

Supplemental Table 1. List of the root-related microarray experiments used for gene clustering. Data derive from the NASCarrays database.

St.Clair_1-8_311_Col-0_0.02%-silwet_Rep2_ATH1.CEL
 Birnbaum_1-13_StageIII-2_Rep2_ATH1.CEL
 Birnbaum_1-14_StageIII-3_Rep3_ATH1.CEL
 Birnbaum_1-15_StageIII-4_Rep4_ATH1.CEL
 Kroj_1-15_Col-0-5h_Rep2_ATH1.CEL
 Kroj_1-19_wrky11-5h_Rep2_ATH1.CEL
 Ulker_2-7_WT-Col-0-L-Pst-DC3000_Rep1_ATH1.CEL
 Sakakibara_1-3_TZ-treatment-wild_Rep3_ATH1.CEL
 Sakakibara_3-4_AS19-ox1_Rep1_ATH1.CEL
 Sakakibara_3-5_AS19-ox2_Rep2_ATH1.CEL
 Mitra_1-8_Mock-9h-C_Rep2_ATH1.CEL
 Underwood_2-4_HopAO1-mock-inocu_Rep1_ATH1.CEL
 Underwood_2-8_HopAO1-C378S-mock-inocu_Rep2_ATH1.CEL
 Underwood_2-13_HopAO1-hrpA-inocu_Rep1_ATH1.CEL
 Underwood_3-4_Col0-PstDC3000-deltaHopAO1-inocu_Rep1_ATH1.CEL
 Underwood_3-8_Col0-H2O-mock-inocu_Rep2_ATH1.CEL
 Sakakibara_4-9_ZT10-Wildtype_Rep3_ATH1.CEL
 Sakakibara_4-15_ZT12-Wildtype_Rep3_ATH1.CEL
 Sakakibara_4-18_ZT12-d975_Rep3_ATH1.CEL
 Sakakibara_4-20_ZT14-Wildtype_Rep2_ATH1.CEL
 Sakakibara_4-21_ZT14-Wildtype_Rep3_ATH1.CEL
 Holt_1-1_HAP5-triple-mutant_Rep1_ATH1.CEL
 Robertson_1-17_Nicotinamide-treated-65hr_Rep1_ATH1_2.CEL
 Robertson_1-18_Nicotinamide-treated-69hr_Rep1_ATH1.CEL
 Robertson_1-19_Nicotinamide-treated-73hr_Rep1_ATH1.CEL
 Robertson_1-25_toc1-1-49hr_Rep1_ATH1.CEL
 Schuller_1-5_null-mutant_Rep2_ATH1.CEL
 Schuller_1-8_amino-acid-substitution_Rep2_ATH1.CEL
 Robertson_1-53_Nicotinamide-treated-65hr_Rep2_ATH1_2.CEL
 Spencer-Jones_1-8_Dehydrated-leaf_Rep2_ATH1.CEL
 Spencer-Jones_1-9_Dehydrated-leaf_Rep3_ATH1.CEL
 Spencer-Jones_1-19_H.schachtii-dehydrated-leaf_Rep1_ATH1.CEL
 Nimmo_1-12_Roots-33hr-AJ1ATH1R12_Rep1_ATH1.CEL
 Nimmo_1-32_Shoots-42hr-AJ1ATH1S15_Rep1_ATH1.CEL
 Jones_A1-WT-Rep1.CEL
 Jones_A2-WT-Rep2.CEL
 ATGE_8_B.CEL
 ATGE_27_A.CEL
 ATGE_28_A2.CEL
 ATGE_28_B2.CEL
 ATGE_28_C2.CEL
 ATGE_37_A.CEL
 ATGE_45_A.CEL
 ATGE_45_C.CEL
 ATGE_46_A.CEL

ATGE_52_C.CEL
ATGE_58_C.CEL
ATGE_59_A.CEL
ATGE_59_C.CEL
ATGE_77_D.CEL
ATGE_77_E.CEL
ATGE_77_F.CEL
ATGE_78_E.CEL
ATGE_78_F.CEL
Col-0_0_1.CEL
Col-0_0_2.CEL
Col-0_3_1.CEL

Supplemental Table 2. Positive genes used for the search for expression signatures among publically available microarray hybridizations.

Locus	Name
At1g54970	PRP1 (RHS7)
At3g62680	PRP3
At3G54590	HRGP1
At4g25820	XTH14
At1g12040	LRX1
At1g62440	LRX2
At1g12560	EXP7
At1g62980	EXP18
At1g05990	RHS1
At1g34760	RHS5 (GRF11)
At1g63450	RHS8
At1g69240	RHS9
At1g70460	RHS10
At2g45890	ROPGEF4 (RHS11)
At3g10710	RHS12
At4g02270	RHS13
At4g22080	RHS14
At4g25220	RHS15
At4g29180	RHS16
At4g38390	RHS17
At5g22410	RHS18
At5g67400	RHS19
At1g75840	ROP4
At4g35020	ROP6
At1g20090	ROP2
At4g23640	TRH1
At1g66470	RHD6
At1g27740	RSL4
At1g24180	IAR4
At4g33880	RSL2
At5g51060	RHD2
At5g41315	GL3
At2g20520	FLA6
At4g25820	XTH14
At4g28850	XTH26
At3g12110	ACT11
At2g26420	PIP5K3
At1g48380	RHL1
At5g49270	SHV2/COBL9
At4g34580	COW1/CSLD3

At3g60330	AHA7
At4g26320	AGP13
At3g57690	AGP23
At5g43230	Unknown protein
At2g03720	MRH6
At3g54870	MRH2
At4g18640	MRH1
At4g26690	MRH5/SHV3
At5g65090	MRH3/DER4
At3g43960	putative cysteine proteinase
At4g15290	CSLB5
At3g01730	Unknown
At5g51310	2OG family protein
At1g24620	EF hand family protein
At5g56540	AGP14
At5g60660	PIP2;4

Supplemental Table 3. Post-translational modifications in the root hair proteome.

Protoplast population	Carbamidomethylation	Oxidation	C-Term. (Methylation)	Phosphorylation (S,T,Y)	Acetylation*
EXP7	984	1919	445	445	954
Bio1	731	1282	308	295	609
Bio2	526	1209	204	164	446
Non-GFP	4239	6672	2166	2175	4690
Bio1	3515	5218	1257	1441	3197
Bio2	2952	5225	1157	1036	2428
Total	4390	6972	2439	2519	5190

*Acetylation includes acetylation at lysine, N-terminal acetylated peptides and protein N-terminus acetylation

Supplemental Table 4. Root hair specific proteins and expression levels of their corresponding transcripts

Gene	Description	EXP7 RPKM	Non-GFP
At1g05240	Peroxidase superfamily protein	710.44	1.24
At1g13930	Involved in response to salt stress	13.31	2.63
At1g24620	EF-hand calcium-binding protein family	18.44	0.10
At1g30870	Peroxidase superfamily protein	247.02	0.74
At1g49360	F-box family protein	1.31	1.82
At1g49950	TRB1 (TELOMERE REPEAT BINDING FACTOR 1)	27.28	23.03
At1g56550	RXGT1 (RHAMNOGALACTURONAN SPECIFIC XYLOSELTRANSFERASE 1)	39.18	4.27
At1g59910	Actin-binding FH2 (formin homology 2) family protein	33.97	25.11
At1g65610	KOR2 (KORRIGAN 2)	103.67	7.57
At2g18250	ATCOAD (4-PHOSPHOPANTETHEINE ADENYLYLTRANSFERASE)	10.47	14.44
At2g20770	GCL2 (GCR2-LIKE 2)	8.99	9.86
At2g28830	PUB12 (PLANT U-BOX 12)	0.52	1.24
At2g30930	Unknown protein	185.87	25.51
At3g03000	Calmodulin like protein	18.41	2.02
At3g07570	Cytochrome b561/ferric reductase	39.80	13.10
At3g19720	ARC5 (ACCUMULATION AND REPLICATION OF CHLOROPLAST 5)	4.73	12.82
At3g19910	RING/U-box superfamily protein	46.95	51.36
At3g20550	DDL (DAWDLE)	5.95	13.98
At3g22470	Pentatricopeptide repeat (PPR) superfamily protein	0.75	1.57
At3g28770	Protein of unknown function	0.03	0.00
At3g43960	Putative cysteine proteinase	106.68	6.31
At3g49055	Unknown protein	2.75	3.71
At3g57300	INO80 (INO80 ORTHOLOG)	9.09	16.81
At4g02270	RHS13 (ROOT HAIR SPECIFIC 13)	352.06	0.87
At4g10730	Protein kinase superfamily protein	19.76	28.90
At5g11440	CID5 (CTC-INTERACTING DOMAIN 5)	63.37	0.34
At5g13320	GDG1 (GH3-LIKE DEFENSE GENE 1)	0.82	0.24
At5g17070	Unknown protein	12.85	21.35
At5g17820	Peroxidase superfamily protein	878.79	9.81
At5g17910	Unknown protein	22.10	15.42
At5g24880	Unknown protein	25.14	0.09
At5g35170	Adenylate kinase family protein	1.61	4.72
At5g36970	NHL25 (NDR1/HIN1-LIKE 25)	2.33	0.99

Root hair-specific proteins were identified either in two independent runs or by at least two peptides in one of the experiments in EXP7 protoplast, but no peptide was identified in non-GFP protoplasts.

Supplemental Table 5. Differentially expressed proteins in EXP7 cells.

Locus	Description	EXP7/non-GFP
AT1G05320	unknown	8.53
AT1G12150	unknown	6.29
AT1G13020	eukaryotic translation initiation factor, putative (EIF4B5)	5.67
AT1G20970	unknown	4.80
AT1G22450	COX6B (CYTOCHROME C OXIDASE 6B)	6.47
AT1G30900	vacuolar sorting receptor, putative	5.61
AT1G33800	unknown protein	9.86
AT1G54410	dehydrin family protein	5.53
AT1G58270	ZW9	18.03
AT1G67330	unknown protein	5.53
AT1G70790	C2 domain-containing protein	7.38
AT1G76180	ERD14 (EARLY RESPONSE TO DEHYDRATION 14)	5.35
AT1G77750	protein S13, putative	4.54
AT1G79340	AtMC4 (metacaspase 4)	5.23
AT1G80930	MIF4G domain-containing protein / MA3 domain-containing protein	6.97
AT2G01540	C2 domain-containing protein	5.01
AT2G38580	unknown protein	19.18
AT2G41100	TCH3 (TOUCH 3)	5.41
AT2G42680	MBF1A (MULTIPROTEIN BRIDGING FACTOR 1A)	11.72
AT2G45750	dehydration-responsive family protein	40.38
AT2G47540	pollen Ole e 1 allergen and extensin family protein	5.86
AT3G01190	peroxidase 27 (PER27) (P27) (PRXR7)	5.90
AT3G11950	prenyltransferase/ zinc ion binding	27.80
AT3G19390	cysteine proteinase, putative / thiol protease, putative	14.87
AT3G28230	unknown	21.11
AT3G54850	PUB14; ubiquitin-protein ligase	4.41
AT3G58680	MBF1B (MULTIPROTEIN BRIDGING FACTOR 1B)	11.95
AT4G09990	unknown protein	10.11
AT4G17730	SYP23 (SYNTAXIN OF PLANTS 23); SNAP receptor	6.48
AT4G24770	RBP31 (31-KDA RNA BINDING PROTEIN)	13.79
AT4G38680	GRP2 (GLYCINE RICH PROTEIN 2)	5.49
AT5G05190	unknown protein	8.70
AT5G25350	EBF2 (EIN3-BINDING F BOX PROTEIN 2)	7.23
AT5G43460	lesion inducing protein-related	4.51
AT5G46860	VAM3; SNAP receptor	6.48
AT5G49270	SHV2 (SHAVEN 2)	36.95
AT5G54650	Fh5 (FORMIN HOMOLOG5)	5.70
ATCG00490	large subunit of RUBISCO.	4.47
AT1G04170	EIF2 GAMMA	0.08
AT1G09620	ATP binding / aminoacyl-tRNA ligase/ leucine-tRNA ligase/ nucleotide binding	0.16
AT1G14210	ribonuclease T2 family protein	0.12

AT1G14610	TWN2 (TWIN 2)	0.12
AT1G15750	TPL (TOPLESS) transcription repressor	0.06
AT1G18070	EF-1-alpha-related GTP-binding protein, putative	0.07
AT1G20960	emb1507 (embryo defective 1507)	0.04
AT1G29900	CARB (CARBAMOYL PHOSPHATE SYNTHETASE B)	0.14
AT1G31230	AK-HSDH I (ASPARTATE KINASE-HOMOSERINE DEHYDROGENASE I)	0.04
AT1G34430	EMB3003 (embryo defective 3003)	0.16
AT1G50200	ALATS (ALANYL-TRNA SYNTHETASE)	0.16
AT1G50480	THFS (10-FORMYLTETRAHYDROFOLATE SYNTHETASE)	0.10
AT1G66530	arginyl-tRNA synthetase, putative / arginine--tRNA ligase, putative	0.12
AT1G76400	ribophorin I family protein	0.15
AT1G79280	NUA (NUCLEAR PORE ANCHOR)	0.03
AT1G80460	NHO1 (nonhost resistance to P. s. phaseolicola 1)	0.15
AT2G14170	ALDH6B2; 3-chloroallyl aldehyde dehydrogenase/ methylmalonate-semialdehyde dehydrogenase (acylating)/ oxidoreductase	0.10
AT2G29450	ATGSTU5 (ARABIDOPSIS THALIANA GLUTATHIONE S-TRANSFERASE TAU 5)	0.14
AT2G30110	ATUBA1; ubiquitin activating enzyme/ ubiquitin-protein ligase	0.08
AT2G32730	26S proteasome regulatory subunit, putative	0.13
AT2G38750	ANNAT4 (ANNEXIN ARABIDOPSIS 4)	0.11
AT2G42910	ribose-phosphate pyrophosphokinase 4 / phosphoribosyl diphosphate synthetase 4 (PRS4)	0.11
AT3G04600	tRNA synthetase class I (W and Y) family protein	0.16
AT3G07100	protein transport protein Sec24, putative	0.09
AT3G09300	ORP3B (OSBP(OXYSTEROL BINDING PROTEIN)-RELATED PROTEIN 3B)	0.16
AT3G09940	MDHAR (MONODEHYDROASCORBATE REDUCTASE)	0.08
AT3G11710	ATKRS-1 (ARABIDOPSIS THALIANA LYSYL-TRNA SYNTHETASE 1)	0.17
AT3G14990	4-methyl-5(b-hydroxyethyl)-thiazole monophosphate biosynthesis protein, putative	0.09
AT3G16830	TPR2 (TOPLESS-RELATED 2)	0.13
AT3G24170	ATGR1 (glutathione-disulfide reductase)	0.15
AT3G43300	ATMIN7 (ARABIDOPSIS THALIANA HOPM INTERACTOR 7)	0.10
AT3G60190	ADL1E (ARABIDOPSIS DYNAMIN-LIKE 1E)	0.12
AT3G66654	peptidyl-prolyl cis-trans isomerase cyclophilin-type family protein	0.12
AT4G02570	ATCUL1 (ARABIDOPSIS THALIANA CULLIN 1)	0.14
AT4G10320	isoleucyl-tRNA synthetase, putative / isoleucine--tRNA ligase, putative	0.10
AT4G18330	eukaryotic translation initiation factor 2 subunit 3, putative / eIF2S3, putative / eIF-2-gamma, putative	0.16

AT4G20850	TPP2 (TRIPEPTIDYL PEPTIDASE II)	0.09
AT4G24620	PGI1 (PHOSPHOGLUCOSE ISOMERASE 1)	0.16
AT4G29690	type I phosphodiesterase/nucleotide pyrophosphatase family protein	0.11
AT4G31180	aspartyl-tRNA synthetase, putative / aspartate-- tRNA ligase, putative	0.10
AT4G32520	SHM3 (SERINE HYDROXYMETHYLTRANSFERASE 3)	0.08
AT4G33090	APM1 (AMINOPEPTIDASE M1)	0.17
AT4G37870	PCK1 (PHOSPHOENOLPYRUVATE CARBOXYKINASE 1)	0.04
AT5G03160	ATP58IPK (ARABIDOPSIS HOMOLOG OF MAMALLIAN P58IPK)	0.09
AT5G04590	SIR; sulfite reductase (ferredoxin)/ sulfite reductase	0.15
AT5G06460	ATUBA2; ubiquitin activating enzyme/ ubiquitin- protein ligase	0.04
AT5G08180	ribosomal protein L7Ae/L30e/S12e/Gadd45 family protein	0.10
AT5G14800	P5CR (PYRROLINE-5- CARBOXYLATE (P5C) REDUCTASE)	0.13
AT5G15540	EMB2773 (EMBRYO DEFECTIVE 2773)	0.15
AT5G23830	MD-2-related lipid recognition domain-containing protein / ML domain-containing protein	0.12
AT5G28740	transcription-coupled DNA repair protein-related	0.12
AT5G44090	calcium-binding EF hand family protein, putative / protein phosphatase 2A 62 kDa B'' regulatory subunit, putative	0.11
AT5G60160	aspartyl aminopeptidase, putative	0.08
AT5G61240	protein binding	0.14
AT5G62530	ALDH12A1; 1-pyrroline-5-carboxylate dehydrogenase/ 3-chloroallyl aldehyde dehydrogenase	0.06
AT5G63840	RSW3 (RADIAL SWELLING 3)	0.11
AT5G63890	ATHDH (HISTIDINOL DEHYDROGENASE)	0.13
AT5G64420	DNA polymerase V family	0.09

Supplemental Table 6. Confirmed interactions between root hair proteins.

Self-interactor A	Self-interactor B	Interactor A	Interactor B
AT1G10290	AT1G10290	AT1G06220	AT1G20960
AT1G15750	AT1G15750	AT1G02690	AT1G34430
AT1G17580	AT1G17580	AT1G09100	AT1G45000
AT1G24280	AT1G24280	AT1G09180	AT1G47260
AT1G24764	AT1G24764	AT1G19580	AT1G47260
AT1G27450	AT1G27450	AT1G47250	AT1G47260
AT1G29150	AT1G29150	AT1G47260	AT1G56330
AT1G42970	AT1G42970	AT1G14830	AT1G59610
AT1G47260	AT1G47260	AT1G25490	AT1G66070
AT1G49950	AT1G49950	AT1G47200	AT1G68910
AT1G55310	AT1G55310	AT1G23730	AT1G70410
AT1G70410	AT1G70410	AT1G45145	AT1G70410
AT1G73250	AT1G73250	AT1G01910	AT1G71950
AT1G78570	AT1G78570	AT1G66410	AT1G75100
AT1G79280	AT1G79280	AT1G22300	AT1G78300
AT2G13560	AT2G13560	AT1G24280	AT1G78300
AT2G14120	AT2G14120	AT1G34760	AT1G78300
AT2G18960	AT2G18960	AT1G35160	AT1G78300
AT2G21660	AT2G21660	AT1G35580	AT1G78300
AT2G24200	AT2G24200	AT1G53310	AT1G78300
AT2G25980	AT2G25980	AT1G59610	AT1G78300
AT2G26230	AT2G26230	AT1G17190	AT1G78380
AT2G27100	AT2G27100	AT1G63000	AT1G78570
AT2G37040	AT2G37040	AT1G06210	AT1G80070
AT2G37620	AT2G37620	AT1G06220	AT1G80070
AT2G38280	AT2G38280	AT1G78300	AT2G07560
AT2G39800	AT2G39800	AT1G63940	AT2G15620
AT2G42910	AT2G42910	AT5G05000	AT2G16640
AT2G44950	AT2G44950	AT1G78300	AT2G18020
AT2G45440	AT2G45440	AT1G57720	AT2G18110
AT3G05530	AT3G05530	AT1G79750	AT2G19900
AT3G08530	AT3G08530	AT1G66410	AT2G23080
AT3G09260	AT3G09260	AT1G01910	AT2G30490
AT3G09840	AT3G09840	AT1G49760	AT2G41430
AT3G11400	AT3G11400	AT1G78300	AT2G41620
AT3G13300	AT3G13300	AT1G78300	AT2G41740
AT3G13570	AT3G13570	AT1G78300	AT2G42590
AT3G19720	AT3G19720	AT1G12920	AT2G42790
AT3G21720	AT3G21720	AT1G24764	AT2G44950
AT3G53260	AT3G53260	AT1G75990	AT2G44950
AT3G53990	AT3G53990	AT1G78300	AT2G45790
AT3G54170	AT3G54170	AT1G26110	AT2G45810
AT3G54850	AT3G54850	AT1G78300	AT2G47510
AT3G55460	AT3G55460	AT1G35580	AT3G02520
AT3G59760	AT3G59760	AT2G20580	AT3G02540

AT3G60600	AT3G60600	AT1G66410	AT3G02880
AT3G62830	AT3G62830	AT2G40060	AT3G03000
AT4G00570	AT4G00570	AT1G24510	AT3G03960
AT4G01900	AT4G01900	AT1G47260	AT3G07480
AT4G02280	AT4G02280	AT1G49590	AT3G08530
AT4G16760	AT4G16760	AT2G24050	AT3G08530
AT4G20850	AT4G20850	AT3G06720	AT3G08530
AT4G23630	AT4G23630	AT1G01910	AT3G08950
AT4G24840	AT4G24840	AT2G38280	AT3G09840
AT4G26110	AT4G26110	AT2G37040	AT3G10340
AT4G29130	AT4G29130	AT3G03960	AT3G11830
AT4G31580	AT4G31580	AT1G55310	AT3G13570
AT4G32520	AT4G32520	AT1G78300	AT3G13920
AT4G33650	AT4G33650	AT2G39960	AT3G15710
AT4G37870	AT4G37870	AT3G09260	AT3G16420
AT4G39260	AT4G39260	AT1G06220	AT3G18165
AT4G39800	AT4G39800	AT1G20960	AT3G18165
AT5G01410	AT5G01410	AT1G80070	AT3G18165
AT5G02530	AT5G02530	AT2G38770	AT3G18165
AT5G04280	AT5G04280	AT3G15730	AT3G18165
AT5G09810	AT5G09810	AT2G37620	AT3G18780
AT5G10920	AT5G10920	AT3G06720	AT3G18780
AT5G11260	AT5G11260	AT3G12110	AT3G18780
AT5G11390	AT5G11390	AT1G01820	AT3G19720
AT5G16840	AT5G16840	AT3G09630	AT3G22960
AT5G42080	AT5G42080	AT3G11400	AT3G22960
AT5G42970	AT5G42970	AT3G20550	AT3G22960
AT5G48230	AT5G48230	AT1G01910	AT3G25220
AT5G50840	AT5G50840	AT1G34430	AT3G25860
AT5G54810	AT5G54810	AT3G16950	AT3G25860
AT5G55280	AT5G55280	AT2G05840	AT3G27430
AT5G58040	AT5G58040	AT1G29900	AT3G27740
		AT1G55890	AT3G27960
		AT1G80270	AT3G27960
		AT2G25140	AT3G27960
		AT3G02780	AT3G27960
		AT3G07480	AT3G27960
		AT3G13160	AT3G27960
		AT3G15000	AT3G27960
		AT3G18780	AT3G46520
		AT5G54650	AT3G46520
		AT1G47260	AT3G47930
		AT1G79010	AT3G47930
		AT2G02050	AT3G47930
		AT2G20360	AT3G47930
		AT2G27730	AT3G47930
		AT2G33220	AT3G47930
		AT2G47690	AT3G47930

AT3G03100	AT3G47930
AT3G12260	AT3G47930
AT1G78300	AT3G48340
AT1G47260	AT3G48680
AT3G47930	AT3G48680
AT1G06950	AT3G48870
AT1G78300	AT3G50000
AT1G02840	AT3G50670
AT2G07707	AT3G52300
AT3G10340	AT3G53260
AT3G08530	AT3G54840
AT1G13320	AT3G54850
AT1G18150	AT3G54850
AT3G51240	AT3G55120
AT1G55310	AT3G55460
AT3G19720	AT3G57090
AT1G10840	AT3G57290
AT2G42790	AT3G58740
AT1G12920	AT3G58750
AT2G42790	AT3G58750
AT1G78300	AT3G59760
AT3G22960	AT3G59920
AT3G18165	AT3G60190
AT1G04340	AT3G60600
AT2G03120	AT3G60600
AT2G32380	AT3G60600
AT2G33120	AT3G60600
AT3G29034	AT3G60600
AT3G57090	AT3G60600
AT3G60130	AT3G60600
AT3G22960	AT3G60820
AT1G23860	AT3G61860
AT3G13570	AT3G61860
AT3G55460	AT3G61860
AT1G01050	AT4G01480
AT1G62020	AT4G01900
AT1G47260	AT4G02080
AT3G46740	AT4G02510
AT1G31340	AT4G02570
AT2G35635	AT4G02570
AT3G47930	AT4G02580
AT3G09840	AT4G04210
AT1G78300	AT4G04910
AT1G14620	AT4G05400
AT3G08530	AT4G05400
AT3G54850	AT4G05400
AT1G15810	AT4G08520
AT1G78300	AT4G09000

AT2G21620	AT4G09570
AT3G27960	AT4G11600
AT2G16950	AT4G14300
AT1G78300	AT4G14880
AT1G78300	AT4G14960
AT2G44950	AT4G15545
AT3G20550	AT4G15545
AT3G15660	AT4G15730
AT4G04950	AT4G15730
AT1G23730	AT4G16143
AT1G09630	AT4G17720
AT1G47260	AT4G17720
AT1G56330	AT4G17720
AT3G11730	AT4G17720
AT3G46060	AT4G17720
AT4G17720	AT4G18800
AT4G02840	AT4G20440
AT3G09840	AT4G22150
AT1G27450	AT4G22570
AT1G80050	AT4G22570
AT1G66410	AT4G23650
AT2G41100	AT4G23650
AT2G23350	AT4G24840
AT2G44950	AT4G24840
AT3G08530	AT4G24840
AT2G19480	AT4G26110
AT1G66410	AT4G26270
AT3G27960	AT4G26910
AT1G78300	AT4G30190
AT4G01900	AT4G31480
AT4G01900	AT4G31490
AT1G23860	AT4G31580
AT1G55310	AT4G31580
AT3G13570	AT4G31580
AT3G55460	AT4G31580
AT4G26110	AT4G31985
AT3G27960	AT4G32470
AT3G06720	AT4G32520
AT3G15660	AT4G32520
AT4G08520	AT4G32520
AT1G78300	AT4G33010
AT1G78300	AT4G33510
AT3G06720	AT4G33510
AT1G17745	AT4G34200
AT4G01900	AT4G34450
AT3G27960	AT4G34700
AT1G78300	AT4G35090
AT4G09320	AT4G35090

AT1G73230	AT4G35260
AT2G32720	AT4G35450
AT4G35000	AT4G35450
AT1G26460	AT4G35850
AT1G66410	AT4G37870
AT3G43810	AT4G37870
AT1G78300	AT4G39800
AT1G79830	AT4G39890
AT1G78300	AT4G39980
AT2G45140	AT5G02100
AT1G78300	AT5G02490
AT4G11260	AT5G02490
AT2G41100	AT5G02500
AT4G35260	AT5G03290
AT1G78300	AT5G03340
AT3G52930	AT5G03690
AT3G55460	AT5G04280
AT2G17390	AT5G05000
AT3G08530	AT5G05190
AT4G15730	AT5G05190
AT3G11630	AT5G06290
AT1G78300	AT5G07090
AT3G60600	AT5G08080
AT3G47930	AT5G08530
AT1G47260	AT5G09450
AT2G44950	AT5G09450
AT1G78300	AT5G09810
AT2G37620	AT5G09810
AT3G12110	AT5G09810
AT3G46520	AT5G09810
AT4G16143	AT5G09810
AT4G26110	AT5G10360
AT1G78300	AT5G10450
AT3G11130	AT5G11710
AT3G47930	AT5G11770
AT3G60820	AT5G11980
AT3G15660	AT5G13280
AT4G04950	AT5G13280
AT1G78300	AT5G13490
AT3G51240	AT5G13930
AT5G08640	AT5G13930
AT1G80560	AT5G14200
AT3G02230	AT5G15650
AT1G78300	AT5G16050
AT2G42590	AT5G16050
AT3G03960	AT5G16070
AT5G15650	AT5G16510
AT1G06950	AT5G16620

AT4G02510	AT5G16620
AT1G47260	AT5G16840
AT4G35450	AT5G17770
AT5G11390	AT5G19320
AT1G27970	AT5G20010
AT2G39800	AT5G20010
AT1G02690	AT5G20720
AT3G03000	AT5G20720
AT3G06720	AT5G20720
AT1G24510	AT5G20890
AT3G18190	AT5G20890
AT1G78300	AT5G20920
AT3G22960	AT5G20920
AT3G02880	AT5G21274
AT3G56070	AT5G21274
AT4G37870	AT5G21274
AT5G11710	AT5G22770
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AT1G78300	AT5G26860
AT1G78300	AT5G27000
AT3G18165	AT5G28740
AT1G30120	AT5G28900
AT1G17880	AT5G35620
AT2G24050	AT5G35620
AT5G26710	AT5G35630
AT1G78300	AT5G35790
AT3G47930	AT5G37510
AT1G35580	AT5G38480
AT1G78300	AT5G38480
AT1G26570	AT5G39320
AT2G05840	AT5G40580
AT1G03860	AT5G40770
AT2G20530	AT5G40770
AT4G28510	AT5G40770
AT3G08530	AT5G41520
AT3G18165	AT5G41770
AT1G59610	AT5G42080
AT3G18165	AT5G42080
AT1G10840	AT5G42970
AT1G17290	AT5G42980
AT1G48030	AT5G42980
AT1G70410	AT5G42980
AT3G23940	AT5G42980
AT4G15730	AT5G42980
AT3G05530	AT5G43010

AT3G60600	AT5G43460
AT4G27450	AT5G43830
AT1G48630	AT5G43960
AT1G01910	AT5G44020
AT1G25490	AT5G44090
AT4G02840	AT5G44500
AT5G39510	AT5G46860
AT2G07707	AT5G47030
AT2G07741	AT5G47030
AT2G21870	AT5G47030
AT2G33040	AT5G47030
AT3G46430	AT5G47030
AT3G52300	AT5G47030
AT4G30010	AT5G47030
AT5G08670	AT5G47030
AT5G08680	AT5G47030
AT5G08690	AT5G47030
AT5G13450	AT5G47030
AT3G25230	AT5G48570
AT2G44950	AT5G50840
AT3G12390	AT5G50840
AT4G10480	AT5G50840
AT1G01090	AT5G50850
AT1G59900	AT5G50850
AT4G09570	AT5G50920
AT5G16620	AT5G50920
AT1G78300	AT5G50950
AT1G01910	AT5G52240
AT5G06160	AT5G52240
AT3G25230	AT5G52640
AT1G01800	AT5G52650
AT3G08530	AT5G52650
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AT1G01910	AT5G53470
AT3G60600	AT5G53560
AT2G43790	AT5G54430
AT2G42790	AT5G55190
AT1G47260	AT5G55200
AT1G02840	AT5G55990
AT4G38800	AT5G55990
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AT2G41100	AT5G56030
AT3G43810	AT5G56030
AT2G36580	AT5G56350
AT1G68060	AT5G56360
AT3G13860	AT5G56360
AT2G47610	AT5G56950

AT4G26110	AT5G56950
AT4G31985	AT5G56950
AT5G10360	AT5G56950
AT4G16143	AT5G57120
AT1G72730	AT5G57870
AT3G08530	AT5G57870
AT5G35620	AT5G57870
AT5G20010	AT5G58590
AT5G20020	AT5G58590
AT5G55190	AT5G58590
AT3G05420	AT5G59880
AT3G18780	AT5G59880
AT4G17720	AT5G60860
AT5G42020	AT5G62390
AT3G47930	AT5G63510
AT1G78300	AT5G64050
AT3G18165	AT5G64270
AT5G05170	AT5G64740
AT1G78300	AT5G65430
AT1G78300	AT5G66280
AT3G08530	AT5G66470
AT1G03860	AT5G66510
AT1G19580	AT5G66510
AT1G67350	AT5G66510
AT1G68680	AT5G66510
AT1G79010	AT5G66510
AT2G02050	AT5G66510
AT2G20360	AT5G66510
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AT3G12260	AT5G66510
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AT5G11770	AT5G66510
AT5G37510	AT5G66510
AT5G40770	AT5G66510
AT5G44140	AT5G66510
AT5G52840	AT5G66510
AT5G63510	AT5G66510
AT1G08480	AT5G66760

AT1G47420	AT5G66760
AT3G27380	AT5G66760
AT5G40650	AT5G66760
AT1G78300	AT5G67510
AT3G47930	AT5G67590
AT5G66510	AT5G67590
AT3G47930	ATMG00070
AT5G66510	ATMG00070
AT1G78300	ATMG00090
AT3G47930	ATMG00510
AT5G66510	ATMG00510
AT3G52300	ATMG00640
AT5G47030	ATMG00640
AT5G47030	ATMG01190

Supplemental Table 7. Primers used for the validation of alternatively splicing features and differentially expressed genes.

Primer name	Forward primer sequence (5'-3')	Reverse primer sequence (5'-3')
For validating alternative splicing features		
1g15570a	TACAGCTATACTTGAGGTTGTTA	GGCAAAACCCATGTTTCAGT
1g15570b	GATCAGCTTCTACAGGTGATCCA	GATTTATAAGTCATTAAAGACCACTCC
1g15570c	TGCGTGTTTCAGAGGTAATTC	TGCCAGAAGAGAAGTGACACA
1g15570d	GTATGTTCTCTCCAATCTCAC	GCAGAGATTTCTCATACTTCCTG
1g19700	TTCTCTCCCTCAGGATCTCA	TGGTTTTGTTGTTGATGGTTG
1g25390	CCTCCTATTCTGTGTTTGC	AGAGAGCTGGGTGACTCCAA
2g30600a	GCCTCTCAGAGGATTCTGTA	TCACTGAAGGTGGTCTGATCT
2g30600b	CATTAGGTGAAGGCAAGAGA	ATTGTGAGCAAACGCATCAA
2g36390	TCACTCGAAGGCAGCATCAC	CTGGTGAGCCATCAGCATT
2g45400	ACTTCTCCTTGTAAATTCCTTCAT	CCTACGTGCGTGGAATTTTT
3g12700	CTCCTATGATTACAGATATGCAG	CTAAACCAAGAACCCCATCG
3g27300	GCCACCGTCGCAGAGTGTT	CAAGATCACCAGAAGCACCA
3g28730	CCAAATGGAAAGAGATGTGAGTT	CTCCATTCGCAACTTAGCC
3G47040	CTCCATGCGTGCCGCTTT	CACGTTGTTTCTTCCTGCAA
4g12790	CGAGCAATAAGTTGCTTGAC	TGAAGCTCTTGAAATTCCTCTC
5g01620	GCCTGCAACTTGAAGAGGTAAA	CATCAGTTTCTACCGTTCTTTGC
5g24270	CATCCATATCTTGCGTGAGAA	CTACCGTGAATGGCGTGAC
5g53180	GCTGAGAATACCAGATGCAAG	CCTGCTCAAGTTCGTGGTAA
5g62530a	CTCGCAAGAAATCAGCAACCTAAT	TTTTTGTTGAATCTCGAGTCTTG
For validating differentially expressed genes		
1G01740	TCGTTTATGTGGACGGAACA	AGAAATGCCTTGAGCCTTCA
1G12040	CAACCGATTCGTCGGTAAGT	TTTGATGGGATCTTGCCCTC
1G23720	CCGGCGTATTACTCTCCATC	CCATTCAAGCCCAAGAAGAA
2G18450	AAGACGTGGGACAGTTTTGG	CTTCCCAATACCCCAATGTG
3G05020	ACCAAATTTGCTGACCTTGG	CAAACCTCAACGCCCTGTTTT
3G13782	TGCTGAGAAATCTGCATTGG	GCGAGCATTTATTGGTTTT
3G19430	GCCAAAAGGGTCAGGTGTAA	GTGGGTCTTGGCAAACAGAT
3G23175	GGACAATCCATCCCAGCTTA	TCCTTCGGTCTGCTTGTCT
3G56020	CCCCTCTGCATTTTGTGTTT	ATTGATCGCTCTCGGATCAC
5G20890	TAGAGGTCATGCGGTCACTG	CCACAAGCTTTTCTGCTTCC
5G22410	ATTGCCAAAACGTCGAAAAC	TCTTTTTCGACCGCAGACTT
For reference gene		
ref4g26410	GAGCTGAAGTGGCTTCCATGAC	GGTCCGACATACCCATGATCC