Supplementary Table 1

The primers used in this study

|  |  |  |  |
| --- | --- | --- | --- |
| Gene name | Forward primer | Reverse primer | Usage |
| *Glyma08g08390* | GAATGATCATGGTCTTGCTCAT | CAACGTTAATTAACCAAAGTGCA | q RT-PCR and overexpression |
| *Glyma08g42860* | GGCATGTTTTGCAGAAGCTAT | CTACTACTACTACCACAACATA | q RT-PCR and overexpression |
| *Glyma08g42880* | CTATTGATAAGCTGCAATCTACT | GACTAGGTGAAGAATACTAAGATA | q RT-PCR and overexpression |
| *Glyma16g33790* | CATGAAGTTTATGTATCTTGCA | GCTTCAAGCAGATGGCTGGAA | q RT-PCR |
| *Glyma17g14910* | CCATTGTGAGAAATGGCTTCCAA | GTGTTGATTTAAGCGCAGACGAA | q RT-PCR and overexpression |
| *Glyma17g34870* | GAGAATGTCTAGCTGTGGGTGT | CTTGACCTTACTTGCAGTTGCAT | q RT-PCR and overexpression |
| *Glyma20g34790* | CAGATGGAACTTGCTGGTCTAT | GAAGATGTTAGTGACTGGACAAT | q RT-PCR |
| *Glyma18g03730* | CGAAGATGAGCAAGTTCGT | GGTTTATGGCTTGGCAAAAT | q RT-PCR |
| *Glyma09g29180* | ATGAAGATGACATTGGTAACA | CCGTGGCAAGGAACTCAACAT | q RT-PCR |
| *Gmactin* | CGGTGGTTCTATCTTGGCATC | GTCTTTCGCTTCAATAACCCTA | q RT-PCR |

Supplementary Table 2

The stress related DEGs both in *G.Max and G.soja*

|  |  |  |  |
| --- | --- | --- | --- |
| **Gene ID** | **log2(PEGT/CK)**  ***G.Soja*** | **log2(PEGT/CK)**  ***G.Max*** | **MapMan annotation** |
| Gma#S45562332 | -9.348728154 | -2.981852653 | stress.biotic |
| Gma#S53086439 | -4.687109388 | -3.411087227 | stress.biotic |
| Gma#S52650692 | -4.231456504 | -2.916476644 | stress.biotic |
| Gma#S53035157 | -3.123073222 | -6.711188959 | stress.biotic.PR-proteins |
| Gma#S48316088 | -4.073951308 | -1.656450988 | stress.biotic |
| Gma#S53084842 | -3.071013736 | -3.699842947 | stress.abiotic.cold |
| Gma#S53088419 | 8.933690655 | 1.953349907 | stress.abiotic.heat |
| Gma#S39316577 | -2.62759729 | -2.933189082 | stress.biotic |
| Gma#S18530375 | -4.46526214 | -3.105539526 | stress.biotic.PR-proteins |
| Gma#S52636122 | -3.479469372 | -1.557612013 | stress.abiotic.unspecified |
| Gma#S45564355 | 3.85713756 | -1.171020026 | stress.abiotic.cold |
| Gma#S23068687 | 9.791162889 | 3.077076223 | stress.abiotic.heat |
| Gma#S48557138 | -1.509770957 | -2.20055662 | stress.biotic.PR-proteins.NPR |
| Gma#S45560637 | -1.639728304 | -1.43039144 | stress.biotic |
| Gma#S48313444 | -2.082997083 | -2.143899113 | stress.abiotic |
| Gma#S52666475 | -8.86298312 | -6.04997548 | stress.biotic |
| Gma#S53087604 | -1.062181995 | -4.484355874 | stress.biotic |
| Gma#S53086672 | 2.815437268 | 1.953349907 | stress.abiotic.heat |
| Gma#S48314174 | -1.367028349 | -1.501091422 | stress.biotic.signalling.MLO-like |
| Gma#S18530347 | -3.280223612 | 2.806938079 | stress.biotic |
| Gma#S48315843 | -1.223141679 | -1.222799675 | stress.biotic |
| Gma#S42153866 | 1.390480395 | 3.863670067 | stress.biotic |
| Gma#S48315720 | 1.649092838 | -1.834258803 | stress.abiotic.heat |
| Gma#S48316542 | -1.579073083 | -1.599418484 | stress.biotic |
| Gma#S21537643 | 3.120456325 | 2.364948043 | stress.abiotic.drought/salt |
| Gma#S48312276 | -2.76805906 | 1.138819771 | stress.abiotic |
| Gma#S53088517 | -1.216436256 | -5.027585249 | stress.biotic |
| Gma#S39316391 | 1.290329956 | -1.346316686 | stress.abiotic.touch/wounding |
| Gma#S45536039 | -1.630553312 | -1.91354208 | stress.abiotic.unspecified |
| Gma#S5146788 | 1.170807924 | -2.10941493 | stress.abiotic.heat |
| Gma#S48312220 | -2.913920838 | -1.517092507 | stress.abiotic.unspecified |
| Gma#S45540757 | 1.208296078 | 1.30115175 | stress.abiotic.heat |
| Gma#S52653086 | 1.991978225 | 1.387716159 | stress.biotic |
| Gma#S53087634 | 6.288846528 | 2.46000423 | stress.abiotic.heat |
| Gma#S5146735 | 2.859293398 | 1.262541822 | stress.abiotic.heat |
| Gma#S48316278 | 1.283236335 | 2.875406846 | stress.abiotic.cold |
| Gma#S53090246 | 2.477155213 | -1.151959664 | stress.abiotic.heat |
| Gma#S48312551 | -3.290056565 | -1.59730773 | stress.abiotic.unspecified |
| Gma#S48312323 | 1.11925063 | 1.29895398 | stress.abiotic.cold |
| Gma#S48314457 | 1.000901403 | -1.244763453 | stress.biotic |
| Gma#S5146362 | -1.880073708 | 3.888386093 | stress.biotic |
| Gma#S48315670 | 5.801699278 | 2.107633419 | stress.abiotic.heat |
| Gma#S5146698 | 6.349445616 | 3.614094111 | stress.abiotic.heat |
| Gma#S53089315 | 2.605890143 | 1.712839455 | stress.abiotic.unspecified |
| Gma#S39315433 | 7.261619554 | 4.293707631 | stress.abiotic.heat |
| Gma#S5100915 | 2.816492914 | 2.230201907 | stress.abiotic.heat |
| Gma#S39315545 | 7.287167619 | 2.088428203 | stress.abiotic.heat |
| Gma#S39303739 | 1.13035271 | 2.294661808 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S39300857 | 4.90452136 | -2.610567317 | stress.abiotic.heat |
| Gma#S48316293 | 2.616404739 | 3.632732114 | stress.biotic.PR-proteins |
| Gma#S53088345 | 1.213196056 | 2.409455041 | stress.abiotic.heat |
| Gma#S48315768 | 1.629129613 | 4.354415882 | stress |
| Gma#S39303018 | 3.281326347 | 3.409398613 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S52667107 | 2.911766961 | 5.172210709 | stress.biotic |
| Gma#S5146496 | 1.100617995 | 3.990714661 | stress.biotic.PR-proteins |
| Gma#S52653446 | 1.682555081 | -2.794131012 | stress.biotic |
| Gma#S23063758 | -8.977279923 | -4.754887502 | stress |
| Gma#S23071109 | -8.977279923 | -5.781359714 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S53085480 | -8.888743249 | -1.626439137 | stress.abiotic.unspecified |
| Gma#S53087765 | -5.658913809 | -0.549866126 | stress.abiotic.cold |
| Gma#S39314717 | -5.177460385 |  | stress.abiotic.unspecified |
| Gma#S23062452 | -2.676302812 |  | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S48316319 | -3.017629894 | -1.183122304 | stress.biotic.PR-proteins |
| Gma#S5146414 | -3.717452221 |  | stress.abiotic.cold |
| Gma#S39299233 | -3.206253775 | -1.671272073 | stress.biotic.PR-proteins |
| Gma#S53087093 | -1.829091901 |  | stress.abiotic |
| Gma#S5146734 | 8.632995197 |  | stress.abiotic.heat |
| Gma#S53089826 | -1.634501962 | -1.503695119 | stress.abiotic.cold |
| Gma#S53086816 | 8.933690655 | 7.055282436 | stress.abiotic.heat |
| Gma#S39308445 | 9.103287808 | 2.273922722 | stress.abiotic.heat |
| Gma#S53035151 | 2.738177434 | 2.761672107 | stress.biotic.PR-proteins |
| Gma#S53089679 | 9.688250309 | -0.637370353 | stress.abiotic |
| Gma#S45534396 | -2.206369459 |  | stress.biotic |
| Gma#S5146696 | 9.840777924 | 2.279178447 | stress.abiotic.heat |
| Gma#S53088266 | 4.004577566 | 1.238404739 | stress.biotic.PR-proteins |
| Gma#S45554506 | 9.933690655 | 3.679740725 | stress.abiotic.heat |
| Gma#S36150140 | 2.088536675 | -2.30885222 | stress.abiotic.unspecified |
| Gma#S48315572 | 2.666373626 | -1.406794891 | stress.abiotic.heat |
| Gma#S23068074 | -1.301354555 | -0.011992547 | stress.abiotic |
| Gma#S48312696 | 3.009715155 | 0.609794354 | stress.abiotic.unspecified |
| Gma#S39315833 | 10.32530546 |  | stress.abiotic.heat |
| Gma#S23064191 | 10.48784003 |  | stress.abiotic.heat |
| Gma#S48315545 | -1.203300457 | 1.185063598 | stress.biotic.respiratory burst |
| Gma#S39305571 | -1.008282605 | 0.277136437 | stress.biotic |
| Gma#S45566614 | 1.297364842 | 1.421587334 | stress.abiotic.unspecified |
| Gma#S23062985 | 11.30833903 | 1.5776577 | stress.abiotic.heat |
| Gma#S55906279 | 1.511992066 |  | stress.abiotic.heat |
| Gma#S53090230 | 1.189469832 | 2.784271309 | stress.abiotic.heat |
| Gma#S52644656 | -1.081182493 | -0.90256933 | stress.biotic.PR-proteins |
| Gma#S47696544 | -1.322001869 | 0.055249861 | stress.biotic |
| Gma#S48316161 | -1.582108052 | -0.136974677 | stress.abiotic.heat |
| Gma#S39313997 | 12.10328781 |  | stress.abiotic.heat |
| Gma#S45566740 | 3.695756146 | 0.223004771 | stress.abiotic.heat |
| Gma#S5146540 | -1.885956071 | 0.871947271 | stress.abiotic.cold |
| Gma#S48315744 | 1.266264212 |  | stress.abiotic.heat |
| Gma#S48315341 | 1.430690451 | -0.821950475 | stress.abiotic.heat |
| Gma#S55914355 | 1.389149937 |  | stress.abiotic.unspecified |
| Gma#S52637817 | -3.027261782 |  | stress.abiotic |
| Gma#S5126377 | 1.097065351 | 0.034100033 | stress.abiotic.drought/salt |
| Gma#S48314284 | 1.016741856 | -0.786571313 | stress.abiotic.drought/salt |
| Gma#S45563069 | 1.065922776 | 0.292035915 | stress.abiotic.touch/wounding |
| Gma#S48315299 | 1.06973871 | -0.589044105 | stress.abiotic.drought/salt |
| Gma#S48830648 | 1.46236691 | -0.368412259 | stress.abiotic |
| Gma#S39303542 | 4.39767012 |  | stress.abiotic.heat |
| Gma#S45549541 | 4.092035118 |  | stress.abiotic.heat |
| Gma#S5146804 | 4.840299732 | 0.55880685 | stress.abiotic.heat |
| Gma#S45537327 | 2.425273455 | -0.470982199 | stress.biotic |
| Gma#S39317736 | 7.075854681 | -0.759718246 | stress.abiotic.heat |
| Gma#S4883944 | 1.327828223 | 0.08246216 | stress.abiotic.heat |
| Gma#S48316304 | 4.048363022 | -0.315935584 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S39318688 | 4.600361873 |  | stress.abiotic.heat |
| Gma#S45564135 | -2.073513173 |  | stress.abiotic.unspecified |
| Gma#S52647552 | 1.546940767 | 0.44708931 | stress.abiotic.touch/wounding |
| Gma#S48315357 | 3.551238087 | 0.539922879 | stress.abiotic.heat |
| Gma#S4990705 | 1.411398282 | 0.690469309 | stress.biotic |
| Gma#S48312283 | 1.921738625 | 0.151393243 | stress.biotic |
| Gma#S48312967 | 2.01551779 | -0.052177632 | stress.abiotic.heat |
| Gma#S16159679 | -1.430560993 | -4.754887502 | stress.biotic.PR-proteins |
| Gma#S39318372 | 1.991005617 | 0.816482607 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S53086619 | -8.475733431 | -2.575860294 | stress.biotic |
| Gma#S48315502 | -7.475733431 | -2.981852653 | stress.biotic |
| Gma#S53087362 | -6.475733431 | -9.479780264 | stress.abiotic.cold |
| Gma#S48312405 | -5.882643049 | -1.827920518 | stress.abiotic.unspecified |
| Gma#S53086694 | -5.882643049 | -4.193479729 | stress.abiotic.drought/salt |
| Gma#S39314092 | 6.930737338 | -9.779719355 | stress.abiotic.drought/salt |
| Gma#S39309920 | -2.127254385 | -3.858919333 | stress |
| Gma#S53035121 | -1.657977298 | -2.927068478 | stress.biotic.receptors |
| Gma#S52650679 | -1.129958594 | -3.323072932 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S53085342 | 7.257387843 | -1.629913937 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S53087161 | 1.374744793 | -1.920992126 | stress.biotic |
| Gma#S4978585 | -0.436099115 | -4.112391238 | stress.biotic.PR-proteins |
| Gma#S45552867 | -1.073014797 | -2.916476644 | stress |
| Gma#S42153876 | 7.741466986 | 2.412165647 | stress.biotic |
| Gma#S48315427 | -0.95550054 | -1.396384792 | stress.biotic |
| Gma#S53087855 | -1.245440346 | -4.77844223 | stress.abiotic.heat |
| Gma#S53088910 | -0.691128058 | -2.368883853 | stress.abiotic.light |
| Gma#S48312151 | 0.826149295 | 2.034575943 | stress.biotic |
| Gma#S5014183 | -1.465036886 | -3.452016689 | stress.abiotic.unspecified |
| Gma#S45560692 | -0.647775573 | -4.669278787 | stress.biotic |
| Gma#S52665737 | 3.37238552 | 2.599651242 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S53035125 | 0.532013621 | 3.868860188 | stress.biotic.PR-proteins |
| Gma#S48314076 | -0.922832139 | -1.916476644 | stress.abiotic.heat |
| Gma#S45561019 | 0.043963639 | -1.994858896 | stress.abiotic.heat |
| Gma#S7113320 | -0.763101382 | -3.866660751 | stress.biotic.PR-proteins |
| Gma#S52641360 | -0.278370221 | 2.5776577 | stress.biotic.PR-proteins |
| Gma#S45549222 | -0.803032237 | -1.773562748 | stress.biotic |
| Gma#S45565295 | -0.313049944 | -2.043807968 | stress.biotic |
| Gma#S39304098 | -0.040920255 | 1.38331783 | stress.biotic.receptors |
| Gma#S48316029 | -0.975530142 | -4.171314212 | stress.biotic |
| Gma#S53086308 | -0.733362795 | -3.970482413 | stress.biotic |
| Gma#S21568147 | 0.383901592 | 1.584128814 | stress.abiotic.drought/salt |
| Gma#S39312344 | -0.532021949 | -1.194882288 | stress.biotic |
| Gma#S48312452 | -0.245440346 | -3.531557352 | stress.biotic |
| Gma#S23069102 | -0.390382589 | 1.354732187 | stress.abiotic.cold |
| Gma#S53087293 | -0.684055335 | -1.045097816 | stress.biotic |
| Gma#S53088339 | -0.440954874 | 3.336596145 | stress.abiotic.heat |
| Gma#S52660980 | 0.023458973 | -2.66141882 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S39301260 | -0.96587601 | -2.422949041 | stress.abiotic.drought/salt |
| Gma#S48316382 | -0.480334685 | 3.081267382 | stress.biotic.PR-proteins.proteinase inhibitors |
| Gma#S48313461 | -0.398444991 | 1.401608514 | stress.abiotic |
| Gma#S48315251 | -0.566735873 | -2.082952789 | stress.abiotic.drought/salt |
| Gma#S36151710 | 0.88628296 | 1.384221163 | stress.abiotic.unspecified |
| Gma#S45538238 | -0.044544759 | -3.113244255 | stress.abiotic.drought/salt |
| Gma#S17641654 | -0.073376867 | -1.793868784 | stress.abiotic.touch/wounding |
| Gma#S53035140 | 0.641933948 | 1.50163116 | stress.biotic |
| Gma#S5052501 | 0.867815355 | 1.131061195 | stress.abiotic.heat |
| Gma#S22669066 | -0.273854081 | 5.443790538 | stress.biotic.PR-proteins |
| Gma#S45561341 | 0.226431793 | -1.330931641 | stress.abiotic.touch/wounding |
| Gma#S48315511 | -0.405432736 | -2.192791225 | stress.abiotic.drought/salt |
| Gma#S48316700 | -0.205471666 | 1.268392873 | stress.abiotic.heat |
| Gma#S48312665 | 0.370663253 | -4.405559596 | stress.abiotic.heat |
| Gma#S48316340 | 0.259762987 | 2.995612683 | stress.abiotic.unspecified |
| Gma#S48314344 | -0.828947038 | 1.985116591 | stress.abiotic.unspecified |
| Gma#S48313020 | -0.500258056 | -2.780448504 | stress.biotic |
| Gma#S48315896 | 0.326186554 | 3.484160421 | stress.abiotic.touch/wounding |
| Gma#S21568505 | 0.673357289 | -1.691166971 | stress.abiotic.unspecified |
| Gma#S53086588 | -0.2790802 | -2.255659462 | stress.biotic |
| Gma#S45533208 | -0.430989515 | -1.598447903 | stress.abiotic.drought/salt |
| Gma#S48316411 | 0.273975649 | -1.21766033 | stress.abiotic.heat |
| Gma#S5146771 | 0.268039299 | 3.765245078 | stress.abiotic.heat |
| Gma#S48313527 | -0.562494517 | -1.877522345 | stress.abiotic.cold |
| Gma#S48316531 | 0.275870457 | 2.210217707 | stress.abiotic.unspecified |
| Gma#S48312657 | 0.491922338 | 1.270687469 | stress.biotic |
| Gma#S48316173 | -0.110673726 | 1.237435928 | stress.abiotic.drought/salt |
| Gma#S48316790 | 0.775000002 | 1.06983714 | stress.abiotic.heat |
| Gma#S48316730 | -0.289676531 | -1.360681343 | stress.abiotic.heat |
| Gma#S39314824 | 0.389593558 | 5.175500407 | stress.abiotic.unspecified |
| Gma#S48316731 | 0.84203698 | -1.174741154 | stress.abiotic.heat |
| Gma#S48315661 | -0.779910143 | 4.54613569 | stress.abiotic.heat |
| Gma#S52657385 | 0.517001305 | -1.976351387 | stress.abiotic.unspecified |
| Gma#S39301127 | 0.629990304 | 2.674805401 | stress.abiotic.heat |
| Gma#S5146241 | -0.465982199 | -1.41748374 | stress.biotic |
| Gma#S45534933 | 0.859098416 | 2.399252916 | stress.abiotic.unspecified |
| Gma#S53086307 | 0.169571868 | 1.031545054 | stress.abiotic |
| Gma#S19677361 | 0.78184941 | 1.230298543 | stress.biotic |
| Gma#S39307137 |  | 2.601712035 | stress.abiotic.drought/salt |
| Gma#S45566297 |  | 1.199806987 | stress.abiotic.heat |
| Gma#S48549783 |  | 1.035677304 | stress.abiotic.unspecified |
| Gma#S52665248 |  | -6.428988205 | stress.biotic |
| Gma#S15921195 |  | -4.724892762 | stress.abiotic.unspecified |
| Gma#S53087716 |  | -4.043807968 | stress.biotic.PR-proteins |
| Gma#S52668495 |  | -3.914500609 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S52651260 |  | -3.6362142 | stress.biotic.PR-proteins |
| Gma#S39303917 |  | -2.627898616 | stress.abiotic.drought/salt |
| Gma#S52666656 |  | -2.494630181 | stress.biotic.PR-proteins.proteinase inhibitors.trypsin inhibitor |
| Gma#S23067737 |  | -2.488747185 | stress.abiotic.heat |
| Gma#S23068342 |  | -2.339180259 | stress.abiotic.drought/salt |
| Gma#S53035107 |  | -2.097465809 | stress.biotic |
| Gma#S39310368 |  | -1.81373569 | stress.abiotic.touch/wounding |
| Gma#S45537641 |  | -1.260320021 | stress.abiotic.heat |