  
1.01777  
1.18378  
1.33604  
1.39998  
1.41962  
2.44894

log2\_fold change

-1.10264  
1.24282  
1.51966  
1.10483  
-1.00988  
1.40992  
1.01366

1.01155  
-1.28437  
1.49069  
1.40557  
-1.13144  
-1.29677  
-1.39381  
-1.53496  
-1.20696  
-1.44079  
-1.17723  
1.04904  
1.0478  
1.05814  
1.50211  
1.21541  
-1.00247  
-1.28529  
1.4227  
1.10903  
-1.38797  
1.12524  
-1.23187  
1.52914  
1.13253  
1.01675  
1.84458

log2\_fold change

-1.03621  
-1.31121  
-2.44671  
-1.08019  
-1.07162  
-1.00299  
-1.11328  
-1.23458  
-1.10695

-2.20575  
1.08034  
-1.40722  
-1.65245  
-1.25441  
-1.35948  
1.25965

log2\_fold change

2.1498  
1.38881  
2.32314  
-1.28274  
2.60791

log2\_fold change

-1.01809  
-1.36604  
1.30774  
-1.0401  
1.57709  
1.07945

log2\_fold change

1.35444  
-1.95526  
-1.83281  
-1.02138  
-1.22305  
1.19001  
1.71902

log2\_fold change

|  |         |
|--|---------|
|  | 1.84087 |
|  | 1.45266 |
|  | 1.01155 |
|  | 1.0101  |

|                  |         |
|------------------|---------|
| log2_fold change |         |
|                  | 1.24541 |
|                  | 1.19997 |
|                  | 1.47731 |
|                  | 1.33281 |

|                  |          |
|------------------|----------|
| log2_fold change |          |
|                  | 3.24311  |
|                  | -1.37506 |
|                  | -1.3637  |
|                  | -1.22802 |
|                  | -2.63596 |
|                  | -1.8267  |

|                  |          |
|------------------|----------|
| log2_fold change |          |
|                  | -1.08632 |
|                  | 1.51069  |
|                  | 1.08419  |
|                  | -1.05677 |
|                  | 1.9299   |
| Inf              |          |
|                  | 1.39909  |
|                  | 3.85242  |

|                  |         |
|------------------|---------|
| log2_fold change |         |
|                  | 1.65771 |
|                  | 2.26531 |

3.04333  
2.38914  
1.20138  
-1.75626  
1.22777  
1.04961  
1.36165

log2\_fold change

1.028  
-1.18555  
1.57236  
3.39559  
2.01455  
2.79044

log2\_fold change

1.34446  
1.08768  
1.08569  
1.94814  
1.21553  
1.32866  
2.18646  
1.29925  
1.18528  
1.39232  
1.57678  
2.56372  
1.20545  
1.61193  
3.45531

log2\_fold change

-1.68378  
1.15  
1.34513  
1.06479  
1.0399  
6.36272  
1.07162  
2.67701  
1.27551  
1.08131  
1.57069  
2.02828  
1.06144  
1.06071  
-1.00961  
1.00011

log2\_fold change  
1.45911

log2\_fold change  
1.98964

log2\_fold change  
1.00992  
1.18883  
1.08557  
1.67724

log2\_fold change  
1.04883  
1.88939  
1.89176  
1.64958  
1.24403  
1.46369

|  |         |
|--|---------|
|  | 2.94099 |
|  | 1.93176 |
|  | 1.03651 |
|  | 2.36344 |

log2\_fold change

|  |          |
|--|----------|
|  | 1.85097  |
|  | 1.42413  |
|  | 1.07374  |
|  | 2.82028  |
|  | 1.14243  |
|  | 3.45531  |
|  | -1.84963 |
|  | 1.55906  |
|  | 4.43433  |
|  | 3.63278  |

log2\_fold change

|  |          |
|--|----------|
|  | 1.23777  |
|  | 1.02184  |
|  | 1.24801  |
|  | -1.32837 |
|  | 1.98703  |
|  | -1.49222 |
|  | -1.68033 |
|  | 1.68068  |

log2\_fold change

|  |         |
|--|---------|
|  | 1.29925 |
|  | 1.86582 |
|  | 1.34944 |
|  | 1.26214 |
|  | 1.0193  |
|  | 2.04376 |

Upregulated\_Downregulated\_MIOX4\_5.0\_Mapman.txt

1.23777  
1.02184  
1.24801  
-1.32837  
1.98703  
-1.49222  
-1.68033  
1.68068  
1.85097  
1.42413  
1.07374  
2.82028  
1.14243  
3.45531  
-1.84963  
1.55906  
4.43433  
3.63278  
1.34001  
1.06311  
1.29621  
1.09094  
1.29925  
1.86582  
1.34944  
1.26214  
1.0193  
2.04376  
2.18646  
-1.07537  
-1.07635  
-3.2326  
1.46705  
1.76284  
1.28822  
1.61193  
1.07626

2.04482  
3.70745  
-1.47282  
2.33413