

tree n°	expression profile	induction factor	clone n°	GenBank accession	MtGI accession	annotation
1	profile 1	3,174548684	AC0073	AJ388714	TC94210	class III peroxidase
2	profile 1	3,113332709	AC1366	DY615989	TC93959	class I chitinase
3	profile 1	4,142124409	AC0589	DY615508	TC100398	chalcone reductase
4	profile 1	3,293078828	AC4521	DY618225	TC100399	chalcone reductase
5	profile 1	2,763481866	AC2173	DY616637	TC94379	endoxyloglucan transferase; cell wall biosynthesis
6	profile 1	2,381882534	AC0320	AJ388949	TC106716	3-deoxy-D-arabino-heptulosonate 7-phosphate synthase; aromatic amino acid family biosynthesis
7	profile 1	2,640342419	AC4011	DY617826	TC94783	protein of unknown function
8	profile 1	2,727792485	AC1668	DY616229	TC101355	N-hydroxycinnamoyl/benzoyltransferase; phytoalexin biosynthesis
9	profile 1	4,670527656	AC4532	DY618233	TC106619	aquaporin
10	profile 1	2,736543308	AC2320	DY616740	TC106642	cysteine proteinase
11	profile 1	2,165400925	AC0416	AJ389039	TC100146	polyubiquitin protein
12	profile 1	5,340956395	AC2248	DY616694	TC100291	aquaporin
13	profile 1	2,790428956	AC2703	DY617025	TC94604	arginine decarboxylase
14	profile 1	2,032468495	AC2153	DY616618	TC106701	protein of unknown function
15	profile 1	8,266523366	AC1414	DY616027	TC106536	chalcone synthase
16	profile 1	3,823504572	AC0662	DY615578	TC94281	isoflavone reductase
17	profile 1	4,924898619	AC2540	DY616902	singleton	isoflavone reductase
18	profile 1	2,637140889	AC4715	DY618371	TC94651	MYB transcription factor
19	profile 1	2,569288491	AC2663	DY616994	TC108442	protein of unknown function
20	profile 1	3,444317729	AC4171	DY617954	TC100215	protein of unknown function with Sec14p-like lipid-binding domain
21	profile 1	3,377020122	AC4841	DY618465	TC94571	protein of unknown function with DUF1645 domain
22	profile 1	1,851731693	AC1207	DY615867	TC95172	Ethylene-responsive transcription factor
23	profile 1	2,946113522	AC4864	DY618481	TC94944	protein of unknown function
24	profile 1	2,435018614	AC3026	DY617248	TC106726	protein of unknown function; B12D protein
25	profile 1	2,673564939	AC4245	DY618015	TC94676	Class III peroxidase
26	profile 1	4,502894407	AC2350	DY616765	TC97485	beta-glucan-elicitor receptor
27	profile 1	1,89086513	AC1461	DY616071	TC94230	hydroxyisourate hydrolase; glycosyl hydrolase family 1 protein
28	profile 1	1,894433222	AC3007	DY617236	TC106810	cellulose synthase
29	profile 1	4,551261155	AC4215	DY617986	TC93930	60S ribosomal protein L10
30	profile 1	5,522483514	AC1191	DY615854	TC108403	protease inhibitor

31	profile 1	3,841309937	AC0044	AJ388685	TC107101	isoflavone reductase
32	profile 1	3,345965354	AC1101	DY615780	TC100155	lipxygenase
33	profile 1	4,162226616	AC3828	DY617683	TC94611	eukaryotic aspartyl protease
34	profile 1	3,073747616	AC4284	DY618045	TC106484	class III peroxidase
35	profile 1	4,402662817	AC1560	DY616156	TC100746	class III peroxidase
36	profile 1	4,400341435	AC1700	DY616252	TC100779	protein of unknown function with plastocyanin-like domain (copper binding protein)
37	profile 1	4,417545026	AC2725	DY617046	TC106753	protein of unknown function; DREPP plasma membrane polypeptide
38	profile 1	2,016419936	AC1159	DY615827	TC107600	lipase
39	profile 1	1,877274083	AC1741	DY616282	TC101289	protein of unknown function
40	profile 1	2,958864522	AC2315	DY616736	TC106503	protein of unknown function; protein with 4 ACT domain repeats
41	profile 1	2,542450632	AC3226	DY617344	TC100768	protein of unknown function; IQ calmodulin-binding motif
42	profile 1	3,398984724	AC3887	DY617723	singleton	no homology
43	profile 1	2,656858335	AC1541	DY616140	TC106316	plant invertase/pectin methylesterase inhibitor (PMEI)
44	profile 1	2,108181563	AC1562	DY616158	TC94661	signal peptidase I
45	profile 1	1,82994603	AC3744	DY617614	TC107320	isoflavone reductase
46	profile 1	2,181402092	AC0768	DY615680	TC93944	protein of unknown function; late-embryogenesis protein
47	profile 1	3,709907936	AC2927	DY617198	TC100398	chalcone reductase
48	profile 1	3,429524479	AC0371	AJ388996	TC106667	phenylalanine ammonia-lyase (PAL)
49	profile 1	5,899128294	AC4292	DY618051	TC94347	class III peroxidase
50	profile 1	4,90075482	AC1202	DY615862	TC94347	class III peroxidase
51	profile 2	3,607386615	AC2044	DY616525	TC106656	beta-glucosidase; Glycosyl hydrolase family 1
52	profile 2	2,425738457	AC4622	DY618297	TC107222	brassinosteroid biosynthetic protein diminuto; cell elongation
53	profile 2	1,932263083	AC1612	DY616191	TC107365	glutamyl-peptide cyclotransferase; protein post-translational modification
54	profile 2	1,989311802	AC1530	DY616131	TC100802	Protein of unknown function with DUF791 domain
55	profile 2	2,680067565	AC4716	DY618372	TC106540	class III peroxidase
56	profile 2	2,132690607	AC1121	DY615797	TC103583	dirigent-like protein; disease resistance response protein
57	profile 2	3,070246093	AC1174	DY615840	TC100478	serine protease; subtilisin-like proteinase
58	profile 2	5,353958163	AC3809	DY617667	TC100589	quinone oxidoreductase
59	profile 2	3,568896063	AC2749	DY617066	TC100519	UDP-glucosyltransferase; anthocyanidin-3-glucoside rhamnosyltransferase
60	profile 2	7,161939748	AC0143	AJ388780	TC100308	aquaporin
61	profile 2	2,349413382	AC0156	AJ388793	TC106425	L-ascorbate peroxidase
62	profile 2	2,66582142	AC1141	DY615814	TC94364	glutathione S-transferase
63	profile 2	2,01128208	AC1300	DY615953	TC106715	glycine/serine hydroxymethyltransferase; amino acid transport and metabolism
64	profile 2	4,177603903	AC4494	DY618204	TC100885	class III peroxidase
65	profile 2	6,674177139	AC3440	DY617449	TC106496	ripening related protein; Pathogenesis-related protein Bet v I family

66	profile 2	1,944179067	AC0547	DY615476	TC106633	3-hydroxy-3-methylglutaryl coenzyme a reductase (HMGR1)
67	profile 2	4,620355967	AC1326	DY615967	TC97494	aquaporin
68	profile 2	2,346663931	AC1018	DY615729	TC100483	calmodulin
69	profile 2	1,594109391	AC0378	AJ389002	TC94131	Ras-like Sar1 GTP binding protein; intracellular protein transport
70	profile 2	1,738898254	AC0406	AJ389029	TC100979	disease resistance protein-like protein MsR1; CC-NBS-LRR class
71	profile 2	1,444282997	AC0191	AJ388825	TC103840	protein of unknown function
72	profile 2	1,573173061	AC0274	AJ388905	TC106899	40S ribosomal protein S20
73	profile 2	1,408161876	AC0527	DY615458	TC107324	small G-protein ROP/RAC
74	profile 3	2,493032823	AC2134	DY616602	TC107303	bZIP transcription factor
75	profile 3	8,759055838	AC3794	DY617654	TC106600	auxin-repressed protein of unknown function
76	profile 3	2,469072633	AC4796	DY618428	TC107164	protein of unknown function
77	profile 3	2,044508588	AC0561	DY615487	TC94532	O-diphenol-O-methyl transferase
78	profile 3	3,465199359	AC3792	DY617652	TC106608	protein of unknown function
79	profile 3	1,718115821	AC1768	DY616304	singleton	peptidase; papain; cathepsin B-like cysteine proteinase
80	profile 3	2,208180964	AC1824	DY616353	TC94526	protein of unknown function
81	profile 3	1,981241886	AC1067	DY615761	TC100463	Cinnamyl alcohol dehydrogenase
82	profile 3	3,529538586	AC2351	DY616766	TC107254	protein of unknown function with CBS domain
83	profile 4	5,764768108	AC2456	DY616837	TC109032	MtN3; contains 7 transmembrane domains
84	profile 4	3,866165691	AC2566	DY616921	TC94341	cytochrome P450; isopenoid hydroxylase
85	profile 4	4,334194709	AC2383	DY616791	TC106707	protein disulfide-isomerase (PDI)
86	profile 4	2,392486036	AC4565	DY618259	TC94606	xyloglucan endotransglycosylase; cell growth
87	profile 4	2,016240434	AC1372	DY615995	TC109033	aurora kinase; regulation of mitosis; serine/threonine-specific protein kinase
88	profile 4	1,651238498	AC1147	DY615818	TC106512	60S ribosomal protein L39
89	profile 4	3,625190073	AC2113	DY616584	TC100408	tubulin alpha; cytoskeleton
90	profile 4	1,955636668	AC3099	DY617279	TC106356	mitochondrial heat shock 70 kDa protein; protein synthesis; protein folding
91	profile 4	2,566989359	AC0391	AJ389014	TC108193	histone H4
92	profile 4	2,52634809	AC1675	DY616234	TC107228	calmodulin-binding protein
93	profile 4	9,072096398	AC2751	DY617068	TC100767	L-asparaginase (conversion of asparagine to aspartate); nitrogen metabolism
94	profile 4	1,852903683	AC0405	AJ389028	TC108603	NADH-cytochrome b5 reductase
95	profile 4	2,811152845	AC1181	DY615847	singleton	GRP1G; EST corresponds to 3' untranslated
96	profile 4	1,681223343	AC1958	DY616463	TC112406	protein of unknown function
97	profile 4	5,293315948	AC2026	DY616512	TC106691	secreted protein; glutamine rich cell wall protein homologous to cotton fiber proteins E6
98	profile 4	2,193864035	AC3854	DY617701	TC104788	transcription factor; CCH-type zinc finger

99	profile 4	2,714218506	AC1467	DY616076	TC101141	histone deacetylase HD2; repression of expression; associated with cell cycle progression
100	profile 4	2,189604286	AC1477	DY616085	singleton	RING-finger-containing ubiquitin ligase
101	profile 4	3,17221606	AC1114	DY615791	TC94539	60S ribosomal protein L6
102	profile 4	2,390893947	AC2771	DY617083	TC106375	60S ribosomal protein L7
103	profile 4	2,875493019	AC0310	AJ388940	TC106692	60S ribosomal protein L9
104	profile 4	2,177532824	AC0098	AJ388737	TC94402	40S ribosomal protein S13
105	profile 4	3,007846766	AC3782	DY617645	TC106902	40S ribosomal protein S15a
106	profile 4	2,576334085	AC0374	AJ388998	TC106741	40S ribosomal protein S24
107	profile 4	2,931844647	AC2647	DY616983	TC106794	T-complex protein 1 epsilon subunit (TCP-1-epsilon) (CCT-epsilon); subunit of cytosolic chaperonin; promote protein folding by using energy derived from ATP hydrolysis
108	profile 4	2,664960787	AC4226	DY617997	TC106794	T-complex protein 1 epsilon subunit (TCP-1-epsilon) (CCT-epsilon); subunit of cytosolic chaperonin; promote protein folding by using energy derived from ATP hydrolysis
109	profile 4	2,606753616	AC1422	DY616034	singleton	UDP-glucose glucosyltransferase
110	profile 4	1,528223937	AC2805	DY617112	TC95942	Uridine 5'-monophosphate synthase (UMP synthase); Pyrimidine metabolism
111	profile 4	5,85735412	AC0358	AJ388983	TC106640	ferritin, iron ion binding protein, iron homeostasis
112	profile 4	2,88207529	AC1815	DY616346	TC106674	cyclophilin; peptidylprolyl cis-trans isomerase (PPIase); PPIase accelerates protein folding by catalyzing the cis-trans isomerization of the peptide bonds preceding proline residues
113	profile 4	2,351303921	AC2025	DY616511	TC95495	RNA binding protein; contains a RRM domain found in proteins part of RNPs
114	profile 4	2,470543264	AC0042	AJ388684	TC94718	translation initiation factor 3 subunit 3 (eIF-3 gamma)
115	profile 4	2,527649397	AC3765	DY617632	TC107407	elongation factor 1-gamma
116	profile 4	4,005753699	AC4448	DY618172	TC100539	WD-40 repeat protein; signal transduction; expressed in nodule primordia & meristem
117	profile 4	2,521368707	AC1609	DY616190	TC95169	mitochondrial import receptor subunit TOM40; protein-mitochondrial targeting; mitochondrial outer membrane translocase complex
118	profile 4	2,639047991	AC4092	DY617889	TC107200	lysyl-tRNA synthetase
119	profile 4	2,499246529	AC4836	DY618462	TC100645	mevalonate diphosphate decarboxylase; mevalonate pathway
120	profile 4	5,079627361	AC4013	DY617828	TC107261	rip1; Secretory peroxidase; Class III of the plant heme-dependent peroxidase superfamily
121	profile 4	3,929664944	AC0043	AJ389056	TC106354	polyadenylate-binding protein, positive regulation of translation
122	profile 4	2,293330026	AC2731	DY617052	TC107591	endo-polygalacturonase
123	profile 4	9,101148097	AC2810	DY617117	TC106707	protein disulfide-isomerase precursor (PDI)
124	profile 4	2,843658241	AC0145	AJ388782	TC94384	sec1 translocase alpha subunit; ER protein involved in protein secretion

125	profile 4	1,722339367	AC0110	AJ388748	TC107342	ribosome biogenesis; WD repeat; mRNA processing; rRNA processing
126	profile 4	2,937769445	AC1261	DY615915	TC100411	Ribosomal protein L3
127	profile 4	2,39311315	AC1304	DY615956	TC94304	60S ribosomal protein L4
128	profile 4	2,801555409	AC0082	AJ388722	TC106773	60S ribosomal protein L5
129	profile 4	2,084549171	AC1411	DY616024	TC94398	26S proteasome subunit 4 AtRPT2a
130	profile 4	3,276002669	AC4859	DY618477	TC106368	tubulin beta chain (Beta tubulin)
131	profile 4	2,621008736	AC3411	DY617425	TC104645	UDP-glycosyltransferase; cell division activation (Woo et al., 1999 Plant Cell 11, 2303-2315)
132	profile 4	3,553824101	AC0605	DY615522	TC94313	60S ribosomal protein L19
133	profile 4	2,50132679	AC1288	DY615941	TC94406	12-oxophytodienoate reductase; jasmonic acid biosynthesis
134	profile 4	1,954462804	AC1428	DY616039	TC94398	26S proteasome subunit 4 AtRPT2a
135	profile 4	2,114996019	AC2486	DY616861	TC100179	ADP-ribosylation factor (small GTPase ARF); intracellular protein transport
136	profile 4	3,945629146	AC1115	DY615792	TC106434	tubulin beta; cytoskeleton
137	profile 4	2,210418845	AC1936	DY616445	TC107124	EF-hand Calcium binding protein; conserved plant protein
138	profile 4	2,486927332	AC0525	DY615456	TC101346	cell division control protein (cdk) 2
139	profile 4	2,164164704	AC0326	AJ388953	TC106500	60S ribosomal protein L18a
140	profile 4	2,813174408	AC0348	AJ388975	TC93950	60S ribosomal protein L27A
141	profile 4	1,679208556	AC1446	DY616057	TC100761	coatamer delta subunit (Delta COP); intracellular vesicle transport; Golgi vesicle
142	profile 4	5,007045486	AC0517	DY615448	TC95953	cyclin D3
143	profile 4	2,036475241	AC1702	DY616254	TC107031	cytosolic tRNA-Ala synthetase; translation; protein synthesis
144	profile 4	2,332617088	AC0222	AJ388856	TC106485	elongation factor 1-alpha, protein biosynthesis, regulation of translation
145	profile 4	2,066734351	AC2441	DY616832	TC100199	translation initiation factor eIF-4A; DEAD box RNA helicase
146	profile 4	1,726836323	AC3998	DY617814	TC95177	beta-1,3 glucanase (callose degradation)
147	profile 4	2,16928415	AC1627	DY616202	TC108345	alpha-glucosidase; starch metabolism; Hydrolysis of terminal, non-reducing 1,4-linked alpha-D-glucose residues with release of alpha-D-glucose
148	profile 4	2,80590201	AC4124	DY617917	TC94521	HSP90-like protein (SHEPHERD); Endoplasmic homolog; ER localized
149	profile 4	3,118665356	AC1383	DY616001	TC98647	heat shock protein
150	profile 4	2,149025015	AC0763	DY615675	TC100786	isoflavone reductase
151	profile 4	3,297026292	AC0721	DY615636	TC108572	MtN3-like; contains two transmembrane helices
152	profile 4	1,295605766	AC0234	AJ388866	TC94582	NADH-ubiquinone oxidoreductase 24 kDa subunit mitochondrial precursor; oxidative phosphorylation
153	profile 4	4,481302834	AC1381	DY616000	singleton	protein of unknown function
154	profile 4	1,617049555	AC4600	DY618282	TC102084	hypothetical protein, contains 3 transmembrane domains
155	profile 4	1,749486457	AC2250	DY616696	TC100615	nucleolin; contains 2 RRM (RNA recognition motif); role in pre-rRNA transcription and ribosome assembly; role in transcriptional elongation
156	profile 4	2,725879309	AC1549	DY616147	TC106342	poly-A Binding Protein; positive regulator of translation

157	profile 4	1,594328176	AC4015	DY617830	TC100933	potassium ion channel regulatory beta chain with aldo-keto oxidoreductase activity
158	profile 4	1,824127139	AC1170	DY615836	TC94135	26S proteasome subunit RPN5a
159	profile 4	2,374896623	AC1918	DY616430	TC107025	20S proteasome alpha 6 subunit
160	profile 4	3,780063682	AC4802	DY618433	TC94066	beta-1 3-glucanase
161	profile 4	2,820979081	AC1474	DY616082	TC94015	elongation factor EF-2; translation
162	profile 4	2,293581097	AC0284	AJ388914	TC101000	protein with unknown function
163	profile 4	1,499413187	AC1927	DY616438	TC107201	conserved plant protein; contains a N-terminal Sm-domain conserved in RNA binding proteins part of RNPs
164	profile 4	2,377236778	AC2268	DY616709	TC94934	protein with Tetratricopeptide repeat domain (TPR); unknown function
165	profile 4	2,106507473	AC2425	DY616823	TC101237	cop-coated vesicle membrane protein; secretory pathway
166	profile 4	1,998648033	AC2621	DY616963	TC106798	hypothetical protein; unknown function; DNA binding, homologous to Alba an archeal chromatin protein
167	profile 4	2,562845625	AC3191	DY617323	TC107034	conserved protein of unknown function; contains transmembrane domains
168	profile 4	1,784369115	AC3471	DY617469	TC109490	Armadillo/beta-catenin-like repeat containing protein of unknown function
169	profile 4	1,508432805	AC0350	AJ388977	TC111704	50S ribosomal protein L21 mitochondrial precursor
170	profile 4	1,686288263	AC1085	DY615769	TC100778	ribosomal protein L28
171	profile 4	2,491910597	AC2112	DY616583	TC106330	60S ribosomal protein L17
172	profile 4	3,217459641	AC2213	DY616668	TC101073	60S ribosomal protein L18
173	profile 4	2,718521243	AC2453	DY616836	TC94302	60S ribosomal protein L4
174	profile 4	2,244601802	AC0192	AJ388826	TC94496	60S ribosomal protein L12
175	profile 4	3,019581794	AC3032	DY617253	TC100447	60S ribosomal protein L13a-4
176	profile 4	2,483991082	AC0022	AJ388670	TC107120	ribosomal protein L14; hydroxyproline-rich glycoprotein
177	profile 4	2,548248334	AC0253	AJ388884	TC100421	60S ribosomal protein L15
178	profile 4	3,397997303	AC1844	DY616370	TC106334	ribosomal protein L2
179	profile 4	2,384281187	AC1052	DY615753	TC106429	ribosomal L22e protein
180	profile 4	2,133535467	AC3735	DY617609	TC94760	60S ribosomal protein L26
181	profile 4	1,850061651	AC1542	DY616141	TC106474	60S ribosomal protein L34
182	profile 4	2,381937673	AC0114	AJ388751	TC100995	60S ribosomal protein L35
183	profile 4	2,980373864	AC0054	AJ388695	TC100531	60S ribosomal protein L6
184	profile 4	2,299755803	AC1472	DY616080	TC100719	60S acidic ribosomal protein P1
185	profile 4	2,75001686	AC1798	DY616330	TC106748	40S ribosomal protein S10
186	profile 4	2,789824306	AC1926	DY616437	TC100470	40S ribosomal protein S11
187	profile 4	3,373993584	AC1529	DY616130	TC107406	40S ribosomal protein S12
188	profile 4	3,367140181	AC0196	AJ388830	TC106824	40S ribosomal protein S15-1
189	profile 4	2,618346275	AC0377	AJ389001	TC94278	40S ribosomal protein S2

190	profile 4	2,99553378	AC3563	DY617514	TC100931	40S ribosomal protein S20
191	profile 4	2,764133894	AC0290	AJ388920	TC106541	40S ribosomal protein S3
192	profile 4	2,329772607	AC1342	DY615976	TC93948	40S ribosomal S4 protein
193	profile 4	2,634616162	AC1746	DY616284	TC106523	40S ribosomal protein S6
194	profile 4	3,557221528	AC2119	DY616589	TC100149	40S ribosomal protein S7
195	profile 4	1,818761075	AC1329	DY615970	TC106644	40S ribosomal protein S9
196	profile 4	2,190300225	AC2691	DY617014	TC108094	signal peptide peptidase (SPP)
197	profile 4	1,617351458	AC2408	DY616809	TC101217	protein transport protein SEC13; secretory pathway; contains WD40 domain
198	profile 4	1,792995521	AC4328	DY618081	TC108419	U2 small nuclear ribonucleoprotein A' (U2 snRNP-A'); RNA splicing
199	profile 4	3,476310816	AC0338	AJ388965	TC106866	ubiquitin / ribosomal protein CEP52 (Ubiquitin fused to ribosomal protein L40)
200	profile 5	19,27522593	AC0655	DY615572	TC103668	protein with unknown function
201	profile 5	6,46254704	AC2722	DY617043	singleton	ubiquitin carboxyl-terminal hydrolase; deubiquitinating enzyme; MtN2
202	profile 5	6,018016746	AC4482	DY618196	TC100662	alcohol dehydrogenase
203	profile 5	5,148961243	AC2657	DY616990	TC95584	MtN9; MtMMPL1; Zinc-dependent metalloprotease; signal peptide
204	profile 5	18,36802283	AC1810	DY616342	TC102486	Thioredoxin S-type, (symbiotic-type); defense against oxidative stress (reducing hydrogen peroxide and certain radicals), reducing protein disulfide bonds and thereby regulation of protein (enzymes, transcription factors) functions; signal peptide
205	profile 5	6,869798705	AC4780	DY618415	TC102163	MtN1-like (defensin like)
206	profile 5	33,34792733	AC1608	DY616189	TC96169	nodulin 6 (MtN6); nodulin 61 (soybean); glutamate-ammonia ligase (glutamine syntase)
207	profile 5	10,41475901	AC4496	DY618205	singleton	protein with unknown function
208	profile 5	12,07040973	AC2126	DY616596	TC111120	protein with unknown function
209	profile 6	18,32982105	AC4018	DY617833	TC98964	caffeic acid O-methyltransferase (catalyzes the S-adenosylmethionine-dependent O-methylation of caffeic acid to form ferulic acid (antioxidant))
210	profile 6	19,04469603	AC0102	AJ388741	TC94567	NCR084
211	profile 6	26,11458658	AC1531	DY616132	singleton	NCR145
212	profile 6	30,5745779	AC3478	DY617472	TC109261	NCR213
213	profile 6	7,985041228	AC2302	DY616733	TC97740	NCR233
214	profile 6	5,787608499	AC2067	DY616542	singleton	NCR321
215	profile 6	7,338613812	AC3774	DY617638	TC98265	NCR336
216	profile 6	11,83497238	AC2577	DY616926	singleton	NCR356
217	profile 6	7,500150713	AC2834	DY617139	singleton	protein with unknown function

218	profile 6	5,029945076	AC3666	DY617554	singleton	HRD ubiquitin ligase complex, ER membrane component [Posttranslational modification, protein turnover, chaperones]
219	profile 6	4,928192698	AC2423	DY616821	TC100662	alcohol dehydrogenase
220	profile 6	99,8583964	AC0131	AJ388768	TC100150	carbonic anhydrase
221	profile 6	43,72509995	AC0643	DY615560	TC101756	Lipase/lipoxygenase, PLAT/LH2 (interaction with lipids or membrane bound proteins), Embryo-specific protein 3, (ATS3), signal peptide; (6 nodule specific genes on genomic locus - see clones AC1452; AC3976; AC643)
222	profile 6	10,43015702	AC1296	DY615949	TC100834	signal peptidase 25kDa subunit (SPC25); ER; protein secretion
223	profile 6	37,93077627	AC1371	DY615994	TC101347	enod16, signal peptide, proline-rich; related to enod20
224	profile 6	8,450738123	AC0237	AJ388868	TC100789	MtN1 (defensin like)
225	profile 6	23,533256	AC0366	AJ388991	TC102128	Small Nodulin Acidic RNA-binding Peptide SNARP3
226	profile 6	11,22080129	AC1721	DY616265	TC95535	nodule specific charged protein (100-120aa); glutamic acid (E) and lysine (K)-rich nodule specific protein from soybean; no homology
227	profile 6	2,982057887	AC2283	DY616721	singleton	secretory peroxidase; Class III of the plant heme-dependent peroxidase superfamily
228	profile 6	2,022875427	AC2974	DY617220	TC96114	conserved transmembrane protein of unknown function
229	profile 6	5,969600764	AC1051	DY615752	TC95076	signal peptide peptidase (SPP)
230	profile 6	4,343428603	AC1676	DY616235	TC96179	MtN21; integral membrane protein; permease; transporter
231	profile 6	105,9809008	AC1555	DY616152	TC109169	MtN25 protein; signal peptide; Glycine rich protein
232	profile 6	48,38471545	AC1589	DY616180	TC107188	MtN29 protein; Glycine rich protein
233	profile 6	8,21652518	AC4024	DY617837	singleton	GRP1C
234	profile 6	9,75189242	AC1002	DY615716	TC108339	NCR109 (MtN28)
235	profile 6	10,58990503	AC3400	DY617421	TC95075	signal peptide peptidase (SPP)
236	profile 6	5,505348818	AC0410	AJ389033	TC100580	proline-rich cell wall protein
237	profile 6	12,52007619	AC3895	DY617729	TC94812	UDP-sulfoquinovose synthase; Sulfolipid biosynthesis protein
238	profile 6	1,741055484	AC1915	DY616427	TC95407	Cytokinin oxidase, FAD-binding; cytokinin inactivation and degradation
239	profile 6	4,231940455	AC3135	DY617301	singleton	bZIP transcription factor TGA-type (TGACG MOTIF-BINDING)
240	profile 6	4,306548537	AC0385	AJ389008	TC102614	DNAJ protein (heat shock protein)
241	profile 6	2,388983036	AC1884	DY616400	TC94919	beta-tubulin (cytoskeleton)
242	profile 6	3,827311973	AC2063	DY616538	singleton	POT oligo peptide, proton dependent transporter
243	profile 6	1,725280236	AC4827	DY618455	TC94328	UDP-glucose pyrophosphorylase; starch and sugar metabolism
244	profile 6	2,591159716	AC2148	DY616613	singleton	NADH:flavin dependent 12-oxophytodienoate-10,11-reductase) (OPDA-reductase) jasmonic acid biosynthesis
245	profile 6	4,082165056	AC0240	AJ388871	TC93945	ATP synthase beta chain mitochondrial precursor

246	profile 6	10,42294217	AC3976	DY617795	singleton	Lipase/lipoxygenase, PLAT/LH2 (interaction with lipids or membrane bound proteins), Embryo-specific protein 3, (ATS3), signal peptide; (6 nodule specific genes on genomic locus - see clones AC1452; AC3976; AC643)
247	profile 6	7,906637969	AC0309	AJ388939	TC94515	nodulin ENOD40
248	profile 6	2,466154856	AC0060	AJ388701	TC100309	phosphopyruvate hydratase; enolase
249	profile 6	3,63777989	AC2561	DY616917	singleton	GATA-binding transcription factor
250	profile 6	5,540216568	AC1858	DY616384	TC94194	granule-bound glycogen (Starch) synthase
251	profile 6	2,41306495	AC0097	AJ388736	TC100430	cytosolic malate dehydrogenase
252	profile 6	127,3429529	AC0024	AJ388672	TC107014	MtN22, signal peptide; same genomic locus as CaM-like proteins (clone AC0344) and nodulin25 (clone AC0154)
253	profile 6	11,07656672	AC0210	AJ388844	TC100608	MtN5 protein; lipid transfer protein
254	profile 6	2,890605877	AC0259	AJ388890	singleton	MRP-like ABC transporter (Glutathione S-conjugate-transporting ATPase)
255	profile 6	17,29901527	AC1912	DY616424	TC107654	MtN24; conserved plant protein with transmembrane helices
256	profile 6	8,880172045	AC0360	AJ388985	TC109579	protein of unknown function with DUF640 domain
257	profile 6	5,881307981	AC3954	DY617778	TC109112	CBS, Phox and Bem1p domains-containing protein; signal transduction protein of unknown function
258	profile 6	3,669823098	AC4398	DY618136	TC110990	conserved protein of unknown function
259	profile 6	18,23460853	AC4151	DY617937	TC96630	remorin; plant-specific membrane associated and lipid rafts associated protein of unknown function; phospho-protein; signalling
260	profile 6	5,143584961	AC2150	DY616615	TC95444	pathogenesis related protein of unknown function; PR-1 like; signal peptide and extracellular SCP domain conserved in plant and human immune system
261	profile 6	3,164103176	AC0257	AJ388888	TC100410	sucrose synthase
262	profile 6	3,499784262	AC1424	DY616036	singleton	peptide/amino acid transporter
263	profile 6	1,87590363	AC1940	DY616448	TC95445	actin depolymerizing factor (ADF)/cofilin; cytoskeleton
264	profile 6	6,662455917	AC4175	DY617957	singleton	caffeic acid O-methyltransferase (catalyzes the S-adenosylmethionine-dependent O-methylation of caffeic acid to form ferulic acid (antioxidant))
265	profile 6	7,428367205	AC1116	DY615793	singleton	defensin-like peptide
266	profile 6	6,686255308	AC3835	DY617690	singleton	ER lumen protein retaining receptor
267	profile 6	2,340261495	AC1722	DY616266	singleton	fructokinase; glycolysis
268	profile 6	3,728430031	AC0029	AJ388674	TC106913	glutamine synthetase
269	profile 6	9,339259817	AC0064	AJ388705	singleton	no ORF in EST; homologous to the 3' end of the GRP5B
270	profile 6	3,425509916	AC4107	DY617902	TC102728	transcription factor; C2H2-type zinc finger protein
271	profile 6	5,190849615	AC2154	DY616619	TC109630	secreted protein of unknown function related to MtN26
272	profile 6	8,105085346	AC1277	DY615931	TC97495	NCR237
273	profile 6	4,798950838	AC1455	DY616066	singleton	NCR110
274	profile 6	6,172296079	AC2863	DY617157	singleton	NCR128

275	profile 6	4,946650905	AC2612	DY616956	TC97025	NCR201
276	profile 6	11,45883558	AC0242	AJ388873	TC102095	NCR206
277	profile 6	9,189584705	AC2884	DY617169	singleton	NCR351
278	profile 6	5,621985001	AC2494	DY616867	singleton	NCR327
279	profile 6	16,77020542	AC4473	DY618190	TC110997	NCR339
280	profile 6	4,741606399	AC4075	DY617875	singleton	NCR342
281	profile 6	2,085419686	AC0353	AJ388979	TC106697	nucleoside diphosphate kinase I (NDK I) (NDP kinase I) (NDPK I)
282	profile 6	2,197736842	AC1099	DY615778	TC95756	conserved protein of unknown function
283	profile 6	2,491043547	AC1108	DY615786	TC95643	protein of unknown function , conserved in plants
284	profile 6	5,002835419	AC2376	DY616786	TC95075	signal peptide peptidase (SPP)
285	profile 6	3,866558726	AC4515	DY618219	singleton	NCR340
286	profile 6	3,824966036	AC1278	DY615932	TC95087	alpha-1,4 glucan phosphorylase L isozyme, chloroplast/amyloplast precursor
287	profile 6	5,301270053	AC3122	DY617294	TC95550	aspartyl (acid) protease; secreted
288	profile 6	6,724880925	AC0505	DY615436	TC100731	enod20; proline-rich; related to enod16
289	profile 6	8,114013977	AC4126	DY617919	singleton	ER lumen protein retaining receptor
290	profile 6	3,263754525	AC2590	DY616937	TC94500	ferritin 2 chloroplast precursor
291	profile 6	13,07507354	AC4626	DY618300	TC108069	NCR119
292	profile 6	6,133029594	AC2461	DY616841	TC100321	NCR123
293	profile 6	24,25362815	AC1502	DY616107	TC95912	NCR220 (MtN27)
294	profile 6	4,808400033	AC4051	DY617856	TC96632	NCR244
295	profile 6	5,205014529	AC1544	DY616143	singleton	NCR319
296	profile 6	10,21414864	AC2212	DY616667	singleton	NCR326
297	profile 6	10,40863076	AC3467	DY617465	TC107275	protein of unknown function
298	profile 6	2,72778908	AC2666	DY616997	singleton	NCR347
299	profile 6	27,02906357	AC1954	DY616460	singleton	allantoin (Ureide) permease (L. japonicus is an amide transporter; soybean is an ureide transporter)
300	profile 6	5,273996307	AC4100	DY617895	singleton	TIR domain protein; resistance
301	profile 6	2,379315661	AC1232	DY615889	TC96933	UV-damaged DNA binding factor; re-mRNA cleavage and polyadenylation specificity factor [RNA processing and modification]
302	profile 6	5,645284139	AC2694	DY617017	singleton	transcription factor; nodule inception protein (nin)
303	profile 6	3,356145003	AC2155	DY616620	TC96274	secreted aspartyl protease (pepsin A)
304	profile 6	2,722717613	AC0277	AJ388908	TC103041	allantoin (Ureide) permease (L. japonicus is an amide transporter; soybean is an ureide transporter)
305	profile 6	2,401611144	AC3480	DY617474	TC96501	bHLH transcription factor
306	profile 6	2,009581345	AC3497	DY617484	TC96184	protein of unknown function
307	profile 6	2,723878652	AC3822	DY617677	TC107034	conserved protein of unknown function

308	profile 6	2,184394992	AC4299	DY618058	TC109990	protein phosphatase 2C; serine/threonine phosphatase; signal transduction
309	profile 6	16,65924545	AC1377	DY615997	TC96231	signal peptidase 22kDa subunit (SPC22); ER; protein secretion
310	profile 6	11,70859234	AC2699	DY617021	TC95981	transcription factor CCAAT-binding nuclear factor Y subunit (HAP2); Combiar et al., 2006
311	profile 6	3,545786817	AC4480	DY618194	TC95480	conserved protein, unknown function
312	profile 6	2,208805129	AC1701	DY616253	TC96544	MtN21-like; integral membrane protein; permease; transporter; conserved in plants
313	profile 6	3,17234287	AC0105	AJ388744	TC100510	40S ribosomal protein S8
314	profile 6	1,966915064	AC3093	DY617276	TC94731	glucose-6-phosphate/phosphate translocator
315	profile 6	1,995369601	AC4577	DY618266	TC103210	kinesin
316	profile 6	1,977830874	AC1205	DY615865	singleton	Mitochondrial carrier protein; transport of metabolites in and out the mitochondrion
317	profile 6	1,783927978	AC3807	DY617665	TC108396	protein of unknown function with ribosomal protein S6 domain
318	profile 7	63,69778309	AC1444	DY616055	TC95391	leghemoglobin 29
319	profile 7	24,71569945	AC1816	DY616347	TC109065	NCR028
320	profile 7	42,37187086	AC1083	DY615767	TC110997	NCR306
321	profile 7	20,62539189	AC0279	AJ388910	TC94903	NCR095
322	profile 7	33,4194598	AC3921	DY617752	TC100432	enod8; suger esterase
323	profile 7	27,22770706	AC0081	AJ388721	TC100432	enod8; suger esterase
324	profile 7	8,579333275	AC3505	DY617487	TC95255	nodule specific lectin; homologous to PsNlec1
325	profile 7	106,7004289	AC0304	AJ388934	TC107718	GRP3A, nodule-specific glycine-rich protein 3
326	profile 7	9,027415238	AC0074	AJ388715	TC106138	MtN20 like
327	profile 7	43,88648739	AC0123	AJ388760	TC94240	NCR053
328	profile 7	27,51067031	AC2581	DY616929	TC97251	NCR140
329	profile 7	21,90117457	AC0164	AJ388801	TC101084	NCR165
330	profile 7	16,68211431	AC2098	DY616570	TC101764	NCR172
331	profile 7	14,80042842	AC1086	DY615770	TC94693	NCR316
332	profile 7	55,09728143	AC2724	DY617045	singleton	NCR331
333	profile 7	11,2675428	AC4165	DY617948	TC107718	GRP3
334	profile 7	24,77324247	AC0418	AJ389041	TC100851	nodulin 26 aquaporin; symbiosome membrane protein
335	profile 7	2,578684595	AC1113	DY615790	TC101191	prolyl 4-hydroxylase alpha subunit; protein maturation in ER
336	profile 7	10,45720407	AC1540	DY616139	TC101252	sulfate transporter (orthologue of L. japonicus Sst1; Krussell et al., 2005 Plant Cell 17: 1625-1636)
337	profile 7	136,091272	AC0215	AJ388849	TC106591	leghemoglobin
338	profile 7	25,84179179	AC1195	DY615857	singleton	NCR042
339	profile 7	35,41102561	AC2999	DY617232	TC94003	NCR164

340	profile 7	28,60049739	AC2195	DY616651	singleton	NCR325
341	profile 7	17,2963192	AC1291	DY615944	singleton	NCR343
342	profile 7	8,46142504	AC0347	AJ388974	singleton	NCR135
343	profile 7	5,55617843	AC3990	DY617807	TC101021	26S proteasome regulatory particle chain RPT6; ATPase; binds ubiquitin protein ligases
344	profile 7	3,59962499	AC3212	DY617337	singleton	transmembrane amino acid transporter protein; amino acid permease
345	profile 7	11,13905288	AC2344	DY616761	TC102092	carbonic anhydrase, nodule specific
346	profile 7	11,00122375	AC1452	DY616063	singleton	lipase/lipoxygenase, PLAT/LH2 (interaction with lipids or membrane bound proteins), Embryo-specific protein 3, (ATS3)
347	profile 7	22,52086872	AC0376	AJ389000	singleton	GRP
348	profile 7	109,1978476	AC1220	DY615879	TC111259	GRP1L
349	profile 7	15,66489484	AC4651	DY618319	TC107043	Universal stress protein (Usp); induced upon stress; increase survival upon stress
350	profile 7	14,59222326	AC2037	DY616518	TC101259	GATA-binding transcription factor (Zn finger)
351	profile 7	4,830428198	AC0585	DY615505	TC107287	hexose transporter protein
352	profile 7	97,62000373	AC3629	DY617527	TC94045	histone H2B
353	profile 7	14,99776419	AC4419	DY618152	TC98260	lipase/esterase; similar to enod8
354	profile 7	129,0347818	AC0020	AJ388668	TC106578	leghemoglobin 2
355	profile 7	135,3227147	AC0108	AJ388746	TC106593	leghemoglobin
356	profile 7	51,08288559	AC0130	AJ388767	TC106592	leghemoglobin 1
357	profile 7	95,37935568	AC0146	AJ388783	TC106579	leghemoglobin
358	profile 7	115,8242723	AC0224	AJ388857	TC100586	leghemoglobin 29
359	profile 7	64,71199693	AC1071	DY615763	TC106587	leghemoglobin
360	profile 7	26,3914911	AC3245	DY617357	singleton	amino acid transporter; Lysine and histidine specific transporter; amino acid permease
361	profile 7	24,41770326	AC0288	AJ388918	TC94518	enod2/nodulin75/N8 (other nodule specific homologue:TC106596)
362	profile 7	8,903604622	AC1890	DY616405	TC103322	NCR081
363	profile 7	15,56958725	AC1379	DY615998	TC106595	NCR086
364	profile 7	6,543374842	AC0212	AJ388846	TC100607	NCR094
365	profile 7	7,743300495	AC3386	DY617415	TC101238	NCR103
366	profile 7	21,08831396	AC0263	AJ388894	TC102899	NCR105
367	profile 7	6,560819034	AC3021	DY617244	singleton	NCR278
368	profile 7	17,19422103	AC2542	DY616904	singleton	NCR329
369	profile 7	24,15418448	AC1635	DY616207	TC104158	Mitogen Activated Kinase (MAPK)
370	profile 7	222,8350203	AC0154	AJ388791	TC106696	nodulin 25
371	profile 7	12,39378825	AC1658	DY616222	TC108598	phosphoethanolamine N-methyltransferase
372	profile 7	5,748646447	AC0091	AJ388730	TC95187	proline rich protein

373	profile 7	9,146754987	AC1132	DY615806	TC100814	protein of unknown function
374	profile 7	7,490510935	AC1672	DY616232	TC107129	Universal stress protein (Usp); induced upon stress; increase survival upon stress
375	profile 7	8,502222071	AC3325	DY617391	TC109930	IQ calmodulin-binding protein
376	profile 7	20,38870687	AC4391	DY618132	singleton	complex I intermediate-associated protein 30; chaperone protein involved in the assembly of the mitochondrial NADH:ubiquinone oxidoreductase complex I
377	profile 7	16,30544737	AC4415	DY618148	singleton	conserved protein of unknown function; contains transmembrane domains
378	profile 7	74,62462479	AC0113	AJ389051	TC102213	protein of unknown function, contains ankyrin repeats (protein-protein interactions)
379	profile 7	9,57289634	AC0580	DY615500	TC98374	wound induced protein of unknown function
380	profile 7	6,630154893	AC0233	AJ388865	TC93925	triosephosphate isomerase
381	profile 7	3,195495136	AC1864	DY616387	TC100894	NCR032
382	profile 7	9,0306047	AC3917	DY617748	TC107608	NCR035
383	profile 7	13,51518013	AC0189	AJ388823	TC97593	NCR102
384	profile 7	27,85873079	AC1412	DY616025	singleton	NCR317
385	profile 7	16,57395632	AC1953	DY616459	singleton	NCR344
386	profile 7	5,019345206	AC1390	DY616006	singleton	Prolyl 4-hydroxylase, alpha subunit
387	profile 7	6,342441963	AC2638	DY616978	singleton	RING/C3HC4/PHD zinc finger protein; ubiquitin protein ligase
388	profile 7	7,41178202	AC3933	DY617763	singleton	N-21 (soybean) homologue; conserved protein in plants; integral membrane protein
389	profile 7	3,209581849	AC0258	AJ388889	TC110049	pyridoxal kinase; vitamin B6 synthesis
390	profile 7	3,138861759	AC3490	DY617480	TC106719	SGT1; regulation of cell division; SCF-mediated ubiquitination of proteins; pathogen resistance; functions as a cochaperone
391	profile 8	37,64911232	AC0287	AJ388917	TC93931	basic blue copper-binding protein, electron transport
392	profile 8	7,106802376	AC2105	DY616577	TC95710	NCR018
393	profile 8	14,62071212	AC0262	AJ388893	TC104756	NCR169
394	profile 8	33,80619559	AC3355	DY617401	singleton	NCR333
395	profile 8	4,467332624	AC1297	DY615950	TC108792	protein of unknown function; similar to pathogenesis-related protein
396	profile 8	4,403595099	AC3455	DY617456	TC107024	ARG10; protein of unknown function; responsive to auxin and aluminium; possible asparagine synthetase
397	profile 8	6,012418913	AC1807	DY616339	TC106729	glutamine synthetase
398	profile 8	87,84422988	AC0068	AJ388709	TC106577	NCR001
399	profile 8	39,00829529	AC3183	DY617319	TC101991	NCR003
400	profile 8	35,9568433	AC0312	AJ388941	TC94540	NCR019
401	profile 8	34,03871611	AC1715	DY616261	TC102115	NCR072
402	profile 8	12,19466106	AC1960	DY616464	TC107422	NCR160
403	profile 8	15,51400378	AC1140	DY615813	singleton	NCR287

404	profile 8	15,60170168	AC0390	AJ389013	singleton	NCR312
405	profile 8	16,62496821	AC0193	AJ388827	singleton	endoplasmic reticulum retrieval protein RER1, protein secretion
406	profile 8	6,01513388	AC0356	AJ388981	singleton	protein of unknown function
407	profile 8	13,84246425	AC1670	DY616230	singleton	protein of unknown function
408	profile 8	2,881206358	AC0205	AJ388839	TC94720	conserved protein of unknown function
409	profile 8	2,748456247	AC2187	DY616646	TC107737	wound induced protein (91aa) of unknown function; conserved in plants
410	profile 8	5,265363081	AC2625	DY616967	TC94674	alternative respiratory pathway oxidase
411	profile 8	3,827665761	AC0129	AJ388766	TC111984	low affinity sulfate transporter 3
412	profile 8	8,249763865	AC3923	DY617754	TC108713	NCR002
413	profile 8	28,23136343	AC1489	DY616094	TC94921	NCR006
414	profile 8	22,81907609	AC0169	AJ388805	TC108507	NCR009
415	profile 8	43,15085048	AC2317	DY616738	TC108455	NCR040
416	profile 8	9,585135008	AC2411	DY616812	singleton	NCR079
417	profile 8	17,33485481	AC0093	AJ388732	TC107446	NCR099
418	profile 8	78,30321637	AC0286	AJ388916	singleton	NCR108
419	profile 8	41,2858991	AC0133	AJ388770	TC100865	NCR113
420	profile 8	9,909119334	AC1228	DY615887	TC95930	NCR219
421	profile 8	14,92545848	AC2622	DY616964	singleton	NCR330
422	profile 8	4,381587106	AC4472	DY618189	singleton	NCR338
423	profile 8	5,883695805	AC1262	DY615916	TC108269	GcpE; 1-hydroxy-2-methyl-2-(E)-butenyl 4-diphosphate synthase for plastid isoprenoid synthesis via the MEP pathway
424	profile 8	8,533649547	AC2498	DY616870	TC108234	Class III peroxidase (homologous to rip1)
425	profile 8	4,88761657	AC1358	DY615983	TC111751	polypyrimidine tract-binding protein; mRNA processing; mRNA splicing
426	profile 8	57,87591911	AC3640	DY617534	TC108455	NCR040
427	profile 8	3,65580492	AC4692	DY618351	TC95234	auxin responsive SAUR protein
428	profile 8	28,09038067	AC0344	AJ388971	TC101807	calmodulin-like protein
429	profile 8	45,69284886	AC0049	AJ388690	TC107339	enod18; cytosolic, potential ATP binding protein
430	profile 8	4,168371146	AC1185	DY615850	TC94780	NADH-dependent glutamate synthase
431	profile 8	3,388117556	AC1805	DY616337	singleton	protein of unknown function
432	profile 8	4,27954299	AC3838	DY617693	TC101134	mannosyl-oligosaccharide 1 2-alpha-mannosidase
433	profile 8	10,59781415	AC4342	DY618094	TC94421	NCR007
434	profile 8	19,5992627	AC0230	AJ388862	TC108178	NCR036
435	profile 8	6,759928825	AC1573	DY616167	TC95706	NCR097
436	profile 8	24,01424731	AC0239	AJ388870	singleton	NCR125
437	profile 8	21,29897256	AC1253	DY615907	TC101763	NCR159
438	profile 8	6,616136465	AC0571	DY615493	TC111268	NCR230

439	profile 8	75,23900331	AC1413	DY616026	TC106362	NCR269
440	profile 8	15,92486911	AC2102	DY616574		NCR324
441	profile 8	3,414304076	AC0664	DY615580		protein of unknown function
442	profile 8	5,138481472	AC2432	DY616829		protein of unknown function
443	profile 8	3,39849701	AC2088	DY616562	TC95035	AP2/EREBP transcription factor
444	profile 8	14,37076067	AC3165	DY617311	TC108316	Small Nodulin Acidic RNA-binding Peptide SNARP1
445	profile 8	5,709491988	AC2515	DY616884	TC108792	pathogenesis related protein
446	profile 8	47,37208753	AC2925	DY617196	TC102991	calcium-binding EF-hand; adenine nucleotide translocator 1
447	profile 8	3,521679737	AC1834	DY616361	TC100830	CCCH-type zinc finger transcription factor
448	profile 8	5,252752975	AC4379	DY618123	TC97287	glutamine amidotransferase class I
449	profile 8	3,766170891	AC0089	AJ388728	TC107091	protein of the AS2 family (AS2-like or ASL) with LOB-domain class II; plant specific domain; possible transcription factor
450	profile 8	5,760911388	AC1192	DY615855	TC104742	homologous to uncharacterized protein containing DHHC-type Zn finger
451	profile 8	3,284922627	AC2470	DY616848	TC107091	protein of the AS2 family (AS2-like or ASL) with LOB-domain class II; plant specific domain; possible transcription factor
452	profile 8	5,367988475	AC2778	DY617090	TC96682	protein of unknown function
453	profile 8	3,266798647	AC0278	AJ388909	TC101043	pyrophosphate-dependent phosphofructo-1-kinase (glycolysis)
454	profile 8	17,79612441	AC1528	DY616129	TC94722	senescence associated protein with Rhodanese Homology Domain (RHOD)
455	profile 8	4,300360863	AC0250	AJ388881	TC98666	similar to wound induced protein of unknown function
456	profile 8	7,749595304	AC3156	DY617308		carbonic anhydrase
457	profile 8	3,798699553	AC2177	DY616641	TC100753	NCR
458	profile 8	9,023422578	AC3206	DY617332	TC95501	NCR011
459	profile 8	5,593949352	AC3111	DY617286	TC100893	NCR184
460	profile 8	58,97698078	AC3124	DY617296	TC95184	NCR238
461	profile 8	5,553089688	AC2331	DY616749		NCR346
462	profile 8	5,691612401	AC2864	DY617158		NCR350
463	profile 8	2,013371834	AC4706	DY618364	TC95558	protein of unknown function
464	profile 8	5,18853275	AC0361	AJ388986	TC101066	myosin heavy chain; Smc-domain, Chromosome segregation ATPases; Cell division and chromosome partitioning
465	profile 8	2,447511753	AC1654	DY616219	TC106560	S-adenosylmethionine synthase
466	profile 8	4,647513428	AC2713	DY617034	TC94896	chitinase class III
467	profile 8	7,793249745	AC2394	DY616798	TC95833	NCR208
468	profile 8	2,570951774	AC2051	DY616531	TC111920	polygalacturonase PG1
469	profile 8	4,919593974	AC0207	AJ388841	TC95900	serine carboxypeptidase
470	profile 8	2,111238577	AC2180	DY616643	TC95517	secreted aspartic proteinase (senescence associated)
471	profile 8	2,584561907	AC4691	DY618350	TC96290	chitinase

472	profile 8	2,820139859	AC4353	DY618103	TC96056	cysteine proteinase
473	profile 8	6,133491659	AC0393	AJ389016	TC98625	cysteine proteinase
474	profile 8	6,344526295	AC1380	DY615999	TC100440	cysteine proteinase
475	profile 8	6,187199866	AC1811	DY616343	TC110797	class III chitinase
476	profile 8	1,962892604	AC2835	DY617140	singleton	POT family protein (proton-dependent oligopeptide transport); Dipeptide/tripeptide permease
477	profile 8	3,072073733	AC1080	DY615766	TC101701	acyl-CoA oxidase; fatty acid metabolism; peroxisome
478	profile 8	2,1658412	AC1105	DY615783	TC106745	ARG10; protein of unknown function; responsive to auxin and aluminium; possible asparagine synthetase (homologous to AC3455=TC107024)
479	profile 8	28,1170654	AC0037	AJ388679	TC100391	asparagine synthetase
480	profile 8	21,2828082	AC1367	DY615990	TC100391	asparagine synthetase
481	profile 8	19,28409453	AC2820	DY617127	TC100393	asparagine synthetase
482	profile 8	6,501217985	AC3384	DY617413	TC94631	aspartate aminotransferase
483	profile 8	10,70328673	AC3246	DY617358	singleton	NCR023
484	profile 8	2,545483239	AC2530	DY616895	TC100502	cytochrome P450 [Secondary metabolites biosynthesis, transport, and catabolism]
485	profile 8	8,574490175	AC1272	DY615926	singleton	NCR078
486	profile 8	4,925427483	AC1030	DY615736	singleton	NCR314
487	profile 8	3,21056225	AC0087	AJ388726	singleton	NCR
488	profile 8	3,971367264	AC2079	DY616553	singleton	reverse transcriptase retrotransposon (remnant); homologous to nodule specific retrotransposon TC102933
489	profile 8	4,114088694	AC2658	DY616991	singleton	RNA-directed DNA polymerase (Reverse transcriptase); homologous to nodule specific retrotransposon TC102933
490	profile 8	2,019956693	AC2967	DY617216	TC103144	oxidoreductase; secondary metabolism; senescence-associated nodulin Glycine max
491	profile 8	3,796237808	AC2943	DY617207	TC94214	defensin (76aa); Gamma-thionin protease inhibitor; Knottin family; signal peptide
492	profile 8	2,380450481	AC0313	AJ388942	TC95881	apyrase-like protein
493	profile 8	2,689942373	AC0737	DY615650	TC106991	heme oxygenase 1
494	profile 8	2,334750538	AC1122	DY615798	TC107005	protein of unknown function
495	profile 8	2,563675083	AC1363	DY615987	TC99503	conserved protein of unknown function; cupin family; suger isomerase
496	profile 8	5,308759802	AC1861	DY616386	singleton	calmodulin-binding protein with IQ calmodulin-binding motif
497	profile 8	2,920603539	AC2019	DY616509	TC98799	conserved protein of unknown function; contains Smc domain for Chromosome segregation ATPases
498	profile 8	1,684049671	AC2065	DY616540	TC101943	nucleotide kinase
499	profile 8	2,439532927	AC2615	DY616957	TC107035	soluble diacylglycerol acyltransferase
500	profile 8	5,258898214	AC4317	DY618071	TC100441	protein of unknown function

501	profile 8	6,892068084	AC0332	AJ388959	TC100432	enod8; suger esterase
502	profile 8	2,410560637	AC2650	DY616985	TC95965	transcription factor; bZIP transcriptional activator
503	profile 8	1,870589602	AC1033	DY615738	TC101115	membrane protein of unknown function
504	profile 8	2,001388243	AC2204	DY616659	TC108059	trehalose-6-phosphate phosphatase
505	profile 8	3,662683215	AC4150	DY617936	TC106537	chalcone synthase
506	profile 8	7,680585186	AC3695	DY617578	TC102310	NCR052
507	profile 8	3,759492213	AC0245	AJ388876	TC106462	NCR120
508	profile 8	5,858612917	AC2591	DY616938	singleton	NCR250
509	profile 8	6,420140932	AC2535	DY616898	singleton	NCR328
510	profile 8	3,315403918	AC1050	DY615751	TC108488	protein of unknown function
511	profile 8	1,866311518	AC1056	DY615755	singleton	protein of unknown function
512	profile 8	3,378925041	AC1180	DY615846	singleton	peptide/nitrate transporter
513	profile 8	1,328227547	AC3020	DY617243	TC109073	protein of unknown function
514	profile 8	2,045694304	AC4497	DY618206	TC108560	2OG-Fe(II) oxygenase superfamily
515	profile 8	4,011599097	AC3128	DY617298	TC96367	cellulase (glycosyl hydrolase family 5)
516	profile 8	3,979227979	AC1469	DY616078	singleton	NCR318
517	profile 8	3,856885122	AC4485	DY618198	singleton	phosphate transporter
518	profile 8	1,959747432	AC1301	DY615954	TC104041	protein of unknown function
519	profile 8	2,807641995	AC4439	DY618164	TC103017	receptor like kinase (RLK); signal transduction
520	profile 8	8,100965343	AC1481	DY616088	TC109232	NCR039