**Table S7. Differential expressed genes enriched in the common biological process of response to stress (GO:0006950) for transgenic *R3a* and *R3b* lines under CN152 infection.**

| **Gene ID** | **Log2FC** | **Regulated** | **Gene annotation** | **Transgenic lines** |
| --- | --- | --- | --- | --- |
| PGSC0003DMG400000066 | 1.05  | up | Ethylene-responsive late embryogenesis  | TR3a |
| PGSC0003DMG400000417 | -2.49  | down | Superoxide dismutase  |
| PGSC0003DMG400000505 | -2.10  | down | Alpha-DOX1  |
| PGSC0003DMG400000523 | -1.08  | down | Kinesin light chain  |
| PGSC0003DMG400001774 | -1.88  | down | Peroxidase  |
| PGSC0003DMG400002161 | 1.87  | up | Conserved gene of unknown function  |
| PGSC0003DMG400002552 | -1.17  | down | Delta TIP  |
| PGSC0003DMG400002890 | 1.51  | up | Xenotropic and polytropic murine leukemia virus receptor ids-4  |
| PGSC0003DMG400002920 | -2.07  | down | RGC1  |
| PGSC0003DMG400002987 | 1.11  | up | DNAJ protein  |
| PGSC0003DMG400003056 | -1.65  | down | Ethylene-responsive proteinase inhibitor 1  |
| PGSC0003DMG400003530 | 3.96  | up | Abscisic acid and environmental stress-inducible protein TAS14  |
| PGSC0003DMG400003748 | -1.86  | down | Peroxidase  |
| PGSC0003DMG400004579 | 1.22  | up | NBS-coding resistance gene analog  |
| PGSC0003DMG400005216 | 2.07  | up | Galactinol synthase  |
| PGSC0003DMG400005279 | -1.22  | down | Peroxidase  |
| PGSC0003DMG400005390 | -3.26  | down | Calmodulin-binding protein  |
| PGSC0003DMG400005649 | -1.99  | down | Calmodulin-binding protein  |
| PGSC0003DMG400006386 | -2.09  | down | Peroxidase  |
| PGSC0003DMG400006533 | -5.69  | down | Rpi protein  |
| PGSC0003DMG400006663 | -2.17  | down | ASR3  |
| PGSC0003DMG400006672 | 1.30  | up | Sucrose synthase  |
| PGSC0003DMG400007514 | -5.65  | down | Glycolate oxidase  |
| PGSC0003DMG400007993 | -1.52  | down | Pheromone receptor  |
| PGSC0003DMG400008794 | 1.69  | up | Major latex  |
| PGSC0003DMG400009255 | 1.93  | up | Small heat-shock protein homolog protein  |
| PGSC0003DMG400009672 | 1.08  | up | Pom14 protein  |
| PGSC0003DMG400010660 | -1.39  | down | Superoxide dismutase  |
| PGSC0003DMG400010819 | 1.51  | up | 3-ketoacyl-CoA synthase 10  |
| PGSC0003DMG400010870 | -1.78  | down | NAC domain protein  |
| PGSC0003DMG400011640 | -1.32  | down | Peroxidase  |
| PGSC0003DMG400012111 | 1.21  | up | Granule-bound starch synthase 1, chloroplastic/amyloplastic  |
| PGSC0003DMG400012503 | 2.31  | up | DNA mismatch repair protein mutS  |
| PGSC0003DMG400012589 | -2.42  | down | Cationic peroxidase  |
| PGSC0003DMG400013143 | 1.23  | up | Ripening induced protein  |
| PGSC0003DMG400013486 | -3.90  | down | Disease resistance protein  |
| PGSC0003DMG400013736 | -1.80  | down | BED finger-nbs-lrr resistance protein  |
| PGSC0003DMG400014509 | 1.24  | up | BURP domain-containing protein  |
| PGSC0003DMG400014558 | -1.72  | down | Conserved gene of unknown function  |
| PGSC0003DMG400014867 | -1.52  | down | Peroxidase  |
| PGSC0003DMG400015106 | -2.88  | down | Cell wall peroxidase  |
| PGSC0003DMG400015228 | -1.19  | down | Peptide methionine sulfoxide reductase  |
| PGSC0003DMG400015850 | 1.87  | up | IDS4  |
| PGSC0003DMG400016270 | 1.45  | up | Heat stress transcription factor A-6b  |
| PGSC0003DMG400016730 | -1.08  | down | Sucrose synthase  |
| PGSC0003DMG400017334 | -1.20  | down | Heat shock factor protein  |
| PGSC0003DMG400018271 | -1.07  | down | Calmodulin binding protein  |
| PGSC0003DMG400019446 | 1.05  | up | Annexin 11  |
| PGSC0003DMG400019824 | -1.15  | down | JA-induced WRKY protein  |
| PGSC0003DMG400020252 | -2.35  | down | Peroxidase 55  |
| PGSC0003DMG400020433 | -1.44  | down | DNAJ heat shock N-terminal domain-containing protein  |
| PGSC0003DMG400020799 | -2.77  | down | Cationic peroxidase 1  |
| PGSC0003DMG400021726 | 1.63  | up | Furin  |
| PGSC0003DMG400021986 | -4.81  | down | Late blight resistance protein Rpi-blb2  |
| PGSC0003DMG400022541 | -1.56  | down | Peroxidase 72  |
| PGSC0003DMG400023235 | -1.03  | down | Sn-2 protein  |
| PGSC0003DMG400023435 | -1.52  | down | Major allergen Pru ar  |
| PGSC0003DMG400023622 | 1.12  | up | Peroxisomal small heat shock protein  |
| PGSC0003DMG400023751 | -1.74  | down | Basic blue copper protein  |
| PGSC0003DMG400024237 | -1.22  | down | Conserved gene of unknown function  |
| PGSC0003DMG400024285 | -1.58  | down | Peroxidase 44  |
| PGSC0003DMG400024477 | -3.67  | down | Calmodulin binding protein  |
| PGSC0003DMG400024644 | 1.78  | up | 101 kDa heat shock protein  |
| PGSC0003DMG400024707 | 1.57  | up | Luminal binding protein  |
| PGSC0003DMG400024785 | -1.35  | down | Calmodulin-binding protein  |
| PGSC0003DMG400024967 | -1.00  | down | Peroxidase  |
| PGSC0003DMG400025259 | -6.57  | down | NBS-LRR type disease resistance protein  |
| PGSC0003DMG400026017 | 4.57  | up | Xenotropic and polytropic murine leukemia virus receptor  |
| PGSC0003DMG400026346 | -1.40  | down | F-box family protein  |
| PGSC0003DMG400026575 | -2.43  | down | Class III peroxidase  |
| PGSC0003DMG400026666 | -1.25  | down | Cc-nbs-lrr resistance protein  |
| PGSC0003DMG400027459 | -1.09  | down | ATP binding protein  |
| PGSC0003DMG400027614 | -4.66  | down | Cell wall peroxidase  |
| PGSC0003DMG400027728 | -1.65  | down | Conserved gene of unknown function  |
| PGSC0003DMG400028339 | -1.31  | down | Late blight resistance protein  |
| PGSC0003DMG400028426 | -1.39  | down | Cellulose synthase catalytic subunit  |
| PGSC0003DMG400028624 | 3.68  | up | Small heat-shock protein  |
| PGSC0003DMG400029195 | 1.04  | up | Ferritin  |
| PGSC0003DMG400029313 | -1.65  | down | R2 protein  |
| PGSC0003DMG400029341 | -1.57  | down | TSI-1 protein  |
| PGSC0003DMG400029405 | -1.13  | down | Disease resistance protein RPM1  |
| PGSC0003DMG400030089 | 1.35  | up | Heat shock protein 70kD  |
| PGSC0003DMG400030134 | -1.32  | down | MLO1  |
| PGSC0003DMG400030255 | 3.65  | up | Sn-1 protein  |
| PGSC0003DMG400030339 | 2.05  | up | 17.6 kD class I small heat shock protein  |
| PGSC0003DMG400030419 | -3.81  | down | Conserved gene of unknown function  |
| PGSC0003DMG400030919 | 2.04  | up | Dicyanin  |
| PGSC0003DMG400031371 | -1.06  | down | Nucleic acid binding protein  |
| PGSC0003DMG400032793 | 1.95  | up | Heat stress transcription factor HSFA9  |
| PGSC0003DMG400037159 | 4.99  | up | Leucine-rich repeat containing protein  |
| PGSC0003DMG401001731 | 1.53  | up | Ascorbate peroxidase  |
| PGSC0003DMG401007628 | -1.48  | down | Polyribonucleotide nucleotidyltransferase  |
| PGSC0003DMG401029332 | -2.44  | down | Peroxidase  |
| PGSC0003DMG401030920 | -2.23  | down | Cucumber peeling cupredoxin  |
| PGSC0003DMG401033888 | 1.56  | up | Universal stress protein family protein  |
| PGSC0003DMG402015497 | -1.79  | down | Pericarp peroxidase 3  |
| PGSC0003DMG400000079 | 1.20  | up | BCL-2-associated athanogene 6  | TR3b |
| PGSC0003DMG400000417 | -3.14  | down | Superoxide dismutase  |
| PGSC0003DMG400000505 | -4.68  | down | Alpha-DOX1  |
| PGSC0003DMG400000523 | -1.26  | down | Kinesin light chain  |
| PGSC0003DMG400001598 | 2.30  | up | Snakin-2  |
| PGSC0003DMG400001774 | -2.32  | down | Peroxidase  |
| PGSC0003DMG400002161 | 1.73  | up | Conserved gene of unknown function  |
| PGSC0003DMG400002552 | -1.91  | down | Delta TIP  |
| PGSC0003DMG400002890 | 2.77  | up | Xenotropic and polytropic murine leukemia virus receptor ids-4  |
| PGSC0003DMG400002920 | -1.78  | down | RGC1  |
| PGSC0003DMG400002987 | 1.81  | up | DNAJ protein  |
| PGSC0003DMG400003056 | -3.47  | down | Ethylene-responsive proteinase inhibitor 1  |
| PGSC0003DMG400003530 | 5.25  | up | Abscisic acid and environmental stress-inducible protein TAS14  |
| PGSC0003DMG400003531 | 1.63  | up | Dhn1 protein  |
| PGSC0003DMG400003645 | -1.38  | down | Ascorbate peroxidase  |
| PGSC0003DMG400003654 | -1.37  | down | Peroxidase  |
| PGSC0003DMG400003748 | -1.44  | down | Peroxidase  |
| PGSC0003DMG400003822 | -1.36  | down | Cellulose synthase  |
| PGSC0003DMG400004064 | -1.21  | down | Subtilisin inhibitor 1  |
| PGSC0003DMG400004211 | 2.26  | up | Photosystem Q(B) protein  |
| PGSC0003DMG400005216 | 2.73  | up | Galactinol synthase  |
| PGSC0003DMG400005279 | -1.27  | down | Peroxidase  |
| PGSC0003DMG400005390 | -2.43  | down | Calmodulin-binding protein  |
| PGSC0003DMG400005573 | 1.61  | up | Heat shock protein 83  |
| PGSC0003DMG400005649 | -1.28  | down | Calmodulin-binding protein  |
| PGSC0003DMG400006386 | -1.90  | down | Peroxidase  |
| PGSC0003DMG400006662 | 1.08  | up | Ci21A protein  |
| PGSC0003DMG400006663 | -1.84  | down | ASR3  |
| PGSC0003DMG400006672 | 1.58  | up | Sucrose synthase  |
| PGSC0003DMG400007514 | -3.53  | down | Glycolate oxidase  |
| PGSC0003DMG400007848 | -1.62  | down | Phospholipase D  |
| PGSC0003DMG400007993 | -1.80  | down | Pheromone receptor  |
| PGSC0003DMG400008223 | 1.02  | up | Heat shock factor protein HSF30  |
| PGSC0003DMG400008794 | 2.37  | up | Major latex  |
| PGSC0003DMG400009255 | 3.53  | up | Small heat-shock protein homolog protein  |
| PGSC0003DMG400009509 | 1.24  | up | Heat shock protein 83  |
| PGSC0003DMG400009672 | 1.61  | up | Pom14 protein  |
| PGSC0003DMG400009817 | -1.24  | down | Major latex  |
| PGSC0003DMG400009883 | -1.15  | down | Calcium-dependent protein kinase  |
| PGSC0003DMG400010612 | 1.43  | up | HJTR2GH1 protein  |
| PGSC0003DMG400010660 | -1.91  | down | Superoxide dismutase  |
| PGSC0003DMG400010819 | 1.32  | up | 3-ketoacyl-CoA synthase 10  |
| PGSC0003DMG400011633 | -1.05  | down | WRKY-type transcription factor  |
| PGSC0003DMG400011640 | -1.89  | down | Peroxidase  |
| PGSC0003DMG400012089 | 3.37  | up | Type I serine protease inhibitor  |
| PGSC0003DMG400012111 | 1.74  | up | Granule-bound starch synthase 1, chloroplastic/amyloplastic  |
| PGSC0003DMG400012306 | 1.04  | up | Ubiquitin carrier protein  |
| PGSC0003DMG400012589 | -3.31  | down | Cationic peroxidase  |
| PGSC0003DMG400013010 | 1.27  | up | 24K germin  |
| PGSC0003DMG400013143 | 1.72  | up | Ripening induced protein  |
| PGSC0003DMG400013692 | 1.17  | up | Conserved gene of unknown function  |
| PGSC0003DMG400013736 | -1.18  | down | BED finger-nbs-lrr resistance protein  |
| PGSC0003DMG400014509 | 1.34  | up | BURP domain-containing protein  |
| PGSC0003DMG400014867 | -1.68  | down | Peroxidase  |
| PGSC0003DMG400015106 | -4.70  | down | Cell wall peroxidase  |
| PGSC0003DMG400015130 | 1.04  | up | Defensin P322  |
| PGSC0003DMG400015219 | -1.22  | down | Miraculin  |
| PGSC0003DMG400015228 | -1.02  | down | Peptide methionine sulfoxide reductase  |
| PGSC0003DMG400015318 | 1.01  | up | Metallothionein  |
| PGSC0003DMG400015548 | -2.33  | down | Peroxidase 15  |
| PGSC0003DMG400015850 | 2.88  | up | IDS4  |
| PGSC0003DMG400016066 | 2.43  | up | Major latex  |
| PGSC0003DMG400016730 | -1.58  | down | Sucrose synthase  |
| PGSC0003DMG400017334 | -1.35  | down | Heat shock factor protein  |
| PGSC0003DMG400018271 | -2.13  | down | Calmodulin binding protein  |
| PGSC0003DMG400018975 | -1.02  | down | Calmodulin binding protein  |
| PGSC0003DMG400019068 | 3.49  | up | Sn-1 protein  |
| PGSC0003DMG400019087 | -4.93  | down | REX1 DNA Repair family protein  |
| PGSC0003DMG400019435 | -1.06  | down | Wound-induced protein WIN2  |
| PGSC0003DMG400019446 | 1.01  | up | Annexin 11  |
| PGSC0003DMG400019824 | -1.61  | down | JA-induced WRKY protein  |
| PGSC0003DMG400020433 | -1.41  | down | DNAJ heat shock N-terminal domain-containing protein  |
| PGSC0003DMG400020605 | 2.25  | up | MLO1  |
| PGSC0003DMG400020799 | -3.08  | down | Cationic peroxidase 1  |
| PGSC0003DMG400021382 | -3.66  | down | Conserved gene of unknown function  |
| PGSC0003DMG400021726 | 2.19  | up | Furin  |
| PGSC0003DMG400022341 | -1.02  | down | Suberization-associated anionic peroxidase 2  |
| PGSC0003DMG400022399 | 1.82  | up | MYB transcription factor  |
| PGSC0003DMG400022502 | -1.13  | down | Deoxyuridine 5'-triphosphate nucleotidohydrolase  |
| PGSC0003DMG400022541 | -1.30  | down | Peroxidase 72  |
| PGSC0003DMG400023400 | 1.05  | up | DnaJ  |
| PGSC0003DMG400023435 | -3.26  | down | Major allergen Pru ar  |
| PGSC0003DMG400023622 | 1.73  | up | Peroxisomal small heat shock protein  |
| PGSC0003DMG400023751 | -2.58  | down | Basic blue copper protein  |
| PGSC0003DMG400024237 | -2.14  | down | Conserved gene of unknown function  |
| PGSC0003DMG400024309 | -1.35  | down | Conserved gene of unknown function  |
| PGSC0003DMG400024477 | -2.77  | down | Calmodulin binding protein  |
| PGSC0003DMG400024644 | 2.71  | up | 101 kDa heat shock protein  |
| PGSC0003DMG400024707 | 2.66  | up | Luminal binding protein  |
| PGSC0003DMG400024849 | 1.80  | up | Alcohol dehydrogenase 1  |
| PGSC0003DMG400024967 | -1.10  | down | Peroxidase  |
| PGSC0003DMG400025084 | -2.25  | down | Peroxidase 4  |
| PGSC0003DMG400025259 | -2.14  | down | NBS-LRR type disease resistance protein  |
| PGSC0003DMG400025896 | 1.33  | up | Proteinase inhibitor 1  |
| PGSC0003DMG400026017 | 6.46  | up | Xenotropic and polytropic murine leukemia virus receptor  |
| PGSC0003DMG400026346 | -1.64  | down | F-box family protein  |
| PGSC0003DMG400026575 | -3.29  | down | Class III peroxidase  |
| PGSC0003DMG400027194 | 1.10  | up | Serine/threonine-protein kinase Nek8  |
| PGSC0003DMG400027283 | -2.00  | down | AT-HSFB3 (Arabidopsis thaliana heat shock transcription factor B3)  |
| PGSC0003DMG400027614 | -4.45  | down | Cell wall peroxidase  |
| PGSC0003DMG400027728 | -2.73  | down | Conserved gene of unknown function  |
| PGSC0003DMG400028426 | -2.12  | down | Cellulose synthase catalytic subunit  |
| PGSC0003DMG400028624 | 4.69  | up | Small heat-shock protein  |
| PGSC0003DMG400028634 | 1.00  | up | Heat shock protein  |
| PGSC0003DMG400029195 | 1.16  | up | Ferritin  |
| PGSC0003DMG400029341 | -1.98  | down | TSI-1 protein  |
| PGSC0003DMG400029675 | -1.11  | down | Cell cycle switch 52B  |
| PGSC0003DMG400029985 | -3.98  | down | EMB2744  |
| PGSC0003DMG400030058 | -1.06  | down | MAP kinase  |
| PGSC0003DMG400030089 | 2.23  | up | Heat shock protein 70kD  |
| PGSC0003DMG400030134 | -1.87  | down | MLO1  |
| PGSC0003DMG400030243 | 5.14  | up | Major latex  |
| PGSC0003DMG400030255 | 3.69  | up | Sn-1 protein  |
| PGSC0003DMG400030339 | 2.57  | up | 17.6 kD class I small heat shock protein  |
| PGSC0003DMG400030359 | -1.37  | down | Pyridoxine biosynthesis protein isoform A  |
| PGSC0003DMG400030419 | -4.05  | down | Conserved gene of unknown function  |
| PGSC0003DMG400030430 | -1.06  | down | Anionic peroxidase swpa7  |
| PGSC0003DMG400030919 | 1.84  | up | Dicyanin  |
| PGSC0003DMG400031827 | 1.58  | up | Conserved gene of unknown function  |
| PGSC0003DMG400032549 | -5.13  | down | 8.4 kDa sulfur-rich protein  |
| PGSC0003DMG400032793 | 2.21  | up | Heat stress transcription factor HSFA9  |
| PGSC0003DMG400037159 | 5.00  | up | Leucine-rich repeat containing protein  |
| PGSC0003DMG400042669 | 3.81  | up | Sn-1 protein  |
| PGSC0003DMG401001731 | 1.97  | up | Ascorbate peroxidase  |
| PGSC0003DMG401013782 | -1.24  | down | Transcription factor  |
| PGSC0003DMG401028907 | 1.44  | up | Heat shock protein 83  |
| PGSC0003DMG401029332 | -1.83  | down | Peroxidase  |
| PGSC0003DMG401030920 | -2.69  | down | Cucumber peeling cupredoxin  |
| PGSC0003DMG401033888 | 1.64  | up | Universal stress protein family protein  |
| PGSC0003DMG402015497 | -1.64  | down | Pericarp peroxidase 3  |
| PGSC0003DMG403007838 | -1.02  | down | Purple acid phosphatase 3  |
| PGSC0003DMG403020240 | 1.88  | up | Glycerophosphodiester phosphodiesterase  |