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Supplementary Material

Transcriptome analysis provides insights into the molecular bases in response to different nitrogen forms-induced oxidative stress in tea plant roots (*Camellia sinensis*)

Ziping Chen^{A,C}, *Huiping Li*^A, *Tianyuan Yang*^A, *Tingting Chen*^A, *Chunxia Dong*^A, *Quan Gu*^B and *Xunmin Cheng*^A

^AState Key Laboratory of Tea Plant Biology and Utilisation, Anhui Agricultural University, Hefei 230036, China.

^BSchool of Biology, Food and Environment, Hefei University, Hefei 230601, China.

^CCorresponding author. Email: zpchen@ahau.edu.cn

Table S1. The nutrient solution composition

Components	Concentration
(NH ₄) ₂ SO ₄	0.535 mM
Ca(NO ₃) ₂	0.18 mM
KH ₂ PO ₄	0.1 mM
K ₂ SO ₄	0.2065 mM
CaCl ₂	0.392 mM
MgSO ₄	1.029 mM
C ₁₀ H ₁₂ FeN ₂ NaNO ₃	6.27 μM
H ₃ BO ₃	9.25 μM
CuSO ₄	3.9 μM
MnSO ₄	18.2 μM
Na ₂ MoO ₄	0.53 μM
ZnSO ₄	1.53 μM

Table S2. The sequences of primers for real-time RT-PCR

Primer name	Sequences (5'→3')
<i>CsGAPDH-F</i>	TTGGCATCGTTGAGGGTCT
<i>CsGAPDH-R</i>	CAGTGGGAACACGGAAAGC
<i>TEA015379.1-F</i>	CTAGAAGGGCAGGCGATAA
<i>TEA015379.1-R</i>	GAGATGGGAAAGATGAAGAA
<i>TEA013315.1-F</i>	GATTTGAGTTGTCGCCGTGA
<i>TEA013315.1-R</i>	AAGCCGAAGCCTTGTGTTCC
<i>TEA024758.1-F</i>	TGGATGTATTTTGTGGGGAA
<i>TEA024758.1-R</i>	AGCATTGGATAAAGTCGTTC
<i>TEA023829.1-F</i>	CCACTCCCATGAATTCGTT
<i>TEA023829.1-R</i>	GCAGCTTCTCAGCCTCTG
<i>TEA011810.1-F</i>	ACCGTCAAGGTTGCTTCTAC
<i>TEA011810.1-R</i>	AACTCCACTATCTGCTCATT
<i>TEA000281.1-F</i>	GGATGCGATTTCTTTGCT
<i>TEA000281.1-R</i>	ATTTGGTCCCTCAATCCTCC
<i>TEA004130.1-F</i>	TTCCA ACTCCAATCGCTCA
<i>TEA004130.1-R</i>	TCCTGGCAATCCAAGTCCTC
<i>TEA015778.1-F</i>	ATCTGGTCCCTCCATCCTC
<i>TEA015778.1-R</i>	TCTTCCTCTCCTTTTGCCTT
<i>TEA023332.1-F</i>	TCGTTCTGCTTCTATTCCGC
<i>TEA023332.1-R</i>	ATGTTACCTCCTTCACCAC
<i>TEA022978.1-F</i>	TGGTCGTGGTGCTATTCCTA
<i>TEA022978.1-R</i>	TGTGCCTTCTTGATTGCTGT
<i>TEA001789.1-F</i>	ACA ACTACTTCACAAACCTC

TEA001789.1-R

AGACAGCCTTATCTCTCCAT

TEA000222.1-F

GGCATAACTTTCTCTGCTATC

TEA000222.1-R

GGAAGAGAGGGAGAAACCAG

Table S3. Gene Ontology Terms from the Function Ontology

Gene Ontology terms from the Function Ontology	0N/NH ₄ ⁺ +NO ₃ ⁻ (1783)	NH ₄ ⁺ /NH ₄ ⁺ +NO ₃ ⁻ (0)	NO ₃ ⁻ /NH ₄ ⁺ +NO ₃ ⁻ (1675)
Catalytic activity	1394 (78.2%)	ND	1299 (77.6%)
Metal ion binding	389 (21.8%)	ND	ND
Oxidoreductase activity	382 (21.4%)	ND	314 (18.7%)
Transition metal ion binding	259 (14.5%)	ND	227 (13.6%)
Transferase activity, transferring glycosyl groups	135 (7.6%)	ND	136 (8.1%)
Iron ion binding	125 (7.0%)	ND	101 (6%)
Hydrolase activity, acting on glycosyl bonds	114 (6.4%)	ND	108 (6.4%)
Transferase activity, transferring hexosyl groups	98 (5.5%)	ND	97 (5.8%)
Hydrolase activity, hydrolyzing O-glycosyl compounds	83 (4.7%)	ND	88 (5.3%)
Monooxygenase activity	82 (4.6%)	ND	66 (3.9%)
Tetrapyrrole binding	53 (3.0%)	ND	42 (2.5%)
Heme binding	51 (2.9%)	ND	41 (2.4%)
Glucosyltransferase activity	42 (2.4%)	ND	43 (2.6%)
Microtubule motor activity	22 (1.2%)	ND	19 (1.1%)
Manganese ion binding	18 (1.0%)	ND	19 (1.1%)
Nutrient reservoir activity	17 (1.0%)	ND	17 (1.0%)
Cellulose synthase activity	16 (0.9%)	ND	16 (1.0%)
Serine-type endopeptidase inhibitor activity	5 (0.3%)	ND	5 (0.3%)

Table S4. DEGs genes with pathway annotation

Pathway	0N/NH ₄ ⁺ +NO ₃ ⁻ (3336)	NH ₄ ⁺ /NH ₄ ⁺ +NO ₃ ⁻ (29)	NO ₃ ⁻ /NH ₄ ⁺ +NO ₃ ⁻ (3086)
Metabolic pathways	927 (27.79%)	ND	771 (24.98%)
Secondary metabolites biosynthesis	658 (19.72%)	ND	521 (16.88%)
Phenylpropanoid biosynthesis	192 (5.76%)	ND	153 (4.96%)
Plant hormone signal transduction	143 (4.29%)	ND	109 (3.53%)
Starch and sucrose metabolism	142 (4.26%)	ND	131 (4.24%)
Stilbenoid, diarylheptanoid and gingerol biosynthesis	98 (2.94%)	ND	68 (2.2%)
Flavonoid biosynthesis	92 (2.76%)	ND	64 (2.07%)
Cyanoamino acid metabolism	63 (1.89%)	ND	52 (1.69%)
Glutathione metabolism	57 (1.71%)	ND	58 (1.88%)
Other glycan degradation	49 (1.47%)	ND	ND
Ascorbate and aldarate metabolism	47 (1.41%)	ND	49 (1.59%)
Limonene and pinene degradation	45 (1.35%)	ND	33 (1.07%)
Tryptophan metabolism	45 (1.35%)	ND	39 (1.26%)
Cutin, suberine and wax biosynthesis	38 (1.14%)	ND	27 (0.87%)
Zeatin biosynthesis	38 (1.14%)	ND	41 (1.33%)
Selenocompound	35 (1.05%)	ND	37 (1.2%)

metabolism			
Tyrosine metabolism	33 (0.99%)	ND	26 (0.84%)
Isoflavonoid biosynthesis	30 (0.9%)	ND	18 (0.58%)
Isoquinoline alkaloid biosynthesis	21 (0.63%)	ND	18 (0.58%)

Table S5. Expression of unigenes related to antioxidant defence (FPKM)

Gene ID	Protein name	0N/NH ₄ ⁺ +NO ₃ ⁻	NH ₄ ⁺ /NH ₄ ⁺ +NO ₃ ⁻	NO ₃ ⁻ /NH ₄ ⁺ +NO ₃ ⁻
TEA018665.1	chalcone synthase	1.900476379	-0.146161408	1.18570833
TEA023331.1	chalcone synthase	0.578687147	0.01680727	0.064414662
TEA023333.1	chalcone synthase	0.324551403	-0.040398715	-0.224190886
TEA023340.1	chalcone synthase	0.684779193	0.020242598	0.332086964
TEA034011.1	chalcone synthase	0.743937527	-0.013963617	0.875822488
TEA034042.1	chalcone synthase	0.584002783	0.073503819	0.36066119
TEA034044.1	chalcone synthase	0.289799268	-0.06869293	-0.139332952
TEA018689.1	chalcone isomerase	0.636347267	0.315410078	0.55623815
TEA033023.1	chalcone isomerase	-0.2995731	0.09748643	-0.092604725
TEA033031.1	chalcone isomerase	-0.054733954	-0.373487432	-0.437597434
TEA034003.1	chalcone isomerase	0.521492271	0.184374545	0.615550745
TEA023790.1	naringenin 3-dioxygenase	0.331872499	0.007499765	-0.129624766
TEA034016.1	naringenin 3-dioxygenase	-0.576378318	0.290260898	-0.322404403

	flavonoid			
TEA015379.1	3'-monooxygenase	1.234539099	-0.080210036	0.634843974
	flavonoid			
BGI_novel_G00023	3'-monooxygenase	2.508444391	-0.942661705	1.623237847
7				
	flavonoid			
TEA006847.1	3'-monooxygenase	0.520708009	0.094318006	0.317370683
	flavonoid			
TEA013315.1	3',5'-hydroxylase	-1.731550456	-0.443967349	-0.30448649
	flavonoid			
TEA026294.1	3',5'-hydroxylase	0.871785917	0.252345842	0.190244963
	flavonoid			
BGI_novel_G00642	3',5'-hydroxylase	1.706969734	-0.403218912	0.925591161
0				
	bifunctional			
TEA024758.1	dihydroflavonol 4-reductase	1.042675452	-0.038635445	0.462701824
	bifunctional			
TEA023829.1	dihydroflavonol 4-reductase	1.861919846	0.933082249	1.83515607
	bifunctional			
TEA010588.1	dihydroflavonol 4-reductase	0.451459479	-0.119385944	0.080423928
	bifunctional			
TEA032730.1	dihydroflavonol 4-reductase	0.295511702	-0.015049953	0.073726745

	l 4-reductase			
	leucoanthocyan			
TEA010322.1	idin	0.682749401	0.011309979	0.217478186
	dioxygenase			
	leucoanthocyan			
TEA015762.1	idin	0.663013479	0.074651828	-0.627013433
	dioxygenase			
	leucoanthocyan			
TEA015769.1	idin	0.084290674	-0.009058042	-0.331362022
	dioxygenase			
TEA022960.1	anthocyanidin	0.173707688	-0.26406125	-0.143464167
	reductase			
TEA009266.1	anthocyanidin	0.457827119	0.258042504	-0.120962778
	reductase			
TEA010328.1	flavonol	-0.317182501	0.69641916	0.570279107
	synthase			
TEA016601.1	flavonol	1.186914569	0.856092368	1.531431936
	synthase			
TEA006643.1	flavonol	0.385345111	0.016463493	0.137488053
	synthase			
TEA014951.1	flavonol	0.883302302	-0.247332571	0.084610565
	synthase			
TEA010762.1	flavonol	-0.38890173	-0.011062105	-0.750742331
	synthase			
TEA023941.1	flavonol	-1.303078438	-0.379580527	-2.260474168
	synthase			
TEA009737.1	flavonol	0.67251562	-0.142403031	-0.230913163
	synthase			
TEA021535.1	leucoanthocyan	0.574342008	0.105572246	0.038131113

	idin reductase			
TEA026458.1	leucoanthocyan idin reductase	0.293196187	-0.368394927	-0.136426781
TEA027582.1	leucoanthocyan idin reductase	0.540881177	0.00557975	0.006965666
BGI_novel_G00325 2	glutamate-cyste ine ligase	2.320000346	0.003840454	0.380833661
TEA011808.1	glutamate-cyste ine ligase	-0.084647967	0.017007985	0.06301732
BGI_novel_G00325 3	glutamate-cyste ine ligase	0.107986627	0.166019668	0.347919908
TEA010829.1	glutamate-cyste ine ligase	-0.178365417	0.01266063	-0.120196522
TEA023680.1	glutathione synthase	-0.207579467	0.198272509	-0.154855744
TEA017688.1	glutathione synthase	-1.021125975	-0.354386729	-0.92049117
TEA018297.1	gamma-glutam yltranspeptidas	1.205412549	0.015771602	0.268826365
	e			
TEA014026.1	gamma-glutam yltranspeptidas	-0.37902635	-0.186720041	-0.225689962
	e			
BGI_novel_G01494 2	leucine aminopeptidase	-2.891523257	-0.311778405	-3.057782268
	1			
BGI_novel_G01494 4	leucine aminopeptidase	-1.156231406	-1.846080404	-2.614186422
	1			

TEA028311.1	leucyl aminopeptidase	0.027816155	0.134400879	0.083533258
BGI_novel_G01494 3	leucyl aminopeptidase	-1.814856335	-0.274136073	-1.227635412
BGI_novel_G01494 0	leucyl aminopeptidase	-0.238066762	-0.413210023	-0.275853638
TEA030970.1	leucyl aminopeptidase	-0.109625123	-0.129640427	-0.042076876
TEA027101.1	leucyl aminopeptidase	0.079121193	-0.240925659	0.154459685
TEA003453.1	6-phosphogluc onate dehydrogenase	-0.314119902	0.192130732	0.905183558
TEA024165.1	6-phosphogluc onate dehydrogenase	-0.647921667	-0.494062297	-0.747888358
TEA001713.1	6-phosphogluc onate dehydrogenase	0.117293922	0.113771885	0.120829994
TEA007566.1	6-phosphogluc onate dehydrogenase	-0.948055036	0.040266482	-0.545161684
BGI_novel_G00228 4	glucose-6-phos phate 1-dehydrogenas e	0.957160335	-0.203664255	0.427801333
TEA024651.1	glucose-6-phos phate 1-dehydrogenas	0.031769146	-0.032422253	-0.256616479

	e			
	glucose-6-phos			
BGI_novel_G00228	phate	-0.325729381	-0.100587642	-0.257176163
3	1-dehydrogenas			
	e			
	glucose-6-phos			
TEA019292.1	phate	-1.625494934	0.031958304	-0.039538286
	1-dehydrogenas			
	e			
	glucose-6-phos			
BGI_novel_G00228	phate	-0.10367846	-0.064327275	-0.15958539
8	1-dehydrogenas			
	e			
	glucose-6-phos			
TEA013048.1	phate	1.157612925	0.411372874	0.463415378
	1-dehydrogenas			
	e			
	glucose-6-phos			
BGI_novel_G00228	phate	-0.254644766	-0.160776834	-0.356583104
7	1-dehydrogenas			
	e			
	glucose-6-phos			
TEA033901.1	phate	-0.858180929	-0.111496302	0.971106964
	1-dehydrogenas			
	e			
	glucose-6-phos			
TEA030108.1	phate	0.247471838	0.180406397	0.285801725
	1-dehydrogenas			
	e			

TEA028947.1	glutathione peroxidase	-0.163202039	-0.472053785	-1.076575229
TEA011810.1	glutathione peroxidase	-0.698008552	-0.236806448	-1.11427297
TEA011807.1	glutathione peroxidase	0.151818726	-0.181510531	0.020281528
TEA028943.1	glutathione peroxidase	-0.370297177	-0.428313828	-1.05372959
BGI_novel_G00572 8	glutathione peroxidase	-0.809547198	-0.342319803	-0.568210761
TEA024679.1	glutathione peroxidase	0.311537409	-0.033316091	0.172000278
TEA022695.1	glutathione peroxidase	0.550461643	0.136500778	-0.719526846
BGI_novel_G00736 2	glutathione peroxidase	-0.348970707	-0.153076419	-0.561780133
TEA018816.1	glutathione reductase	-0.376584069	-0.005935528	-0.448478803
TEA000904.1	glutathione reductase	-1.940031033	-0.138638608	-1.822330449
TEA005612.1	glutathione reductase	-0.026981516	0.100788935	0.009783758
TEA028520.1	glutathione S-transferase	-6.525075459	-0.293988484	-4.419830482
TEA007897.1	glutathione S-transferase	-4.037416033	-0.496415265	-3.787913259
TEA017121.1	glutathione S-transferase	-3.945526995	-0.592254829	-3.728161383
TEA029613.1	glutathione	-3.687094995	-0.498008275	-3.715520303

	S-transferase			
BGI_novel_G01373	glutathione	-3.629107843	-0.378460107	-4.60781864
9	S-transferase			
TEA000281.1	glutathione	-3.479597325	-1.01461181	-2.654290997
	S-transferase			
TEA021770.1	glutathione	-3.398614348	-0.669225941	-3.427433385
	S-transferase			
BGI_novel_G01621	glutathione	-3.379843004	-0.157949544	-2.80230156
1	S-transferase			
TEA010816.1	glutathione	-3.316852584	-0.976193946	-1.257303557
	S-transferase			
TEA019073.1	glutathione	-3.08753443	-0.876779897	-2.07790996
	S-transferase			
TEA025152.1	glutathione	-3.061967115	-0.37743499	-2.649318211
	S-transferase			
TEA003225.1	glutathione	-2.983693575	-0.673901518	-3.953058729
	S-transferase			
TEA019065.1	glutathione	-2.920333406	-0.168166032	-3.41724487
	S-transferase			
TEA004130.1	glutathione	-2.843602498	-0.48365711	-2.421713155
	S-transferase			
BGI_novel_G01298	glutathione	-2.806344414	-0.202523743	-3.40636417
5	S-transferase			
TEA000511.1	glutathione	-2.360806211	-0.617126499	-2.061882949
	S-transferase			
TEA026132.1	glutathione	-2.355042139	-0.807885632	-1.683691421
	S-transferase			
BGI_novel_G01389	glutathione	-2.263097338	-0.590600439	-2.445723429
6	S-transferase			

BGI_novel_G00301	glutathione	-2.148024937	-0.644996936	-2.252901852
7	S-transferase			
TEA000517.1	glutathione	-2.051986345	-0.671063556	-1.765440406
	S-transferase			
BGI_novel_G01389	glutathione	-2.020560428	-0.802982137	-3.476315515
7	S-transferase			
TEA014634.1	glutathione	-2.018997278	-0.489129601	-2.548144628
	S-transferase			
TEA011797.1	glutathione	-1.978502253	-0.824812662	-3.543375219
	S-transferase			
BGI_novel_G00253	glutathione	-1.903094605	-0.448946689	-2.450343034
1	S-transferase			
BGI_novel_G00301	glutathione	-1.852070835	-0.467285739	-2.033744588
6	S-transferase			
TEA015778.1	glutathione	-1.766936556	-0.512488566	-2.659780727
	S-transferase			
TEA023503.1	glutathione	-1.685835678	-0.135949564	-1.530240432
	S-transferase			
BGI_novel_G00253	glutathione	-1.639171686	-0.570804525	-1.703490826
0	S-transferase			
BGI_novel_G00493	glutathione	-1.584120482	-0.716363517	-1.78729363
2	S-transferase			
TEA030217.1	glutathione	-1.426894996	-0.651336664	-2.571907512
	S-transferase			
BGI_novel_G00301	glutathione	-1.408042065	-0.623635901	-1.914805411
9	S-transferase			
TEA000526.1	glutathione	-1.334487411	-0.154709323	-0.680635649
	S-transferase			
TEA033741.1	glutathione	-1.258650622	-0.065027523	-1.17100809

	S-transferase			
TEA032216.1	glutathione	-1.08723939	-0.4142738	-1.321245384
	S-transferase			
TEA016195.1	glutathione	-1.010760206	-0.268559965	-0.865489543
	S-transferase			
TEA033769.1	glutathione	-0.912155868	-0.134811632	-1.308777653
	S-transferase			
TEA032624.1	glutathione	-0.886731303	-0.513714086	-1.640847831
	S-transferase			
TEA013285.1	glutathione	-0.839128122	-0.546927843	-1.799942953
	S-transferase			
TEA033764.1	glutathione	-0.81017474	-0.433339305	-1.324683212
	S-transferase			
BGI_novel_G00302	glutathione	-0.714928015	-0.05410335	-1.303319696
0	S-transferase			
TEA011800.1	glutathione	0.522624092	-0.124242485	-2.180101051
	S-transferase			
TEA024657.1	glutathione	1.113817597	-0.321277286	-0.729184937
	S-transferase			
TEA025550.1	glutathione	1.159898032	0.539714486	1.341728222
	S-transferase			
TEA006830.1	glutathione	1.36030173	-0.268495208	0.387086353
	S-transferase			
TEA024945.1	glutathione	1.799935529	-0.309683365	0.781935416
	S-transferase			
TEA005552.1	glutathione	1.916742114	-0.073271267	1.014485938
	S-transferase			
TEA025571.1	glutathione	-0.498059479	-0.057541376	-0.351461291
	S-transferase			

TEA029673.1	glutathione S-transferase	-0.194806982	0.109479381	0.067857248
TEA021561.1	glutathione S-transferase	-0.4497947	-0.291788599	-0.611830971
BGI_novel_G01601 7	glutathione S-transferase	-0.873012997	-0.342686281	-0.644763926
BGI_novel_G00999 6	glutathione S-transferase	-0.992014392	-0.415512777	-0.788600311
TEA028686.1	glutathione S-transferase	-0.194806982	-0.089334056	-0.178720031
TEA016211.1	glutathione S-transferase	0.81551285	-0.132352722	0.37170265
BGI_novel_G01607 4	glutathione S-transferase	0.853815317	-0.028774157	0.300303893
TEA025153.1	glutathione S-transferase	0.703298286	-0.328273789	-0.321252269
TEA017752.1	glutathione S-transferase	-0.36416289	-0.226130804	0.436670365
TEA006024.1	glutathione S-transferase	-0.130166869	-0.374466989	-0.928340735
TEA033742.1	glutathione S-transferase	0.760937628	-0.285579394	0.381602663
TEA033758.1	glutathione S-transferase	-1.022329285	-0.446656755	-1.07305508
TEA012160.1	glutathione S-transferase	-0.20273475	-0.100426628	-0.360841701
TEA000598.1	glutathione S-transferase	0.131271917	-0.380937337	-0.518583955
TEA033765.1	glutathione	-0.767621299	-0.170656187	-0.95255906

	S-transferase			
TEA024655.1	glutathione	0.158070161	-0.480009295	-0.160299812
	S-transferase			
TEA000595.1	glutathione	0.355583885	-0.252212451	-0.158235654
	S-transferase			
TEA007389.1	glutathione	-0.272584004	-0.063161656	-0.136610962
	S-transferase			
TEA010512.1	glutathione	0.093647501	-0.178450477	-0.307305456
	S-transferase			
BGI_novel_G00169	glutathione	0.419927272	-0.017300378	0.063633323
4	S-transferase			
TEA033753.1	glutathione	-0.095128837	0.197629704	-0.047828118
	S-transferase			
BGI_novel_G00449	glutathione	0.465340141	-0.393172087	-0.030280772
1	S-transferase			
TEA033757.1	glutathione	0.412477768	0.340171198	-1.836298286
	S-transferase			
TEA016675.1	glutathione	-0.833480872	-0.179515343	-0.747816289
	S-transferase			
BGI_novel_G01136	glutathione	-0.854312929	-0.270411378	-0.371555862
1	S-transferase			
TEA006546.1	glutathione	-0.388140056	-0.262924675	-0.640345963
	S-transferase			
TEA016191.1	glutathione	-0.165244451	-0.057286197	-0.339354218
	S-transferase			
TEA015720.1	glutathione	-0.05213117	0.183807341	-0.067210946
	S-transferase			
BGI_novel_G00449	glutathione	0.689823286	-0.243008286	-0.142813151
2	S-transferase			

TEA006017.1	glutathione S-transferase	0.082876777	-0.361479976	-0.639548781
BGI_novel_G00815 4	glutathione S-transferase	0.772536307	-0.085058663	0.658821865
BGI_novel_G00616 6	glutathione S-transferase	-0.429399705	-0.323158521	-0.892348499
BGI_novel_G00600 7	glutathione S-transferase	-0.231536178	-0.098469644	-0.03326058
TEA017749.1	glutathione S-transferase	0.287624646	0.254548879	0.27317487
TEA008507.1	glutathione S-transferase	-0.383285748	0.109654476	0.190839244
TEA026534.1	glutathione S-transferase	-0.642955742	-0.355736159	0.67997832
BGI_novel_G01246 1	glutathione S-transferase	0.782720688	0.868524921	1.272590081
TEA011287.1	glutathione S-transferase	0.059766651	-0.42961753	-0.752885471
BGI_novel_G00993 6	glutathione S-transferase	-0.35918541	-0.37721054	-0.283666997
TEA004989.1	glutathione S-transferase	0.017425543	-0.102467145	-0.309767505
BGI_novel_G01246 0	glutathione S-transferase	-0.46780596	-0.105261291	0.251579873
TEA010988.1	glutathione S-transferase	0.203821009	-0.430756762	-0.589746791
TEA010997.1	glutathione S-transferase	0.49012572	0.003182746	0.563263094
BGI_novel_G00995	glutathione	0.038655006	-0.558649932	-0.913239444

2	S-transferase			
	glutathione			
TEA004812.1	S-transferase	1.388401672	-0.495660293	1.301087359
	glutathione			
TEA017753.1	S-transferase	-0.616938662	-0.391182467	-1.111933415
	glutathione			
TEA011781.1	S-transferase	0.715532812	-0.056111635	-0.770317887
	glutathione			
TEA003710.1	S-transferase	0.898521101	0.22732629	-0.029166968
	glutathione			
BGI_novel_G00968	S-transferase	0.080855133	-0.311312933	-0.37152899
8	glutathione			
BGI_novel_G00642	S-transferase	0.682177736	0.256368397	-0.714174429
2	glutathione			
TEA012307.1	S-transferase	-0.309173205	0.023576484	-0.293109157
	glutathione			
TEA015777.1	S-transferase	-0.153417629	-0.06869293	0.140863998
	glutathione			
TEA016231.1	S-transferase	0.291474614	0.014113489	0.075597881
	glutathione			
TEA006029.1	S-transferase	0.90761301	-0.099687001	0.083727888
	glutathione			
TEA010114.1	S-transferase	0.859213617	-0.063098937	0.506937152
	glutathione			
TEA003280.1	S-transferase	0.255676122	-0.091913157	-0.521082729
	glutathione			
TEA026775.1	S-transferase	-0.739558269	-0.205157975	-0.461058631
	glutathione			
TEA033761.1	S-transferase	-0.848667758	-0.533324776	-1.397874529

TEA006036.1	glutathione S-transferase	-0.354159977	-0.426005191	-0.600695445
TEA010451.1	glutathione S-transferase	0.468245925	-0.12250494	-0.816877549
TEA002732.1	glutathione S-transferase	0.477333302	-0.42094374	-0.111189242
TEA006026.1	glutathione S-transferase	0.83973031	-0.269917252	0.108171723
BGI_novel_G01640 6	glutathione S-transferase	-0.110722343	-0.148865678	0.016072735
TEA010449.1	glutathione S-transferase	0.498331593	0.108689699	-0.249235261
BGI_novel_G01175 8	glutathione S-transferase	0.03372496	-0.082141866	-0.26848656
TEA018716.1	glutathione S-transferase	0.189682873	-0.140500091	0.181202573
TEA018306.1	glutathione S-transferase	-0.621655584	-0.363339044	-0.879441811
BGI_novel_G01607 5	glutathione S-transferase	0.025567212	-0.935428942	-0.94265748
BGI_novel_G01374 0	glutathione S-transferase	-1.683543701	0.126439322	-0.302341331
BGI_novel_G00571 0	glutathione S-transferase	0.932271199	0.055705268	0.187582806
TEA017750.1	glutathione S-transferase	-0.153417629	0.199601892	-0.014595192
TEA021876.1	glutathione S-transferase	0.026986729	-0.05502299	0.542792503
BGI_novel_G01557	glutathione	-0.542177432	-0.151537605	-1.44795876

6	S-transferase			
TEA025564.1	glutathione S-transferase	0.42574304	0.181458521	-0.431033424
TEA031284.1	glutathione S-transferase	0.336182827	-0.21105105	-0.096995108
TEA023332.1	superoxide dismutase	-3.454088374	-0.822514086	-3.243990459
TEA012017.1	superoxide dismutase	-1.020846097	-0.150104404	-0.697099016
TEA012288.1	superoxide dismutase	-0.008440616	-0.055854958	-0.074977795
TEA006239.1	superoxide dismutase	-0.20451661	-0.441317734	-0.687895596
TEA001534.1	superoxide dismutase	-0.579944301	-0.296303273	-0.653246796
TEA008360.1	superoxide dismutase	0.130328797	0.004048234	-0.083664012
TEA012935.1	superoxide dismutase	-0.586807768	-0.303795903	-0.730368517
TEA010954.1	superoxide dismutase	-0.579905653	-0.480334667	-0.587067172
TEA004714.1	superoxide dismutase	0.200859716	0.711587561	1.242018959
TEA003051.1	superoxide dismutase	-0.624558547	0.647463829	0.457094692
TEA005110.1	superoxide dismutase	0.008114083	-0.029873798	0.193646359
BGI_novel_G00744	superoxide	0.269470159	1.072089392	0.738719442
0	dismutase			

BGI_novel_G01201	superoxide			
2	dismutase	-0.576519118	-0.108815602	0.06990675
TEA027321.1	peroxiredoxin	2.046804684	0.357132726	1.62645801
TEA024456.1	peroxiredoxin	0.307473371	-0.036711302	0.125723091
TEA020917.1	peroxiredoxin	-0.066560908	-0.187322235	-0.342550254
TEA026056.1	peroxiredoxin	-0.111625638	0.107095382	-0.25434702
BGI_novel_G01138				
1	peroxiredoxin	0.368550757	0.143339539	0.321398022
TEA020537.1	peroxiredoxin	-0.096104318	0.21904847	0.190584033
TEA015749.1	peroxiredoxin	0.17730016	-0.021775756	0.469580263
TEA030430.1	peroxiredoxin	0.992325415	-0.015518311	0.929078737
TEA008797.1	peroxiredoxin	1.293459208	0.368490313	0.225452442
TEA023726.1	peroxiredoxin	-0.193550886	-0.126136034	-0.174060977
TEA024664.1	peroxiredoxin	0.002404928	-0.012239948	0.207638724
TEA020538.1	peroxiredoxin	-0.075221176	-0.174068218	0.420102115
TEA022112.1	peroxiredoxin	0.012288651	0.316068501	0.595416327
TEA024079.1	peroxiredoxin	0.722329434	-0.248129481	0.146982239
TEA030436.1	peroxiredoxin	-0.232695708	-0.036051663	0.124388967
TEA021171.1	peroxiredoxin	-0.50548746	-0.013776673	-0.554295812
BGI_novel_G01113				
3	peroxiredoxin	-0.47934895	-0.295605288	-1.355174853
TEA003375.1	ascorbate peroxidase	1.672697284	0.321623053	1.598262557
TEA031227.1	ascorbate peroxidase	2.146016174	-0.050799517	1.293775427
TEA004826.1	ascorbate peroxidase	-0.017146776	-0.041790284	-0.004463684
TEA012379.1	ascorbate peroxidase	-1.215691565	-0.168030817	-0.876464644

TEA000543.1	ascorbate	-0.607763319	-0.212180855	-0.712280516
	peroxidase			
TEA027158.1	ascorbate	0.093246387	0.008661204	-0.069103675
	peroxidase			
TEA017156.1	ascorbate	0.276051816	-0.15837824	0.153362198
	peroxidase			
TEA026035.1	ascorbate	-0.611000488	-0.09903791	-0.585991188
	peroxidase			
TEA022978.1	ascorbate	1.707575274	0.230529351	1.558774207
	peroxidase			
TEA019986.1	ascorbate	1.775114043	-0.025268563	1.126978597
	peroxidase			
TEA030817.1	ascorbate	-0.066589885	-0.913941667	-0.453496712
	peroxidase			
TEA021205.1	ascorbate	-0.055124953	0.570181228	0.069153081
	peroxidase			
TEA028541.1	ascorbate	-0.540345732	-0.606906855	-0.321938428
	peroxidase			
BGI_novel_G00361	ascorbate	-0.408829401	0.023535531	-0.478995083
4	peroxidase			
BGI_novel_G00621	ascorbate	0.608982068	0.147651093	-0.024907018
2	peroxidase			
TEA016735.1	ascorbate	0.131576751	0.003693983	-0.170515704
	peroxidase			
TEA018635.1	ascorbate	-1.038914869	-0.458947929	-0.654411492
	peroxidase			
BGI_novel_G00329	ascorbate	0.23555268	0.259062207	0.486651417
7	peroxidase			
BGI_novel_G00286	ascorbate	0.138748144	0.32581584	0.109218296

9	peroxidase			
	ascorbate			
TEA019211.1	peroxidase	-0.747908715	-0.407724228	-1.208566046
BGI_novel_G00264				
	catalase	-0.730245876	-0.249947865	-0.194373782
8				
TEA010409.1	catalase	-0.399433886	-0.231532568	0.179279671
TEA013817.1	catalase	-0.287550918	-0.206901508	-0.080041272
TEA006171.1	catalase	-0.826415243	-0.1651667	-0.748003625
TEA002986.1	catalase	0.046971641	0.219981114	0.348394803
TEA021409.1	catalase	-0.315703536	-0.053578402	-0.269204981
TEA031109.1	peroxidase	-0.440807383	-0.567373191	-1.191185545
BGI_novel_G00861				
	peroxidase	-2.057087019	0.403816567	-1.553725171
2				
TEA019411.1	peroxidase	-3.532885857	-0.095371985	-3.241129187
TEA003375.1	peroxidase	1.672697284	0.321623053	1.598262557
TEA005212.1	peroxidase	0.601378042	0.306276018	0.781522126
TEA001108.1	peroxidase	0.205158682	0.215062625	0.500987078
TEA019320.1	peroxidase	0.180327776	0.786528324	0.908219896
BGI_novel_G00644				
	peroxidase	-0.244025095	0.134432793	-0.207646129
5				
TEA029453.1	peroxidase	0.971728184	-0.266092165	0.428847157
BGI_novel_G01066				
	peroxidase	-0.311710179	-1.175777983	-0.619339148
6				
TEA029796.1	peroxidase	1.361758077	0.784978407	1.81743633
BGI_novel_G01619				
	peroxidase	-0.374953317	-0.1653306	0.140795991
9				
TEA000197.1	peroxidase	0.3737272	-0.133098041	0.052207104
TEA016247.1	peroxidase	0.18430624	0.426813086	0.540754341
TEA020569.1	peroxidase	1.819562674	1.024084884	2.661003118

TEA027359.1	peroxidase	2.09510053	0.271025683	1.276886856
BGI_novel_G00740 8	peroxidase	0.159666929	0.083718847	0.184113583
TEA027576.1	peroxidase	-1.089398363	0.09366822	-0.332172239
TEA028696.1	peroxidase	-0.674677398	-0.352590994	-0.96162658
TEA024164.1	peroxidase	1.732863858	-0.393029304	1.369842694
BGI_novel_G01619 8	peroxidase	0.386370987	-0.091366824	-0.167897924
TEA028681.1	peroxidase	1.028756575	0.63275257	1.308575742
TEA023158.1	peroxidase	-8.598353889	0.063704508	-4.248404202
TEA015008.1	peroxidase	-0.118937859	0.353544463	0.185092835
TEA025795.1	peroxidase	0.113000141	0.175698566	0.403873644
TEA021515.1	peroxidase	-0.379110476	-0.247327883	-0.376139975
TEA009019.1	peroxidase	-2.454004037	0.144950739	-1.555620996
TEA022554.1	peroxidase	0.08300121	1.011760497	0.302239176
TEA026151.1	peroxidase	0.531830522	0.98131754	0.220828289
BGI_novel_G00835 3	peroxidase	-0.823750643	0.453695197	-0.209295542
TEA021383.1	peroxidase	-2.162602404	0.290919651	-1.607060773
TEA010633.1	peroxidase	-2.527731745	-0.438045862	-2.190001639
BGI_novel_G01288 6	peroxidase	-1.996556811	-0.875834079	-1.815120466
TEA012379.1	peroxidase	-1.215691565	-0.168030817	-0.876464644
TEA021445.1	peroxidase	0.441755254	-0.065386595	0.549371895
BGI_novel_G00157 0	peroxidase	-2.896975102	0.635385355	-1.526692144
BGI_novel_G00539 9	peroxidase	-1.652718524	0.155419411	-0.486161503
TEA021599.1	peroxidase	-7.550107416	0.057163913	-5.918844794

BGI_novel_G00267				
4	peroxidase	-0.590213718	0.242960596	0.266069587
BGI_novel_G01619				
7	peroxidase	0.544230954	0.45990261	-0.032861001
TEA029803.1	peroxidase	0.061213915	-0.184832949	0.138035637
TEA005885.1	peroxidase	0.519063073	0.149735222	0.684297972
BGI_novel_G00571				
2	peroxidase	0.528825585	0.133615341	0.394026305
TEA010160.1	peroxidase	-0.088160755	-0.037180528	0.102020399
TEA028180.1	peroxidase	-1.101888636	0.180291702	-0.272215457
BGI_novel_G01142				
3	peroxidase	0.06518693	0.180870122	0.458930349
TEA005215.1	peroxidase	-0.04755674	0.040925022	0.248274516
TEA005761.1	peroxidase	-2.248565473	0.13813302	-2.423101982
BGI_novel_G01112				
2	peroxidase	-0.343312856	-0.126646416	-0.950123282
TEA003236.1	peroxidase	-1.462895509	-0.160502496	-2.854070777
TEA018992.1	peroxidase	1.74972668	-0.354170288	0.922009923
TEA026047.1	peroxidase	0.709117819	-0.177979283	-0.852561717
BGI_novel_G00188				
3	peroxidase	2.296083286	0.022073763	1.048871639
TEA028382.1	peroxidase	2.217266128	0.007418424	1.586616443
TEA008747.1	peroxidase	-1.282318577	0.550492388	-0.738457644
TEA001524.1	peroxidase	0.173836025	-0.01504347	-0.254498272
BGI_novel_G00539				
8	peroxidase	-0.381826198	-0.232735243	0.282738705
TEA003467.1	peroxidase	1.187696907	-0.454370961	-0.358453268
TEA017500.1	peroxidase	0.927031046	0.184400679	0.664098572
BGI_novel_G00539	peroxidase	-2.041059941	0.33045992	-0.98441355

3				
BGI_novel_G01517				
7	peroxidase	-0.140020296	-0.253213262	-0.596827464
TEA012622.1	peroxidase	-1.660679667	-0.164452678	-1.277018467
TEA001331.1	peroxidase	-0.000931447	0.144230053	-0.418369671
TEA033590.1	peroxidase	0.028659113	-0.262815594	0.090523845
TEA032850.1	peroxidase	0.769197494	-0.035104058	1.290083788
TEA015018.1	peroxidase	-0.054896736	-0.082852036	-0.633798028
TEA023460.1	peroxidase	-2.157307746	-0.015499774	-2.58653343
BGI_novel_G01488				
4	peroxidase	0.206406778	-0.11665861	0.224100916
BGI_novel_G00700				
5	peroxidase	-0.806924653	-0.163170762	-0.860587661
TEA018240.1	peroxidase	1.396851698	0.272963152	1.611929891
TEA022953.1	peroxidase	0.617723394	-0.508238022	0.298673275
TEA015422.1	peroxidase	1.023860932	0.129474682	0.792815318
TEA010168.1	peroxidase	0.883737896	0.31528221	0.75877121
TEA020736.1	peroxidase	-0.03738513	0.024122	0.057646683
TEA008472.1	peroxidase	-1.160633578	0.525626137	-0.152303916
TEA006839.1	peroxidase	0.463623056	-0.078978413	0.33268392
TEA010478.1	peroxidase	0.728858296	0.155718647	0.523711345
TEA005759.1	peroxidase	-3.559299157	0.213115068	-4.208447258
TEA002970.1	peroxidase	0.496358056	-0.466637278	-0.422378562
TEA011810.1	peroxidase	-0.698008552	-0.236806448	-1.11427297
BGI_novel_G00539				
8	peroxidase	-0.381826198	-0.232735243	0.282738705
TEA003467.1	peroxidase	1.187696907	-0.454370961	-0.358453268
TEA017500.1	peroxidase	0.927031046	0.184400679	0.664098572
BGI_novel_G00539	peroxidase	-2.041059941	0.33045992	-0.98441355

3				
TEA019319.1	peroxidase	0.372884634	0.650761998	0.825187355
TEA005749.1	peroxidase	-3.961397455	0.174834023	-4.01555184
TEA014809.1	peroxidase	0.565518655	0.097694795	0.199238123
BGI_novel_G00731	peroxidase	-6.360459602	-0.317575202	-4.507951413
5				
TEA028634.1	peroxidase	1.163141187	0.24192333	0.278378579
TEA014420.1	peroxidase	-0.146027017	0.570021193	-0.201289252
BGI_novel_G01142	peroxidase	1.059129623	0.549997064	1.17460592
4				
TEA010146.1	peroxidase	-0.875511851	-0.016880309	-0.334139057
TEA000222.1	peroxidase	-1.465637189	0.305176195	-0.47114657
TEA008473.1	peroxidase	-0.803317441	0.37583496	-0.911762196
BGI_novel_G00213	peroxidase	1.788442003	0.877072783	0.463055952
9				
BGI_novel_G01511	peroxidase	0.7896312	0.397782747	0.812272123
6				
TEA011522.1	peroxidase	0.19446114	0.016783816	0.005949583
TEA032864.1	peroxidase	-0.090323089	0.01495182	0.191940106
TEA025184.1	peroxidase	0.297124666	0.310220746	0.285801909
BGI_novel_G01069	peroxidase	0.095999791	0.258095982	0.493829113
0				
BGI_novel_G01145	peroxidase	0.951112394	0.310829941	1.110201458
2				
TEA029600.1	peroxidase	-3.566456399	-0.109044838	-3.328848606
TEA031894.1	peroxidase	-1.081190597	-0.270246094	-1.604188493
TEA006628.1	peroxidase	-0.295159184	0.098377512	-0.195726927
TEA018647.1	peroxidase	0.507531368	-0.004488519	0.912349034
TEA028298.1	peroxidase	1.372840051	0.086508808	1.105382934

TEA001483.1	peroxidase	-0.206931183	-0.032122126	0.021568988
BGI_novel_G01142 2	peroxidase	0.863957039	0.605079711	3.8578469
TEA027831.1	peroxidase	1.991991508	-0.255796605	1.115706419
TEA006313.1	peroxidase	-1.105940105	-0.481590063	-1.577098182
TEA031201.1	peroxidase	-0.410792853	-0.064155003	-0.168588861
TEA017509.1	peroxidase	0.412172933	1.034870793	1.28752601
BGI_novel_G01288 7	peroxidase	-1.724527493	-0.304395499	-2.883218477
TEA019244.1	peroxidase	0.096858047	-0.174255837	-0.755078433
TEA028831.1	peroxidase	0.372560783	0.207042494	0.533507824
TEA005827.1	peroxidase	1.471577575	0.604353997	1.267112994
TEA005752.1	peroxidase	-0.194806982	-0.089334056	-0.178720031
TEA015030.1	peroxidase	0.291371486	-0.147835794	0.498081821
TEA031470.1	peroxidase	-0.362628562	-0.220258891	-0.449262043
TEA008320.1	peroxidase	0.360912596	-0.016736748	0.064465301
TEA015951.1	peroxidase	0.38422073	0.17071185	0.525975589
TEA031105.1	peroxidase	0.124835489	0.26687459	0.31406226
TEA008609.1	peroxidase	2.130263941	-0.167588591	1.380281944
TEA020909.1	peroxidase	0.630425422	0.12508223	-0.137336573
TEA023161.1	peroxidase	-0.089889633	-0.160475467	-0.322470725
BGI_novel_G00272 2	peroxidase	0.597600918	0.379496622	-0.232016497
TEA018285.1	peroxidase	-0.952078213	0.188965548	-0.876920988
BGI_novel_G01082 7	peroxidase	-5.190210157	-0.06408363	-4.504092857
TEA001489.1	peroxidase	0.112453201	-0.440062898	-0.0451446
TEA015011.1	peroxidase	-0.55622355	-1.070674527	-1.032308832
TEA002678.1	peroxidase	-1.032624352	-0.149363575	-1.396252477

TEA006224.1	peroxidase	0.102560476	-0.024691014	-0.431969288
BGI_novel_G00731 3	peroxidase	0.428477056	0.123452012	-0.362216921
BGI_novel_G00854 3	peroxidase	-4.070096197	0.114843701	-3.956093655
BGI_novel_G01522 8	peroxidase	-0.059888711	-0.19961594	0.048026626
TEA019335.1	peroxidase	0.400253681	-0.281520324	0.137197889
TEA010147.1	peroxidase	0.534728572	0.038420485	0.496684036
BGI_novel_G00303 1	peroxidase	-0.147977193	-0.067892256	-0.01301422
TEA007569.1	peroxidase	1.996700453	-0.339823722	0.922311839
TEA027947.1	peroxidase	0.587331735	0.004169969	0.381115802
TEA002967.1	peroxidase	-0.573883732	-0.302892492	-0.445067495
TEA011115.1	peroxidase	-0.461072813	0.278837502	-0.846160695
TEA004682.1	peroxidase	3.392321753	0.394717615	2.70644121
TEA009331.1	peroxidase	-1.081059583	-0.184622167	-0.351594061
BGI_novel_G00740 9	peroxidase	0.414267962	0.246879946	0.110030672
TEA024242.1	peroxidase	2.052148776	0.132263024	1.36841656
TEA017140.1	peroxidase	1.183037235	0.371762859	1.537986945
TEA001789.1	peroxidase	-5.191888555	-0.489368632	-4.809433754
BGI_novel_G01040 8	peroxidase	-1.835132284	-0.245806744	-2.377746244
TEA005755.1	peroxidase	-1.45440356	0.151779858	-1.987643346
BGI_novel_G01270 3	peroxidase	0.737186101	1.129799148	1.905936866
TEA008536.1	peroxidase	0.836382874	0.738928997	0.507721284
TEA023936.1	peroxidase	-0.739754083	-0.200761731	-0.321764835

TEA026805.1	peroxidase	0.199846823	0.764545037	-0.432322395
TEA015022.1	peroxidase	0.79114852	0.895054867	0.931989869
TEA003626.1	peroxidase	-0.099652736	-0.13956589	0.155844838
TEA029019.1	peroxidase	-4.213107826	0.111946807	-3.850717222
TEA012933.1	peroxidase	1.496552383	0.590712136	1.250125735
BGI_novel_G01498 2	peroxidase	-3.92517799	-0.308825652	-3.828447784
TEA019270.1	peroxidase	0.826443299	-0.127818348	0.201197113
BGI_novel_G00539 4	peroxidase	-1.554182131	0.612564495	0.312304805
BGI_novel_G00700 4	peroxidase	-1.254808161	0.084686223	-1.10629883
TEA019317.1	peroxidase	1.333115546	1.289696153	1.958059132
TEA028682.1	peroxidase	1.55308565	0.861854851	1.772801216
TEA005365.1	peroxidase	-0.975500561	0.435841457	0.231088331
TEA024639.1	peroxidase	0.44938357	-0.080605968	0.275030495
TEA013276.1	peroxidase	0.065802139	-0.102780425	-0.127722854
BGI_novel_G01270 4	peroxidase	0.931424205	0.919163963	1.661466058
TEA022130.1	peroxidase	0.152404691	0.010036334	0.600441768
TEA022897.1	peroxidase	-0.161973899	0.218667152	0.158711621
TEA027441.1	peroxidase	-2.23368326	0.117851609	-1.660924121
TEA012118.1	peroxidase	0.026290958	0.015856697	0.458572036
TEA021877.1	peroxidase	-1.669490435	-0.433635435	-2.417465472
TEA015004.1	peroxidase	1.270473581	-0.735894712	-0.577128706
TEA019103.1	peroxidase	-0.154543265	-0.063279302	0.000888113
TEA015349.1	peroxidase	1.894826236	0.367577095	1.55144425
TEA026798.1	peroxidase	-0.344030521	0.510504884	-0.97813624
TEA017067.1	peroxidase	0.500066848	0.157229099	0.357137643

TEA011393.1	peroxidase	-2.531296611	-0.453013266	-2.927818676
TEA014821.1	peroxidase	2.045757801	-0.316141745	0.894124351
BGI_novel_G00381 5	peroxidase	0.876725014	0.205711444	0.76695773
BGI_novel_G00329 7	peroxidase	0.23555268	0.259062207	0.486651417
BGI_novel_G00157 2	peroxidase	-1.606768067	0.483581671	-1.12946146
BGI_novel_G00539 7	peroxidase	-2.602359583	-0.164179237	-1.274741532
BGI_novel_G00736 2	peroxidase	-0.348970707	-0.153076419	-0.561780133
TEA017242.1	peroxidase	-0.1044858	-0.217588463	-0.317977561
TEA015805.1	peroxidase	-0.323249128	-0.163218614	-0.517187017
TEA029025.1	peroxidase	-6.652579846	-0.075673087	-4.504648775
TEA012891.1	peroxidase	0.581319964	0.425686519	1.126210471
TEA004065.1	peroxidase	0.138809053	0.051571338	0.491686931
BGI_novel_G00120 1	peroxidase	-0.060079782	-0.089334056	-0.178720031
TEA021704.1	peroxidase	-2.299624085	0.023953341	-3.116696964
TEA013257.1	thioredoxin reductase	0.102694673	0.004663125	-0.13406399
TEA015757.1	thioredoxin reductase	-1.412137761	-0.244123524	-1.659361243
TEA008753.1	thioredoxin reductase	-0.345120206	-0.034467885	-0.081894686
TEA011240.1	thioredoxin reductase	-0.60534741	-0.304506742	-0.758329948
BGI_novel_G01029	thioredoxin	0.599472781	-0.042324415	-0.216663121

7	reductase			
	thioredoxin			
TEA012685.1	reductase	-1.720523437	-0.328932837	-1.673231571
	thioredoxin			
TEA003526.1	reductase	-2.181332591	-0.286284919	-2.059284122
	thioredoxin			
TEA025171.1	reductase	0.640976475	0.449081973	0.120496446
	thioredoxin			
TEA012695.1	reductase	-2.261384991	-0.210809536	-2.204955053
	thioredoxin			
TEA001207.1	reductase	-3.568830425	-0.489264887	-3.011461057
	thioredoxin			
TEA010751.1	reductase	-2.0386075	-0.184461203	-2.037112634
	thioredoxin			
TEA012292.1	reductase	-1.994824015	-0.29666826	-1.599784228
	thioredoxin			
BGI_novel_G01240	reductase	0.175423628	-0.482389184	-0.279289939
7	thioredoxin			
	reductase			
TEA029265.1	reductase	-1.934546603	-0.210698092	-1.465974605
	thioredoxin			
TEA001220.1	reductase	0.240686182	-0.24276732	-0.440759163
	thioredoxin			
BGI_novel_G00748	reductase	0.43778766	0.492692145	0.440390636
0	thioredoxin			
	reductase			
TEA004008.1	reductase	-2.711508042	-0.327501534	-1.279761473
	thioredoxin			
TEA010589.1	reductase	-1.405389848	-0.408144611	-1.0837708
	thioredoxin			
TEA002999.1	reductase	-2.785865824	-0.292551543	-3.446928159
	thioredoxin			

TEA028872.1	thioredoxin reductase	0.030984437	0.308149693	-0.166601674
TEA012703.1	thioredoxin reductase	-1.341552575	-0.433966391	-2.419516448
BGI_novel_G01029 8	thioredoxin reductase	-0.518934427	0.074568016	-0.39288839
TEA025175.1	thioredoxin reductase	-1.580891881	-0.322920458	-2.088807969
TEA026394.1	thioredoxin reductase	-4.419877079	-0.84434251	-3.719094085
TEA030996.1	thioredoxin reductase	-0.222741896	-0.097177644	-0.199631789
TEA018757.1	thioredoxin reductase	-1.995986187	-0.138168535	-2.107942965
TEA029053.1	thioredoxin reductase	-1.79442218	-0.232033186	-2.21354269
TEA002224.1	thioredoxin reductase	0.485314585	0.147196464	0.286522468
TEA012706.1	thioredoxin reductase	-2.786044144	-0.120157455	-2.195389158
TEA016876.1	thioredoxin reductase	-2.654239533	-0.290759653	-1.386806838
TEA004979.1	thioredoxin reductase	-0.386900217	-0.177526408	-0.361065305
TEA016870.1	thioredoxin reductase	-1.764943358	-0.322520547	-2.146824941
TEA003973.1	thioredoxin reductase	-3.508144509	-0.308989895	-4.068046846
TEA009128.1	thioredoxin	-0.266252122	0.256011171	-0.055431885

	reductase			
TEA015751.1	thioredoxin reductase	-2.696429701	-0.227825662	-2.433832954
BGI_novel_G00534	thioredoxin reductase	0.517325132	0.306279094	0.312440306
3				
TEA005392.1	thioredoxin reductase	-1.290112223	-0.44692618	-1.430770159
TEA003524.1	thioredoxin reductase	-1.462096896	-0.062851766	-1.360556674
TEA023353.1	thioredoxin reductase	-1.561928843	-0.315941759	-1.459421166
TEA028776.1	thioredoxin reductase	-0.277360295	0.130962985	-0.231917918
TEA012291.1	thioredoxin reductase	-1.271835059	-0.319762017	-1.45138938
TEA031391.1	respiratory burst oxidase	1.962707914	-0.012809946	1.0649194
TEA029056.1	respiratory burst oxidase	1.117288155	0.150989839	0.218440098
TEA011880.1	respiratory burst oxidase	-1.300603833	0.048707555	-0.988197794
BGI_novel_G00058	9-cis-epoxycarotenoid dioxygenase	-1.895416737	-0.454274657	0.039551583
7				
BGI_novel_G01611	abscisic acid 8'-hydroxylase	2.296868248	0.441774972	0.827499986
6				
TEA014723.1	abscisic acid 8'-hydroxylase	-1.59492314	0.078246803	-0.495865925
TEA013225.1	abscisic acid	1.264252442	0.744614153	1.499773282

	8'-hydroxylase			
TEA032451.1	abscisic acid 8'-hydroxylase	0.713488928	0.640854351	1.827269411
TEA009253.1	abscisic acid receptor	-1.999981119	-0.251878644	-0.599119441
TEA026592.1	PYR/PYL abscisic acid receptor	-1.461476263	-0.344643515	-0.237419772
BGI_novel_G00682 8	PYR/PYL abscisic acid receptor	0.765421929	-0.030195458	1.072204537
BGI_novel_G00655 5	PYR/PYL auxin-responsiv e protein IAA	2.707009565	1.617506414	2.653309226
TEA026398.1	auxin-responsiv e protein IAA	1.22712172	-0.876888274	0.203582606
TEA032696.1	auxin-responsiv e protein IAA	2.375744062	0.393300074	0.888373923
TEA014518.1	auxin-responsiv e protein IAA	1.470887062	-0.143880548	0.748727461
TEA027159.1	auxin-responsiv e protein IAA	1.273783008	0.52031325	1.220803547
TEA027331.1	auxin-responsiv e protein IAA	1.276097162	0.10541621	0.900764431
TEA013764.1	auxin-responsiv e protein IAA	1.165668692	0.88638135	1.271292333
TEA000038.1	auxin-responsiv e protein IAA	1.120302738	-0.113658234	0.434012876
TEA010095.1	auxin	-2.267260509	-0.349915532	0.170090418

	responsive			
	GH3			
	auxin			
TEA029197.1	responsive	-1.967568395	-0.544413757	-1.874000032
	GH3			
	auxin			
TEA000236.1	responsive	-1.924959397	-0.175820676	-1.559036215
	GH3			
	auxin			
TEA026305.1	responsive	-1.759831997	-0.546292054	-1.322445501
	GH3			
TEA020222.1	SAUR family protein	1.957727736	0.25126317	1.901167313
BGI_novel_G00022 9	SAUR family protein	1.512205143	0.469382781	0.788114003
BGI_novel_G00802 1	SAUR family protein	1.557520456	1.002087901	2.765876392
TEA007385.1	SAUR family protein	-1.088315953	-0.21920066	-0.124478343
TEA030078.1	SAUR family protein	-1.300984967	-0.662878783	-1.620962476
TEA033527.1	SAUR family protein	-2.040142334	-0.030495421	-2.372327325
TEA003908.1	auxin influx carrier	1.272034575	0.395043319	1.583577193
TEA019802.1	auxin influx carrier	1.178198015	0.212017579	1.016761305
TEA023240.1	auxin efflux carrier family	1.529255624	0.348287745	0.837939946

TEA019544.1	auxin efflux carrier family 1-aminocyclopr	1.343542166	1.289215116	1.7093417
TEA023560.1	opane-1-carbox ylate synthase 1-aminocyclopr	-4.139576636	0.043697591	-4.40623208
TEA007800.1	opane-1-carbox ylate synthase 1-aminocyclopr	-2.157062567	-1.027023784	-1.45636683
TEA027319.1	opane-1-carbox ylate synthase 1-aminocyclopr	-1.722139242	0.252922795	-1.807786378
TEA027314.1	opane-1-carbox ylate synthase 1-aminocyclopr	-1.504970187	0.324087021	-1.499178969
TEA019559.1	opane-1-carbox ylate synthase aminocyclopro	2.23176415	-0.521768121	1.804362563
TEA023897.1	panecarboxylat e oxidase aminocyclopro	-2.708445536	-0.253261528	-2.868073761
TEA002533.1	panecarboxylat e oxidase aminocyclopro	-2.112203955	-0.883300044	-1.037333136
BGI_novel_G00664 2	panecarboxylat e oxidase aminocyclopro	-1.652517748	-0.576953076	-1.889983277
TEA021049.1	panecarboxylat e oxidase	-1.069533541	-0.133540177	-1.544905557

BGI_novel_G00593	ethylene	-3.292991697	0.064146119	-3.485550027
8	receptor			
TEA026952.1	ethylene	-2.712755607	0.21911696	-3.938994325
	receptor			
	ethylene-respon			
	sive			
TEA016904.1	transcription	-4.692378413	-0.299977366	-4.827086426
	factor 1			
	ethylene-respon			
	sive			
TEA014156.1	transcription	-3.334041056	-0.879060392	-2.541060759
	factor 1			
	ethylene-respon			
	sive			
TEA014626.1	transcription	-2.947498521	-0.6825583	-2.724009844
	factor 1			
	ethylene-respon			
	sive			
TEA004351.1	transcription	-2.827511843	-0.251680716	-1.761978738
	factor 1			
	ethylene-respon			
	sive			
TEA025677.1	transcription	-2.649933856	0.201452888	-3.614680701
	factor 1			
	ethylene-respon			
	sive			
TEA019421.1	transcription	-2.378797105	-0.070457006	-3.247308525
	factor 1			
	ethylene-respon			
TEA019401.1	ethylene-respon	-2.277509526	-0.28584886	-2.121427598

	sive			
	transcription			
	factor 1			
	ethylene-respon			
BGI_novel_G00118	sive	-1.29210039	-0.292640487	-1.942349296
1	transcription			
	factor 1			
BGI_novel_G00685	EREBP-like	-5.074294206	0.255753204	-4.20970518
4	factor			
TEA015017.1	EREBP-like	-3.669841482	-0.186650604	-3.596433799
	factor			
TEA004127.1	EREBP-like	-3.652635491	-1.201037237	-2.762954595
	factor			
TEA029858.1	EREBP-like	-3.090484821	-0.450004944	-3.96657213
	factor			
TEA008471.1	EREBP-like	-2.970195839	-0.294999754	-2.180870235
	factor			
TEA000484.1	EREBP-like	-2.812736644	-0.470312438	-1.898292659
	factor			
TEA018164.1	EREBP-like	-2.783894041	0.011395228	-2.546312498
	factor			
TEA027697.1	EREBP-like	-2.334859963	-0.342055154	-2.391689672
	factor			
TEA000303.1	EREBP-like	-2.322009285	-0.275436222	-2.219427869
	factor			
TEA014653.1	EREBP-like	-2.174972563	-0.101996372	-2.19998123
	factor			
BGI_novel_G00965	EREBP-like	-2.087916294	-0.796801719	-1.801911281
4	factor			

TEA017531.1	EREBP-like factor	-2.019420942	-0.382260972	-1.163583046
TEA023914.1	EREBP-like factor	-1.791066474	-0.088154626	-1.128979219
TEA003052.1	EREBP-like factor	-1.788640122	-0.339492309	-2.446811373
BGI_novel_G01420 4	EREBP-like factor	-1.532082444	-0.213036322	-0.292315644
TEA032107.1	EREBP-like factor	-1.384271488	-0.221801304	-1.733890228
BGI_novel_G01390 9	EREBP-like factor	-1.258041283	-0.737216734	-1.061668704
BGI_novel_G01302 5	EREBP-like factor	-1.25654384	-0.203117526	-0.650311706
TEA013292.1	EREBP-like factor	-1.216462239	-0.318861575	-0.925711352
BGI_novel_G01583 1	EREBP-like factor	-1.119361448	-0.281549903	-0.527377341
TEA001058.1	EREBP-like factor	-1.163799296	0.140038094	-0.83500046
TEA011057.1	EREBP-like factor	-1.069569419	-0.621950438	-1.127024222
TEA007038.1	EREBP-like factor	-1.074488181	-0.114880662	-0.563237986
TEA032878.1	ethylene-insens itive protein 3	1.53208053	-0.195365417	0.793480812
TEA002235.1	ethylene-insens itive protein 3	1.265646488	-0.246624537	1.012517821
TEA023125.1	adenylate	-1.486734379	-0.699541569	-0.877570463

	isopentenyltran			
	sferase			
	adenylate			
TEA023650.1	isopentenyltran	-0.279513172	0.362917477	-1.19134574
	sferase			
	adenylate			
TEA024525.1	isopentenyltran	0.832662277	0.487825353	1.769524487
	sferase			
	histidine kinase			
TEA032074.1	2/3/4	1.19981391	0.311153504	0.952838767
	cytokinin			
TEA017995.1	dehydrogenase	-3.521673702	-0.715678335	-2.752348
	cytokinin			
TEA017663.1	trans-hydroxyla	-4.511196973	-0.230520064	-4.138058966
	se			
	cytokinin			
TEA017665.1	trans-hydroxyla	-4.30292265	-0.148277722	-4.400816788
	se			
	cytokinin			
TEA017661.1	trans-hydroxyla	-3.669322407	-0.217043584	-4.002929983
	se			
	cytokinin			
BGI_novel_G00936	trans-hydroxyla	-3.760327988	-0.347475268	-3.718354861
4	se			
	cytokinin			
TEA000699.1	trans-hydroxyla	-2.149542555	-0.058921985	-1.838126834
	se			
	cytokinin			
TEA028270.1	trans-hydroxyla	0.624375869	0.103150651	1.871725776

	se			
TEA018325.1	cyclin-depende nt kinase	1.44764896	0.942036988	1.751440414
TEA019056.1	cyclin-depende nt kinase	1.346243528	1.101849586	1.827116631
