

Supplemental Table 1. Genes with at least a 5-fold increased RNA level in *tdt-1* mutants

Entries shown in bold were verified by real-time RT-PCR. Relative expression levels determined by this method are shown in parenthesis.

Metabolism, Biosynthesis, Catabolism

Gene name	Fold change	Functional or molecular role
AT5G50600	11.95	short-chain dehydrogenase/reductase (SDR) family protein similar to sterol-binding dehydrogenase steroleosin
AT3G49160	7.53	pyruvate kinase family protein
AT1G28030	6.46	2OG-Fe(II) oxygenase family protein, glucosinolate biosynthesis
AT1G20120	10.77	extracellular lipase, family II EXL3, putative, Anther-specific proline-rich protein APG precursor, lipid metabolism
AT5G11920	5.23	glycosyl hydrolase family 32 protein similar to fructan 1-exohydrolase, carbohydrate metabolism
AT4G15210	11.47	beta-amylase (BMY1) / 1,4-alpha-D-glucan maltohydrolase identical to Beta-amylase, starch catabolism
AT1G22210	5.15	trehalose-6-phosphate phosphatase, putative similar to AtTPPB, trehalose biosynthesis
AT1G56600	5.27	galactinol synthase, carbohydrate biosynthesis
AT2G47180	9.33	galactinol synthase, carbohydrate biosynthesis
AT3G19270	7.11	cytochrome P450 family protein similar to Cytochrome P450, ABA catabolism
AT5G04380	19.12	S-adenosyl-L-methionine:carboxyl methyltransferase family

Signaling and Responses

AT3G05640	5.86	protein phosphatase 2C
AT1G21550	5.23	Putative calcium-binding protein,
AT2G31082	5.07	CLE5, putative ligand homologous to CLAVATA3
AT5G59220	5.11	protein phosphatase 2C, ABA induced
AT5G24080	5.35	contains protein kinase domain
AT4G10250	48.23	22.0 kDa ER small heat shock protein (HSP22.0-ER), response to heat
AT2G33380	16.14	calcium-binding RD20 protein (RD20) induced by abscisic acid and during dehydration, contains EF-hand domain
AT1G12010	8.41	1-aminocyclopropane-1-carboxylate oxidase, putative / ACC oxidase, ethylene signaling
AT2G42540	10.56	cold-responsive protein / identical to cold-regulated protein cor15a; Late embryogenesis abundant protein
AT5G14920	5.97	gibberellin-regulated family protein similar to SP P46689 Gibberellin-regulated protein 1 precursor

Signaling and Responses (continued)

Gene name	Fold change	Functional or molecular role
AT2G22860	8.93	phytosulfokines 2 (PSK2) peptide growth factor precursor
AT3G09640	8.84	L-ascorbate peroxidase 1b (APX1b), oxidative stress response
AT5G58400	8.25	peroxidase, putative similar to peroxidase [<i>Nicotiana tabacum</i>], oxidative stress response
AT1G68850	6.05	peroxidase, putative identical to peroxidase ATP23a, response to oxidative stress
AT4G23170	4.73	protein kinase; similar to receptor-like protein kinases 4 and 5, response to salicylic acid
AT5G66400	6.55	dehydrin (RAB18), response to ABA, cold, and water stress

Transport

AT5G13580	5.29	ABC transporter family protein
AT3G55090	6.83	ABC transporter family protein ATP-binding cassette-sub-family G-member 2
AT5G59310	14.21	lipid transfer protein 4 (LTP4), and responsive to ABA
AT2G37870	10.49	protease inhibitor/seed storage/lipid transfer protein (LTP) family
AT4G33550	5.79	protease inhibitor/seed storage/lipid transfer protein (LTP) family
AT5G01870	9.09	lipid transfer protein, putative similar to lipid transfer protein 6 from <i>Arabidopsis thaliana</i>

Embryo Development

AT2G41260	5.28	glycine-rich protein, late embryogenesis abundant protein (M17)
AT1G52690	10.71 (227)	late embryogenesis abundant protein, similar to Late embryogenesis abundant protein 76 (LEA 76)
AT2G42560	5.37	late embryogenesis abundant domain-containing protein
AT1G04560	5.31	AWPM-19-like membrane family protein, similar to late embryogenesis abundant protein (LEA)
AT4G36600	15.21	late embryogenesis abundant domain-containing protein
AT5G06760	6.49 (61)	late embryogenesis abundant group 1 domain-containing protein
AT5G44310	7.95	late embryogenesis abundant

Transcription

AT2G40340	5.08	AP2 domain-containing transcription factor, Similar to DRE2B
AT3G63350	7.08	heat shock transcription factor family protein contains HSF-type DNA-binding domain
AT2G24740	6.57	SET domain-containing protein (SUVH8) identical to SUVH8

Transcription (continued)

Gene name	Fold change	Functional or molecular role
AT4G25530	5.26	homeodomain protein (FWA) identical to Homeobox protein FWA, flower development
AT3G24500	5.04	ethylene-responsive transcriptional coactivator
AT3G01600	7.17	no apical meristem (NAM) family protein
AT2G2615	10.80	heat shock transcription factor family protein

Protein Folding and Heat Shock Response

AT1G71000	12.20	DNAJ heat shock N-terminal domain-containing protein
AT5G48570	9.17	peptidyl-prolyl cis-trans isomerase, putative / FK506-binding protein, putative similar to rof1
AT5G12030	13.27	17.7 kDa class II heat shock protein 17.6A
AT2G32120	8.00 (48.7)	heat shock protein 70 family protein
AT1G52560	28.21 (291)	26.5 kDa class I small heat shock protein-like (HSP26.5-P)
AT1G53540	11.31	17.6 kDa class I small heat shock protein (HSP17.6C-CI) (AA 1-156) identical to (17.6 kDa class I heat shock protein (HSP 17.6)
AT1G54050	5.31	17.4 kDa class III heat shock protein (HSP17.4-CIII)
AT1G59860	10.44	17.6 kDa class I heat shock protein (HSP17.6A-CI)
AT3G46230	9.70 (98.3)	17.4 kDa class I heat shock protein (HSP17.4-CI)
AT4G25200	12.43	23.6 kDa mitochondrial small heat shock protein (HSP23.6-M)
AT4G27670	28.78	25.3 kDa small heat shock protein, chloroplast precursor (HSP25.3-P) I
AT5G12020	14.32	17.6 kDa class II heat shock protein (HSP17.6-CII)
AT5G51440	7.15 (44.7)	23.5 kDa mitochondrial small heat shock protein (HSP23.5-M)
AT5G59720	13.18	18.1 kDa class I heat shock protein (HSP 18.2)
AT1G07400	11.45	17.8 kDa class I heat shock protein (HSP17.8-CI)
AT2G29500	10.10	17.6 kDa class I small heat shock protein (HSP17.6B-CI)

Electron Transport

AT1G65340	8.01	cytochrome P450, putative similar to cytochrome P450 GI:4688670 from [<i>Catharanthus roseus</i>]
AT3G26280	6.21	cytochrome P450 monooxygenase (CYP71B4)
AT5G02900	5.92	cytochrome P450, putative cytochrome P450 homolog
AT4G39500	5.95	cytochrome P450, (CYP96A11)

Proteolysis, proteolysis-related

Gene name	Fold change	Functional or molecular role
AT1G20160	9.45	subtilase family protein similar to subtilisin-type protease precursor
AT5G08260	6.34	serine carboxypeptidase S10 family protein similar to Serine carboxypeptidase II chains A and B
AT5G24820	27.10	aspartyl protease family protein low similarity to CND41, chloroplast nucleoid DNA binding protein
AT5G50260	7.60	cysteine proteinase, putative similar to cysteine endopeptidase precursor CysEP
AT3G60020	6.17	E3 ubiquitin ligase SCF complex subunit SKP1/ASK1 (At5)
AT3G22700	5.76	F-box family protein contains Pfam:PF00646 F-box domain
AT2G17690	6.86	F-box family protein contains F-box domain Pfam:PF00646
AT3G17400	6.95	F-box family protein
AT3G60010	6.13	E3 ubiquitin ligase SCF complex subunit SKP1/ASK1 (At13),

Other

AT1G63950	6.14	heavy metal associated domain-containing protein
AT5G09980	5.11	PROPEP4, innate immunity
AT1G71770	5.89	polyadenylate-binding protein 5 (PABP5)
AT3G19350	23.90	polyadenylate-binding protein-related (PABP-related)
AT2G18720	5.65	eukaryotic translation initiation factor 2 subunit 3, putative / eIF2S3, putative / eIF-2-gamma, putative
AT4G23600	18.40	coronatine-responsive tyrosine aminotransferase. Wounding response
AT1G24520	5.41	BCP1, active in diploid tapetum and haploid microspores, required for pollen fertility
AT3G28570	9.55	AAA-type ATPase family protein
AT5G15250	33.7	AtFtsH6, degrades light-harvesting complex II during high-light acclimation and senescence
AT5G54190	5.46	protochlorophyllide reductase A (PORA)
AT5G53680	5.93	RNA recognition motif (RRM)-containing protein
AT3G03240	5.00	esterase/lipase/thioesterase family protein
AT2G18260	7.34	Syntaxin 111, KNOLLE-related protein
AT1G53080	6.20	legume lectin family protein
AT2G28490	6.10	cupin family protein similar to preproMP27-MP32 [Cucurbita]
AT3G43880	6.05	hypothetical protein p97 homologous protein, <i>Canis familiaris</i> ,
AT4G09500	5.41	glycosyltransferase family protein
AT2G37770	7.98	aldo/keto reductase family protein similar to chalcone reductase
AT4G17470	5.53	palmitoyl protein thioesterase
AT4G18900	9.34	transducin family protein, 5 WD-40 repeats
AT4G22390	5.33	F-box family protein-related

Other (continued)

Gene name	Fold change	Functional or molecular role
AT5G41830	5.46	F-box family protein-related contains a novel domain similar to F-box that is shared among other Arabidopsis proteins
AT4G14365	5.21	zinc finger (C3HC4-type RING finger) family protein / ankyrin repeat family protein
AT1G19610	8.44	plant defensin-fusion protein, putative (PDF1.4) plant defensin protein family member
AT1G65150	5.45	meprin and TRAF homology domain-containing protein
AT5G40000	12.37	AAA-type ATPase family protein BCS1 nuclear gene encoding mitochondrial protein
AT1G72660	8.71	developmentally regulated GTP-binding protein, strong similarity to developmentally regulated GTP binding protein (DRG1)
AT3G28580	7.14	AAA-type ATPase family protein
AT1G30660	5.40	toprim domain-containing protein

Unknown

AT1G68350	7.32	expressed protein
AT2G40680	6.12	expressed protein
AT2G28570	5.47	expressed protein
AT3G62990	6.40	expressed protein
AT4G05370	5.57	hypothetical protein
AT4G01985	5.00	expressed protein
AT1G20070	5.09	expressed protein
AT1G24380	16.12	hypothetical protein
AT1G48720	24.03	hypothetical protein
AT1G59920	7.59	hypothetical protein
AT1G61255	6.34	expressed protein
AT1G65090	7.94	expressed protein
AT1G66060	9.49	hypothetical protein of unknown function (DUF577)
AT1G70440	8.92	hypothetical protein
AT1G53480	6.21	expressed protein
AT2G04600	5.41	hypothetical protein
AT2G23110	9.50	expressed protein
AT2G45840	14.57	expressed protein
AT3G10750	7.07	hypothetical protein
AT3G13130	6.17	hypothetical protein
AT3G13229	4.60	hypothetical protein
AT3G15310	14.45	expressed protein
AT3G29790	6.84	hypothetical protein
AT3G42725	5.89	expressed protein
AT3G61090	7.02	expressed protein of unknown function, DUF537
AT4G13680	7.00	hypothetical protein of unknown function (DUF295)
AT4G16460	6.83	hypothetical protein

Unknown (continued)

Gene name	Fold change	Functional or molecular role
AT5G05220	7.44	expressed protein
AT5G07330	14.26	expressed protein
AT5G40800	10.23	hypothetical protein
AT5G53710	12.39	expressed protein
AT5G60350	5.22	hypothetical protein
AT5G63350	8.89	expressed protein
AT5G66780	6.89	expressed protein
AT3G56220	5.06	expressed protein
AT1G19530	5.54	expressed protein, N-terminal myristoylated
AT5G02210	5.69	expressed protein, N-terminal myristoylated