

Supplementary Material

Transcriptome profiling of peanut (*Arachis hypogaea*) gynophores in gravitropic responseHai-fen Li^A, Xiao-Ping Chen^{A,B}, Fang-he Zhu^A, Hai-Yan Liu^A, Yan-Bin Hong^A and Xuan-Qiang Liang^{A,B}^ACrops Research Institute, Guangdong Academy of Agricultural Sciences, Guangzhou, 510640, China.^BCorresponding authors. Emails: xpchen1011@gmail.com; liang-804@163.com**Table S1.** List of all gene up-regulated genes of gynophores grown *in vitro* with tip pointing upward at 6 h and 12 h

Functional category	Up-regulated genes of gynophores grown <i>in vitro</i> with tip point upward at 6 h			Up-regulated genes of gynophores grown <i>in vitro</i> with tip point upward at 12 h		
	Query name	Hit name	gene description	Query name	Hit name	gene description
Antioxidant activity	AHTC1034254	Q9FLC0	Peroxidase 52	AHTC1014333	O80822	Peroxidase 25
				AHTC1034254	Q9FLC0	Peroxidase 52
Binding	AHTC1000544	Q9SS17	40S ribosomal protein	AHTC1000080	P25860	Metallothionein-like protein 2A
	AHTC1002319	Q94K4	Short-chain dehydrogenase reductase 3b	AHTC1002557	Q9LSQ6	Calcium-binding protein PBP1
	AHTC1005930	Q9FL56	Cytochrome P450	AHTC1003876	Q9FE67	Ethylene-responsive transcription factor 9
	AHTC1013744	Q0WPQ3	At1g05160	AHTC1004476	Q8GSJ6	Protein disulfide-isomerase LQY1
	AHTC1026028	O23052	Uncharacterized TPR repeat-containing protein At1g05150	AHTC1005074	Q94C60	Transcription elongation factor SPT4 homolog 2
	AHTC1028353	Q9FH03	Beta-glucosidase 12	AHTC1008557	Q9LTM5	Cytochrome P450
	AHTC1032184	Q84W34	Putative uncharacterized protein At2g40320	AHTC1008885	Q8H0Y8	Probable WRKY transcription factor 41
	AHTC1033666	F4K6Z6	L-ascorbate oxidase	AHTC1014333	O80822	Peroxidase 25
	AHTC1034254	Q9FLC0	Peroxidase 52	AHTC1022466	Q9S7I6	LRR receptor-like serine/threonine-protein kinase RPK2
	AHTC1035241	Q8H784	Putative uncharacterized protein	AHTC1030632	Q84TD6	At3g04070
				AHTC1030972	Q9FGM5	Gb AAF25996.1
				AHTC1032660	Q94BU8	AT5g28050/F15F15_120
				AHTC1034254	Q9FLC0	Peroxidase 52
	Biological regulation	AHTC1000882	Q9SGS4	Thioredoxin-like protein	AHTC1003876	Q9ZR83

	AHTC1004450	Q05G09	Auxin efflux carrier (Fragment)	AHTC1005074	C6T0C5	Transcription elongation factor SPT4 homolog 2
	AHTC1005455	Q9LZC2	Emb CAB85507.1	AHTC1008885	A7LH10	Probable WRKY transcription factor 41
				AHTC1012418	Q06445	Cysteine proteinase inhibitor 3
				AHTC1030632	B9U511	At3g04070
				AHTC1036417	Q43111	Pectinesterase
	AHTC1000882	Q9SGS4	Thioredoxin-like protein CDSP32, chloroplastic	AHTC1008557	Q9LTM5	Cytochrome P450
	AHTC1002069	Q8LFW8	Putative uncharacterized protein	AHTC1009909	Q42538	Serine acetyltransferase 5
	AHTC1002319	Q94K41	Short-chain dehydrogenase reductase 3b	AHTC1014333	O80822	Peroxidase 25
	AHTC1003375	F4IIG6	UDP-glycosyltransferase 73B4	AHTC1019109	Q42538	Serine acetyltransferase 5
	AHTC1003533	B6EXY6	Beta-amyrin synthase	AHTC1021302	Q8LAF8	Fatty acid elongase-like protein (Cer2-like)
	AHTC1005455	Q9LZC2	Emb CAB85507.1	AHTC1022466	Q9S7I6	LRR receptor-like serine/threonine-protein kinase RPK2
	AHTC1005930	Q9FL56	Cytochrome P450	AHTC1027250	P93046	Probable xyloglucan endotransglucosylase/hydrolase protein 31
	AHTC1007607	Q8W491	UDP-glycosyltransferase 73B3	AHTC1032660	Q94BU8	AT5g28050/F15F15_120
	AHTC1013744	Q0WPQ3	At1g05160	AHTC1033956	Q8LFW0	EDGP
Catalytic activity	AHTC1018493	Q84JA	Cellulose synthase A catalytic subunit 4 [UDP-forming]	AHTC1034254	Q9FLC0	Peroxidase 52
	AHTC1028353	Q9FH03	Beta-glucosidase 12 OS=Arabidopsis thaliana	AHTC1036417	Q0WWC7	Pectinesterase
	AHTC1029734	Q8VZE9	UDP-glycosyltransferase 73B1			
	AHTC1030550	Q8W112	Beta-D-glucan exohydrolase-like protein			
	AHTC1030760	Q9ASW5	At2g18360/T30D6.13			
	AHTC1032263	Q9SCP7	AT3g53140/T4D2_70			
	AHTC1033198	Q9ZQ91	Probable carboxylesterase 7			
	AHTC1033666	F4K6Z6	L-ascorbate oxidase			
	AHTC1034254	Q9FLC0	Peroxidase 52			
	AHTC1035268	Q93YX8	Phosphoinositide-specific phospholipase C			
	AHTC1035249	O22893	Galactinol synthase 1			
	AHTC1035324	B9RDK5	Ubiquitin-protein ligase, putative			
	AHTC1000544	Q9SS17	40S ribosomal protein	AHTC1003876	Q9FE67	Ethylene-responsive transcription factor 9
	AHTC1001051	P51418	60S ribosomal protein	AHTC1005074	Q94C60	Transcription elongation factor SPT4 homolog 2
	AHTC1015340	B9DG17	40S ribosomal protein Sa-1	AHTC1009909	Q42538	Serine acetyltransferase 5
Cell	AHTC1029793	Q541X0	Putative RHO GDP-dissociation inhibitor 1	AHTC1019109	Q42538	Serine acetyltransferase 5
				AHTC1027250	P93046	Probable xyloglucan endotransglucosylase/hydrolase protein 31
				AHTC1034982	F4IJJ3	Cyclin-D2-1
				AHTC1036417	Q0WWC7	Pectinesterase
Cellular process	AHTC1000339	B9S7Y8	Tubulin alpha chain, putative	AHTC1003876	Q9FE67	Ethylene-responsive transcription factor 9
	AHTC1000544	Q9SS17	40S ribosomal protein S24-1 1	AHTC1009909	Q42538	Serine acetyltransferase 5

	AHTC1001051	P51418	60S ribosomal protein L18a-2	AHTC1014333	O80822	Peroxidase 25
	AHTC1002069	Q8LFW8H	Putative uncharacterized protein	AHTC1019109	Q42538	Serine acetyltransferase 5
	AHTC1004660	Q0WQK9	Expansin	AHTC1022466	Q9S7I6	LRR receptor-like serine/threonine-protein kinase
	AHTC1015340	B9DG17	40S ribosomal protein Sa-1	AHTC1027250	P93046	Probable xyloglucan endotransglucosylase/hydrolase protein 31
	AHTC1018493	Q84JA6	Cellulose synthase A catalytic subunit 4 [UDP-forming]	AHTC1036417	Q0WWC7	Pectinesterase
Developmental process	AHTC1032184	Q84W34	Putative uncharacterized protein At2g40320			
	AHTC1000882	Q9SGS4	Thioredoxin-like protein CDSP32, chloroplastic	AHTC1008557	Q9LTM5	Cytochrome P450
Electron carrier activity	AHTC1005455	Q9LZC2	Emb CAB85507.1			
	AHTC1005930	Q9FL56	Cytochrome P450			
	AHTC1013744	Q0WPQ3	At1g05160			
	AHTC1029793	G7LHB3	Putative RHO GDP-dissociation inhibitor 1	AHTC1012418	Q06445	Cysteine proteinase inhibitor 3
Enzyme regulator activity				AHTC1016787	A5ADE1	Putative phosphotyrosyl phosphatase activator protein
				AHTC1036417	Q43111	Pectinesterase OS=Arabidopsis thaliana
Establishment of localization	AHTC1005197	O65369	At1g12090/T28K15.14			
	AHTC1035241	Q8H784	Putative uncharacterized protein			
	AHTC1004660	Q0WQK9	Expansin	AHTC1014333	Q41906	Peroxidase 25
Extracellular region	AHTC1033666	F4K6Z6	L-ascorbate oxidase	AHTC1027250	Q9ZPE6	Probable xyloglucan endotransglucosylase/hydrolase protein 31
				AHTC1036417	Q0WWC7	Pectinesterase
	AHTC1002069	Q8LFW8	Putative uncharacterized protein	AHTC1001850	Q8LG60	Hypoxia-responsive family protein
	AHTC1004660	Q0WQK9	Expansin	AHTC1001851	Q8LG60	Hypoxia-responsive family protein
Membrane	AHTC1018493	Q84JA6	Cellulose synthase A catalytic subunit 4 [UDP-forming]	AHTC1022466	Q9S7I6	LRR receptor-like serine/threonine-protein kinase RPK2
	AHTC1032858	Q501F8	At4g08300			
	AHTC1000882	Q9SGS4	Thioredoxin-like protein CDSP32, chloroplastic	AHTC1008557	Q9LTM5	Cytochrome P450
	AHTC1002319	Q94K41	Short-chain dehydrogenase reductase 3b	AHTC1014333	O80822	Peroxidase 25
	AHTC1003375	F4IIG6	UDP-glycosyltransferase 73B4	AHTC1027250	P93046	Probable xyloglucan endotransglucosylase/hydrolase protein 31
	AHTC1003533	B6EXY6	Beta-amyrin synthase	AHTC1032660	Q94BU8	AT5g28050/F15F15_120
	AHTC1005930	Q9FL56	Cytochrome P450	AHTC1033956	Q8LF70	EDGP
Metabolic process	AHTC1007607	Q8W491	UDP-glycosyltransferase 73B3 1	AHTC1034254	Q9FLC0	Peroxidase 52
	AHTC1013744	Q0WPQ3	At1g05160			
	AHTC1028353	Q9FH03	Beta-glucosidase 12			
	AHTC1029734	Q8VZE9	UDP-glycosyltransferase 73B1 1			
	AHTC1030550	Q8W112	Beta-D-glucan exohydrolase-like protein			
	AHTC1030760	Q9ASW5	At2g18360/T30D6.13			
	AHTC1032263	Q9SCP7	AT3g53140/T4D2_70			

	AHTC1033198	Q9ZQ91	Probable carboxylesterase 7			
	AHTC1033666	F4K6Z6	L-ascorbate oxidase			
	AHTC1034254	Q9FLC0	Peroxidase 52			
Response to stimulus	AHTC1034254	Q9FLC0	Peroxidase 52	AHTC1014333	O80822	Peroxidase 25
	AHTC1035249	O22893	Galactinol synthase 1	AHTC1034254	Q9FLC0	Peroxidase 52
Nucleic acid binding transcription factor activity				AHTC1003876	Q9FE67	Ethylene-responsive transcription factor 9
				AHTC1008885	Q8H0Y8	Probable WRKY transcription factor 41
Structural molecule activity	AHTC1000544	Q9SS17	40S ribosomal protein			
	AHTC1001051	P51418	60S ribosomal protein			
	AHTC1015340	B9DG17	40S ribosomal protein Sa-1			

Table S2. List of all gene down-regulated genes of gynophores grown *in vitro* with tip pointing upward at 6 h and 12 h

Functional category	Up-regulated genes of gynophores grown <i>in vitro</i> with tip point downward at 6 h			Up-regulated genes of gynophores grown <i>in vitro</i> with tip point downward at 12 h		
	Query name	Hit name	Gene description	Query name	Hit name	Gene description
Binding	AHTC1005210	Q9LJ66	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase-like protein	AHTC1000464	Q9ZSK4	Actin-depolymerizing factor 3
	AHTC1005731	F4HQB3	Protein late elongated hypocotyl	AHTC1001087	O80845	Peroxisomal membrane protein 11D
	AHTC1010360	O80337	Ethylene-responsive transcription factor 1A	AHTC1002029	Q9FQ09	ATP-dependent DNA helicase 2 subunit KU80
	AHTC1010530	Q8LBG5	Pinoresinol-lariciresinol reductase, putative	AHTC1002171	P93832	3-isopropylmalate dehydrogenase 2, chloroplastic
	AHTC1011254	Q9LTC5	Ethylene-responsive transcription factor ERF098	AHTC1002318	Q0WW68	Adenine nucleotide translocase
	AHTC1011361	B3LFB7	At1g75290 OS=Arabidopsis thaliana	AHTC1003122	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic
	AHTC1012231	B1GV55	Cinnamate-4-hydroxylase (Fragment)	AHTC1003941	P56753	NAD(P)H-quinone oxidoreductase subunit H, chloroplastic
	AHTC1015094	B3DNP2	At2g38470	AHTC1004256	P50546	DNA-directed RNA polymerase subunit beta
	AHTC1015420	B3DNP2	At2g38470	AHTC1004562	O23034	Ubiquitin-like modifier-activating enzyme 5
	AHTC1016234	Q42572	DNA ligase 1 2	AHTC1005919	Q9ASR2	AT5g60580/muf9_230
	AHTC1016496	Q9FH76	Abscisic acid 8'-hydroxylase 3	AHTC1006924	F6L7A0	Aromatic aldehyde synthase
	AHTC1031148	O81292	L-type lectin-domain containing receptor kinase IV.3	AHTC1006971	Q9STX2	3-oxo-Delta(4,5)-steroid 5-beta-reductase
	AHTC1034713	A0MF30	Putative uncharacterized protein (Fragment)	AHTC1007720	Q9FEA2	Glutamate--tRNA ligase, chloroplastic/mitochondrial
	AHTC1035973	Q9LTC5	Ethylene-responsive transcription factor ERF098	AHTC1008061	P56766	Photosystem I P700 chlorophyll a apoprotein A1
				AHTC1008209	P56764	DNA-directed RNA polymerase subunit beta"
				AHTC1008510	P56786	Protein ycf2
				AHTC1009660	Q9LQH2	F15O4.13
				AHTC1009905	O82276	Putative non-LTR retroelement reverse transcriptase
				AHTC1010179	P56764	DNA-directed RNA polymerase subunit beta"
				AHTC1010360	O80337	Ethylene-responsive transcription factor 1A
				AHTC1012842	O23627	Glycine--tRNA ligase 1, mitochondrial
				AHTC1012866	Q9LU97	DNA-directed RNA polymerase subunit
				AHTC1013437	Q8S9J9	At1g14000/F7A19_9
				AHTC1014231	C0SUX9	Putative uncharacterized protein At1g28310 (Fragment)
				AHTC1015754	B5X571	At1g48480
				AHTC1020679	P56786	Protein ycf2
				AHTC1021098	Q9XE45	Putative non-LTR retroelement reverse transcriptase
				AHTC1021202	P56763	DNA-directed RNA polymerase subunit beta'
				AHTC1024428	Q38827	Auxin-responsive protein IAA9
				AHTC1025327	G1JSH7	At1g58440
				AHTC1027074	Q6R0G6	MYB transcription factor
				AHTC1027134	Q9FLC3	Putative uncharacterized protein

			AHTC1027594	F4I9R1	Basic helix-loop-helix domain-containing protein	
			AHTC1027650	Q9FWA3	6-phosphogluconate dehydrogenase, decarboxylating	
			AHTC1028413	Q9SD82	RPA70-kDa subunit B	
			AHTC1028563	Q8H0U0	T-complex protein 1 subunit alpha	
			AHTC1028603	Q94BN4	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase	
			AHTC1028669	Q6KCR2	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase	
			AHTC1028934	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic	
			AHTC1031498	Q9LF46	2-hydroxyacyl-CoA lyase	
			AHTC1031566	Q949P2	Oligopeptidase A	
			AHTC1031651	O49684	Putative uncharacterized protein AT4g17850	
			AHTC1031965	Q84VX5	At4g02100	
			AHTC1032108	Q8LF21	Dynamin-related protein 1C	
			AHTC1032432	C0Z3I1	AT3G13560 protein	
			AHTC1032687	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic	
			AHTC1033036	Q9SQT8	Bifunctional 3-dehydroquinate dehydratase/shikimate dehydrogenase, chloroplastic	
			AHTC1033138	O22138	Leucine-rich repeat receptor-like protein kinase	
			AHTC1036537	Q06850	Calcium-dependent protein kinase 1	
			AHTC1015873	Q9SYT0	Annexin D1	
	AHTC1005731	F4HQH3	Protein late elongated hypocotyl	AHTC1002079	Q9SMX3	Mitochondrial outer membrane protein porin 3
	AHTC1010360	O80337	Ethylene-responsive transcription factor 1A	AHTC1006727	Q9FF55	Protein disulfide isomerase-like 1-4
	AHTC1011254	Q9LTC5	Ethylene-responsive transcription factor ERF098	AHTC1008562	Q0WWC7	Pectinesterase OS=Arabidopsis thaliana
	AHTC1015094	B3DNP2	At2g38470 1	AHTC1010360	O80337	Ethylene-responsive transcription factor 1A
	AHTC1035973	Q9LTC5	Ethylene-responsive transcription factor ERF098	AHTC1013437	Q8S9J9	At1g14000/F7A19_9
				AHTC1014231	C0SUX9	Putative uncharacterized protein At1g28310 (Fragment)
				AHTC1024428	Q38827	Auxin-responsive protein IAA9
				AHTC1024090	B9T748	Calcium-activated outward-rectifying potassium channel, putative
				AHTC1027594	G7L8T7	Basic helix-loop-helix domain-containing protein
	AHTC1000766	Q460R0	Chalcone synthase family protein	AHTC1001087	O80845	Peroxisomal membrane protein 11D
	AHTC1000771	Q5FBU9	Mutant protein of chalcone synthase	AHTC1001295	Q0WWR7	Ribosomal protein S30 homolog
	AHTC1005210	Q9LJ66	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase-like protein	AHTC1002029	Q9FQ09	ATP-dependent DNA helicase 2 subunit KU80
	AHTC1009758	Q9SMT7	4-coumarate--CoA ligase-like 10	AHTC1002079	Q9SMX3	Mitochondrial outer membrane protein porin 3
	AHTC1010530	Q8LBG5	Pinoresinol-lariciresinol reductase, putative	AHTC1002171	P93832	3-isopropylmalate dehydrogenase 2, chloroplastic
	AHTC1012231	B1GV55	Cinnamate-4-hydroxylase (Fragment)	AHTC1003122	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic
	AHTC1012437	P41088	Chalcone--flavonone isomerase 1	AHTC1004256	P50546	DNA-directed RNA polymerase subunit beta
	AHTC1016234	Q42572	DNA ligase 1	AHTC1006924	F6L7A0	Aromatic aldehyde synthase
	AHTC1016496	Q9FH76	Abscisic acid 8'-hydroxylase 3	AHTC1007508	C0Z2E7	AT3G54470 protein

Biological regulation

Catalytic activity

	AHTC1028756	Q9LD43	Acetyl-coenzyme A carboxylase carboxyl transferase subunit alpha, chloroplastic	AHTC1007720	Q9FEA2	Glutamate--tRNA ligase, chloroplastic/mitochondrial
	AHTC1032902	Q5FBU5	Mutant protein of chalcone synthase	AHTC1008061	P56766	Photosystem I P700 chlorophyll a apoprotein A1
	AHTC1034713	A0MF30	Putative uncharacterized protein (Fragment)	AHTC1008209	P56764	DNA-directed RNA polymerase subunit beta"
	AHTC1036625	Q460R3	Chalcone synthase family protein	AHTC1008562	Q0WWC7	Pectinesterase
				AHTC1009660	Q9LQH2	F15O4.13
				AHTC1009737	Q9SL48	SEC1 family transport protein SLY1
				AHTC1009905	O82276	Putative non-LTR retroelement reverse transcriptase
				AHTC1010179	P56764	DNA-directed RNA polymerase subunit beta"
				AHTC1033088	Q9FLX9	Notchless protein homolog
				AHTC1033138	O22138	Leucine-rich repeat receptor-like protein kinase
				AHTC1033980	F4HRU5	Putative plastidic glucose transporter 2
				AHTC1036537	Q06850	Calcium-dependent protein kinase 1
				AHTC1010360	O80337	Ethylene-responsive transcription factor 1A
				AHTC1012842	O23627	Glycine--tRNA ligase 1, mitochondrial
				AHTC1012866	Q9LU97	DNA-directed RNA polymerase subunit
				AHTC1013437	Q8S9J9	At1g14000/F7A19_9
				AHTC1015754	B5X571	At1g48480
				AHTC1020997	B9DFT1	S-adenosylmethionine decarboxylase proenzyme
				AHTC1021098	Q9XE45	Putative non-LTR retroelement reverse transcriptase
				AHTC1021202	P56763	DNA-directed RNA polymerase subunit beta'
				AHTC1021952	Q8W4S4	Vacuolar proton ATPase a3
				AHTC1024428	Q38827	Auxin-responsive protein IAA9
				AHTC1027192	Q9ZVJ4	At2g38730
				AHTC1027650	Q9FWA3	6-phosphogluconate dehydrogenase, decarboxylating
				AHTC1028413	Q9SD82	RPA70-kDa subunit B
				AHTC1028563	Q8H0U0	T-complex protein 1 subunit alpha
				AHTC1028603	Q94BN4	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase
				AHTC1028669	Q6KCR2	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase
				AHTC1028934	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic
				AHTC1030517	F4JMS5	Glutamate-cysteine ligase
				AHTC1030518	F4JMS5	Glutamate-cysteine ligase
				AHTC1032108	Q8LF21	Dynamin-related protein 1C
				AHTC1032687	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic
	AHTC1009758	Q9SMT7	4-coumarate--CoA ligase-like 10	AHTC1000464	Q9ZSK4	Actin-depolymerizing factor 3
	AHTC1010360	O80337	Ethylene-responsive transcription factor 1A	AHTC1001087	O80845	Peroxisomal membrane protein 11D
Cell	AHTC1011254	Q9LTC5	Ethylene-responsive transcription factor ERF098	AHTC1001295	Q0WWR7	Ribosomal protein S30 homolog
	AHTC1028756	Q9LD43	Acetyl-coenzyme A carboxylase carboxyl transferase subunit	AHTC1001662	Q9SSB8	Cytochrome c oxidase subunit 5b-2, mitochondrial

alpha, chloroplastic						
AHTC1035973	Q9LTC5	Ethylene-responsive transcription factor ERF098	AHTC1002029	Q9FQ09	ATP-dependent DNA helicase 2 subunit KU80	
			AHTC1002079	Q9SMX3	Mitochondrial outer membrane protein porin 3	
			AHTC1002171	P93832	3-isopropylmalate dehydrogenase 2, chloroplastic	
			AHTC1002318	Q0WW68	Adenine nucleotide translocase	
			AHTC1002598	Q9S795	Betaine aldehyde dehydrogenase 1, chloroplastic	
			AHTC1003941	P56753	NAD(P)H-quinone oxidoreductase subunit H, chloroplastic	
			AHTC1006727	Q9FF55	Protein disulfide isomerase-like 1-4	
			AHTC1007720	Q9FEA2	Glutamate--tRNA ligase, chloroplastic/mitochondrial	
			AHTC1008061	P56766	Photosystem I P700 chlorophyll a apoprotein A1	
			AHTC1008209	P56764	DNA-directed RNA polymerase subunit beta"	
			AHTC1008510	P56786	Protein ycf2	
			AHTC1008562	Q0WWC7	Pectinesterase	
			AHTC1010360	O80337	Ethylene-responsive transcription factor 1A	
			AHTC1012842	O23627	Glycine--tRNA ligase 1, mitochondrial	
			AHTC1012866	Q9LU97	DNA-directed RNA polymerase subunit	
			AHTC1013746	F4JZC2	Mannosyl-glycoprotein endo-beta-N-acetylglucosaminidase	
			AHTC1020679	P56786	Protein ycf2	
			AHTC1021202	P56763	DNA-directed RNA polymerase subunit beta'	
			AHTC1024428	Q38827	Auxin-responsive protein IAA9	
			AHTC1027650	Q9FWA3	6-phosphogluconate dehydrogenase, decarboxylating	
			AHTC1028413	Q9SD82	RPA70-kDa subunit B	
			AHTC1028563	Q8H0U0	T-complex protein 1 subunit alpha	
			AHTC1033088	Q9FLX9	Notchless protein homolog	
	AHTC1010360	O80337	Ethylene-responsive transcription factor 1A	AHTC1001087	O80845	Peroxisomal membrane protein 11D
	AHTC1011254	Q9LTC5	Ethylene-responsive transcription factor ERF098	AHTC1001295	Q0WWR7	Ribosomal protein S30 homolog
	AHTC1012437	P41088	Chalcone--flavonone isomerase 1	AHTC1002029	Q9FQ09	ATP-dependent DNA helicase 2 subunit KU80
	AHTC1016234	Q42572	DNA ligase 1	AHTC1002079	Q9SMX3	Mitochondrial outer membrane protein porin 3
	AHTC1028756	Q9LD43	Acetyl-coenzyme A carboxylase carboxyl transferase subunit alpha, chloroplastic	AHTC1002171	P93832	3-isopropylmalate dehydrogenase 2, chloroplastic
	AHTC1035973	Q9LTC5	Ethylene-responsive transcription factor ERF098	AHTC1003122	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic
				AHTC1004256	P50546	DNA-directed RNA polymerase subunit beta
				AHTC1006924	F6L7A0	Aromatic aldehyde synthase
				AHTC1007508	C0Z2E7	AT3G54470 protein
				AHTC1007720	Q9FEA2	Glutamate--tRNA ligase, chloroplastic/mitochondrial
				AHTC1008061	P56766	Photosystem I P700 chlorophyll a apoprotein A1
				AHTC1008209	P56764	DNA-directed RNA polymerase subunit beta"
				AHTC1008562	Q0WWC7	Pectinesterase
				AHTC1009660	Q9LQH2	F15O4.13
				AHTC1009737	Q9SL48	SEC1 family transport protein SLY1

Cellular process

				AHTC1009905	O82276	Putative non-LTR retroelement reverse transcriptase
				AHTC1010179	P56764	DNA-directed RNA polymerase subunit beta"
				AHTC1010360	O80337	Ethylene-responsive transcription factor 1A
				AHTC1033138	O22138	Leucine-rich repeat receptor-like protein kinase
				AHTC1033980	F4HRU5	Putative plastidic glucose transporter 2
				AHTC1036537	Q06850	Calcium-dependent protein kinase 1
				AHTC1012842	O23627	Glycine--tRNA ligase 1, mitochondrial
				AHTC1012866	Q9LU97	DNA-directed RNA polymerase subunit
				AHTC1013437	Q8S9J9	At1g14000/F7A19_9
				AHTC1015754	B5X571	At1g48480
				AHTC1020997	B9DFT1	S-adenosylmethionine decarboxylase proenzyme
				AHTC1021098	Q9XE45	Putative non-LTR retroelement reverse transcriptase
				AHTC1021202	P56763	DNA-directed RNA polymerase subunit beta'
				AHTC1021952	Q8W4S4	Vacuolar proton ATPase a3
				AHTC1024428	Q38827	Auxin-responsive protein IAA9
				AHTC1027192	Q9ZVJ4	At2g38730
				AHTC1027650	Q9FWA3	6-phosphogluconate dehydrogenase, decarboxylating
				AHTC1028413	Q9SD82	RPA70-kDa subunit B
				AHTC1028563	Q8H0U0	T-complex protein 1 subunit alpha
				AHTC1028603	Q94BN4	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase
				AHTC1028669	Q6KCR2	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase
				AHTC1028934	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic
				AHTC1030517	F4JMS5	Glutamate-cysteine ligase
				AHTC1030518	F4JMS5	Glutamate-cysteine ligase
				AHTC1032108	Q8LF21	Dynamin-related protein 1C
				AHTC1032687	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic
				AHTC1033088	Q9FLX9	Notchless protein homolog
Electron carrier activity	AHTC1012231	B1GV55	Cinnamate-4-hydroxylase (Fragment)	AHTC1003941	P56753	NAD(P)H-quinone oxidoreductase subunit H, chloroplastic
	AHTC1016496	Q9FH76	Abscisic acid 8'-hydroxylase 3	AHTC1006727	Q9FF55	Protein disulfide isomerase-like 1-4
Enzyme regulator activity				AHTC1008061	P56766	Photosystem I P700 chlorophyll a apoprotein A1
				AHTC1008562	Q0WWC7	Pectinesterase
Establishment of localization				AHTC1036194	Q9LMU2	At1g17860/F2H15_8
				AHTC1002079	Q9SMX3	Mitochondrial outer membrane protein porin 3
				AHTC1002318	Q0WW68	Adenine nucleotide translocase
				AHTC1008061	P56766	Photosystem I P700 chlorophyll a apoprotein A1
				AHTC1009737	Q9SL48	SEC1 family transport protein SLY1
				AHTC1027134	Q9FLC3	Putative uncharacterized protein
				AHTC1033980	F4HRU5	Putative plastidic glucose transporter 2

Extracellular region	AHTC1009758	Q9SMT7	4-coumarate--CoA ligase-like 10	AHTC1008562	Q0WWC7	Pectinesterase
macromolecular complex				AHTC1021952	Q8W4S4	Vacuolar proton ATPase a3
				AHTC1002318	Q0WW68	Adenine nucleotide translocase
				AHTC1003941	P56753	NAD(P)H-quinone oxidoreductase subunit H, chloroplastic
				AHTC1005958	Q5XF36	At4g14950
				AHTC1008061	P56766	Photosystem I P700 chlorophyll a apoprotein A1
Membrane				AHTC1015754	B5X571	At1g48480
				AHTC1025327	G1JSH7	At1g58440
				AHTC1027134	Q9FLC3	Putative uncharacterized protein
				AHTC1028487	Q940G0	At1g10950/T19D16_13
				AHTC1033138	O22138	Leucine-rich repeat receptor-like protein kinase
				AHTC1033980	F4HRU5	Putative plastidic glucose transporter 2
	AHTC1000766	Q460R0	Chalcone synthase family protein	AHTC1002171	P93832	3-isopropylmalate dehydrogenase 2, chloroplastic
	AHTC1005210	Q9LJ66	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase-like protein	AHTC1002598	Q9S795	Betaine aldehyde dehydrogenase 1, chloroplastic
	AHTC1009758	Q9SMT7	4-coumarate--CoA ligase-like 10	AHTC1003122	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic
	AHTC1012231	B1GV55	Cinnamate-4-hydroxylase (Fragment)	AHTC1003533	B6EXY6	Beta-amyrin synthase
	AHTC1016496	Q9FH76	Abscisic acid 8'-hydroxylase 3	AHTC1003693	Q9LF97	CBS domain-containing protein CBSCBSPB3
	AHTC1032902	Q5FBU5	Mutant protein of chalcone synthase	AHTC1003941	P56753	NAD(P)H-quinone oxidoreductase subunit H, chloroplastic
	AHTC1034713	A0MF30	Putative uncharacterized protein (Fragment)	AHTC1004562	O23034	Ubiquitin-like modifier-activating enzyme 5
	AHTC1036625	Q460R3	Chalcone synthase family protein	AHTC1004601	Q9SGZ5	Probable beta-D-xylosidase 7
				AHTC1006727	Q9FF55	Protein disulfide isomerase-like 1-4
				AHTC1007508	C0Z2E7	AT3G54470 protein
				AHTC1008061	P56766	Photosystem I P700 chlorophyll a apoprotein A1
				AHTC1009660	Q9LQH2	F15O4.13
				AHTC1025327	G1JSH7	At1g58440
Metabolic process				AHTC1027650	Q9FWA3	6-phosphogluconate dehydrogenase, decarboxylating
				AHTC1028355	B6EXY6	Beta-amyrin synthase
				AHTC1028603	Q94BN4	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase
				AHTC1028669	Q6KCR2	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase
				AHTC1028934	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic
				AHTC1029643	Q9LIN2	GDSL esterase/lipase At3g26430
				AHTC1029929	B6EXY6	Beta-amyrin synthase
				AHTC1031498	Q9LF46	2-hydroxyacyl-CoA lyase
				AHTC1031566	Q949P2	Oligopeptidase A
				AHTC1032432	C0Z3I1	AT3G13560 protein
				AHTC1032687	Q9CA83	NADP-dependent malic enzyme 4, chloroplastic

				AHTC1033036	Q9SQT8	Bifunctional 3-dehydroquinate dehydratase/shikimate dehydrogenase, chloroplastic
				AHTC1033138	O22138	Leucine-rich repeat receptor-like protein kinase
Response to stimulus	AHTC1005731	F4HQH3	Protein late elongated hypocotyl	AHTC1002079	Q9SMX3	Mitochondrial outer membrane protein porin 3
	AHTC1009758	Q9SMT7	4-coumarate--CoA ligase-like 10	AHTC1002598	Q9S795	Betaine aldehyde dehydrogenase 1, chloroplastic
	AHTC1012437	P41088	Chalcone--flavonone isomerase 1	AHTC1027650	Q9FWA3	6-phosphogluconate dehydrogenase, decarboxylating
	AHTC1036262	Q08298	Dehydration-responsive protein RD22	AHTC1036262	Q08298	Dehydration-responsive protein RD22
Structural molecule activity				AHTC1001295	Q0WWR7	Ribosomal protein S30 homolog
Nucleic acid binding transcription factor activity	AHTC1005731	F4HQH3	Protein late elongated hypocotyl	AHTC1010360	O80337	Ethylene-responsive transcription factor 1A
	AHTC1010360	O80337	Ethylene-responsive transcription factor 1A	AHTC1027594	F4I9R1	Basic helix-loop-helix domain-containing protein
	AHTC1011254	Q9LTC5	Ethylene-responsive transcription factor ERF098			
	AHTC1015420	B3DNP2	At2g38470			
	AHTC1035973	Q9LTC5	Ethylene-responsive transcription factor ERF098			
Single-organism process	AHTC1005731	F4HQH3	Protein late elongated hypocotyl			
	AHTC1031148	O81292	L-type lectin-domain containing receptor kinase IV.3			
Receptor activity				AHTC1015754	B5X571	At1g48480
				AHTC1033138	O22138	Leucine-rich repeat receptor-like protein kinase
Transporter activity				AHTC1002079	Q9SMX3	Mitochondrial outer membrane protein porin 3
				AHTC1002318	Q0WW68	Adenine nucleotide translocase
				AHTC1021952	Q8W4S4	Vacuolar proton ATPase a3
				AHTC1027134	Q9FLC3	Putative uncharacterized protein
				AHTC1033980	F4HRU5	Putative plastidic glucose transporter 2