**Table S5. The down-regulated differential expressed genes enriched in the KEGG pathway of plant-pathogen interaction (sot04626) specific for transgenic *R1*, *R3a*, and *R3b* lines under 89148 and CN152 infection.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Gene ID** | **Log2FC** | **Regulated** | **Gene annotation** | **Transgenic lines and *P. infestans* isolate** |
| GSC0003DMG400002275 | -1.55  | down | Cc-nbs-lrr resistance protein  | TR1, 89148 |
| PGSC0003DMG400005109 | -5.10  | down | PR-1  |
| PGSC0003DMG400005111 | -2.94  | down | PR1 protein  |
| PGSC0003DMG400008089 | -1.08  | down | Cyclic nucleotide-gated ion channel 15  |
| PGSC0003DMG400010215 | -2.38  | down | Cysteine protease  |
| PGSC0003DMG400012471 | -1.61  | down | Conserved gene of unknown function  |
| PGSC0003DMG400014168 | -1.31  | down | Respiratory burst oxidase homolog protein C  |
| PGSC0003DMG400023360 | -1.40  | down | WRKY transcription factor  |
| PGSC0003DMG400023921 | -2.00  | down | Cytoplasmic small heat shock protein class I  |
| PGSC0003DMG400028474 | -2.77  | down | Conserved gene of unknown function  |
| PGSC0003DMG400002275 | -1.04  | down | Cc-nbs-lrr resistance protein  | TR3a, 89148 |
| PGSC0003DMG400005109 | -4.79  | down | PR-1  |
| PGSC0003DMG400005111 | -2.35  | down | PR1 protein  |
| PGSC0003DMG400009883 | -1.02  | down | Calcium-dependent protein kinase  |
| PGSC0003DMG400010215 | -2.03  | down | Cysteine protease  |
| PGSC0003DMG400012471 | -1.78  | down | Conserved gene of unknown function  |
| PGSC0003DMG400014168 | -1.16  | down | Respiratory burst oxidase homolog protein C  |
| PGSC0003DMG400016433 | -2.04  | down | Receptor protein kinase  |
| PGSC0003DMG400023360 | -2.20  | down | WRKY transcription factor  |
| PGSC0003DMG400023921 | -2.00  | down | Cytoplasmic small heat shock protein class I  |
| PGSC0003DMG400024754 | -1.58  | down | Respiratory burst oxidase homolog protein B  |
| PGSC0003DMG400028474 | -2.58  | down | Conserved gene of unknown function  |
| PGSC0003DMG400005111 | -4.11  | down | PR1 protein  | TR3b, 89148 |
| PGSC0003DMG400005109 | -5.10  | down | PR-1  |
| PGSC0003DMG400005745 | -1.13  | down | Calcium-binding allergen Ole e 8  |
| PGSC0003DMG400008089 | -1.16  | down | Cyclic nucleotide-gated ion channel 15  |
| PGSC0003DMG400010215 | -4.49  | down | Cysteine protease  |
| PGSC0003DMG400012316 | -1.32  | down | Respiratory burst oxidase homolog protein A  |
| PGSC0003DMG400014168 | -1.31  | down | Respiratory burst oxidase homolog protein C  |
| PGSC0003DMG400016769 | -1.40  | down | Double WRKY type transfactor  |
| PGSC0003DMG400026077 | -1.89  | down | Calcium-dependent protein kinase  |
| PGSC0003DMG400028474 | -3.62  | down | Conserved gene of unknown function  |
| PGSC0003DMG400030472 | -1.28  | down | TSI1  |
| PGSC0003DMG400001333 | -1.24  | down | Calcium ion binding protein  | TR1, CN152 |
| PGSC0003DMG400004460 | -1.13  | down | Conserved gene of unknown function  |
| PGSC0003DMG400005109 | -3.44  | down | PR-1  |
| PGSC0003DMG400005111 | -3.63  | down | PR1 protein  |
| PGSC0003DMG400005909 | -2.52  | down | Regulator of gene silencing  |
| PGSC0003DMG400006727 | -1.27  | down | Cyclic nucleotide-gated ion channel 15  |
| PGSC0003DMG400010724 | -1.15  | down | ERF transcription factor 4  |
| PGSC0003DMG400011633 | -1.35  | down | WRKY-type transcription factor  |
| PGSC0003DMG400014168 | -1.12  | down | Respiratory burst oxidase homolog protein C  |
| PGSC0003DMG400016433 | -1.69  | down | Receptor protein kinase  |
| PGSC0003DMG400025259 | -3.69  | down | NBS-LRR type disease resistance protein  |
| PGSC0003DMG400026077 | -1.24  | down | Calcium-dependent protein kinase  |
| PGSC0003DMG400028474 | -2.05  | down | Conserved gene of unknown function  |
| PGSC0003DMG400005111 | -1.76  | down | PR1 protein  | TR3a, CN152 |
| PGSC0003DMG400005909 | -1.93  | down | Regulator of gene silencing  |
| PGSC0003DMG400016433 | -1.98  | down | Receptor protein kinase  |
| PGSC0003DMG400023921 | -1.98  | down | Cytoplasmic small heat shock protein class I  |
| PGSC0003DMG400025259 | -6.57  | down | NBS-LRR type disease resistance protein  |
| PGSC0003DMG400026077 | -1.17  | down | Calcium-dependent protein kinase  |
| PGSC0003DMG400028474 | -1.82  | down | Conserved gene of unknown function  |
| PGSC0003DMG400028904 | -1.02  | down | SGT1  |
| PGSC0003DMG402017989 | -1.08  | down | Cyclic nucleotide-gated calmodulin-binding ion channel  |
| PGSC0003DMG400005109 | -3.38  | down | PR-1  | TR3b, CN152 |
| PGSC0003DMG400005111 | -2.76  | down | PR1 protein  |
| PGSC0003DMG400005745 | -1.06  | down | Calcium-binding allergen Ole e 8  |
| PGSC0003DMG400005909 | -3.44  | down | Regulator of gene silencing  |
| PGSC0003DMG400008089 | -1.10  | down | Cyclic nucleotide-gated ion channel 15  |
| PGSC0003DMG400009883 | -1.15  | down | Calcium-dependent protein kinase  |
| PGSC0003DMG400011633 | -1.05  | down | WRKY-type transcription factor  |
| PGSC0003DMG400014168 | -1.01  | down | Respiratory burst oxidase homolog protein C  |
| PGSC0003DMG400016433 | -1.84  | down | Receptor protein kinase  |
| PGSC0003DMG400016769 | -1.29  | down | Double WRKY type transfactor  |
| PGSC0003DMG400025259 | -2.14  | down | NBS-LRR type disease resistance protein  |
| PGSC0003DMG400026077 | -2.51  | down | Calcium-dependent protein kinase  |
| PGSC0003DMG400028474 | -2.71  | down | Conserved gene of unknown function  |
| PGSC0003DMG400030472 | -1.23  | down | TSI1  |