

| Tomato Gene ID | Gene ID | Homolog | Fold Change | Protein Name | Uniprot Description | Effect of Psyllid Infestation | Citation |
|------------------|---------|-----------|-------------|--|---|--|---|
| Solyc03g034200.2 | RCF3 | AT5G53060 | -0.26 | RNA-binding KH domain-containing protein RCF3 | Negative regulator of osmotic stress-induced gene expression; Regulates thermotolerance responses under heat stress; Forms a complex with CPL1 that modulates co-transcriptional processes; Represses stress-inducible gene expression; Involved in primary miRNA processing and pre-miRNA biogenesis; Involved in JA-mediated fungal defense | Increased heat acclimation; Increased jasmonic acid-mediated signaling; Increased mRNA processing; Increased miRNA processing; Increased regulation of defense response to fungus; Increased regulation of gene expression; Increased response to osmotic stress; Increased RNA splicing | Xiong, Liming, et al. "HOSS—a negative regulator of osmotic stress-induced gene expression in Arabidopsis thaliana." <i>The Plant Journal</i> 19.5 (1999): 569-578. |
| Solyc04g082560.2 | ITSN2 | N/a | 0.29 | intersectin-2 | Adapter protein that provides indirect link between the endocytic membrane traffic and the actin assembly machinery; Regulates formation of clathrin-coated vesicles; Involved in endocytosis of integrin beta-1 | Increased endocytosis; Increased dendrite extension; Increased regulation of Rho protein signal transduction; Increased viral process | Mettlen, Marcel, et al. "Endocytic accessory proteins are functionally distinguished by their differential effects on the maturation of clathrin-coated pits." <i>Molecular biology of the cell</i> 20.14 (2009): 3251-3260. |
| Solyc06g008970.2 | XPD | AT1G03190 | 0.28 | general transcription and DNA repair factor IIH core comple; Plays an essential role in transcription initiation; Essential during plant growth; Negatively regulates a response to UV damage and heat stress | Component of the general transcription and DNA repair factor IIH core comple; Plays an essential role in transcription initiation; Essential during plant growth; Negatively regulates a response to UV damage and heat stress | Increased DNA repair; Increased mitotic recombination; Increased transcription; Increased protein phosphorylation; Increased regulation of mitotic recombination; Increased response to heat, oxidative, and UV stress; Increased transcription by RNA polymerase II | Liu, Zongrang, et al. "Arabidopsis UVH6, a homolog of human XPD and yeast RAD3 DNA repair genes, functions in DNA repair and is essential for plant growth." <i>Plant physiology</i> 132.3 (2003): 1405-1414. |
| Solyc05g048850.2 | RH8 | AT4G00660 | 0.27 | DEAD-box ATP-dependent RNA helicase 8 | ATP-dependent RNA helicase involved in mRNA turnover and mRNA decapping | Increased cytoplasmic mRNA processing body assembly and mRNA transport; Increased regulation of translation; Increased stress granule assembly; Increased viral process | Baek, Woonhee, et al. "A DEAD-box RNA helicase, RH8, is critical for regulation of ABA signalling and the drought stress response via inhibition of PP2CA activity." <i>Plant, cell & environment</i> 41.7 (2018): 1593-1604. |
| Solyc06g073260.2 | CSP41B | AT1G09340 | -0.81 | chloroplast stem-loop binding protein of 41 kDa b, chloroplastic | Associates with pre-ribosomal particles in chloroplasts and participates in chloroplast ribosomal RNA metabolism; Required for chloroplast integrity and embryo development; Regulates the circadian system; Regulates heteroglycans and monosaccharide mobilization | Impaired chloroplast organization; Impaired circadian rhythm; Decreased defense response to bacteria and wounding; Decreased galactose catabolism; Decreased monosaccharide metabolism; Decreased transcription and translation; Decreased response to cold and drought; Decreased rRNA processing | Raab, Sabine, et al. "ABA-responsive RNA-binding proteins are involved in chloroplast and stromule function in Arabidopsis seedlings." <i>Planta</i> 224.4 (2006): 900-914. |
| Solyc02g021760.2 | CPSF30 | AT1G30460 | 0.40 | 30-kDa cleavage and polyadenylation specificity factor 30 | Component of the cleavage and polyadenylation specificity factor complex that plays a key role in pre-mRNA 3'-end formation and poly(A) addition; Involved in post-transcriptional control of oxidative stress responses; Regulates salicylic acid production | Increased mRNA polyadenylation; Increased hypersensitive response; Increased salicylic acid mediated signaling pathway; Increased response to oxidative stress; Increased RNA processing | Delaney, Kimberly J., et al. "Calmodulin interacts with and regulates the RNA-binding activity of an Arabidopsis polyadenylation factor subunit." <i>Plant physiology</i> 140.4 (2006): 1507-1521. |
| Solyc11g010950.1 | ELP4 | AT3G11220 | 0.33 | elongator complex protein 4 | Component of the RNA polymerase II elongator complex; Promotes organs development by modulating cell division rate; Regulates mechanisms producing carbon or importing sucrose; Involved in the repression of the abscisic acid signaling during seed germination; Required for auxin distribution or signaling; Prevents anthocyanins accumulation | Increased response to sucrose; Decreased anthocyanin metabolism; Increased cellular turnover; Increased auxin-mediated signaling; Increased regulation of carbon utilization; Increased regulation of leaf development; Increased response to oxidative stress; Increased tRNA wobble uridine modification | Nelissen, Hilde, et al. "The elongata mutants identify a functional Elongator complex in plants with a role in cell proliferation during organ growth." <i>Proceedings of the National Academy of Sciences</i> 102.21 (2005): 7754-7759. |
| Solyc02g077320.2 | SNI1 | AT4G18470 | 0.32 | SNI1 protein | Involved in DNA double-strand break repair; Negative regulator of hypersensitive response and systemic acquired resistance; Functions synergistically with NTL9/CBNAC as negative regulator of pathogen-induced PR1 expression; Suppresses defense response in the absence of pathogen challenge and is removed in response to induction | Increased response to DNA damage; Increased defense response to nematode; Increased histone H3 acetylation; Decreased defense response to pathogens; Decreased histone H3-K4 methylation; Decreased systemic acquired resistance; Increased regulation of transcription; Decreased hypersensitive response | Li, Xin, et al. "Identification and cloning of a negative regulator of systemic acquired resistance, SNI1, through a screen for suppressors of npr1-1." <i>Cell</i> 98.3 (1999): 329-339. |
| Solyc01g096390.2 | NRPE1 | AT2G40030 | 0.37 | DNA-directed RNA polymerase V subunit 1 | DNA-dependent RNA polymerase; Catalytic component of RNA polymerase V involved in RNA-directed DNA methylation-dependent silencing of endogenous repeated sequences; Essential component of siRNA production | Increased response to fungus; Increased DNA methylation; Increased posttranscriptional gene silencing; Increased transcription by RNA polymerase III | Pontier, Dominique, et al. "Reinforcement of silencing at transposons and highly repeated sequences requires the concerted action of two distinct RNA polymerases IV in Arabidopsis." <i>Genes & development</i> 19.17 (2005): 2030-2040. |
| Solyc03g025940.1 | N/a | AT3G48880 | 0.42 | F-box/LRR-repeat protein | Involved in endogenous messenger response to Gram-negative bacteria | Increased RNA signaling; Increased defense response to Gram-negative bacteria | Thieme, Christoph J., et al. "Endogenous Arabidopsis messenger RNAs transported to distant tissues." <i>Nature Plants</i> 1.4 (2015): 15025. |
| Solyc01g096290.2 | RPL40A | AT2G36170 | 0.28 | ubiquitin-60S ribosomal protein L40 | Involved in protein degradation via the proteasome; Linear polymer chains formed via attachment by the initiator Met-lead during cellular signaling | Increased modification-dependent protein catabolism; Increased protein ubiquitination; Increased translation; Increased defense response to bacteria | Ditt, Renata F., et al. "The Arabidopsis thaliana transcriptome in response to Agrobacteria tumefaciens." <i>Molecular plant-microbe interactions</i> 19.6 (2006): 665-681. |
| Solyc04g056280.2 | CDKC-1 | AT5G10270 | 0.26 | cyclin dependent kinase C-1 | Posttranscriptional modifier; Involved in protein phosphorylation; Involved in leaf growth and development; Involved in defense response to virus | Increased leaf development; Increased phosphorylation of RNA polymerase II C-terminal domain; Increased defense response to virus | Pischke, Melissa S., et al. "A transcriptome-based characterization of habituation in plant tissue culture." <i>Plant Physiology</i> 140.4 (2006): 1255-1278. |
| Solyc01g096320.2 | ATHB-12 | AT3G61890 | 1.31 | homeobox-leucine zipper protein ATHB-12 | Transcription activator that acts as growth regulators in response to drought | Increased development; Increased transcription; Increased response to abscisic acid; Increased response to virus; Increased response to drought and osmotic stress | Olsson, Anna, Peter Engström, and Eva Söderman. "The homeobox genes ATHB12 and ATHB7 encode potential regulators of growth in response to water deficit in Arabidopsis." <i>Plant molecular biology</i> 55.5 (2004): 663-677. |

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| Solyc06g062350.2 | RIN1 | AT5G22330 | 0.29 | ruvB-like protein 1 | Core component of the chromatin remodeling INO80 complex which is involved in transcriptional regulation, DNA replication, and DNA repair; Component of the NuA4 histone acetyltransferase complex involved in transcriptional activation of select genes | Increased box C/D snoRNP assembly; Increased cell differentiation; Increased chromatin remodeling; Increased flower development; Increased meristem development; Increased regulation of defense response to fungus; Increased regulation of transcription by RNA polymerase II | Heyndrickx, Ken S., and Klaas Vandepoele. "Systematic identification of functional plant modules through the integration of complementary data sources." <i>Plant physiology</i> 159.3 (2012): 884-901. |
| Solyc11g005130.1 | UBN1 | AT1G21610 | 0.30 | ubiuuclein-1 | Required for replication-independent chromatin assembly | Increased nucleosome organization; Increased regulation of gene silencing; Increased response to salt stress | N/a |
| Solyc05g012210.2 | AFP3 | AT3G29575 | 0.76 | ninja-family protein AFP3 | Acts as a negative regulator of abscisic acid response and stress responses | Decreased transcription; Increased signal transduction | de Torres-Zabala, Marta, et al. "Pseudomonas syringae pv. tomato hijacks the Arabidopsis abscisic acid signalling pathway to cause disease." <i>The EMBO journal</i> 26.5 (2007): 1434-1443. |
| Solyc05g047520.2 | HEN2 | AT2G06990 | 0.40 | DExH-box ATP-dependent RNA helicase DEXH10 | Involved in the degradation of a large number of non-coding nuclear exosome substrates; Involved in the maintenance of homeotic B and C gene expression in the reproductive whorl; Regulates floral organ spacing and identity | Increased maturation of 5.8S rRNA; Increased mRNA processing; Decreased posttranscriptional gene silencing; RNA catabolic process; Increased RNA metabolism; Increased floral organ development | Western, Tamara L., et al. "HUA ENHANCER2, a putative DEXH-box RNA helicase, maintains homeotic B and C gene expression in Arabidopsis." <i>Development</i> 129.7 (2002): 1569-1581. |
| Solyc09g065850.2 | AUX22 | AT1G15580 | 0.64 | auxin-induced protein AUX22 | Repressors of early auxin response genes at low auxin concentrations | Increased auxin-activated signaling; Increased regulation of transcription | Taniguchi, Masatoshi, et al. "Identification of gravitropic response indicator genes in Arabidopsis inflorescence stems." <i>Plant signaling & behavior</i> 9.9 (2014): e29570. |
| Solyc05g051790.2 | NRPB5A | AT3G22320 | 0.27 | DNA-directed RNA polymerases II and IV subunit 5A | Catalyzes the transcription of DNA into RNA; Component of RNA polymerase II which synthesizes mRNA precursors and many functional non-coding RNAs | Increased transcription by RNA polymerase I & II & III | Ream, Thomas S., et al. "Subunit compositions of the RNA-silencing enzymes Pol IV and Pol V reveal their origins as specialized forms of RNA polymerase II." <i>Molecular cell</i> 33.2 (2009): 192-203. |
| Solyc04g040170.1 | NRPE5A | AT3G57080 | 0.49 | DNA-directed RNA polymerase V subunit 5A | Catalyzes the transcription of DNA into RNA; Component of RNA polymerase II which synthesizes mRNA precursors and many functional non-coding RNAs | Increased transcription by RNA polymerase I & II & III | Ream, Thomas S., et al. "Subunit compositions of the RNA-silencing enzymes Pol IV and Pol V reveal their origins as specialized forms of RNA polymerase II." <i>Molecular cell</i> 33.2 (2009): 192-203. |
| Solyc07g049480.2 | CPSF73-I | AT1G61010 | 0.39 | cleavage and polyadenylation specificity factor subunit 3-I | Play sa key role in pre-mRNA 3'-end formation | Increased mRNA 3'-end processing by stem-loop binding and cleavage; Increased mRNA polyadenylation; Increased snRNA processing | Herr, Alan J., et al. "Defective RNA processing enhances RNA silencing and influences flowering of Arabidopsis." <i>Proceedings of the National Academy of Sciences</i> 103.41 (2006): 14994-15001. |
| Solyc03g007100.2 | CPSF160 | AT5G51660 | 0.34 | cleavage and polyadenylation specificity factor subunit 1 | Play sa key role in pre-mRNA 3'-end formation | Increased mRNA polyadenylation | Herr, Alan J., et al. "Defective RNA processing enhances RNA silencing and influences flowering of Arabidopsis." <i>Proceedings of the National Academy of Sciences</i> 103.41 (2006): 14994-15001. |
| Solyc02g078260.1 | NRPB2 | AT4G21710 | 0.37 | DNA-directed RNA polymerase II subunit 2 | Catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates; Contributes to the polymerase catalytic activity; Essential for the completion of mitosis in females | Increased production of miRNAs; Increased transcription by RNA polymerase II | Ream, Thomas S., et al. "Subunit compositions of the RNA-silencing enzymes Pol IV and Pol V reveal their origins as specialized forms of RNA polymerase II." <i>Molecular cell</i> 33.2 (2009): 192-203. |
| Solyc11g005600.1 | EIF2B | AT5G20920 | 0.28 | eukaryotic translation initiation factor 2 subunit beta | Functions in the early steps of protein synthesis; Binds to a 40S ribosomal subunit, followed by mRNA binding to form a 43S pre-initiation complex | Increased formation of cytoplasmic translation initiation complex; Increased formation of translation preinitiation complex | Ascencio-Ibáñez, José Trinidad, et al. "Global analysis of Arabidopsis gene expression uncovers a complex array of changes impacting pathogen response and cell cycle during geminivirus infection." <i>Plant physiology</i> 148.1 (2008): 436-454. |
| Solyc03g097320.2 | SIGA | AT1G64860 | -0.72 | RNA polymerase sigma factor sigA | Essential protein that regulates psaA gene expression; Modulates photosystem stoichiometry; Maintains a harmonious electron flow and photosynthetic efficiency | Decreased response to light stimulus; Decreased cellular response to redox state; Decreased DNA-templated transcription; Impaired photosystem stoichiometry adjustment | Hakimi, Mohamed-Ali, et al. "Evolutionary conservation of C-terminal domains of primary sigma70-type transcription factors between plants and bacteria." <i>Journal of Biological Chemistry</i> 275.13 (2000): 9215-9221. |
| Solyc05g032770.2 | AL4 | AT5G26210 | 0.53 | PHD finger protein ALFIN-LIKE 4 | Histone-binding component that specifically recognizes H3 tails trimethylated on Lys-4 | Increased chromatin organization; Increased regulation of transcription | Lee, Woo Yong, et al. "Arabidopsis ING and Alfin1-like protein families localize to the nucleus and bind to H3K4me3/2 via plant homeodomain fingers." <i>The Plant Journal</i> 58.3 (2009): 511-524. |
| Solyc12g005330.1 | RPL8A | AT2G18020 | 0.25 | 60S ribosomal protein L8-1 | Involved cytoplasmic translation | Increased cytoplasmic translation | Gordon, Sean P., et al. "Pattern formation during de novo assembly of the Arabidopsis shoot meristem." <i>Development</i> 134.19 (2007): 3539-3548. |
| Solyc12g008450.1 | N/a | AT2G40570 | 0.29 | tRNA A64-2'-O-ribosylphosphate transferase | Involved in charged-tRNA amino acid modification | Increased charged-tRNA amino acid modification | N/a |
| Solyc09g061340.1 | PCMP-E76 | AT2G13600 | 0.33 | pentatricopeptide repeat-containing protein At2g13600 | Involved in mitochondrial mRNA modification during sugar metabolism | Increased mitochondrial mRNA modification; Increased RNA modification; Increased sugar-mediated signaling pathway; Increased sugar metabolism | Zhu, Qiang, et al. "SLO2, a mitochondrial pentatricopeptide repeat protein affecting several RNA editing sites, is required for energy metabolism." <i>The Plant Journal</i> 71.5 (2012): 836-849. |

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| Solyc12g049410.1 | NUP107 | AT3G14120 | 0.40 | nuclear pore complex protein NUP107 | Involved in mRNA export from the nucleus by posttranscriptional tethering of RNA polymerase II; Involved in protein import into the nucleus | Increased mRNA transport from nucleus; Increased protein transport into nucleus | Parry, Geraint, et al. "The Arabidopsis SUPPRESSOR OF AUXIN RESISTANCE proteins are nucleoporins with an important role in hormone signaling and development." <i>The Plant Cell</i> 18.7 (2006): 1590-1603. |
| Solyc04g005690.2 | N/a | AT1G14650 | 0.38 | probable splicing factor 3A subunit 1 | Involved in mRNA splicing | Increased transcription by mRNA splicing | Dou, Kun, et al. "The PRP6-like splicing factor STA1 is involved in RNA-directed DNA methylation by facilitating the production of Pol V-dependent scaffold RNAs." <i>Nucleic acids research</i> 41.18 (2013): 8489-8502. |
| Solyc11g066920.1 | PCMP-H28 | AT4G21065 | -0.44 | pentatricopeptide repeat-containing protein At4g21065 | Involved in RNA modification | Decreased RNA modification | Cheng, Chia-Yi, et al. "Araport11: a complete reannotation of the Arabidopsis thaliana reference genome." <i>The Plant Journal</i> 89.4 (2017): 789-804. |
| Solyc03g098420.2 | PCMP-H37 | AT2G01510 | 0.35 | pentatricopeptide repeat-containing protein At2g01510 | Involved in RNA modification | Increased RNA modification | Cheng, Chia-Yi, et al. "Araport11: a complete reannotation of the Arabidopsis thaliana reference genome." <i>The Plant Journal</i> 89.4 (2017): 789-804. |
| Solyc05g007740.1 | PCMP-H25 | AT2G34370 | 0.33 | pentatricopeptide repeat-containing protein At2g34370, mitochondrial | Involved in RNA modification | Increased RNA modification | Guillaumot, Damien, et al. "Two interacting PPR proteins are major Arabidopsis editing factors in plastid and mitochondria." <i>Proceedings of the National Academy of Sciences</i> 114.33 (2017): 8877-8882. |
| Solyc01g099300.1 | MORC6 | AT1G19100 | 0.25 | protein MICRORCHIDIA 6 | Involved in RNA-directed DNA methylation during gene silencing; Regulates chromatin architecture/condensation to maintain gene silencing; Positive regulator of defense against oomycetes | Increased chromatin silencing; Increased fungal defense response; Increased DNA repair; Increased RNA-directed DNA methylation | Lorković, Zdravko J., et al. "Involvement of a GHKL ATPase in RNA-directed DNA methylation in Arabidopsis thaliana." <i>Current Biology</i> 22.10 (2012): 933-938. |
| Solyc10g074690.1 | PABN1 | AT5G51120 | 0.33 | polyadenylate-binding protein 1 | Involved in the 3'-end formation of mRNA precursors | Increased mRNA processing | Cheng, Chia-Yi, et al. "Araport11: a complete reannotation of the Arabidopsis thaliana reference genome." <i>The Plant Journal</i> 89.4 (2017): 789-804. |
| Solyc01g111020.2 | MRL1 | AT4G34830 | -0.29 | pentatricopeptide repeat-containing protein MRL1, chloroplastic | Regulator of the large subunit of RuBisCO; Involved in the processing and stabilization of the processed transcript | Decreased mRNA stabilization | Johnson, Xenie, et al. "MRL1, a conserved pentatricopeptide repeat protein, is required for stabilization of rbcL mRNA in Chlamydomonas and Arabidopsis." <i>The Plant Cell</i> 22.1 (2010): 234-248. |
| Solyc05g050200.1 | ERF1A | AT4G17500 | 0.25 | eukaryotic translation initiation factor 1A | Required for maximal rate of protein biosynthesis; Enhances ribosome dissociation into subunits and stabilizes the binding of the initiator Met-tRNA(I) to 40 S ribosomal subunits | Increased formation of translation preinitiation complex; Increased translational fidelity | Li, Jigang, et al. "A subgroup of MYB transcription factor genes undergoes highly conserved alternative splicing in Arabidopsis and rice." <i>Journal of experimental botany</i> 57.6 (2006): 1263-1273. |
| Solyc08g082880.2 | cox1101 | N/a | 0.29 | rsm22-cox11 tandem protein 2, mitochondrial | Involved in mitochondrion-encoded protein synthesis; Exerts its effect at some terminal stage of cytochrome c oxidase synthesis, probably by being involved in the insertion of the copper B into subunit I | Increased mitochondrial respiratory chain complex IV assembly; Increased mitochondrial translation | Khalimonchuk, Oleh, et al. "Sequential processing of a mitochondrial tandem protein: insights into protein import in Schizosaccharomyces pombe." <i>Eukaryotic cell</i> 5.7 (2006): 997-1006. |
| Solyc03g123640.2 | APUM23 | AT1G72320 | 0.26 | pumilio homolog 23 | Sequence-specific RNA-binding protein that regulates translation and mRNA stability by binding the 3'-UTR of target mRNAs | Increased regulation of translation | Francischini, Carlos W., and Ronaldo B. Quaggio. "Molecular characterization of Arabidopsis thaliana PUF proteins—binding specificity and target candidates." <i>The FEBS journal</i> 276.19 (2009): 5456-5470. |
| Solyc06g076340.2 | APUM2 | AT2G29190 | 0.37 | pumilio homolog 2 | Sequence-specific RNA-binding protein that regulates translation and mRNA stability by binding the 3'-UTR of target mRNAs | Increased regulation of translation | Francischini, Carlos W., and Ronaldo B. Quaggio. "Molecular characterization of Arabidopsis thaliana PUF proteins—binding specificity and target candidates." <i>The FEBS journal</i> 276.19 (2009): 5456-5470. |
| Solyc01g087690.1 | SIGD | AT5G13730 | -1.06 | RNA polymerase sigma factor sigD, chloroplastic | Sigma factors are initiation factors that promote the attachment of plastid-encoded RNA polymerase; Regulates transcription of the ndhF gene which codes for a subunit of the plastid NDH [NAD(P)H dehydrogenase] complex | Decreased response to light stimulus; Decreased transcription; Decreased regulation of RNA biosynthesis | Lerbs-Mache, Silva. "Function of plastid sigma factors in higher plants: regulation of gene expression or just preservation of constitutive transcription?" <i>Plant molecular biology</i> 76.3-5 (2011): 235-249. |
| Solyc04g074910.2 | RPS21B | AT3G53890 | 0.36 | 40S ribosomal protein S21-1 | Structural constituent of the ribosome | Increased chloroplast organization; Increased endonucleolytic cleavage to generate mature 3'-end of SSU-rRNA from (SSU-rRNA, 5.8S rRNA, LSU-rRNA); Increased translation | Wang, Ruijuan, et al. "Balance between cytosolic and chloroplast translation affects leaf variegation." <i>Plant physiology</i> 176.1 (2018): 804-818. |
| Solyc09g082520.2 | RPS3AA | AT3G04840 | 0.47 | 40S ribosomal protein S3a-1 | Structural constituent of the ribosome | Increased translation | Chen, I-Peng, et al. "The transcriptional response of Arabidopsis to genotoxic stress—a high-density colony array study (HDCA)." <i>The Plant Journal</i> 35.6 (2003): 771-786. |

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| Solyc05g005780.2 | N/a | AT1G60070 | 0.37 | AP-1 complex subunit gamma-2 | Subunit of clathrin-associated adaptor protein complex 1 that plays a role in protein sorting at the trans-Golgi network and early endosomes | Increased intracellular protein transport; Increased vesicle-mediated transport | Feng, Chong, et al. "Arabidopsis adaptor protein 1G is critical for pollen development." <i>Journal of integrative plant biology</i> 59.9 (2017): 594-599. |
| Solyc09g075640.1 | FRS11 | AT1G10240 | 0.25 | FAR1-RELATED SEQUENCE 11 | Transcription activator involved in regulating light control of development | Increased regulation of transcription | Joly-Lopez, Zoé, et al. "Abiotic stress phenotypes are associated with conserved genes derived from transposable elements." <i>Frontiers in Plant Science</i> 8 (2017): 2027. |
| Solyc08g007270.2 | HAT4 | AT4G16780 | 0.34 | homeobox-leucine zipper protein HAT4 | Negative regulator of cell elongation and proliferation; Mediator of the red/far-red light effects on leaf cell expansion under shade; Negatively regulates its own expression | Increased lateral root formation; Decreased regulation of transcription; Increased red light phototransduction; Increased response to auxin and cytokinin; Increased root development; Increased secondary thickening; Increased shade avoidance; Increased shoot system morphogenesis | Schena, Mark, Alan M. Lloyd, and Ronald W. Davis. "The HAT4 gene of Arabidopsis encodes a developmental regulator." <i>Genes & development</i> 7.3 (1993): 367-379. |
| Solyc08g007530.2 | AHL1 | AT4G12080 | 0.90 | AT-hook motif nuclear-localized protein 1 | Specifically binds AT-rich DNA sequences related to the nuclear matrix attachment regions; Functions in the positioning of chromatin fibers within the nucleus | Increased transcription; Increased cellular turnover | Fujimoto, Satoru, et al. "Identification of a novel plant MAR DNA binding protein localized on chromosomal surfaces." <i>Plant molecular biology</i> 56.2 (2004): 225-239. |
| Solyc08g076100.2 | BZIP16 | AT2G35530 | 0.33 | bZIP transcription factor 16 | Transcriptional activator; G-box and G-box-like motifs are cis-acting elements defined in promoters of certain plant genes which are regulated by such diverse stimuli as light-induction or hormone control | Increased transcription; Increased intercellular signaling; increased photosynthesis; Increased plant growth | Shen, Huaishun, Kaiming Cao, and Xiping Wang. "AtbZIP16 and AtbZIP68, two new members of GBFs, can interact with other G group bZIPs in Arabidopsis thaliana." <i>BMB reports</i> 41.2 (2008): 132-138. |
| Solyc05g055350.2 | TRZ2 | AT2G04530 | -0.48 | tRNase Z TRZ2, chloroplastic | Zinc phosphodiesterase which displays tRNA 3'-processing endonuclease activity; Involved in tRNA maturation by removing a 3'-trailer from precursor tRNA | Decreased tRNA 3'-end processing | Schiffer, Steffen, Sylvia Rösch, and Anita Marchfelder. "Assigning a function to a conserved group of proteins: the tRNA 3'-processing enzymes." <i>The EMBO journal</i> 21.11 (2002): 2769-2777. |