## Supplementary Materials

## Proteome-Wide Analyses Provide New Insights into the Compatible Interaction of Rice with Root-Knot Nematode Meloidogyne graminicola

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Figure S1. Volcano plots of the relative protein abundance changes of all the identified proteins in the roots of NPB with or without infection of M. graminicola.

Figure S2. Clustering heatmaps of the three biological replicates.
Figure S3. GO and KEGG enrichment analyses using all the specifically expressed proteins and SDEPs of NPB roots in CK1DPI_versus_CK0, CK3DPI_versus_CK0, or CK7DPI_versus_CK0.

Figure S4. GO and KEGG enrichment analyses of the specifically expressed proteins and SDEPs of the NPB roots in the whole CK_versus_CK0 group.

Figure S5. Compatible interaction of japonica rice cultivar Nipponbare (NPB) with $M$. graminicola.

Table S1 List of the specifically expressed proteins and significantly differentially expressed proteins (SDEPs) in the roots of rice NPB uniquely caused by the infection of M. graminicola.

Table S2 List of the primers used in this study.


Figure S1. Volcano plots of the relative protein abundance changes of all the identified proteins in the roots of NPB with or without infection of M. graminicola. (A)-(F) Volcano plots of the relative protein abundance changes of all the identified proteins in MG1DPI_versus_CK1DPI, MG3DPI_versus_CK3DPI, MG7DPI_versus_CK7DPI, CK1DPI_versus_CK0, CK3DPI_versus_CK0, and CK7DPI_versus_CK0, respectively. Red and green dots indicate the proteins that are significantly up-regulated and significantly down-regulated, respectively.


Figure S2. Clustering heatmaps of the three biological replicates. (A)-(F) Clustering heatmaps of MG1DPI_versus_CK1DPI, MG3DPI_versus_CK3DPI, MG7DPI_versus_CK7DPI, CK1DPI_versus_CK0, CK3DPI_versus_CK0, and CK7DPI_versus_CK0, respectively.


Figure S3. GO and KEGG enrichment analyses using all the specifically expressed proteins and SDEPs of NPB roots in CK1DPI_versus_CK0, CK3DPI_versus_CK0, or CK7DPI_versus_CK0. (A)-(C) GO enrichment analyses in CK1DPI_versus_CK0, CK3DPI_versus_CK0, and CK7DPI_versus_CK0, respectively. (D)-(F) KEGG enrichment analyses in CK1DPI_versus_CK0, CK3DPI_versus_CK0, and CK7DPI_versus_CK0, respectively.


Figure S4. GO and KEGG enrichment analyses of all the specifically expressed proteins and SDEPs of the NPB roots in the whole CK_versus_CK0 group. (A) GO enrichment analyses. (B) KEGG pathway enrichment analyses.


Figure S5. Compatible interaction of japonica rice cultivar Nipponbare (NPB) with M. graminicola. (A) Partial seedlings of NPB at 7 dpi of M. graminicola. Left and right pictures are the partial seedlings with and without inoculation, respectively. Many galls (red arrows directed) already emerged on the roots inoculated with M. graminicola at 7 dpi, but no galls appeared on the non-inoculated roots at the same growth day. (B) One representative gall on the roots with 3 stained nematodes (purple) inside observed under a stereomicroscopy at 7 dpi .

Table S1 List of the specifically expressed proteins and significantly differentially expressed proteins (SDEPs) in the roots of rice NPB uniquely caused by the infection of M. graminicola . Totally, 513 proteins were obtained. 'Specific', 'Up' and 'Down' denote specifically expressed proteins, up-regulated SDEPs and down-regulated SDEPs, respectively. The former 99 proteins were enriched on the KEGG pathways. The blue-highlighted are the speciallyselected proteins.

| No. | Accession No. | Description | Gene ID | Expression | KEGG pathway |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | LOC_Os12g08780.1 | flavin monooxygenase, putative, expressed | $\begin{aligned} & \text { dosa:Os12t01895 } \\ & 00-00 \end{aligned}$ | Specific | Tryptophan metabolism;Metabolic pathways |
| 2 | LOC_Os03g16210.1 | tropinone reductase, putative, expressed | osa:4332375 | Specific and Down | Tropane, piperidine and pyridine alkaloid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 3 | LOC_Os11g25160.1 | tropinone reductase 2, putative, expressed | $\begin{aligned} & \text { dosa:Os11t04387 } \\ & 00-01 \end{aligned}$ | Down | Tropane, piperidine and pyridine alkaloid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 4 | LOC_Os12g09000.1 | phosphomethylpyrimidine kinase/thiaminphosphate pyrophosphorylase, putative, expressed | osa:4351707 | Specific | Thiamine metabolism;Metabolic pathways |
| 5 | LOC_Os05g30454.1 | thiamin pyrophosphokinase 1, putative, expressed | osa:4338566 | Down | Thiamine metabolism;Metabolic pathways |
| 6 | LOC_Os03g52180.1 | 4-hydroxy-3-methylbut-2-enyl diphosphate reductase, putative, expressed | osa:4334004 | Specific | Terpenoid backbone biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 7 | LOC_Os05g34180.1 | hydrolase, NUDIX family, domain containing protein, expressed | osa:4338791 | Up | Terpenoid backbone biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 8 | LOC_Os01g66360.1 | 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase, putative, expressed | osa:9266653 | Down | Terpenoid backbone biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 9 | LOC_Os01g05810.1 | gamma-glutamyltranspeptidase 1 precursor, putative, expressed | osa:4324525 | Up | Taurine and hypotaurine metabolism;Cyanoamino acid metabolism;Glutathione metabolism;Arachidonic acid metabolism;Metabolic pathways |
| 10 | LOC_Os03g59040.2 | squalene synthetase, putative, expressed | osa:4334492 | Down | Steroid biosynthesis;Sesquiterpenoid and triterpenoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 11 | LOC_Os06g49970.2 | alpha-amylase precursor, putative, expressed | osa:4342055 | Up and Down | Starch and sucrose metabolism;Metabolic pathways |
| 12 | LOC_Os07g32600.1 | glucan endo-1,3-beta-glucosidase precursor, putative, expressed | osa:4343350 | Specific | Starch and sucrose metabolism;Metabolic pathways |
| 13 | LOC_Os02g47350.1 | oxidoreductase, short chain dehydrogenase/reductase family, putative, expressed | osa:4330439 | Up | Sphingolipid metabolism;Metabolic pathways |
| 14 | LOC_Os03g02600.1 | riboflavin biosynthesis protein ribD, putative, expressed | $\begin{aligned} & \text { dosa:Os03t01172 } \\ & 00-01 \end{aligned}$ | Down | Riboflavin metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |


| 15 | LOC_Os01g11054.1 | phosphoenolpyruvate carboxylase, putative, expressed | osa:4325531 | Down | Pyruvate metabolism;Carbon fixation in photosynthetic organisms;Metabolic pathways;Carbon metabolism |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 16 | LOC_Os03g31750.3 | pyruvate, phosphate dikinase, chloroplast precursor, putative, expressed | osa:4333181 | Down | Pyruvate metabolism;Carbon fixation in photosynthetic organisms;Metabolic pathways;Carbon metabolism |
| 17 | LOC_Os01g70950.1 | spermatogenesis-associated protein 20 precursor, putative, expressed | osa:4326794 | Up | Pyrimidine metabolism;Metabolic pathways |
| 18 | LOC_Os06g02000.1 | adenylate kinase, putative, expressed | osa:4339882 | Down | Pyrimidine metabolism;Metabolic pathways |
| 19 | LOC_Os03g44660.1 | cytosolic 5-nucleotidase III, putative, expressed | osa:4333582 | Down | Purine metabolism;Pyrimidine metabolism;Nicotinate and nicotinamide metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |
| 20 | LOC_Os05g08950.1 | phosphoribosyl transferase, putative, expressed | osa:107276353 | Up | Purine metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |
| 21 | LOC_Os01g64520.1 | uricase, putative, expressed | osa:4324793 | Down | Purine metabolism;Metabolic pathways |
| 22 | LOC_Os05g06940.1 | relA-SpoT like protein RSH 4 , putative, expressed | osa:9270381 | Specific | Purine metabolism;Metabolic pathways |
| 23 | LOC_Os01g07770.1 | peroxidase precursor, putative, expressed | osa:4327648 | Up and Down | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 24 | LOC_Os12g08920.1 | peroxidase precursor, putative, expressed | $\begin{aligned} & \text { dosa:Os12t01915 } \\ & 00-01 \end{aligned}$ | Up and Down | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 25 | LOC_Os11g40690.1 | dehydrogenase, putative, expressed | $\begin{aligned} & \text { dosa:Os11t06228 } \\ & 00-00 \end{aligned}$ | Up and Down | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 26 | LOC_Os05g04500.1 | peroxidase precursor, putative, expressed | osa:4337732 | Up | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 27 | LOC_Os09g23530.1 | dehydrogenase, putative, expressed | osa:4346988 | Up | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 28 | LOC_Os03g25280.1 | peroxidase precursor, putative, expressed | $\begin{aligned} & \text { dosa:Os03t03680 } \\ & 00-00 \end{aligned}$ | Down | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 29 | LOC_Os07g01410.1 | peroxidase precursor, putative, expressed | sita:101755700 | Down | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 30 | LOC_Os01g73200.1 | peroxidase precursor, putative, expressed | osa:4324556 | Down | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 31 | LOC_Os09g23560.1 (CAD) | dehydrogenase, putative, expressed | osa:4346993 | Down | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |


| 32 | LOC_Os02g14160.1 | peroxidase precursor, putative, expressed | osa:4328832 | Down | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 33 | LOC_Os03g22020.1 | peroxidase precursor, putative, expressed | osa:9272450 | Down | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 34 | LOC_Os03g25320.1 | peroxidase precursor, putative, expressed | sita:101771235 | Down | Phenylpropanoid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 35 | LOC_Os06g06980.1 | caffeoyl-CoA O-methyltransferase, putative, expressed | osa:4340240 | Down | Phenylpropanoid biosynthesis;Flavonoid biosynthesis;Stilbenoid, diarylheptanoid and gingerol biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites;Biosynthesis of secondary metabolites - unclassified |
| 36 | LOC_Os04g33390.1 | prephenate dehydratase domain containing protein, expressed | osa:4335756 | Down | Phenylalanine, tyrosine and tryptophan biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites;Biosynthesis of amino acids |
| 37 | LOC_Os08g43370.1 | 6-phosphogluconolactonase, putative, expressed | osa:4346232 | Down | Pentose phosphate pathway;Metabolic pathways;Biosynthesis of secondary metabolites;Carbon metabolism |
| 38 | LOC_Os07g08030.1 | ribose-5-phosphate isomerase A , putative, expressed | osa:4342543 | Up | Pentose phosphate pathway;Carbon fixation in photosynthetic organisms;Metabolic pathways;Biosynthesis of secondary metabolites;Carbon metabolism;Biosynthesis of amino acids |
| 39 | LOC_Os02g54880.1 | cytochrome c oxidase subunit, putative, expressed | osa:4330974 | Specific | Oxidative phosphorylation;Metabolic pathways |
| 40 | LOC_Os05g45730.1 | ubiquinone oxidoreductase, putative, expressed | osa:4339427 | Up | Oxidative phosphorylation;Metabolic pathways |
| 41 | LOC_Os07g31300.1 | ATP synthase delta chain, mitochondrial precursor, putative, expressed | osa:4343288 | Up | Oxidative phosphorylation;Metabolic pathways |
| 42 | LOC_Os08g01940.1 | non-lysosomal glucosylceramidase, putative, expressed | $\begin{aligned} & \text { dosa:Os08t01112 } \\ & 00-01 \end{aligned}$ | Up and Down | Other glycan degradation;Sphingolipid metabolism;Metabolic pathways |
| 43 | LOC_Os03g60700.1 | dolichyl-phosphate beta-glycosyltransferase, putative, expressed | osa:4334604 | Up | N-Glycan biosynthesis;Metabolic pathways |
| 44 | LOC_Os11g47520.1 | glycosyl hydrolase, putative, expressed | osa:4351187 | Up | Metabolic pathways;Amino sugar and nucleotide sugar metabolism |
| 45 | LOC_Os05g15770.1 | glycosyl hydrolase, putative, expressed | osa:4338208 | Up | Metabolic pathways;Amino sugar and nucleotide sugar metabolism |
| 46 | LOC_Os11g47560.1 | glycosyl hydrolase, putative, expressed | osa:4351191 | Down | Metabolic pathways;Amino sugar and nucleotide sugar metabolism |


| 47 | LOC_Os01g33230.1 | UDP-N-acetylglucosamine--N-acetylmuramylpyrophosphor yl-undecaprenol N acetylglucosamine transferase, putative, expressed | $\begin{aligned} & \text { dosa:Os01t05167 } \\ & 00-01 \end{aligned}$ | Specific and Down | Metabolic pathways |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 48 | LOC_Os02g54254.1 | saccharopine dehydrogenase, putative, expressed | osa:4330940 | Down | Lysine degradation;Metabolic pathways;Biosynthesis of secondary metabolites |
| 49 | LOC_Os03g09250.1 | inositol-3-phosphate synthase, putative, expressed | osa:4331917 | Down | Inositol phosphate metabolism;Metabolic pathways |
| 50 | LOC_Os02g33710.1 | decarboxylase, putative, expressed | osa:4329593 | Down | Histidine metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |
| 51 | LOC_Os03g57220.1 | hydroxyacid oxidase 1, putative, expressed | $\begin{aligned} & \text { dosa:Os03t07861 } \\ & 00-01 \end{aligned}$ | Up | Glyoxylate and dicarboxylate metabolism;Metabolic pathways;Biosynthesis of secondary metabolites;Carbon metabolism;Peroxisome |
| 52 | LOC_Os04g58710.1 | AMP-binding domain containing protein, expressed | osa:4337447 | Down | Glyoxylate and dicarboxylate metabolism;Metabolic pathways |
| 53 | LOC_Os01g67960.1 | GPI transamidase component PIG-S-related, putative, expressed | osa:4324979 | Up | Glycosylphosphatidylinositol (GPI)anchor biosynthesis;Metabolic pathways |
| 54 | LOC_Os04g33190.1 | AMP-binding enzyme, putative, expressed | osa:4335745 | Down | Glycolysis / Gluconeogenesis;Pyruvate metabolism;Propanoate metabolism;Metabolic pathways;Biosynthesis of secondary metabolites; Carbon metabolism;Glyoxylate and dicarboxylate metabolism |
| 55 | LOC_Os02g51590.1 | phosphoglycerate mutase, putative, expressed | osa:4330747 | Up | Glycolysis / Gluconeogenesis;Glycine, serine and threonine metabolism;Metabolic pathways;Biosynthesis of secondary metabolites;Carbon metabolism;Biosynthesis of amino acids |
| 56 | LOC_Os04g38540.1 | aldose 1-epimerase, putative, expressed | osa:4336039 | Specific | Glycolysis / Gluconeogenesis;Galactose metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |
| 57 | LOC_Os11g10480.1 | dehydrogenase, putative, expressed | osa:4350053 | Down | Glycolysis / Gluconeogenesis;Fatty acid degradation;Tyrosine metabolism;alphaLinolenic acid metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |
| 58 | LOC_Os04g20164.2 | amine oxidase precursor, putative, expressed | $\begin{aligned} & \text { dosa:Os04t02696 } \\ & 00-01 \end{aligned}$ | Up | Glycine, serine and threonine metabolism;Tyrosine metabolism;Phenylalanine metabolism;beta-Alanine metabolism;Isoquinoline alkaloid biosynthesis;Tropane, piperidine and pyridine alkaloid biosynthesis;Metabolic pathways;Biosynthesis of secondary metabolites |
| 59 | LOC_Os09g26700.1 | choline/ethanolamine kinase, putative, expressed | osa:4347160 | Down | Glycerophospholipid metabolism;Metabolic pathways |


| 60 | LOC_Os03g27370.1 | phospholipase D, putative, expressed | obr:102711051 | Down | Glycerophospholipid metabolism;Ether lipid metabolism;Metabolic pathways;Biosynthesis of secondary metabolites;Endocytosis |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 61 | LOC_Os03g50030.1 | phospholipase A2, putative, expressed | osa:4333862 | Specific | Glycerophospholipid metabolism;Ether lipid metabolism;Arachidonic acid metabolism;Linoleic acid metabolism;alpha-Linolenic acid metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |
| 62 | LOC_Os01g49820.1 | lipid phosphatase protein, putative, expressed | osa:4325649 | Down | Glycerolipid metabolism;Glycerophospholipid metabolism;Biosynthesis of secondary metabolites |
| 63 | LOC_Os03g17480.1 | IN2-1 protein, putative, expressed | osa:4332456 | Up and Down | Glutathione metabolism;Metabolic pathways |
| 64 | LOC_Os07g28480.1 | glutathione S-transferase, putative, expressed | osa:4343183 | Up | Glutathione metabolism;Metabolic pathways |
| 65 | LOC_Os10g38670.1 | glutathione S-transferase, putative, expressed | $\begin{aligned} & \text { dosa:Os10t05302 } \\ & 00-01 \end{aligned}$ | Up | Glutathione metabolism;Metabolic pathways |
| 66 | LOC_Os10g38489.1 | glutathione S-transferase GSTU6, putative, expressed | $\begin{aligned} & \text { dosa:Os10t05284 } \\ & 00-01 \end{aligned}$ | Up | Glutathione metabolism;Metabolic pathways |
| 67 | LOC_Os10g38350.1 | glutathione S-transferase, putative, expressed | osa:4349185 | Up | Glutathione metabolism;Metabolic pathways |
| 68 | LOC_Os10g38730.1 | glutathione S-transferase, putative, expressed | obr:102711734 | Up | Glutathione metabolism;Metabolic pathways |
| 69 | $\begin{aligned} & \text { LOC_Os03g39850.1 } \\ & \text { (GST) } \end{aligned}$ | glutathione S-transferase, putative, expressed | osa:4333371 | Down | Glutathione metabolism;Metabolic pathways |
| 70 | LOC_Os04g56930.1 | glycosyl hydrolases, putative, expressed | osa:4337313 | Down | Galactose metabolism;Starch and sucrose metabolism;Metabolic pathways |
| 71 | LOC_Os05g51670.1 | NAD dependent epimerase/dehydratase family protein, putative, expressed | osa:4339812 | Down | Galactose metabolism;Amino sugar and nucleotide sugar metabolism;Metabolic pathways |
| 72 | LOC_Os06g03910.1 | hydrolase, NUDIX family, domain containing protein, expressed | osa:4339996 | Down | Fructose and mannose metabolism;Purine metabolism;Starch and sucrose metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |
| 73 | LOC_Os04g20280.2 | expressed protein | osa:4335343 | Specific | Fatty acid elongation;Biosynthesis of unsaturated fatty acids;Biosynthesis of secondary metabolites;Fatty acid metabolism;Metabolic pathways |
| 74 | $\begin{aligned} & \text { LOC_Os01g06600.1 } \\ & \text { (ACX) } \end{aligned}$ | glutaryl-CoA dehydrogenase, mitochondrial precursor, putative, expressed | osa:4324062 | Down | Fatty acid degradation;alpha-Linolenic acid metabolism;Biosynthesis of unsaturated fatty acids;Metabolic pathways;Biosynthesis of secondary metabolites;Fatty acid metabolism;Peroxisome;Carbon metabolism;beta-Alanine metabolism;Propanoate metabolism |
| 75 | LOC_Os07g07450.1 | versicolorin reductase, putative, expressed | osa:9270991 | Up | Fatty acid biosynthesis;Biotin metabolism;Metabolic pathways;Fatty acid metabolism |

76 LOC_Os04g09900.1

77 LOC_Os01g22010.4

78 LOC_Os05g04510.1

79 LOC_Os12g41390.1

80 LOC_Os11g08380.1

81 LOC_Os05g05680.1

82 LOC_Os10g17650.1
Os10bglu34 - beta-glucosidase homologue, similar to Os3bglu6, expressed
osa:4348315
1-aminocyclopropane-1-carboxylate oxidase, putative, expressed

83 LOC_Os11g33240.1
citrate synthase, putative, expressed
phosphoribulokinase/Uridine kinase family protein, expressed

85 LOC_Os04g16680.1

86 LOC_Os02g48560.1

87 LOC_Os09g23070.1

88 LOC_Os12g29760.1

89 LOC_Os06g37080.1
ent-kaurene synthase, chloroplast precursor, putative, expressed
osa:4335090

S-adenosylmethionine synthetase, putative, expressed

S-adenosylmethionine synthetase, putative, expressed
homocysteine S-methyltransferase protein, putative, expressed

1-aminocyclopropane-1-carboxylate oxidase, putative, expressed
osa:4349970
osa:4352747
osa:4337818

84 LOC_Os02g47020.1
fructose-1,6-bisphosphatase, putative, expressed osa:4335227
fatty acid desaturase, putative, expressed
malonyl-CoA decarboxylase, mitochondrial precursor, putative, expressed
oxidoreductase, aldo/keto reductase family protein, putative, expressed

L-ascorbate oxidase precursor, putative, expressed
osa:4346967
osa:4330523
osa:435222
osa:4341335

Diterpenoid biosynthesis;Biosynthesis of secondary metabolites

Cysteine and methionine metabolism;Metabolic pathways;Biosynthesis of secondary metabolites;Biosynthesis of amino acids

Cysteine and methionine metabolism;Metabolic pathways;Biosynthesis of secondary metabolites;Biosynthesis of amino acids

Cysteine and methionine metabolism;Metabolic pathways;Biosynthesis of secondary metabolites
Cysteine and methionine metabolism;Metabolic pathways;Biosynthesis of secondary metabolites

Cysteine and methionine metabolism;Metabolic pathways;Biosynthesis of secondary metabolites
Cyanoamino acid metabolism;Starch and sucrose
metabolism;Phenylpropanoid biosynthesis;Metabolic
pathways;Biosynthesis of secondary metabolites

Citrate cycle (TCA cycle);Glyoxylate and dicarboxylate metabolism;Metabolic pathways;Biosynthesis of secondary metabolites;Carbon metabolism;2Oxocarboxylic acid metabolism;Biosynthesis of amino acids

Carbon fixation in photosynthetic organisms;Metabolic pathways;Carbon metabolism
Carbon fixation in photosynthetic organisms;Metabolic pathways;Carbon metabolism
Biosynthesis of unsaturated fatty acids;Fatty acid metabolism;Metabolic pathways
beta-Alanine metabolism;Propanoate metabolism;Metabolic
pathways;Peroxisome
Ascorbate and aldarate
metabolism;Metabolic pathways;Biosynthesis of secondary metabolites
Ascorbate and aldarate metabolism;Metabolic pathways

| 90 | LOC_Os03g08530.1 | aminotransferase, classes I and II, domain containing protein, expressed | $\begin{aligned} & \text { dosa:Os03t01836 } \\ & 00-00 \end{aligned}$ | Down | Arginine biosynthesis;Alanine, aspartate and glutamate metabolism; Carbon fixation in photosynthetic organisms;Metabolic pathways;Carbon metabolism;2Oxocarboxylic acid metabolism;Biosynthesis of amino acids |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 91 | LOC_Os04g01690.1 | pyridoxal-dependent decarboxylase protein, putative, expressed | osa:4334917 | Up | Arginine and proline metabolism;Metabolic pathways |
| 92 | LOC_Os07g04690.1 | UDP-arabinose 4-epimerase 1, putative, expressed | osa:4342364 | Down | Amino sugar and nucleotide sugar metabolism;Metabolic pathways |
| 93 | LOC_Os01g62020.1 | NAD dependent epimerase/dehydratase family domain containing protein, expressed | osa:4327367 | Down | Amino sugar and nucleotide sugar metabolism;Metabolic pathways |
| 94 | LOC_Os12g03470.1 | alpha- N -arabinofuranosidase A , putative, expressed | osa:4351401 | Down | Amino sugar and nucleotide sugar metabolism;Metabolic pathways |
| 95 | LOC_Os06g11240.1 | 12-oxophytodienoate reductase, putative, expressed | osa:4340486 | Specific | alpha-Linolenic acid <br> metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |
| 96 | LOC_Os03g04000.1 | AMP-binding domain containing protein, expressed | osa:4331515 | Up | alpha-Linolenic acid metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |
| 97 | LOC_Os02g12690.1 | cytochrome P450, putative, expressed | osa:4328743 | Up | alpha-Linolenic acid <br> metabolism;Metabolic <br> pathways;Biosynthesis of secondary metabolites |
| 98 | LOC_Os08g39300.1 | aminotransferase, putative, expressed | osa:4345962 | Down | Alanine, aspartate and glutamate metabolism;Glycine, serine and threonine metabolism;Glyoxylate and dicarboxylate metabolism;Metabolic pathways;Biosynthesis of secondary metabolites;Carbon metabolism;Peroxisome |
| 99 | LOC_Os08g36320.3 | decarboxylase, putative, expressed | $\begin{aligned} & \text { dosa:Os08t04658 } \\ & 00-01 \end{aligned}$ | Up | Alanine, aspartate and glutamate metabolism;beta-Alanine metabolism;Taurine and hypotaurine metabolism;Butanoate metabolism;Metabolic pathways;Biosynthesis of secondary metabolites |
| 100 | LOC_Os08g35860.1 | cytokinin dehydrogenase precursor, putative, expressed | osa:4345764 | Down | Zeatin biosynthesis |
| 101 | LOC_Os03g57790.1 | ubiquitin-conjugating enzyme, putative, expressed | osa:4334386 | Down | Ubiquitin mediated proteolysis |
| 102 | LOC_Os03g04520.2 | RNA recognition motif containing protein, putative, expressed | osa:4331556 | Specific | Spliceosome |
| 103 | LOC_Os08g29650.1 | RNA recognition motif containing protein, expressed | osa:4345455 | Up | Spliceosome |
| 104 | LOC_Os07g47630.1 | RNA recognition motif containing protein, expressed | $\begin{aligned} & \text { dosa:Os07t06735 } \\ & 00-01 \end{aligned}$ | Up | Spliceosome |
| 105 | $\begin{aligned} & \text { LOC_Os10g06540.1 } \\ & \text { (VAMP) } \end{aligned}$ | vesicle-associated membrane protein, putative, expressed | osa:4348130 | Down | SNARE interactions in vesicular transport |
| 106 | LOC_Os03g05020.1 | PIR, putative, expressed | osa:4331593 | Down | RNA transport |
| 107 | LOC_Os10g40040.1 | expressed protein | osa:4349298 | Specific | RNA degradation |


| 108 | LOC_Os11g43890.1 | WD domain, G-beta repeat domain containing protein, expressed | osa:4351059 | Up | RNA degradation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 109 | LOC_Os01g56190.1 | HVT1, putative, expressed | $\begin{aligned} & \text { dosa:Os01t07677 } \\ & 00-01 \end{aligned}$ | Down | RNA degradation |
| 110 | LOC_Os10g42320.1 | nonsense-mediated mRNA decay protein 3, putative, expressed | osa:4349477 | Down | Ribosome biogenesis in eukaryotes;RNA transport |
| 111 | LOC_Os03g20100.1 | S1 RNA binding domain containing protein, expressed | osa:4332652 | Specific | Ribosome |
| 112 | LOC_Os02g10540.1 | ribosomal protein L7/L12 C-terminal domain containing protein, expressed | osa:4328635 | Up | Ribosome |
| 113 | LOC_Os03g40180.1 | 60S ribosomal protein L15, putative, expressed | osa:9266562 | Down | Ribosome |
| 114 | LOC_Os01g54870.1 | 60S ribosomal protein L18a, putative, expressed | osa:4327004 | Down | Ribosome |
| 115 | LOC_Os07g43310.1 | ribosomal protein L7/L12 C-terminal domain containing protein, expressed | bdi:100837964 | Down | Ribosome |
| 116 | LOC_Os07g14270.1 | calreticulin precursor protein, putative, expressed | osa:4342826 | Up | Protein processing in endoplasmic reticulum; Phagosome |
| 117 | LOC_Os04g36750.1 | hsp20/alpha crystallin family protein, putative, expressed | osa:4335956 | Down | Protein processing in endoplasmic reticulum |
| 118 | LOC_Os01g04330.1 | OsCML16-Calmodulin-related calcium sensor protein, expressed | osa:4325693 | Up | Plant-pathogen interaction |
| 119 | LOC_Os02g46090.1 (CDPK) | CAMK_CAMK_like. 15 - CAMK includes calcium/calmodulin depedent protein kinases, expressed | osa:4330351 | Down | Plant-pathogen interaction |
| 120 | LOC_Os04g47300.1 | CAMK_CAMK_like. 26 - CAMK includes calcium/calmodulin depedent protein kinases, expressed | osa:4336653 | Down | Plant-pathogen interaction |
| 121 | LOC_Os11g11960.1 <br> (RPM1) | disease resistance protein RPM1, putative, expressed | osa:9267892 | Down | Plant-pathogen interaction |
| 122 | LOC_Os09g39400.1 | histidine-containing phosphotransfer protein, putative, expressed | osa:4347886 | Specific | Plant hormone signal transduction |
| 123 | LOC_Os03g50860.1 | histidine kinase, putative, expressed | osa:4333916 | Specific | Plant hormone signal transduction |
| 124 | LOC_Os01g56200.1 | BTBA2 - Bric-a-Brac,Tramtrack, Broad Complex BTB domain with Ankyrin repeat region, expressed | osa:4325503 | Specific | Plant hormone signal transduction |
| 125 | LOC_Os11g05480.1 | transcription factor, putative, expressed | osa:4349800 | Up | Plant hormone signal transduction |
| 126 | LOC_Os01g59150.2 | tubulin/FtsZ domain containing protein, putative, expressed | osa:4327550 | Up | Phagosome |
| 127 | LOC_Os03g01530.1 | tubulin/FtsZ domain containing protein, putative, expressed | osa:4331315 | Up | Phagosome |
| 128 | LOC_Os01g18050.1 | tubulin/FtsZ domain containing protein, putative, expressed | osa:4326917 | Up | Phagosome |
| 129 | LOC_Os09g14510.1 <br> (PEX3) | peroxin-3 family protein, putative, expressed | osa:4346691 | Down | Peroxisome |
| 130 | LOC_Os05g02310.1 | soluble inorganic pyrophosphatase, putative, expressed | osa:4337608 | Up | Oxidative phosphorylation |
| 131 | LOC_Os04g48750.1 | 3-oxo-5-alpha-steroid 4-dehydrogenase, putative, expressed | osa:4336740 | Down | N -Glycan biosynthesis |
| 132 | LOC_Os12g38380.1 | tetratricopeptide repeat containing protein, putative, expressed | $\begin{aligned} & \text { dosa:Os12t05719 } \\ & 00-01 \end{aligned}$ | Specific | mRNA surveillance pathway |
| 133 | LOC_Os04g18010.2 | cleavage and polyadenylation specificity factor subunit 1, putative, expressed | osa:9266269 | Up | mRNA surveillance pathway |
| 134 | LOC_Os09g29980.1 | transposon protein, putative, CACTA, En/Spm sub-class, expressed | osa:4347363 | Up | mRNA surveillance pathway |
| 135 | LOC_Os08g21350.2 | cig3, putative, expressed | osa:4345227 | Down | mRNA surveillance pathway |
| 136 | LOC_Os07g14070.1 | SCP-like extracellular protein, expressed | $\begin{aligned} & \text { dosa:Os07t02438 } \\ & 00-00 \end{aligned}$ | Up and | MAPK signaling pathway - plant;Plant hormone signal transduction;Plantpathogen interaction |


|  |  |  |  | MAPK signaling pathway - plant;Plant |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 166 | LOC_Os02g09240.1 |
| :---: | :---: |
| 167 | LOC_Os03g19350.1 |
| 168 | LOC_Os02g52610.1 |
| 169 | LOC_Os03g01730.1 |
| 170 | LOC_Os03g32526.1 |
| 171 | LOC_Os05g23940.1 |
| 172 | LOC_Os01g22390.2 |
| 173 | LOC_Os04g33450.1 |
| 174 | LOC_Os06g36490.1 |
| 175 | LOC_Os05g36070.1 |
| 176 | LOC_Os01g48900.1 |
| 177 | LOC_Os07g35750.1 |
| 178 | LOC_Os07g46920.1 |
| 179 | LOC_Os02g30620.2 |
| 180 | LOC_Os01g20160.1 |
| 181 | LOC_Os03g27820.1 |
| 182 | LOC_Os09g25720.1 |
| 183 | LOC_Os04g45190.3 |
| 184 | LOC_Os10g41560.1 |
| 185 | LOC_Os04g33240.1 |
| 186 | LOC_Os04g21710.1 |
| 187 | LOC_Os03g58960.1 |
| 188 | LOC_Os08g16830.1 |
| 189 | LOC_Os07g48410.1 |
| 190 | LOC_Os09g04240.1 |
| 191 | LOC_Os08g03440.1 |
| 192 | LOC_Os02g54500.1 |
| 193 | LOC_Os02g39140.1 |
| 194 | LOC_Os12g10200.1 |
| 195 | LOC_Os03g21830.1 |
| 196 | LOC_Os05g38270.1 |

cytochrome P450 71D8, putative, expressed
OsLonP1 - Putative Lon protease homologue, expressed
xyloglucan fucosyltransferase, putative, expressed

## expressed protein

tRNA-splicing endonuclease positive effectorrelated, putative, expressed transcription initiation factor IIB, putative, expressed
WD domain containing protein, putative, expressed
expressed protein
ethylene-responsive element-binding protein, putative, expressed
signal peptide peptidase domain containing protein, expressed
dynamin-related protein 1A, putative, expressed

TKL_IRAK_DUF26-ld. 3 - DUF26 kinases have homology to DUF26 containing loci, expressed
sex determination protein tasselseed-2, putative, expressed
dnaJ domain containing protein, expressed
OsHKT1;5-Na+ transporter, expressed
expressed protein
glycine-rich cell wall structural protein 2
precursor, putative, expressed
MSP domain containing protein, expressed
expressed protein
sex determination protein tasselseed-2, putative, expressed
expressed protein
DHHC zinc finger domain containing protein, expressed
retrotransposon protein, putative, SINE subclass, expressed
RNA-binding zinc finger protein, putative, expressed
retrotransposon protein, putative, unclassified, expressed
actin, putative, expressed
WD40-like, putative, expressed
helix-loop-helix DNA-binding domain
containing protein, expressed
SAM-dependent methyltransferase, putative, expressed
appr-1-p processing enzyme family protein, putative, expressed
regulator of chromosome condensation, putative, expressed

| $\begin{aligned} & \text { dosa:Os02t01852 } \\ & 00-01 \end{aligned}$ | Down |
| :---: | :---: |
| osa:4332601 | Specific and Down |
| dosa:Os02t07639 | Specific and |
| 00-01 | Down |
| $\begin{aligned} & \text { dosa:Os04t01193 } \\ & 00-00 \end{aligned}$ | Specific |
| osa:4333212 | Specific |
| osa:4338362 | Specific |
| osa:4326972 | Specific |
| osa:4335760 | Specific |
| osa:4341303 | Specific |
| osa:4338901 | Specific |
| osa:9269791 | Specific |

osa:4343505 Specific

| osa:4344204 | Specific | - |
| :--- | :--- | :--- |
| osa:4329448 | Specific | - |
| osa:4327757 | Specific | - |
| osa:4333036 | Specific | - |


| dosa:Os09t04255 | Specific - |
| :--- | :--- |
| $00-01$ |  |


| dosa:Os04t05344 | Specific |
| :--- | :--- |
| $00-01$ |  |
| Specific | - |

osa:4335749 Specific -

| osa:4335381 | Specific |
| :--- | :--- |


| osa:4334485 | Specific |
| :--- | :--- |
| osa:4345134 | Specific |


| osa:4344312 | Specific | - |
| :--- | :--- | :--- |
| pda:103699490 | Specific | - |


| pda:103699490 | Specific | - |
| :--- | :--- | :--- |
| osa:4344577 | Specific | - |


| dosa:Os02t07860 | Specific |
| :--- | :--- |
| $00-01$ |  |

osa:4329910 Specific -
dosa:Os12t02031 Specific
osa:4332764 Specific
osa:107275700 Specific

| 197 | LOC_Os03g43990.1 | BTBN8 - Bric-a-Brac, Tramtrack, Broad Complex BTB domain with non-phototropic hypocotyl 3 NPH3 and coiled-coil domains, expressed | osa:107280491 | Specific |
| :---: | :---: | :---: | :---: | :---: |
| 198 | LOC_Os01g71340.1 | glycosyl hydrolases family 17, putative, expressed | osa:4326518 | Specific |
| 199 | LOC_Os10g42870.1 | peptide transporter PTR2, putative, expressed | osa:4349516 | Specific |
| 200 | LOC_Os08g01920.1 | SGR2, putative, expressed | osa:4344482 | Specific |
| 201 | LOC_Os03g04130.1 | AMP-binding domain containing protein, expressed | osa:4331525 | Specific |
| 202 | LOC_Os04g50120.1 | zinc-binding protein, putative, expressed | osa:4336825 | Specific |
| 203 | LOC_Os09g02130.1 | expressed protein | osa:4346382 | Specific |
| 204 | LOC_Os01g57690.1 | early nodulin 20 precursor, putative, expressed | osa:4327048 | Specific |
| 205 | LOC_Os02g25700.1 | O-acyltransferase, putative, expressed | osa:4329278 | Specific |
| 206 | LOC_Os10g39640.1 | expansin precursor, putative, expressed | osa:4349265 | Specific |
| 207 | LOC_Os02g04450.1 | plant-specific domain TIGR01589 family protein, putative, expressed | osa:4328235 | Specific |
| 208 | LOC_Os02g13560.1 | transporter family protein, putative, expressed | osa:4328798 | Specific |
| 209 | LOC_Os08g03690.1 | LTPL24 - Protease inhibitor/seed storage/LTP family protein precursor, expressed | osa:4344595 | Specific |
| 210 | LOC_Os11g43600.1 | peptide chain release factor protein, putative, expressed | osa:4351050 | Specific |
| 211 | LOC_Os12g35630.1 | elongation factor TS family protein, expressed | osa:4352441 | Specific |
| 212 | LOC_Os07g13360.1 | expressed protein | - | Specific |
| 213 | LOC_Os12g29560.1 | DHHC zinc finger domain containing protein, expressed | osa:4352214 | Specific |
| 214 | LOC_Os12g06210.1 | harpin-induced protein 1 domain containing protein, expressed | osa:4351556 | Specific |
| 215 | LOC_Os07g27810.1 | fiber protein Fb 34 , putative, expressed | osa:4343166 | Specific |
| 216 | LOC_Os08g43010.1 | disease resistance RPP13-like protein 1, putative, expressed | osa:4346203 | Specific |
| 217 | LOC_Os01g51640.1 | expressed protein | osa:4325943 | Specific |
| 218 | LOC_Os11g04460.1 | calcium-transporting ATPase, plasma membranetype, putative, expressed | osa:4349735 | Specific |
| 219 | LOC_Os06g08280.1 | protein kinase domain containing protein, expressed | osa:4340309 | Specific |
| 220 | LOC_Os03g22140.1 | tetratricopeptide repeat domain containing protein, expressed | osa:4332790 | Specific |
| 221 | LOC_Os01g49120.1 | MATE efflux family protein, putative, expressed | $\begin{aligned} & \text { dosa:Os01t06849 } \\ & 00-01 \end{aligned}$ | Specific |
| 222 | LOC_Os01g42234.2 | amino acid permease family protein, putative, expressed | osa:4324220 | Specific |
| 223 | LOC_Os05g05930.1 | peripheral-type benzodiazepine receptor, putative, expressed | osa:9271175 | Specific |
| 224 | LOC_Os08g41500.1 | ubiquitin-associated protein, putative, expressed | osa:4346099 | Specific |
| 225 | LOC_Os03g11010.1 | natural resistance-associated macrophage protein, putative, expressed | osa:4332012 | Specific |
| 226 | LOC_Os11g37940.1 | WIP2 - Wound-induced protein precursor, expressed | osa:4350820 | Specific |
| 227 | LOC_Os01g58620.1 | expressed protein | osa:4327955 | Specific |
| 228 | LOC_Os10g25870.1 | dirigent, putative, expressed | osa:4348558 | Specific |


| 229 | LOC_Os02g09780.1 | phytoene dehydrogenase-like, putative, expressed | osa:4328575 | Specific |
| :---: | :---: | :---: | :---: | :---: |
| 230 | LOC_Os02g58110.1 | expressed protein | $\begin{aligned} & \text { dosa:Os02t08275 } \\ & 00-01 \end{aligned}$ | Specific |
| 231 | LOC_Os11g45990.1 | von Willebrand factor type A domain containing protein, putative, expressed | osa:4351146 | Specific |
| 232 | LOC_Os02g58030.1 | leucine-rich repeat-containing protein 40 , putative, expressed | osa:4331218 | Specific |
| 233 | LOC_Os03g04380.1 | LYR motif containing protein, putative, expressed | osa:4331544 | Specific |
| 234 | LOC_Os05g01360.1 | expressed protein | osa:4337547 | Specific |
| 235 | LOC_Os08g01710.1 | GLTP domain containing protein, putative, expressed | $\begin{aligned} & \text { dosa:Os08t01087 } \\ & 00-00 \end{aligned}$ | Specific |
| 236 | LOC_Os03g44670.1 | expressed protein | osa:4333583 | Specific |
| 237 | LOC_Os05g51630.2 | early-responsive to dehydration protein-related, putative, expressed | osa:4339808 | Specific |
| 238 | LOC_Os10g35490.1 | hydrolase, alpha/beta fold family domain containing protein, expressed | $\begin{aligned} & \text { dosa:Os10t04980 } \\ & 00-01 \end{aligned}$ | Specific |
| 239 | LOC_Os01g33420.1 | glycosyl hydrolase family protein 27 , putative, expressed | osa:4323975 | Specific |
| 240 | LOC_Os02g54980.1 | pheophorbide a oxygenase, chloroplast precursor, putative, expressed | osa:4330982 | Specific |
| 241 | LOC_Os02g58080.1 | transporter, major facilitator family, putative, expressed | osa:4331221 | Specific |
| 242 | LOC_Os08g28790.1 | dirigent, putative, expressed | osa:4345418 | Specific |
| 243 | LOC_Os06g23350.1 | late embryogenesis abundant protein D-34, putative, expressed | osa:4340952 | Specific |
| 244 | LOC_Os11g04020.1 | major facilitator superfamily antiporter, putative, expressed | osa:4349704 | Specific |
| 245 | LOC_Os03g61810.1 | tRNA-specific adenosine deaminase, putative, expressed | osa:4334690 | Specific |
| 246 | LOC_Os03g16850.1 | dof zinc finger domain containing protein, putative, expressed | osa:107280245 | Specific |
| 247 | LOC_Os12g36240.1 | inhibitor I family protein, putative, expressed | $\begin{aligned} & \text { dosa:Os12t05487 } \\ & 00-01 \end{aligned}$ | Specific |
| 248 | LOC_Os01g37770.1 | RWD domain containing protein, expressed | osa:4324673 | Specific |
| 249 | LOC_Os03g57854.1 | MBTB3 - Bric-a-Brac, Tramtrack, Broad Complex BTB domain with Meprin and TRAF Homology MATH domain, expressed | osa:4334388 | Specific |
| 250 | LOC_Os11g11100.1 | bZIP transcription factor domain containing protein, expressed | osa:4350088 | Specific |
| 251 | LOC_Os01g49510.1 | OsPOP3 - Putative Prolyl Oligopeptidase homologue, expressed | osa:4327946 | Specific |
| 252 | LOC_Os05g39500.1 | DUF640 domain containing protein, putative, expressed | osa:107278201 | Up and Down - |
| 253 | LOC_Os06g39040.1 | dehydrogenase/reductase SDR family member 12, putative, expressed | osa:9267040 | Up and Down - |
| 254 | LOC_Os07g07860.1 | LTPL76 - Protease inhibitor/seed storage/LTP family protein precursor, expressed | osa:4342528 | Up and Down - |
| 255 | LOC_Os07g17330.1 | B12D protein, putative, expressed | osa:4342911 | Up and Down - |
| 256 | LOC_Os09g39090.1 | vignain precursor, putative, expressed | osa:107276064 | Up and Down - |
| 257 | LOC_Os10g39360.1 | aspartic proteinase nepenthesin precursor, putative, expressed | osa:107275604 | Up and Down - |
| 258 | LOC_Os10g39390.1 | Eukaryotic aspartyl protease domain containing protein, expressed | osa:107279218 | Up and Down - |


| 259 | LOC_Os10g18760.1 | dirigent, putative, expressed | osa:9270308 | Up and Down - |
| :---: | :---: | :---: | :---: | :---: |
| 260 | LOC_Os05g45460.1 | POEI52 - Pollen Ole e I allergen and extensin family protein precursor, expressed | osa:4339414 | Up and Down - |
| 261 | LOC_Os04g28250.1 | cysteine proteinase inhibitor precursor, putative, expressed | osa:4335551 | Up and Down - |
| 262 | LOC_Os08g13440.1 | cupin domain containing protein, expressed | osa:4344999 | Up and Down - |
| 263 | LOC_Os03g26820.1 | LTPL52 - Protease inhibitor/seed storage/LTP family protein precursor, expressed | osa:4332993 | Up and Down - |
| 264 | LOC_Os06g49100.1 | retrotransposon protein, putative, unclassified, expressed | osa:4341996 | Up and Down - |
| 265 | LOC_Os09g26620.1 | auxin-repressed protein, putative, expressed | osa:4347155 | Up and Down - |
| 266 | LOC_Os05g02820.1 | protein transport protein-related, putative, expressed | osa:107281145 | Up and Down - |
| 267 | LOC_Os01g14590.1 | pathogen-related protein, putative, expressed | osa:4327214 | Up and Down - |
| 268 | LOC_Os03g19290.1 | mitochondrial import inner membrane translocase subunit Tim17, putative, expressed | osa:4332597 | Up and Down - |
| 269 | LOC_Os03g19427.1 | nicotianamine synthase, putative, expressed | osa:4332608 | Up and Down - |
| 270 | LOC_Os05g18604.1 | OsSCP28 - Putative Serine Carboxypeptidase homologue, expressed | osa:4338250 | Up and Down - |
| 271 | LOC_Os02g03120.1 | endoglucanase, putative, expressed | $\begin{aligned} & \text { dosa:Os02t01237 } \\ & 00-01 \end{aligned}$ | Up and Down - |
| 272 | LOC_Os09g34070.2 | RNA recognition motif containing protein, expressed | osa:4347579 | Up |
| 273 | LOC_Os02g15220.1 | bromodomain containing protein, expressed | $\begin{aligned} & \text { dosa:Os02t02503 } \\ & 00-01 \end{aligned}$ | Up |
| 274 | LOC_Os01g53250.1 | NADPH reductase, putative, expressed | osa:4324160 | Up |
| 275 | LOC_Os11g34120.1 | exportin 1, putative, expressed | osa:4350677 | Up |
| 276 | LOC_Os08g16600.1 | WD-40 repeat protein family, putative, expressed | osa:4345122 | Up |
| 277 | LOC_Os04g09680.1 | caffeic acid 3-O-methyltransferase, putative, expressed | $\begin{aligned} & \text { dosa:Os04t01759 } \\ & 00-01 \end{aligned}$ | Up |
| 278 | LOC_Os01g60650.1 | non-green plastid inner envelope membrane protein, putative, expressed | osa:4327612 | Up |
| 279 | LOC_Os03g44520.1 | expressed protein | osa:4333573 | Up |
| 280 | LOC_Os03g53360.1 | transferase family protein, putative, expressed | osa:4334082 | Up |
| 281 | LOC_Os09g16090.1 | UDP-glucoronosyl/UDP-glucosyl transferase, putative, expressed | osa:4346756 | Up |
| 282 | LOC_Os01g37825.1 | M16 domain containing zinc peptidase, putative, expressed | osa:4324677 | Up |
| 283 | LOC_Os11g26750.1 | dehydrin, putative, expressed | osa:4350451 | Up |
| 284 | LOC_Os05g51450.1 | OsClp8 - Putative Clp protease homologue, expressed | osa:4339792 | Up |
| 285 | LOC_Os10g29620.1 | tyrosine protein kinase domain containing protein, putative, expressed | osa:4348697 | Up |
| 286 | LOC_Os05g01500.1 | tubulin-specific chaperone E, putative, expressed | osa:4337557 | Up |
| 287 | LOC_Os09g38740.1 | expressed protein | osa:4347849 | Up |
| 288 | LOC_Os07g38300.1 | ribosome recycling factor, putative, expressed | osa:4343662 | Up |


| 289 | LOC_Os12g21700.1 | zinc finger C-x8-C-x5-C-x3-H type family protein, expressed | osa:4352041 | Up | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 290 | LOC_Os12g26380.1 | dirigent, putative, expressed | osa:107279766 | Up | - |
| 291 | LOC_Os04g02150.1 | tRNA methyltransferase, putative, expressed | osa:4334938 | Up | - |
| 292 | LOC_Os10g18820.1 | dirigent, putative, expressed | osa:4348341 | Up | - |
| 293 | LOC_Os04g56430.1 | cysteine-rich receptor-like protein kinase, putative, expressed | osa:4337274 | Up | - |
| 294 | LOC_Os06g12990.1 | tRNA methyltransferase, putative, expressed | osa:4340601 | Up | - |
| 295 | LOC_Os07g06970.1 | HEN1, putative, expressed | $\begin{aligned} & \text { dosa:Os07t01640 } \\ & 00-01 \end{aligned}$ | Up | - |
| 296 | LOC_Os02g18660.1 | expressed protein | osa:4329046 | Up | - |
| 297 | LOC_Os10g18870.1 | dirigent, putative, expressed | osa:4348342 | Up | - |
| 298 | LOC_Os07g07920.1 | LTPL100 - Protease inhibitor/seed storage/LTP family protein precursor, expressed | osa:4342533 | Up | - |
| 299 | LOC_Os07g07790.1 | LTPL75 - Protease inhibitor/seed storage/LTP family protein precursor, expressed | osa:9270363 | Up | - |
| 300 | LOC_Os11g26790.1 | dehydrin, putative, expressed | osa:4350454 | Up | - |
| 301 | LOC_Os08g26110.1 | dirigent, putative, expressed | obr:102707330 | Up | - |
| 302 | LOC_Os04g24340.1 | phytase, putative, expressed | osa:4335443 | Up | - |
| 303 | LOC_Os01g07890.1 | expressed protein | $\begin{aligned} & \text { dosa:Os01t01741 } \\ & 00-01 \end{aligned}$ | Up | - |
| 304 | LOC_Os04g24328.1 | jasmonate-induced protein, putative, expressed | osa:9267350 | Up | - |
| 305 | LOC_Os03g46710.1 | expressed protein | osa:4333683 | Up | - |
| 306 | LOC_Os04g24319.1 | jasmonate-induced protein, putative, expressed | osa:107276694 | Up | - |
| 307 | LOC_Os06g22100.2 | DNA binding protein, putative, expressed | osa:9271930 | Up | - |
| 308 | LOC_Os05g37270.1 | retrotransposon protein, putative, unclassified, expressed | sind:105171171 | Up | - |
| 309 | LOC_Os01g62980.2 | LTPL101 - Protease inhibitor/seed storage/LTP family protein precursor, expressed | $\begin{aligned} & \text { dosa:Os01t08490 } \\ & 00-02 \end{aligned}$ | Up | - |
| 310 | LOC_Os01g25030.1 | dirigent, putative | osa:107278107 | Up | - |
| 311 | LOC_Os06g08730.1 | expressed protein | osa:4340345 | Up | - |
| 312 | LOC_Os01g56820.1 | AGAP000951-PA, putative, expressed | $\begin{aligned} & \text { dosa:Os01t07756 } \\ & 00-01 \end{aligned}$ | Up | - |
| 313 | LOC_Os04g40620.1 | peptide methionine sulfoxide reductase, putative, expressed | osa:107277650 | Up | - |
| 314 | LOC_Os06g22070.1 | mitochondrial glycoprotein, putative, expressed | osa:4340910 | Up | - |
| 315 | LOC_Os10g28030.1 | OsPOP22 - Putative Prolyl Oligopeptidase homologue, expressed | osa:4348628 | Up | - |
| 316 | LOC_Os08g14570.1 | NADPH reductase, putative, expressed | osa:4345047 | Up | - |
| 317 | LOC_Os02g44870.1 | dehydrin, putative, expressed | osa:4330265 | Up | - |
| 318 | LOC_Os04g25560.1 | OsSCP23 - Putative Serine Carboxypeptidase homologue, expressed | osa:4335479 | Up | - |
| 319 | LOC_Os07g27950.1 | RING zinc finger protein, putative, expressed | osa:4343169 | Up | - |
| 320 | LOC_Os03g59080.1 | AMP-binding enzyme, putative, expressed | osa:4334496 | Up | - |
| 321 | LOC_Os07g26110.1 | membrane associated DUF588 domain containing protein, putative, expressed | osa:4343098 | Up | - |


| 322 | LOC_Os03g38990.1 | DNA-binding protein, putative, expressed | osa:4333346 | Up |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 323 | LOC_Os01g55700.1 | NLI interacting factor-like phosphatase, putative, expressed | osa:4327028 | Up | - |
| 324 | LOC_Os04g41950.1 | calcium-binding mitochondrial protein anon60 Da , putative, expressed | osa:4336282 | Up | - |
| 325 | LOC_Os03g05920.1 | expressed protein | osa:4331660 | Up | - |
| 326 | LOC_Os03g52040.2 | OsSCP19 - Putative Serine Carboxypeptidase homologue, expressed | osa:9271773 | Up | - |
| 327 | LOC_Os03g63930.1 | acyl carrier protein, putative, expressed | osa:4334838 | Up | - |
| 328 | LOC_Os03g12810.1 | maf, putative, expressed | osa:9270576 | Up | - |
| 329 | LOC_Os06g49770.1 | LTPL86 - Protease inhibitor/seed storage/LTP family protein precursor, expressed | osa:4342041 | Up | - |
| 330 | LOC_Os01g03680.1 | BBTI8 - Bowman-Birk type bran trypsin inhibitor precursor, expressed | osa:4325989 | Up | - |
| 331 | LOC_Os03g51150.1 | expressed protein | osa:4333936 | Up | - |
| 332 | LOC_Os02g51300.1 | AP2 domain containing protein, expressed | osa:4330724 | Up | - |
| 333 | LOC_Os03g01660.1 | SKP1, putative, expressed | osa:4331327 | Up | - |
| 334 | LOC_Os01g63210.1 | SOUL heme-binding protein, putative, expressed | osa:4324804 | Up | - |
| 335 | LOC_Os01g03360.1 | BBTI5 - Bowman-Birk type bran trypsin inhibitor precursor, expressed | osa:9271230 | Up | - |
| 336 | LOC_Os06g18140.1 | UDP-glucoronosyl and UDP-glucosyl transferase domain containing protein, expressed | osa:4340787 | Up | - |
| 337 | LOC_Os09g32840.1 | nucleotide pyrophosphatase/phosphodiesterase, putative, expressed | osa:4347510 | Up | - |
| 338 | LOC_Os07g47510.1 | stress-related protein, putative, expressed | dosa:Os07t06718 $00-01$ | Up | - |
| 339 | LOC_Os08g14200.1 | glycosyl hydrolases family 16, putative, expressed | osa:9271033 | Up | - |
| 340 | LOC_Os01g03390.1 | BBTI7 - Bowman-Birk type bran trypsin inhibitor precursor, expressed | osa:9267088 | Up | - |
| 341 | LOC_Os01g48850.1 | auxin-responsive protein, putative, expressed | osa:4324390 | Up | - |
| 342 | LOC_Os06g02210.1 | bark storage protein A precursor, putative, expressed | osa:4339897 | Up | - |
| 343 | LOC_Os06g19640.1 | 39S ribosomal protein L46, mitochondrial precursor, putative, expressed | osa:4340823 | Up | - |
| 344 | LOC_Os10g09850.1 | EF hand family protein, putative, expressed | osa:4348196 | Up | - |
| 345 | LOC_Os07g49110.1 | D-alanine--D-alanine ligase family, putative, expressed | osa:4344370 | Up | - |
| 346 | LOC_Os01g48680.2 | two pore calcium channel protein 1, putative, expressed | osa:4325272 | Up | - |
| 347 | LOC_Os05g08390.1 | expressed protein | osa:9270309 | Up | - |
| 348 | LOC_Os06g06000.1 | expressed protein | osa:107277456 | Up | - |
| 349 | LOC_Os04g26870.1 | oxidoreductase, aldo/keto reductase family protein, putative, expressed | $\begin{aligned} & \text { dosa:Os04t03375 } \\ & 00-01 \end{aligned}$ | Up | - |
| 350 | LOC_Os07g06860.1 | gibberellin receptor GID1L2, putative, expressed | osa:4342463 | Up | - |
| 351 | LOC_Os09g28280.1 | gibberellin receptor GID1L2, putative, expressed | osa:4347255 | Up | - |
| 352 | LOC_Os08g41880.1 | nucleotide pyrophosphatase/phosphodiesterase, putative, expressed | osa:4346129 | Up | - |


| 353 | LOC_Os12g31780.1 | nitrilase-associated protein, putative, expressed | osa:4352277 | Up | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 354 | LOC_Os03g63450.1 | snRK1-interacting protein 1, putative, expressed | osa:4334803 | Up | - |
| 355 | LOC_Os04g22080.1 | retrotransposon protein, putative, unclassified, expressed | osa:4335390 | Up | - |
| 356 | LOC_Os06g34790.1 | DUF538 domain containing protein, putative, expressed | osa:4341223 | Up | - |
| 357 | LOC_Os07g43070.1 | expressed protein | osa:4343957 | Up | - |
| 358 | LOC_Os10g35190.1 | ZOS10-06-C2H2 zinc finger protein, expressed | osa:4348994 | Up | - |
| 359 | LOC_Os08g02060.1 | expressed protein | osa:4344492 | Up | - |
| 360 | LOC_Os08g31860.1 | expressed protein | osa:4345562 | Up | - |
| 361 | LOC_Os02g06930.1 | protein kinase, putative, expressed | osa:4328408 | Up | - |
| 362 | LOC_Os07g01560.1 | transporter family protein, putative, expressed | osa:4342198 | Up | - |
| 363 | LOC_Os01g18744.1 | transferase family protein, putative, expressed | osa:4325160 | Up | - |
| 364 | LOC_Os02g52290.1 | peptidyl-prolyl cis-trans isomerase, FKBP-type, putative, expressed | osa:4330800 | Up | - |
| 365 | LOC_Os11g01600.1 | macrophage migration inhibitory factor, putative, expressed | osa:4351273 | Up | - |
| 366 | LOC_Os09g28720.1 | alpha/beta hydrolase fold, putative, expressed | osa:4347291 | Up | - |
| 367 | LOC_Os07g29610.1 | PQ loop repeat domain containing protein, expressed | osa:4343225 | Up | - |
| 368 | LOC_Os02g43660.1 | plastocyanin-like domain containing protein, putative, expressed | osa:4330178 | Up | - |
| 369 | LOC_Os07g46910.1 | sex determination protein tasselseed-2, putative, expressed | osa:4344203 | Up | - |
| 370 | LOC_Os06g35650.1 | reticuline oxidase-like protein precursor, putative, expressed | osa:4341259 | Up | - |
| 371 | LOC_Os07g38620.1 | pyridoxamine 5'-phosphate oxidase family protein, putative, expressed | osa:4343688 | Up | - |
| 372 | LOC_Os02g28900.1 | cytokinin-O-glucosyltransferase 2, putative, expressed | osa:4329386 | Up | - |
| 373 | LOC_Os07g26630.1 | aquaporin protein, putative, expressed | osa:4343119 | Up | - |
| 374 | LOC_Os10g28120.1 | glycosyl hydrolase, putative, expressed | osa:4348634 | Up | - |
| 375 | LOC_Os12g40490.1 | LIM domain-containing protein, putative, expressed | osa:4352699 | Up | - |
| 376 | LOC_Os05g45110.1 | anthocyanidin 5,3-O-glucosyltransferase, putative, expressed | osa:107276526 | Up | - |
| 377 | LOC_Os08g03520.1 | retrotransposon protein, putative, Ty1-copia subclass, expressed | osa:4344581 | Up | - |
| 378 | LOC_Os10g37240.2 | expressed protein | $\begin{aligned} & \text { dosa:Os10t05165 } \\ & 00-01 \end{aligned}$ | Up | - |
| 379 | LOC_Os03g46190.2 | parafibromin, putative, expressed | osa:4333654 | Up | - |
| 380 | LOC_Os01g74460.1 | vacuolar fusion protein MON1 homolog A, putative, expressed | osa:4324304 | Up | - |
| 381 | LOC_Os03g46770.1 | RNA recognition motif containing protein, expressed | osa:4333690 | Up | - |
| 382 | LOC_Os04g37690.1 | RNA recognition motif containing protein, putative, expressed | $\begin{aligned} & \text { dosa:Os04t04499 } \\ & 00-01 \end{aligned}$ | Down | - |
| 383 | LOC_Os11g47970.1 | AAA-type ATPase family protein, putative, expressed | osa:4351224 | Down | - |
| 384 | LOC_Os09g36350.1 | endoglucanase, putative, expressed | osa:4347685 | Down | - |
| 385 | LOC_Os08g28190.1 | actin, putative, expressed | osa:4345402 | Down | - |


| 386 | LOC_Os05g02940.1 | calcium-transporting ATPase 2, endoplasmic reticulum-type, putative, expressed | osa:4337647 | Down | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 387 | LOC_Os01g45830.1 | sulfate transporter, putative, expressed | osa:4325919 | Down | - |
| 388 | LOC_Os03g06980.1 | nucleic acid binding protein, putative, expressed | $\begin{aligned} & \text { dosa:Os03t01660 } \\ & 00-01 \end{aligned}$ | Down | - |
| 389 | LOC_Os02g32690.1 | pleiotropic drug resistance protein 15 , putative, expressed | egu:105040086 | Down | - |
| 390 | LOC_Os04g52540.1 | retrotransposon protein, putative, unclassified, expressed | osa:4336991 | Down | - |
| 391 | LOC_Os06g19620.1 | SFT2, putative, expressed | osa:4340821 | Down | - |
| 392 | LOC_Os01g70840.2 | esterase, putative, expressed | osa:4326787 | Down | - |
| 393 | LOC_Os10g26660.1 | expressed protein | osa:4348588 | Down | - |
| 394 | LOC_Os05g22990.1 | expressed protein | osa:4338325 | Down | - |
| 395 | LOC_Os06g38550.1 | expressed protein | osa:4341393 | Down | - |
| 396 | LOC_Os01g42030.1 | mitochondrial chaperone BCS1, putative, expressed | osa:4324105 | Down | - |
| 397 | LOC_Os05g04584.1 | transferase family protein, putative, expressed | osa:4337739 | Down | - |
| 398 | LOC_Os07g45950.1 | expressed protein | $\begin{aligned} & \text { dosa:Os07t06530 } \\ & 00-00 \end{aligned}$ | Down | - |
| 399 | LOC_Os04g14654.1 | Sec1 family transport protein, putative, expressed | $\begin{aligned} & \text { dosa:Os04t02230 } \\ & 00-01 \end{aligned}$ | Down | - |
| 400 | LOC_Os01g20206.1 | methyltransferase, putative, expressed | osa:107278642 | Down | - |
| 401 | LOC_Os01g41810.1 | cytochrome P450 72A1, putative, expressed | osa:4324604 | Down | - |
| 402 | LOC_Os02g18820.1 | WD domain, G-beta repeat domain containing protein, expressed | osa:4329056 | Down | - |
| 403 | LOC_Os05g38720.1 | Lung seven transmembrane receptor domain containing protein, putative, expressed | osa:4339027 | Down | - |
| 404 | LOC_Os11g25454.1 | cytokinin-N-glucosyltransferase 1, putative, expressed | osa:4350423 | Down | - |
| 405 | LOC_Os01g45110.1 | anthocyanin 3-O-beta-glucosyltransferase, putative, expressed | osa:4326578 | Down | - |
| 406 | LOC_Os09g37200.1 | transferase family protein, putative, expressed | osa:4347748 | Down | - |
| 407 | LOC_Os09g36300.1 | OsLonP4 - Putative Lon protease homologue, expressed | osa:4347683 | Down | - |
| 408 | LOC_Os01g65700.1 | expressed protein | osa:4324836 | Down | - |
| 409 | LOC_Os02g14929.1 | T-complex protein, putative, expressed | osa:4328872 | Down | - |
| 410 | LOC_Os05g02060.1 | mitochondrial import inner membrane translocase subunit Tim17, putative, expressed | osa:4337595 | Down | - |
| 411 | LOC_Os03g30430.1 | nitrilase-associated protein, putative, expressed | osa:9269934 | Down | - |
| 412 | LOC_Os04g42840.1 | HEAT repeat family protein, putative, expressed | osa:4336347 | Down | - |
| 413 | LOC_Os09g36860.1 | acyl carrier protein, putative, expressed | osa:4347723 | Down | - |
| 414 | LOC_Os02g01790.2 | expressed protein | osa:4328027 | Down | - |
| 415 | LOC_Os04g50890.1 | secretory carrier-associated membrane protein, putative, expressed | osa:4336849 | Down | - |
| 416 | LOC_Os01g50200.1 | UDP-glucoronosyl and UDP-glucosyl transferase domain containing protein, expressed | osa:4325293 | Down | - |
| 417 | LOC_Os09g28160.1 | phosphate carrier protein, mitochondrial precursor, putative, expressed | osa:4347248 | Down | - |


| 418 | LOC_Os06g49140.1 | ribosomal RNA large subunit methyltransferase J, putative, expressed | osa:4342000 | Down |
| :---: | :---: | :---: | :---: | :---: |
| 419 | LOC_Os01g12940.1 | phosphorylase domain containing protein, putative, expressed | obr:102700482 | Down |
| 420 | LOC_Os02g12760.1 | integral membrane protein, putative, expressed | osa:9269252 | Down |
| 421 | LOC_Os04g36660.1 | calmodulin binding protein, putative, expressed | osa:4335948 | Down |
| 422 | LOC_Os05g32130.1 | expressed protein | obr:102712909 | Down |
| 423 | LOC_Os05g19910.1 | transferase family protein, putative, expressed | osa:4338283 | Down |
| 424 | LOC_Os06g14490.1 | calmodulin-binding heat-shock protein, putative, expressed | $\begin{aligned} & \text { dosa:Os06t02563 } \\ & 00-01 \end{aligned}$ | Down |
| 425 | LOC_Os02g38820.1 | expressed protein | osa:4329888 | Down |
| 426 | LOC_Os05g37230.1 | retrotransposon protein, putative, Ty3-gypsy subclass, expressed | bdi:106866389 | Down |
| 427 | LOC_Os11g06760.1 | protein of unknown function domain containing protein, expressed | osa:4349880 | Down |
| 428 | LOC_Os12g28137.1 | ATPase 3, putative, expressed | osa:107275748 | Down |
| 429 | LOC_Os07g36200.1 | eukaryotic translation initiation factor-related, putative, expressed | osa:4343524 | Down |
| 430 | LOC_Os10g30560.1 | UDP-glucoronosyl and UDP-glucosyl transferase domain containing protein, expressed | dosa:Os10t04424 $00-01$ | Down |
| 431 | LOC_Os01g70200.1 | exostosin family domain containing protein, expressed | osa:4327243 | Down |
| 432 | LOC_Os05g07040.1 | PHD finger protein, putative, expressed | osa:4337899 | Down |
| 433 | LOC_Os02g45110.1 | MT-A70 domain containing protein, expressed | osa:4330284 | Down |
| 434 | LOC_Os01g09540.1 | HAD superfamily phosphatase, putative, expressed | osa:4327297 | Down |
| 435 | LOC_Os06g37640.1 | expressed protein | osa:4341363 | Down |
| 436 | LOC_Os03g62090.1 | CESA5 - cellulose synthase, expressed | osa:4334710 | Down |
| 437 | LOC_Os04g57020.1 | expressed protein | osa:4337320 | Down |
| 438 | LOC_Os03g45720.1 | glyoxalase family protein, putative, expressed | osa:4333625 | Down |
| 439 | LOC_Os08g02080.1 | rickettsia 17 kDa surface antigen family protein, expressed | osa:4344494 | Down |
| 440 | LOC_Os10g42940.1 | miro, putative, expressed | osa:4349518 | Down |
| 441 | LOC_Os04g40490.1 | glycosyl hydrolase family 5 protein, putative, expressed | osa:4336181 | Down |
| 442 | LOC_Os06g21550.1 | thioredoxin domain-containing protein 17, putative, expressed | osa:4340888 | Down |
| 443 | LOC_Os09g39960.1 | dynamin family protein, putative, expressed | osa:4347929 | Down |
| 444 | LOC_Os05g50490.1 | X8 domain containing protein, expressed | osa:4339730 | Down |
| 445 | LOC_Os11g02150.1 | saposin-like type B, region 1 family protein, putative, expressed | osa:4349589 | Down |
| 446 | LOC_Os06g38940.1 | RMD5 homolog A, putative, expressed | osa:4341403 | Down |
| 447 | LOC_Os04g59394.1 | expressed protein | osa:4337495 | Down |
| 448 | LOC_Os01g37000.1 | carboxyl-terminal peptidase, putative, expressed | osa:4325841 | Down |
| 449 | LOC_Os03g55110.1 | 26 S proteasome non-ATPase regulatory subunit 10, putative, expressed | osa:4334173 | Down |
| 450 | LOC_Os01g51570.1 | glycosyl hydrolases family 17, putative, expressed | osa:4325938 | Down |


| 451 | LOC_Os10g40710.1 | expansin precursor, putative, expressed | osa:4349348 | Down | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 452 | LOC_Os05g09580.1 | expressed protein | osa:4338014 | Down | - |
| 453 | LOC_Os07g44940.1 | ATP12 ATPase, putative, expressed | osa:4344085 | Down | - |
| 454 | LOC_Os02g08490.1 | chaperone protein clpB 1, putative, expressed | osa:4328515 | Down | - |
| 455 | LOC_Os07g38580.1 | zinc finger family protein, putative, expressed | osa:4343683 | Down | - |
| 456 | LOC_Os10g32700.1 | hypersensitive-induced response protein, putative, expressed | osa:4348831 | Down | - |
| 457 | LOC_Os06g39140.1 | hemoglobin-like protein HbO , putative, expressed | osa:4341418 | Down | - |
| 458 | LOC_Os05g13970.2 | phosphorylase domain containing protein, putative, expressed | osa:4338154 | Down | - |
| 459 | LOC_Os03g42130.1 | gibberellin 20 oxidase 2, putative, expressed | osa:4333459 | Down | - |
| 460 | LOC_Os05g31140.1 | glycosyl hydrolases family 17 , putative, expressed | osa:4338611 | Down | - |
| 461 | LOC_Os02g45480.1 | nucleic acid binding protein, putative, expressed | osa:9271844 | Down | - |
| 462 | LOC_Os03g58790.1 | ATPase, putative, expressed | osa:4334467 | Down | - |
| 463 | LOC_Os02g40500.1 | OsGrx_C2.1-glutaredoxin subgroup I, expressed | osa:4329999 | Down | - |
| 464 | LOC_Os01g56420.1 | ctr copper transporter family protein, putative, expressed | osa:4324610 | Down | - |
| 465 | LOC_Os01g62260.1 | thaumatin, putative, expressed | osa:4327387 | Down | - |
| 466 | LOC_Os09g39070.1 | thiol protease SEN102 precursor, putative, expressed | osa:4347868 | Down | - |
| 467 | LOC_Os02g58250.1 | expressed protein | osa:4331238 | Down | - |
| 468 | LOC_Os10g36690.4 | dehydration response related protein, putative, expressed | osa:4349089 | Down | - |
| 469 | LOC_Os05g36010.1 | OsSub47-Putative Subtilisin homologue, expressed | osa:4338899 | Down | - |
| 470 | LOC_Os06g16280.1 | expressed protein | osa:4340740 | Down | - |
| 471 | LOC_Os10g42630.1 | expressed protein | osa:4349495 | Down | - |
| 472 | LOC_Os02g33820.1 | abscisic stress-ripening, putative, expressed | osa:4329601 | Down | - |
| 473 | LOC_Os01g15340.1 | flowering promoting factor-like 1, putative, expressed | osa:4326229 | Down | - |
| 474 | LOC_Os02g57470.1 | tetratricopeptide repeat containing protein, putative, expressed | osa:4331168 | Down | - |
| 475 | LOC_Os04g24600.1 | cysteine proteinase 1 precursor, putative, expressed | osa:4335455 | Down | - |
| 476 | LOC_Os05g47700.1 | LTPL152 - Protease inhibitor/seed storage/LTP family protein precursor, expressed | osa:4339526 | Down | - |
| 477 | LOC_Os01g08470.1 | retrotransposon protein, putative, unclassified, expressed | osa:4325349 | Down | - |
| 478 | LOC_Os11g44430.1 | protein kinase, putative, expressed | osa:4351079 | Down | - |
| 479 | LOC_Os05g34500.1 | expressed protein | osa:9268643 | Down | - |
| 480 | LOC_Os05g01600.2 | actin, putative, expressed | osa:4337566 | Down | - |
| 481 | LOC_Os01g06460.1 | uncharacterized Cys-rich domain containing protein, putative, expressed | osa:4324087 | Down | - |
| 482 | LOC_Os03g56500.1 | expressed protein | osa:4334292 | Down | - |
| 483 | LOC_Os03g63700.1 | AIG2-like family domain containing protein, expressed | osa:4334822 | Down | - |
| 484 | LOC_Os06g19650.1 | expressed protein | osa:4340824 | Down | - |


| 485 | LOC_Os05g49840.1 | phospholipase, putative, expressed | osa:4339680 | Down |
| :---: | :---: | :---: | :---: | :---: |
| 486 | LOC_Os01g71090.1 | xylanase inhibitor, putative, expressed | osa:4326530 | Down |
| 487 | LOC_Os04g44900.1 | lectin-like receptor kinase, putative, expressed | osa:4336489 | Down |
| 488 | LOC_Os08g42590.3 | mtN19, putative, expressed | osa:4346175 | Down |
| 489 | LOC_Os07g29450.1 | expressed protein | $\begin{aligned} & \text { dosa:Os07t04775 } \\ & 00-01 \end{aligned}$ | Down |
| 490 | LOC_Os11g01140.1 | AGC_PVPK_like_kin82y. 18 - ACG kinases include homologs to PKA, PKG and PKC, expressed | osa:4349531 | Down |
| 491 | LOC_Os06g12180.1 | jacalin-like lectin domain containing protein, expressed | osa:9269817 | Down |
| 492 | LOC_Os07g41340.1 | B12D protein, putative, expressed | osa:4343847 | Down |
| 493 | LOC_Os03g25480.1 | cytochrome P450, putative, expressed | osa:4332937 | Down |
| 494 | LOC_Os02g38050.1 | joka2, putative, expressed | osa:4329846 | Down |
| 495 | LOC_Os02g40710.1 | ammonium transporter protein, putative, expressed | osa:4330007 | Down |
| 496 | LOC_Os01g71860.1 | glycosyl hydrolases family 17, putative, expressed | osa:4325834 | Down |
| 497 | LOC_Os04g40500.1 | glycosyl hydrolase family 5 protein, putative, expressed | osa:107276528 | Down |
| 498 | LOC_Os07g19530.1 | peptidase, putative, expressed | osa:4342962 | Down |
| 499 | LOC_Os02g40730.1 | ammonium transporter protein, putative, expressed | osa:4330008 | Down |
| 500 | LOC_Os03g15340.1 | plastocyanin-like domain containing protein, putative, expressed | osa:4332309 | Down |
| 501 | LOC_Os01g21070.1 | endoglucanase, putative, expressed | osa:4327286 | Down |
| 502 | LOC_Os03g54000.1 | oligopeptide transporter, putative, expressed | osa:4334129 | Down |
| 503 | LOC_Os04g44910.1 | receptor like protein kinase, putative, expressed | osa:4336490 | Down |
| 504 | LOC_Os11g39450.1 | cysteine-rich receptor-like protein kinase 7 precursor, putative, expressed | dosa:Os11t06083 $00-01$ | Down |
| 505 | LOC_Os07g34900.1 | aspartic proteinase nepenthesin precursor, putative, expressed | $\begin{aligned} & \text { dosa:Os07t05333 } \\ & 00-00 \end{aligned}$ | Down |
| 506 | LOC_Os12g38770.1 | nucleotide pyrophosphatase/phosphodiesterase, putative, expressed | osa:9268839 | Down |
| 507 | LOC_Os10g39380.1 | aspartic proteinase nepenthesin-1 precursor, putative, expressed | osa:107276470 | Down |
| 508 | LOC_Os04g33060.1 | NAD dependent epimerase/dehydratase family protein, putative, expressed | osa:4335739 | Down |
| 509 | LOC_Os03g16960.1 | cysteine-rich repeat secretory protein 55 precursor, putative, expressed | osa:4332423 | Down |
| 510 | LOC_Os01g70850.1 | esterase, putative, expressed | osa:4326788 | Down |
| 511 | LOC_Os07g48500.1 | stress responsive protein, putative, expressed | $\begin{aligned} & \text { dosa:Os07t06840 } \\ & 00-01 \end{aligned}$ | Down |
| 512 | LOC_Os07g36130.1 | core histone $\mathrm{H} 2 \mathrm{~A} / \mathrm{H} 2 \mathrm{~B} / \mathrm{H} 3 / \mathrm{H} 4$, putative, expressed | osa:4343518 | Down |
| 513 | LOC_Os06g12590.1 | protein kinase, putative, expressed | osa:4340578 | Down |

Table S2 List of the primers used in this studay.

| Primers | Forward | Reverse primer |
| :--- | :--- | :--- |
| LOC_Os11g11960.1 5'-ATCCCTAAGTTGGTGTCATCTC-3' | 5'-TTTAGTTTGGGGAATGCCTTTG-3' |  |
| LOC_Os02g46090.1 5'-ATGGCAGTGGTTATATTACGGT-3' | 5'-ATGCGACCATCATTATCCTGAT-3' |  |
| LOC_Os09g14510.1 5'-TATGCCTGAAGTGGAACTCTTT-3' | 5'-TGTTCTAATGGCAAAATTCGGG-3' |  |
| LOC_Os01g06600.1 5'-GAATTGTTGGGTGGAAATGGAA-3' | 5'-CGTATGTGCCTTCGTATGAGTA-3' |  |
| LOC_Os09g23560.1 5'-TCCTAGGCTCCTAGCTATGTAG-3' | 5'-TTTCAAGTTTCCATCGTGTACG-3' |  |
| LOC_Os10g06540.1 5'-CCTCCACCATGCAAGACAGT-3' | 5'-TCCACAGAAAGCAGCGATGA-3' |  |
| LOC_Os05g15530.1 5'-ATCTGCATCCAAAGCAAAGATC-3' | 5'-TACTTGATCGAGCCATTCCTG-3' |  |
| LOC_Os03g39850.1 5'-GCTCAAGGGAGTAGCTTATGAG-3' | 5'-CTTCTTGTGGATGGGGTTCTT-3' |  |
| LOC_Os01g22490.1 5'-ACCACTTCGACCGCCACTACT-3' | 5'-ACGCCTAAGCCTGCTGGTT-3' |  |

