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Functional Plant Biology

Supplementary Material

Proteome changes and associated physiological roles in chickpea (Cicer arietinum) tolerance to heat stress under field conditions

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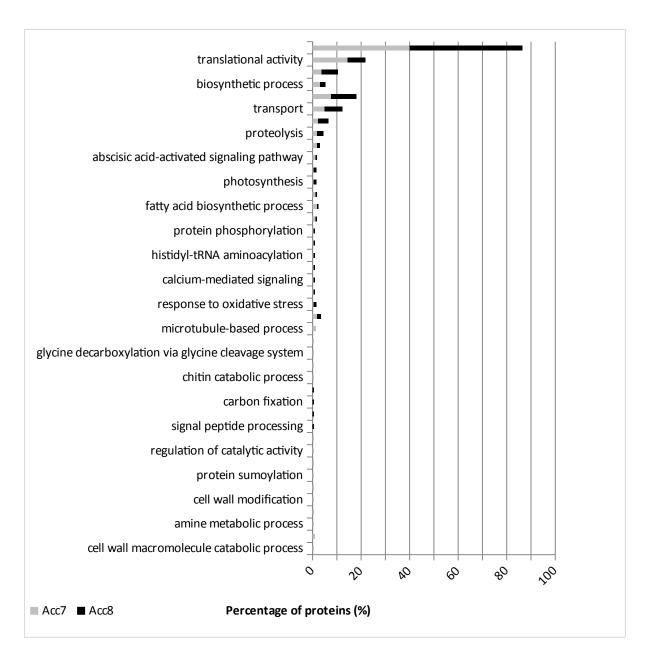
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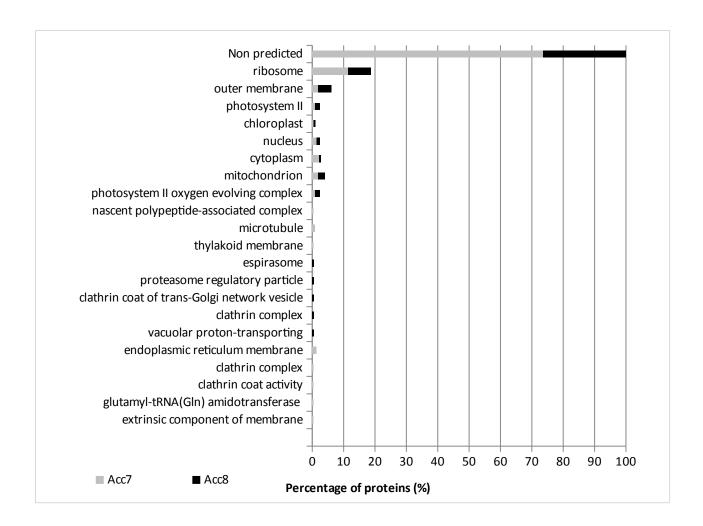
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Supplementary Figure 1: Biological component predictions of the identified heat stress responsive total soluble protein based on GO annotation.



Supplementary Figure 2: Cellular component predictions of the identified heat stress responsive total soluble protein based on GO annotation.

Table S1: List of heat stress responsive proteins identified from Acc#7 samples using the Label free quantification and database searches. All protein identifications were from *Cicer arietinum*

Accession	Protein Name	Taxonomy	Score ^C	q value	max fold	Function
tr A0A1S2XYW4	early light-induced protein, chloroplastic- like	Cicer arietinum	22.988	0	48.562	metabolism
tr A0A1S2YV39	Lipoxygenase	Cicer arietinum	23.301	0.001	25.858	metabolism
tr A0A1S2Z4A6	putative bark agglutinin LECRPA3	Cicer arietinum	13.253	0.008	7.352	disease and defence
tr A0A1S3DZ63	cytochrome P450 CYP736A12-like	Cicer arietinum	14.656	0.004	5.034	metabolism
tr A0A1S3ECZ3	secoisolariciresinol dehydrogenase-like	Cicer arietinum	32.873	0.018	4.861	energy
tr A0A1S2XME4	60S ribosomal protein L9-like	Cicer arietinum	30.392	0.003	4.617	protein synthesis
tr A0A1S2Z2C9	translation factor GUF1 homolog, chloroplastic	Cicer arietinum	27.808	0.001	4.553	transport
tr A0A1S2YPD3	Plasma membrane ATPase	Cicer arietinum	38.206	0.005	4.463	transport
tr A0A1S2Y1Y6	uncharacterized protein LOC101513695	Cicer arietinum	7.642	0.001	4.442	unclassified

tr A0A1S2YNF6	Dolichyl-diphosphooligosaccharide protein glycosyltransferase 48 kDa subunit	Cicer arietinum	2.924	0.008	4.325	protein destination and storage
tr A0A1S2XYG3	ADP-ribosylation factor	Cicer arietinum	29.148	0.005	4.279	intracellular traffic
tr A0A1S2Y2D5	histidinetRNA ligase	Cicer arietinum	2.495	0.004	4.229	metabolism
tr B5LMS1	NAD(P)H-quinone oxidoreductase subunit 1, chloroplastic	Cicer arietinum	14.145	0.015	4.198	disease and defence
tr A0A1S2YFW9	translocase of chloroplast 159, chloroplastic-like	Cicer arietinum	17.633	0.004	4.188	metabolism
tr A0A1S2YQB7	uncharacterized protein LOC101493781	Cicer arietinum	3.585	0.003	4.133	disease and defence
tr A0A1S2XSL0	calcium-transporting ATPase 4, endoplasmic reticulum-type-like	Cicer arietinum	11.504	0.008	4.066	transport
tr A0A1S2YJ61	ADP,ATP carrier protein 3, mitochondrial	Cicer arietinum	44.149	0.002	3.989	transport
tr A0A1S2XRC1	small subunit processome component 20 homolog	Cicer arietinum	4.303	0.045	3.969	cell structure
tr A0A1S2Z480	alpha-amylase 3, chloroplastic-like	Cicer arietinum	38.54	0.001	3.934	metabolism

tr A0A1S2YMU2	protein TOC75, chloroplastic	Cicer arietinum	40.836	0.003	3.847	transport
tr A0A1S2XT74	uncharacterized protein LOC101505098	Cicer arietinum	33.623	0.001	3.668	unclassified
tr A0A1S2XW14	GTP-binding protein SAR1A-like	Cicer arietinum	14.921	0.001	3.648	transport
tr A0A1S2YCR8	40S ribosomal protein SA	Cicer arietinum	55.069	0.029	3.592	protein synthesis
tr A0A1S2XA10	CSC1-like protein ERD4	Cicer arietinum	7.435	0.003	3.544	transport
tr A0A1S2XV31	60S ribosomal protein L35-like	Cicer arietinum	11.595	0.007	3.424	protein synthesis
tr A0A1S2XUN8	40S ribosomal protein S23-like	Cicer arietinum	8.666	0.014	3.365	protein synthesis
tr A0A1S3EA23	phytoene dehydrogenase, chloroplastic/chromoplastic	Cicer arietinum	15.841	0.004	3.355	metabolism
tr A0A1S2YG51	Tubulin alpha chain	Cicer arietinum	25.025	0.01	3.323	protein synthesis
tr A0A1S2YH83	26S protease regulatory subunit 8 homolog A	Cicer arietinum	12.278	0.002	3.317	protein synthesis
tr B5LMQ8	30S ribosomal protein S8, chloroplastic	Cicer arietinum	34.538	0.007	3.314	protein synthesis

tr A0A1S2Y3C7	DEAD-box ATP-dependent RNA helicase 56-like isoform X1	Cicer arietinum	14.065	0.004	3.25	transport
tr A0A1S2YSD6	Zeaxanthin epoxidase, chloroplastic	Cicer arietinum	7.793	0.002	3.244	disease and defence
tr A0A1S2X999	nifU-like protein 2, chloroplastic	Cicer arietinum	2.399	0.005	3.229	transport
tr A0A1S2YX76	putative 12-oxophytodienoate reductase 11	Cicer arietinum	50.78	0.032	3.195	protein synthesis
tr A0A1S2YDG4	60S ribosomal protein L9	Cicer arietinum	97.985	0.005	3.177	protein synthesis
tr A0A1S2XFW1	NADPH-protochlorophyllide oxidoreductase	Cicer arietinum	48.801	0.001	3.102	transport
tr A0A1S2XWP5	60S ribosomal protein L18-like	Cicer arietinum	23.844	0.007	3.091	protein synthesis
tr A0A1S2X9G4	Phospho-2-dehydro-3-deoxyheptonate aldolase	Cicer arietinum	8.951	0.004	3.078	metabolism
tr A0A1S3EBL9	LOW QUALITY PROTEIN: 9-divinyl ether synthase-like	Cicer arietinum	7.585	0.011	3.049	metabolism
tr A0A1S2YQ32	dihydrolipoyl dehydrogenase 1, chloroplastic-like	Cicer arietinum	13.998	0.048	2.99	energy
tr A0A1S2YG09	40S ribosomal protein S15a-1-like	Cicer arietinum	28.653	0.009	2.985	protein synthesis

tr A0A1S2XB11	ribulose bisphosphate carboxylase/oxygenase activase (Rubisco), chloroplastic	Cicer arietinum	21.267	0.008	2.94	protein synthesis
tr A0A1S2YEX2	chaperone protein ClpC, chloroplastic	Cicer arietinum	239.756	0.001	2.904	metabolism
tr A0A1S2XN51	UDP-glucose 6-dehydrogenase	Cicer arietinum	11.793	0.003	2.878	metabolism
tr A0A1S2YY93	mitochondrial outer membrane protein porin 2	Cicer arietinum	48.519	0.007	2.842	transport
tr A0A1S2XL88	Clathrin heavy chain	Cicer arietinum	18.634	0.002	2.837	protein synthesis
tr A0A1S2XUM9	protein CURVATURE THYLAKOID 1A, chloroplastic	Cicer arietinum	28.06	0.006	2.833	metabolism
tr A0A1S2Y1I5	protein PROTON GRADIENT REGULATION 5, chloroplastic	Cicer arietinum	22.018	0.001	2.816	energy
tr A0A1S3EIC8	eukaryotic peptide chain release factor GTP-binding subunit-like isoform X2	Cicer arietinum	7.526	0.022	2.785	energy
tr A0A1S2X7K7	Tubulin beta chain	Cicer arietinum	43.141	0.003	2.783	protein synthesis
tr A0A1S2XYX6	Protoporphyrinogen oxidase	Cicer arietinum	14.83	0.001	2.779	metabolism

tr B5LMR4	50S ribosomal protein L23, chloroplastic	Cicer arietinum	15.266	0.006	2.743	protein synthesis
tr A0A1S2YMI5	uncharacterized protein LOC101497983 isoform X1	Cicer arietinum	21.416	0.001	2.662	disease and defence
tr A0A1S2YR41	calcium sensing receptor, chloroplastic	Cicer arietinum	79.763	0.001	2.661	disease and defence
tr A0A1S2XSJ5	26S proteasome regulatory subunit 4 homolog A	Cicer arietinum	6.35	0.004	2.63	protein synthesis
tr A0A1S2YV29	chaperonin CPN60-like 2, mitochondrial	Cicer arietinum	9.697	0.025	2.619	transport
tr A0A1S2XUG0	GDP-mannose 3,5-epimerase 2	Cicer arietinum	58.139	0.002	2.615	metabolism
tr A0A1S2YUI7	protein TRIGALACTOSYLDIACYLGLYCEROL 4, chloroplastic	Cicer arietinum	9.515	0.008	2.603	unclear classification
tr C3TS15	S-adenosylmethionine synthase	Cicer arietinum	24.553	0.003	2.535	metabolism
tr A0A1S2Z1R2	eukaryotic initiation factor 4A-15	Cicer arietinum	41.695	0.001	2.518	transport
tr A0A1S3EB28	magnesium protoporphyrin IX methyltransferase, chloroplastic	Cicer arietinum	9.956	0.001	2.503	transcription

tr A0A1S2Y9L5	uncharacterized protein LOC101504606	Cicer arietinum	3.79	0.011	2.486	unclassified
tr A0A1S2YZP5	26S proteasome non-ATPase regulatory subunit 13 homolog B	Cicer arietinum	2.477	0.005	2.438	protein synthesis
tr A0A1S2YHM9	3-oxoacyl-[acyl-carrier-protein] synthase I, chloroplastic	Cicer arietinum	3.23	0.002	2.432	metabolism
tr A0A1S2Z5B3	50S ribosomal protein L4, chloroplastic	Cicer arietinum	49.626	0.011	2.429	protein synthesis
tr A0A1S2Y710	50S ribosomal protein L17, chloroplastic	Cicer arietinum	15.004	0.008	2.421	protein synthesis
tr A0A1S2Z2H7	magnesium-chelatase subunit ChlH, chloroplastic	Cicer arietinum	24.35	0.015	2.411	disease and defence
tr A0A1S2Z827	probable NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5, mitochondrial	Cicer arietinum	13.793	0.008	2.373	transport
tr A0A1S2YAB3	elongation factor Tu, chloroplastic	Cicer arietinum	173.549	0.003	2.361	protein synthesis
tr A0A1S2YRJ4	Plasma membrane ATPase	Cicer arietinum	46.806	0.005	2.361	transport
tr A0A1S2YNL1	glutamyl-tRNA reductase-binding protein, chloroplastic	Cicer arietinum	12.358	0.002	2.359	transcription

tr A0A1S2Y115	sucrose-phosphatase 1-like	Cicer arietinum	26.247	0.005	2.34	metabolism
tr A0A1S2X9V3	Mg-protoporphyrin IX chelatase	Cicer arietinum	39.747	0.009	2.338	transport
tr A0A1S2Z945	26S proteasome non-ATPase regulatory subunit 14 homolog	Cicer arietinum	12.201	0.008	2.335	protein synthesis
tr A0A1S2YGS7	40S ribosomal protein S17-like	Cicer arietinum	26.477	0.009	2.324	protein synthesis
tr A0A1S2Z236	uncharacterized protein LOC101504453	Cicer arietinum	3.223	0.043	2.317	protein destination and storage
tr A0A1S2YCX7	Translation factor GUF1 homolog, chloroplastic	Cicer arietinum	2.459	0.005	2.317	transport
tr A0A1S2Y835	Catalase	Cicer arietinum	160.915	0.007	2.315	disease and defence
tr A0A1S2Y9S1	protein CutA, chloroplastic isoform X1	Cicer arietinum	11.612	0.036	2.308	intracellular traffic
tr A0A1S2Z0R7	fe-S cluster assembly factor HCF101, chloroplastic	Cicer arietinum	18.387	0.008	2.295	metabolism
tr A0A1S2Y808	L-ascorbate oxidase homolog	Cicer arietinum	7.395	0.012	2.287	metabolism

tr A0A1S2YCE5	nascent polypeptide-associated complex subunit alpha-like protein 2	Cicer arietinum	17.062	0.006	2.286	transcription
tr A0A1S2YJH9	60S ribosomal protein L11	Cicer arietinum	32.008	0.01	2.267	protein synthesis
tr A0A1S2XWV1	Zeta-carotene desaturase	Cicer arietinum	10.834	0.011	2.263	metabolism
tr A0A1S2XM48	cell division protein FtsZ homolog 1, chloroplastic	Cicer arietinum	13.636	0.007	2.259	transport
tr A0A1S2Y152	40S ribosomal protein S3-2-like	Cicer arietinum	68.271	0.005	2.226	protein synthesis
tr A0A1S2Z2Y7	50S ribosomal protein L6, chloroplastic	Cicer arietinum	79.774	0.016	2.208	protein synthesis
tr A0A1S2XKI0	protein TIC110, chloroplastic	Cicer arietinum	28.537	0.002	2.202	cell structure
tr A0A1S2XHH6	uncharacterized protein LOC101501957	Cicer arietinum	15.055	0.008	2.194	unclassified
tr B5LMM7	30S ribosomal protein S2, chloroplastic	Cicer arietinum	28.226	0.002	2.189	protein synthesis
sp O65731	40S ribosomal protein S5 (Fragment)	Cicer arietinum	33.613	0.012	2.189	protein synthesis
tr A0A1S2XMH6	60S ribosomal protein L35a-1	Cicer arietinum	8.378	0.006	2.185	protein synthesis

tr A0A1S2Y0H8	probable plastid-lipid-associated protein 12, chloroplastic isoform X1	Cicer arietinum	10.982	0.005	2.164	transport
tr A0A1S3E2C4	ATP-dependent RNA helicase 3, chloroplastic-like	Cicer arietinum	47.499	0.001	2.162	transport
tr A0A1S2YMA8	clustered mitochondria protein isoform X1	Cicer arietinum	8.606	0.029	2.156	intracellular traffic
tr A0A1S2XUE6	40S ribosomal protein S24	Cicer arietinum	22.394	0.004	2.156	protein synthesis
tr A0A1S2XV81	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 9, mitochondrial	Cicer arietinum	27.43	0.012	2.155	disease and defence
tr A0A1S3E9T4	40S ribosomal protein S16-like	Cicer arietinum	33.696	0.008	2.153	protein synthesis
tr A0A1S2YEN0	26S proteasome non-ATPase regulatory subunit 1 homolog	Cicer arietinum	15.123	0.02	2.152	protein synthesis
tr B5LMR1	30S ribosomal protein S3, chloroplastic	Cicer arietinum	46.399	0.003	2.136	protein synthesis
tr A0A1S2XUW0	40S ribosomal protein S15-4	Cicer arietinum	6.673	0.026	2.135	protein synthesis
tr A0A1S2YSN4	GTP-binding protein ERG isoform X1	Cicer arietinum	7.486	0.007	2.109	signal transduction
tr A0A1S2YUC7	serine/threonine-protein kinase STN8, chloroplastic-like	Cicer arietinum	11.018	0.012	2.106	metabolism

tr A0A1S2XFR8	caffeic acid 3-O-methyltransferase	Cicer arietinum	7.837	0.004	2.102	disease and defence
tr A0A1S2Y357	60S ribosomal protein L24-like	Cicer arietinum	14.781	0.027	2.102	protein synthesis
tr A0A1S2YB52	calcium sensing receptor, chloroplastic isoform X2	Cicer arietinum	23.114	0.008	2.097	signal transduction
tr A0A1S2Z6J8	uncharacterized protein LOC101506186	Cicer arietinum	38.366	0.007	2.092	unclassified
tr A0A1S2XJZ3	outer plastidial membrane protein porin- like	Cicer arietinum	46.743	0.01	2.089	transport
tr A0A1S2YQR3	probable sucrose-phosphate synthase	Cicer arietinum	14.833	0.003	2.063	metabolism
tr A0A1S2XCX9	40S ribosomal protein S14	Cicer arietinum	56.191	0.016	2.063	protein synthesis
tr A0A1S2YX91	uncharacterized protein LOC101496924 isoform X1	Cicer arietinum	28.346	0.009	2.056	unclassified
tr A0A1S2YD12	calnexin homolog	Cicer arietinum	27.832	0.021	2.046	protein destination and storage
tr A0A1S2XHQ9	Elongation factor 1-alpha	Cicer arietinum	125.216	0.008	2.027	protein synthesis

tr A0A1S2YMB2	heat shock 70 kDa protein (HSP70) 15-like isoform X1	Cicer arietinum	55.18	0.048	2.025	Disease and defence
tr A0A1S2XKN6	T-complex protein 1 subunit theta-like	Cicer arietinum	2.038	0.002	2.017	transport
tr A0A1S2YGU4	mitochondrial dicarboxylate/tricarboxylate transporter DTC	Cicer arietinum	78.459	0.01	2.008	intracellular traffic
tr B5LML4	30S ribosomal protein S4, chloroplastic	Cicer arietinum	39.426	0.008	2.008	protein synthesis
tr A0A1S2YTM9	mitochondrial carnitine/acylcarnitine carrier-like protein	Cicer arietinum	57.31	0.01	2.005	intracellular traffic
tr A0A1S2YXA2	uncharacterized protein LOC101499642	Cicer arietinum	17.099	0.021	2.004	disease and defence
tr A0A1S4ETM2	30S ribosomal protein S15, chloroplastic	Cicer arietinum	19.465	0.003	2.003	protein synthesis
tr A0A1S2YDG7	thioredoxin-like	Cicer arietinum	93.944	0.001	-2.008	metabolism
tr A0A1S2YRM0	betaine aldehyde dehydrogenase 1, chloroplastic	Cicer arietinum	50.3	0.015	-2.011	disease and defence
tr A0A1S2YLN1	arginase 1, mitochondrial	Cicer arietinum	30.796	0.004	-2.017	energy
tr A0A1S3DZE5	Small ubiquitin-related modifier	Cicer arietinum	2.833	0.012	-2.025	disease and defence

tr A0A1S2YK76	alpha carbonic anhydrase 7-like	Cicer arietinum	79.936	0.004	-2.028	energy
tr A0A1S2Z038	probable carboxylesterase 18	Cicer arietinum	6.765	0.017	-2.05	metabolism
tr A0A1S2YHI8	Peptidylprolyl isomerase	Cicer arietinum	40.549	0.002	-2.056	metabolism
tr A0A1S2YPM6	threonine synthase 1, chloroplastic	Cicer arietinum	24.353	0.007	-2.065	unclear classification
tr A0A1S2Y2Y0	Cyanate hydratase	Cicer arietinum	27.101	0.003	-2.081	metabolism
tr A0A1S2Y6T5	cinnamoyl-CoA reductase 1	Cicer arietinum	81.057	0.012	-2.088	disease and defence
tr A0A1S2XB48	3-isopropylmalate dehydrogenase	Cicer arietinum	50.315	0.004	-2.102	disease and defence
tr A0A1S2Y089	thioredoxin X, chloroplastic	Cicer arietinum	32.429	0.008	-2.118	disease and defence
tr A0A1S2YE45	Malic enzyme	Cicer arietinum	12.105	0.031	-2.14	metabolism
tr A0A1S2XH89	Ferredoxin-thioredoxin reductase, catalytic chain	Cicer arietinum	12.829	0.002	-2.177	metabolism
tr A0A1S3E0N0	probable glutathione S-transferase	Cicer arietinum	5.81	0.002	-2.178	disease and defence

tr A0A1S2XJR8	Carbonic anhydrase	Cicer arietinum	277.758	0.004	-2.202	disease and defence
tr A0A1S2YPG7	macrophage migration inhibitory factor homolog	Cicer arietinum	14.546	0.016	-2.22	disease and defence
tr A0A1S2XFX0	thioredoxin M4, chloroplastic	Cicer arietinum	41.722	0.001	-2.223	disease and defence
tr A0A1S2YGC4	pectinesterase/pectinesterase inhibitor 51	Cicer arietinum	12.327	0.006	-2.229	disease and defence
tr A0A1S2YMH7	uncharacterized protein LOC101496020	Cicer arietinum	16.605	0.006	-2.237	unclassified
tr A0A1S2XJI4	60S acidic ribosomal protein P2-1-like	Cicer arietinum	6.988	0.035	-2.254	protein synthesis
tr A0A1S2YKJ9	Lactoylglutathione lyase	Cicer arietinum	20.731	0.004	-2.26	disease and defence
tr A0A1S2Y615	Glutamyl-tRNA(Gln) amidotransferase subunit A, chloroplastic/mitochondrial	Cicer arietinum	29.087	0.018	-2.268	transcription
tr A0A0X9LEN0	Glutathione s-transferase 1	Cicer arietinum	11.978	0.008	-2.269	disease and defence
tr A0A1S2YIB9	thioredoxin M3, chloroplastic	Cicer arietinum	3.729	0.009	-2.271	disease and defence
tr A0A1S2XHF9	uncharacterized protein At5g39570 isoform X1	Cicer arietinum	23.842	0.003	-2.291	unclassified

tr A0A1S2YQJ2	endo-1,31,4-beta-D-glucanase-like	Cicer arietinum	51.528	0.005	-2.339	energy
tr A0A1S2YUP6	Carboxypeptidase	Cicer arietinum	28.548	0.01	-2.357	Protein destination and storage
sp Q00016	Isoflavone reductase	Cicer arietinum	15.886	0.009	-2.362	metabolism
tr A0A1S2YRE0	Eukaryotic translation initiation factor 5A	Cicer arietinum	6.009	0.007	-2.366	protein synthesis
tr A0A1S2XNK3	Non-specific lipid-transfer protein	Cicer arietinum	15.619	0.008	-2.402	transport
tr A0A1S2Y9F3	far upstream element-binding protein 2-like	Cicer arietinum	1.653	0.028	-2.408	protein synthesis
tr A0A1S2XSM5	glutathione S-transferase L3	Cicer arietinum	16.825	0.007	-2.495	disease and defence
tr A0A1S2Y105	60S acidic ribosomal protein P2-4-like	Cicer arietinum	10.156	0.021	-2.541	protein synthesis
tr A0A1S2XK69	uncharacterized protein LOC101509461	Cicer arietinum	15.078	0.012	-2.548	unclassified
tr A0A1S3E278	NHL repeat-containing protein 2	Cicer arietinum	26.752	0.002	-2.555	unclassified

tr A0A1S3EET3	Acyl carrier protein	Cicer arietinum	7.906	0.02	-2.566	protein synthesis
tr A0A1S2YAR8	Amine oxidase	Cicer arietinum	39.113	0.003	-2.586	metabolism
tr A0A1S2YB16	1-aminocyclopropane-1-carboxylate oxidase	Cicer arietinum	51.055	0.008	-2.616	disease and defence
tr A0A1S2Y0A3	geraniol 8-hydroxylase-like	Cicer arietinum	2.288	0.003	-2.623	metabolism
tr A0A1S2XVA7	cathepsin B-like	Cicer arietinum	3.898	0.021	-2.636	disease and defence
tr A0A1S2YPL0	uncharacterized protein LOC101500266	Cicer arietinum	17.392	0.001	-2.648	unclassified
tr A0A1S2XBQ8	hydroxyacylglutathione hydrolase 2, mitochondrial-like isoform X1	Cicer arietinum	11.659	0.02	-2.668	intracellular traffic
tr A0A1S2XU67	alpha carbonic anhydrase 1, chloroplastic	Cicer arietinum	11.541	0.002	-2.673	metabolism
tr A0A1S3E7G7	uncharacterized protein LOC105852205	Cicer arietinum	3.087	0.002	-2.697	unclassified
tr A0A1S2Y9C4	uncharacterized protein LOC101501607	Cicer arietinum	2.744	0.003	-2.782	unclassified
tr A0A1S2Z2Z2	thioredoxin-like isoform X1	Cicer arietinum	24.023	0.002	-2.832	metabolism

tr A0A1S2XM46	cytochrome c oxidase subunit 6b-1-like	Cicer arietinum	2.705	0.018	-2.854	transport
tr A0A1S2YX62	Lactoylglutathione lyase	Cicer arietinum	3.235	0.01	-2.884	metabolism
tr A0A1S2XG53	photosystem II 10 kDa polypeptide, chloroplastic	Cicer arietinum	87.861	0.011	-2.887	energy
tr A0A1S2Y875	CO(2)-response secreted protease-like	Cicer arietinum	111.781	0.004	-2.897	Protein destination and storage
tr A0A1S2XWI5	uncharacterized protein LOC101515092	Cicer arietinum	9.189	0.012	-2.932	unclassified
tr A0A1S2Y5Z2	thylakoid lumenal 19 kDa protein, chloroplastic	Cicer arietinum	9.438	0.003	-2.938	transport
tr A0A1S2YEW6	Acyl carrier protein	Cicer arietinum	11.768	0.016	-2.949	metabolism
tr A0A1S2YKF7	probable 2-carboxy-D-arabinitol-1-phosphatase isoform X1	Cicer arietinum	12.354	0.004	-2.962	transport
tr A0A1S2YKM2	Carboxypeptidase	Cicer arietinum	12.576	0.01	-2.969	Protein destination and storage
tr O65757	Putative Pi starvation-induced protein	Cicer arietinum	17.398	0.005	-2.991	disease and defence

tr A0A1S2Y6K3	uncharacterized protein LOC101488529	Cicer arietinum	31.155	0.015	-3.051	unclassified
tr A0A1S2YAN1	uncharacterized protein LOC101493535 isoform X1	Cicer arietinum	6.735	0.048	-3.056	unclassified
tr Q7DLT8	CaM protein	Cicer arietinum	17.228	0.005	-3.069	disease and defence
tr A0A1S2XGQ1	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 2-like	Cicer arietinum	8.905	0.005	-3.106	energy
tr A0A1S2XVS3	R probable aldo-keto reductase 1	Cicer arietinum	11.332	0.003	-3.12	disease and defence
tr A0A1S2YDD8	thylakoid lumenal 15 kDa protein 1, chloroplastic	Cicer arietinum	44.272	0.003	-3.125	energy
tr A0A1S2Y2B7	1-aminocyclopropane-1-carboxylate oxidase homolog 4-like	Cicer arietinum	29.568	0.008	-3.193	metabolism
tr A0A1S2Y0R0	glutathione S-transferase L3-like	Cicer arietinum	58.754	0.003	-3.3	disease and defence
tr A0A1S3EGD4	Sucrose synthase	Cicer arietinum	11.43	0.011	-3.314	metabolism
tr A0A1S2XFN2	persulfide dioxygenase ETHE1 homolog, mitochondrial	Cicer arietinum	38.96	0.004	-3.546	metabolism
tr A0A1S2YI59	uncharacterized protein LOC101506653	Cicer arietinum	18.208	0.021	-3.555	unclassified

tr A0A1S2XNJ7	Non-specific lipid-transfer protein	Cicer arietinum	13.113	0.003	-3.72	unclear classification
tr A0A1S2Y294	Chalcone-flavonone isomerase family protein	Cicer arietinum	27.091	0.001	-3.741	metabolism
tr A0A1S2YY37	Glycine cleavage system H protein	Cicer arietinum	104.469	0.004	-3.877	energy
tr Q9ZNQ4	Superoxide dismutase [Cu-Zn]	Cicer arietinum	38.857	0.003	-3.975	disease and defence
tr A0A1S2Z521	Peroxidase	Cicer arietinum	2.324	0.002	-4.09	disease and defence
tr A0A1S2YLG2	Non-specific lipid-transfer protein	Cicer arietinum	38.932	0.01	-4.579	transport
tr A0A1S2YQU2	methyl-CpG-binding domain-containing protein 11-like	Cicer arietinum	26.548	0.004	-4.71	cell structure
tr A0A1S2YKP6	Superoxide dismutase [Cu-Zn]	Cicer arietinum	228.48	0.007	-4.743	energy
tr A0A1S2XDV0	ABA-responsive protein ABR17-like	Cicer arietinum	33.697	0.004	-5.042	metabolism
tr A0A1S2YFV1	Ferredoxin	Cicer arietinum	13.503	0.005	-5.171	transport
tr A0A1S2XBN8	Ferredoxin	Cicer arietinum	10.874	0.004	-5.523	energy

tr A0A1S2Z702	Non-specific lipid-transfer protein	Cicer arietinum	53.946	0.001	-5.653	transport
sp P36908	Acidic endochitinase	Cicer arietinum	67.804	0.003	-6.026	disease and defence
tr A0A1S2XZ19	calvin cycle protein CP12-2, chloroplastic-like	Cicer arietinum	17.679	0.008	-6.15	transcription
tr A0A1S2XPR0	vestitone reductase-like	Cicer arietinum	9.369	0.001	-7.394	metabolism
tr A0A1S2XA51	Acyl carrier protein	Cicer arietinum	11.197	0.007	-7.477	intracellular traffic
tr A0A1S2YWP4	uncharacterized protein LOC101504873	Cicer arietinum	7.301	0.009	-7.507	unclear classification
tr A0A1S2Y6U8	non-specific lipid-transfer protein 1-like	Cicer arietinum	14.957	0.001	-7.668	transport
tr A0A1S2Y9R4	acidic mammalian chitinase-like	Cicer arietinum	37.887	0.001	-7.746	metabolism
tr A0A1S2XDV2	Pathogenesis-related protein 10	Cicer arietinum	59.895	0	-7.78	disease and defence
tr A0A1S2XGT2	class-10 pathogenesis-related protein 1-like	Cicer arietinum	21.038	0.002	-7.925	metabolism
tr A0A1S2YSZ0	Pathogenesis related protein	Cicer arietinum	34.624	0	-8.626	disease and defence

tr Q700A6	Putative lipid transfer protein GPI- anchored	Cicer arietinum	27.24	0.001	-8.631	transport
tr A0A067XU00	UDP-glycosyltransferase 83A1	Cicer arietinum	19.687	0.001	-9.042	metabolism
tr A0A1S2Z987	thaumatin-like protein 1b	Cicer arietinum	17.77	0.009	-9.769	disease and defence
tr A0A1S2Y874	Plastocyanin	Cicer arietinum	83.8	0.003	-10.074	energy
tr A0A1S2YQ46	ABA-responsive protein ABR18-like	Cicer arietinum	22.834	0.001	-10.192	metabolism
tr A0A1S2Y090	keratin, type I cytoskeletal 10-like	Cicer arietinum	42.207	0.006	-10.565	unclear classification
tr A0A1S2XYW5	early light-induced protein, chloroplastic- like	Cicer arietinum	33.53218	0.007859	6.68034	metabolism
tr A0A1S2YV40	Lipoxygenase	Cicer arietinum	33.5609	0.007853	6.74391	metabolism

Table S2: List of heat stress responsive proteins identified from Acc#8 samples using the Label free quantification and database searches. All protein identifications were from *Cicer arietinum*

Accession	Protein Name	Taxonomy	Score ^C	q value	max fold	Function
tr A0A1S2XTR8	calvin cycle protein CP12-2, chloroplastic-like	Cicer arietinum	21.104	0.014	27.773	transport
tr A0A1S2XQS4	light-regulated protein	Cicer arietinum	5.245	0.021	27.31	cell structure
tr A0A1S2Y090	keratin, type I cytoskeletal 10-like	Cicer arietinum	21.813	0.018	12.758	cell growth/development
tr A0A1S2XD74	60S acidic ribosomal protein P2B-like	Cicer arietinum	10.261	0.019	11.342	protein synthesis
tr A0A1S2XA51	Acyl carrier protein	Cicer arietinum	12.414	0.014	10.737	intracellular traffic
tr A0A1S2Y874	Plastocyanin	Cicer arietinum	103.708	0.011	10.568	energy
tr A0A1S2XZ19	calvin cycle protein CP12-2, chloroplastic-like	Cicer arietinum	48.286	0.035	9.097	transcription
tr A0A1S2YB46	glycine-rich RNA-binding protein 2, mitochondrial-like	Cicer arietinum	19.579	0.01	8.535	transcription
tr A0A1S2Y9R4	acidic mammalian chitinase-like	Cicer arietinum	18.732	0.025	7.131	metabolism
tr A0A1S2XDV2	Pathogenesis-related protein 10	Cicer arietinum	49.663	0.004	7.122	disease and defence

tr A0A1S2XQH9	protein SQS1-like	Cicer arietinum	12.841	0.04	6.795	transcription
tr A0A1S2XHF9	uncharacterized protein At5g39570 isoform X1	Cicer arietinum	27.896	0.009	6.719	unclassified
tr Q9ZP12	Glucan endo-1,3-beta-d-glucosidase	Cicer arietinum	17.569	0.021	6.631	metabolism
tr A0A1S2Y6I8	uncharacterized protein LOC101509734	Cicer arietinum	3.694	0.027	6.164	unclassified
tr A0A1S2YFV1	Ferredoxin	Cicer arietinum	16.17	0.017	6	energy
tr A0A1S2YQ46	ABA-responsive protein ABR18-like	Cicer arietinum	7.693	0.016	5.619	disease and defence
tr A0A1S2Z702	Non-specific lipid-transfer protein	Cicer arietinum	47.043	0.023	5.543	transport
tr A0A1S2YSZ0	Pathogenesis related protein	Cicer arietinum	29.206	0.001	5.066	disease and defence
tr A0A1S2XPR0	vestitone reductase-like	Cicer arietinum	4.963	0.008	4.996	metabolism
tr A0A1S2YTZ2	albumin-2-like	Cicer arietinum	4.995	0.022	4.904	unclear classification
tr A0A1S2YY37	Glycine cleavage system H protein	Cicer arietinum	113.588	0.015	4.659	energy
tr Q700A6	Putative lipid transfer protein GPI- anchored	Cicer arietinum	27.486	0.022	4.654	transport

tr A0A1S2YNE3	glycine-rich RNA-binding, abscisic acid- inducible protein-like	Cicer arietinum	25.751	0.014	4.305	protein synthesis
tr A0A1S2Y5Z2	>tr A0A1S2Y5Z2 A0A1S2Y5Z2_CICAR thylakoid lumenal 19 kDa protein, chloroplastic	Cicer arietinum	15.564	0.011	3.924	transport
tr A0A1S3EGJ5	LOW QUALITY PROTEIN: ribulose bisphosphate carboxylase large chain	Cicer arietinum	39.407	0.018	3.89	metabolism
tr A0A1S2XG53	photosystem II 10 kDa polypeptide, chloroplastic	Cicer arietinum	130.849	0.017	3.865	energy
tr A0A1S2Z2Z2	thioredoxin-like isoform X1	Cicer arietinum	31.638	0.001	3.831	metabolism
tr A0A1S2YG15	Acyl carrier protein	Cicer arietinum	16.057	0.049	3.827	metabolism
tr A0A1S2XWI5	uncharacterized protein LOC101515092	Cicer arietinum	4.593	0.033	3.677	unclassified
tr A0A1S2XYG5	thioredoxin Y1, chloroplastic-like	Cicer arietinum	16.337	0.011	3.419	metabolism
tr Q9ZNQ4	Superoxide dismutase [Cu-Zn]	Cicer arietinum	26.724	0.016	3.404	metabolism
tr A0A1S2YLG2	Non-specific lipid-transfer protein	Cicer arietinum	36.033	0.034	3.344	metabolism
tr A0A1S2Y294	Chalcone-flavonone isomerase family protein	Cicer arietinum	20.344	0.009	3.336	metabolism

tr A0A1S2YEH0	flocculation protein FLO11-like	Cicer arietinum	5.204	0.011	3.261	cell structure
tr A0A1S2Y7P0	DNA topoisomerase 2	Cicer arietinum	2.584	0.047	3.223	metabolism
tr A0A1S3E8Q6	lysosomal beta glucosidase-like	Cicer arietinum	6.44	0.016	3.186	Protein destination and storage
tr A0A1S2XQC0	thioredoxin F-type, chloroplastic-like	Cicer arietinum	7.44	0.021	3.184	cell growth/development
tr A0A1S2XDZ4	translationally-controlled tumor protein homolog	Cicer arietinum	27.06	0.014	3.144	cell growth/development
tr A0A1S3E0G2	calmodulin-like	Cicer arietinum	23.443	0.026	3.142	signal transduction
tr A0A1S2Y0X8	thylakoid lumenal 15.0 kDa protein 2, chloroplastic	Cicer arietinum	15.08	0.003	3.118	cell structure
tr A0A1S2XDV0	ABA-responsive protein ABR17-like	Cicer arietinum	14.464	0.034	3.102	signal transduction
tr A0A1S2XUH0	Glutathione synthetase	Cicer arietinum	8.366	0.014	3.042	metabolism
tr A0A1S2YDD8	thylakoid lumenal 15 kDa protein 1, chloroplastic	Cicer arietinum	51.373	0.007	3.032	energy
tr A0A1S2Z111	30S ribosomal protein 3, chloroplastic-like	Cicer arietinum	18.823	0.034	3.003	protein synthesis
tr A0A1S2XWM2	uncharacterized protein LOC101504472	Cicer arietinum	6.882	0.031	2.989	unclassified

tr A0A1S2XFN2	persulfide dioxygenase ETHE1 homolog, mitochondrial	Cicer arietinum	24.981	0.024	2.957	metabolism
tr A0A1S2XPA0	high mobility group B protein 1	Cicer arietinum	5.614	0.016	2.943	intracellular traffic
tr A0A1S2Z4L2	protein BOLA4, chloroplastic/mitochondrial	Cicer arietinum	26.618	0.007	2.938	cell structure
tr A0A1S2XAG9	protease Do-like 5, chloroplastic	Cicer arietinum	2.683	0.012	2.93	cell structure
tr A0A1S2XVX2	AT-hook motif nuclear-localized protein 14-like	Cicer arietinum	15.346	0.045	2.925	cell structure
tr A0A1S2XUQ1	33 kDa ribonucleoprotein, chloroplastic	Cicer arietinum	23.773	0.04	2.886	transcription
tr A0A1S2YCD8	ribosome-binding factor PSRP1, chloroplastic	Cicer arietinum	40.931	0.009	2.786	metabolism
tr A0A1S2YUP6	Carboxypeptidase	Cicer arietinum	28.532	0.009	2.758	Protein destination and storage
tr A0A1S2XG58	uncharacterized protein LOC101505718 isoform X2	Cicer arietinum	6.723	0.008	2.751	unclassified
tr A0A1S2Y089	thioredoxin X, chloroplastic	Cicer arietinum	30.99	0.007	2.737	disease and defence
tr A0A1S2YE45	Malic enzyme	Cicer arietinum	12.388	0.042	2.721	metabolism
tr A0A1S3E326	valinetRNA ligase	Cicer arietinum	2.549	0.026	2.689	transcription

tr A0A1S2Y875	CO(2)-response secreted protease-like	Cicer arietinum	95.928	0.013	2.623	Protein destination and storage
tr A0A1S2YQJ2	endo-1,31,4-beta-D-glucanase-like	Cicer arietinum	57.271	0.01	2.609	energy
tr A0A1S2XU67	alpha carbonic anhydrase 1, chloroplastic	Cicer arietinum	5.471	0.007	2.564	metabolism
tr A0A1S2XTU0	uncharacterized protein OsI_027940-like	Cicer arietinum	39.099	0.007	2.539	unclassified
tr A0A1S2Z271	aminoacyl tRNA synthase complex- interacting multifunctional protein 1	Cicer arietinum	8.057	0.012	2.526	transcription
tr A0A1S2XH89	Ferredoxin-thioredoxin reductase, catalytic chain	Cicer arietinum	8.117	0.016	2.522	metabolism
tr A0A1S2XK69	protein CHLORORESPIRATORY REDUCTION 7, chloroplastic	Cicer arietinum	14.026	0.009	2.495	energy
tr A0A1S2YHI8	Peptidylprolyl isomerase	Cicer arietinum	35.581	0.005	2.49	metabolism
tr A0A1S2YKM2	Carboxypeptidase	Cicer arietinum	12.413	0.02	2.466	Protein destination and storage
tr A0A1S2YZ64	thiosulfate sulfurtransferase 16	Cicer arietinum	26.714	0.015	2.457	protein synthesis
tr A0A1S2YD43	uncharacterized protein LOC101494289 isoform X1	Cicer arietinum	6.206	0.017	2.422	metabolism
tr A0A1S2XVM5	uncharacterized protein LOC101512811	Cicer arietinum	16.1	0.009	2.372	unclassified

tr A0A1S2XSM5	glutathione S-transferase L3	Cicer arietinum	29.331	0.013	2.353	disease and defence
tr A0A1S2YPS0	peroxiredoxin Q, chloroplastic	Cicer arietinum	235.481	0.007	2.344	metabolism
tr A0A1S2XM30	CBS domain-containing protein CBSX3, mitochondrial isoform X1	Cicer arietinum	92.691	0.02	2.336	cell growth/development
tr A0A1S2YMH7	uncharacterized protein LOC101496020	Cicer arietinum	23.025	0.034	2.322	unclassified
sp O49818	Lactoylglutathione lyase	Cicer arietinum	12.177	0.045	2.291	metabolism
tr A0A1S2XT07	Inosine-5'-monophosphate dehydrogenase	Cicer arietinum	5.756	0.02	2.282	cell growth/development
tr A0A1S2YKP6	Superoxide dismutase [Cu-Zn]	Cicer arietinum	192.617	0.031	2.244	energy
tr A0A1S2YRM0	betaine aldehyde dehydrogenase 1, chloroplastic	Cicer arietinum	41.549	0.023	2.242	disease and defence
tr A0A1S2YQU2	methyl-CpG-binding domain-containing protein 11-like	Cicer arietinum	20.745	0.049	2.213	cell structure
tr A0A1S2YXU1	thylakoid lumenal protein At1g12250, chloroplastic	Cicer arietinum	65.825	0.006	2.21	metabolism
tr A0A1S2XHY0	14 kDa zinc-binding protein	Cicer arietinum	12.33	0.012	2.209	disease and defence
tr A0A1S2YFZ3	40S ribosomal protein S12	Cicer arietinum	25.111	0.018	2.203	protein synthesis

tr A0A1S2Y9C4	uncharacterized protein LOC101501607	Cicer arietinum	13.469	0.005	2.166	unclassified
tr A0A1S2YIG4	10 kDa chaperonin	Cicer arietinum	5.971	0.018	2.159	cell structure
tr A0A1S2Z5B7	plasminogen activator inhibitor 1 RNA-binding protein-like	Cicer arietinum	25.456	0.043	2.156	transcription
tr A0A1S2YLN1	arginase 1, mitochondrial	Cicer arietinum	27.799	0.043	2.154	transport
tr A0A1S2YII8	14 kDa zinc-binding protein	Cicer arietinum	14.917	0.023	2.143	signal transduction
tr A0A1S2YC79	thylakoid lumenal 17.4 kDa protein, chloroplastic	Cicer arietinum	66.541	0.007	2.094	cell structure
tr A0A1S2XFX0	thioredoxin M4, chloroplastic	Cicer arietinum	48.713	0.009	2.094	metabolism
tr A0A1S2YC17	psbP domain-containing protein	Cicer arietinum	45.044	0.014	2.051	transport
tr A0A1S2XRG1	10 kDa chaperonin-like	Cicer arietinum	11.354	0.044	2.028	Protein destination and storage
tr A0A1S2YPL0	uncharacterized protein LOC101500266	Cicer arietinum	17.805	0.011	2.018	unclassified
tr A0A1S2YLZ5	leucinetRNA ligase, cytoplasmic isoform X1	Cicer arietinum	14.545	0.023	2.014	protein synthesis
tr A0A1S2YQ71	peroxisomal fatty acid beta-oxidation multifunctional protein MFP2	Cicer arietinum	19.255	0.025	-2.006	metabolism

tr A0A1S2YXE2	uncharacterized protein LOC101488830	Cicer arietinum	59.63	0.019	-2.016	metabolism
tr A0A1S2YB16	1-aminocyclopropane-1-carboxylate oxidase	Cicer arietinum	65.015	0.014	-2.054	disease and defence
tr A0A1S2Y7N8	uncharacterized protein ycf39	Cicer arietinum	45.502	0.013	-2.056	unclassified
tr A0A1S2YQR3	probable sucrose-phosphate synthase	Cicer arietinum	16.153	0.014	-2.063	metabolism
tr A0A1S2XK74	2-methylene-furan-3-one reductase-like	Cicer arietinum	58.899	0.048	-2.073	disease and defence
tr A0A1S2XVW1	probable plastid-lipid-associated protein 6, chloroplastic	Cicer arietinum	171.624	0.03	-2.074	metabolism
tr A0A1S2YCA3	rhodanese-like domain-containing protein 14, chloroplastic	Cicer arietinum	18.396	0.018	-2.075	disease and defence
tr A0A1S2XAS4	Obg-like ATPase 1	Cicer arietinum	23.122	0.024	-2.086	transport
tr A0A1S2XLQ0	Mitochondrial fission 1 protein	Cicer arietinum	19.059	0.043	-2.095	signal transduction
tr A0A1S2YPG7	macrophage migration inhibitory factor homolog	Cicer arietinum	12.744	0.036	-2.106	disease and defence
tr A0A1S2YNI6	epimerase family protein SDR39U1 homolog, chloroplastic	Cicer arietinum	29.928	0.04	-2.108	metabolism
tr A0A1S2YQQ6	uncharacterized protein At2g34460, chloroplastic	Cicer arietinum	48.02	0.022	-2.11	unclassified

tr A0A1S3ECZ3	secoisolariciresinol dehydrogenase-like	Cicer arietinum	24.504	0.034	-2.127	energy
tr A0A1S2Z6J8	uncharacterized protein LOC101506186	Cicer arietinum	32.18	0.017	-2.128	unclassified
tr Q9ZRU2	uncharacterized protein LOC101508404	Cicer arietinum	7.431	0.007	-2.132	unclassified
tr A0A1S2YF30	mitochondrial-processing peptidase subunit alpha-like	Cicer arietinum	36.977	0.048	-2.136	signal transduction
tr A0A1S2YWE9	carotenoid 9,10(9',10')-cleavage dioxygenase 1	Cicer arietinum	49.82	0.011	-2.144	metabolism
tr B5LMR4	50S ribosomal protein L23, chloroplastic	Cicer arietinum	12.676	0.021	-2.167	protein synthesis
tr A0A1S2Z1R2	eukaryotic initiation factor 4A-15	Cicer arietinum	67.209	0.047	-2.181	transport
tr A0A0X9LEN0	Glutathione s-transferase 1	Cicer arietinum	6.53	0.019	-2.197	disease and defence
tr A0A1S2XJY4	ABC transporter B family member 26, chloroplastic isoform X1	Cicer arietinum	12.222	0.044	-2.204	transport
tr A0A1S2XT74	uncharacterized protein LOC101505098	Cicer arietinum	33.727	0.031	-2.219	unclassified
·	-	Cicer	70.453	0.031		
tr A0A1S2XMM1	40S ribosomal protein S4 protein PROTON GRADIENT	arietinum Cicer	/0.453	0.031	-2.248	protein synthesis
tr A0A1S2Y1I5	REGULATION 5, chloroplastic	arietinum	21.979	0.011	-2.253	energy

tr A0A1S2X	cytochrome c1-2, her KE7 mitochondrial	ne protein,	Cicer arietinum	24.206	0.019	-2.255	cell structure
tr A0A1S2Z	0M6 40S ribosomal protein	n S7	Cicer arietinum	43.451	0.015	-2.255	protein synthesis
tr A0A1S2Y	probable plastid-lipid FB6 7, chloroplastic	-associated protein	Cicer arietinum	11.292	0.016	-2.275	protein synthesis
tr A0A1S2Z	354 uncharacterized prote	in LOC101497856	Cicer arietinum	11.812	0.011	-2.276	unclassified
tr A0A1S2X	mitochondrial phosph QN6 3, mitochondrial	nate carrier protein	Cicer arietinum	24.087	0.012	-2.279	intracellular traffic
tr A0A1S2Y	835 Catalase		Cicer arietinum	195.318	0.034	-2.286	disease and defence
tr A0A1S2Y	SK4 V-type proton ATPas	e subunit H	Cicer arietinum	5.662	0.012	-2.293	transport
tr A0A1S2Y	mitochondrial carniting TM9 carrier-like protein	ne/acylcarnitine	Cicer arietinum	50.67	0.011	-2.324	intracellular traffic
tr A0A1S2Y	710 50S ribosomal protein	n L17, chloroplastic	Cicer arietinum	20.62	0.029	-2.326	protein synthesis
tr A0A1S2Y	26S proteasome non- DH7 subunit 7 homolog A	•	Cicer arietinum	9.649	0.034	-2.326	protein synthesis
tr A0A1S2Y	KB0 pheophorbide a oxyg	enase, chloroplastic	Cicer arietinum	7.139	0.045	-2.335	energy

tr A0A1S2XV81	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 9, mitochondrial	Cicer arietinum	21.58	0.015	-2.35	disease and defence
tr A0A1S2YG09	40S ribosomal protein S15a-1-like	Cicer arietinum	28.059	0.016	-2.369	protein synthesis
tr A0A1S2YGU4	mitochondrial dicarboxylate/tricarboxylate transporter DTC	Cicer arietinum	94.699	0.018	-2.403	intracellular traffic
tr A0A1S3E2C4	DEAD-box ATP-dependent RNA helicase 3, chloroplastic-like	Cicer arietinum	45.082	0.012	-2.409	transport
tr A0A1S2XME2	neutral ceramidase-like	Cicer arietinum	2.639	0.013	-2.416	disease and defence
tr A0A1S2Y0H8	probable plastid-lipid-associated protein 12, chloroplastic isoform X1	Cicer arietinum	18.588	0.009	-2.431	transport
tr A0A1S2XB11	ribulose bisphosphate carboxylase/oxygenase activase, chloroplastic	Cicer arietinum	22.568	0.04	-2.439	protein synthesis
tr A0A1S2Z665	geraniol 8-hydroxylase-like	Cicer arietinum	10.486	0.018	-2.454	energy
tr A0A1S2Y654	outer envelope pore protein 24, chloroplastic	Cicer arietinum	11.92	0.018	-2.459	intracellular traffic
tr A0A1S2YRJ4	Plasma membrane ATPase	Cicer arietinum	60.167	0.006	-2.461	transport
tr A0A1S2YFW9	translocase of chloroplast 159, chloroplastic-like	Cicer arietinum	38.256	0.026	-2.476	metabolism

tr A0A1S2Y966	Eukaryotic translation initiation factor 3 subunit B	Cicer arietinum	11.725	0.038	-2.476	protein synthesis
tr A0A1S2XSJ5	26S proteasome regulatory subunit 4 homolog A	Cicer arietinum	8.964	0.017	-2.484	protein synthesis
tr A0A1S2XR87	bifunctional protein FolD 4, chloroplastic	Cicer arietinum	10.248	0.04	-2.487	protein synthesis
tr A0A1S2Y6T5	cinnamoyl-CoA reductase 1	Cicer arietinum	80.382	0.021	-2.489	disease and defence
tr A0A1S2Z827	probable NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5, mitochondrial	Cicer arietinum	15.846	0.02	-2.489	transport
tr A0A1S2Z166	uncharacterized protein LOC101492619	Cicer arietinum	5.667	0.033	-2.503	unclassified
tr A0A1S3EAP9	external alternative NAD(P)H- ubiquinone oxidoreductase B2, mitochondrial-like	Cicer arietinum	11.419	0.011	-2.544	disease and defence
tr A0A1S2XHH6	uncharacterized protein LOC101501957	Cicer arietinum	12.881	0.006	-2.546	unclassified
tr A0A1S2YDG4	60S ribosomal protein L9	Cicer arietinum	102.783	0.042	-2.555	protein synthesis
tr O65757	Putative Pi sta	Cicer arietinum	18.039	0.012	-2.571	disease and defence
tr A0A1S2YJ62	prohibitin-1, mitochondrial	Cicer arietinum	58.256	0.016	-2.58	intracellular traffic

tr A0A1S2YLZ0	30S ribosomal protein S31, chloroplastic	Cicer arietinum	17.091	0.018	-2.648	protein synthesis
tr A0A1S2Y6M9	outer envelope pore protein 37, chloroplastic	Cicer arietinum	4.721	0.043	-2.665	intracellular traffic
sp O65751	40S ribosomal protein SA	Cicer arietinum	81.904	0.026	-2.682	protein synthesis
tr A0A1S2YNJ2	40S ribosomal protein S25-2-like	Cicer arietinum	15.995	0.037	-2.692	protein synthesis
tr A0A1S2Z192	thioredoxin-like protein Clot	Cicer arietinum	5.965	0.025	-2.71	disease and defence
tr A0A1S2YMB2	heat shock 70 kDa protein (HSP70)15-like isoform X1	Cicer arietinum	50.18	0.048	-2.725	disease and defence
tr A0A1S3EJE6	(+)-neomenthol dehydrogenase-like isoform X2	Cicer arietinum	10.592	0.018	-2.73	Energy
tr A0A1S3DY93	cytochrome b-c1 complex subunit 8-like	Cicer arietinum	10.517	0.039	-2.762	protein synthesis
tr A0A1S2YR41	calcium sensing receptor, chloroplastic	Cicer arietinum	95.334	0.011	-2.772	disease and defence
tr B5LMP8	ATP-dependent Clp protease proteolytic subunit	Cicer arietinum	11.836	0.041	-2.79	protein destination and storage
tr A0A1S2YZY1	probable mannitol dehydrogenase	Cicer arietinum	13.832	0.045	-2.791	energy
tr A0A1S2XWW1	PITH domain-containing protein At3g04780	Cicer arietinum	4.487	0.015	-2.798	disease and defence

tr A0A1S2Z480	alpha-amylase 3, chloroplastic-like	Cicer arietinum	48.304	0.017	-2.828	metabolism
tr A0A1S2XVH6	2-methyl-6-phytyl-1,4-hydroquinone methyltransferase, chloroplastic	Cicer arietinum	24.49	0.023	-2.871	protein synthesis
tr A0A1S3EBL9	LOW QUALITY PROTEIN: 9-divinyl ether synthase-like	Cicer arietinum	4.505	0.045	-2.883	metabolism
tr A0A1S2Y8W1	Clathrin heavy chain	Cicer arietinum	26.501	0.018	-2.885	signal transduction
tr A0A1S3EA23	phytoene dehydrogenase, chloroplastic/chromoplastic	Cicer arietinum	2.892	0.011	-2.89	metabolism
tr A0A1S2Z2C9	translation factor GUF1 homolog, chloroplastic	Cicer arietinum	19.366	0.026	-2.958	transport
tr A0A1S2XMD4	uncharacterized aarF domain-containing protein kinase At5g05200, chloroplastic	Cicer arietinum	2.626	0.037	-3	signal transduction
tr A0A1S2YZB9	60S ribosomal protein L4	Cicer arietinum	98.19	0.007	-3.047	protein synthesis
tr A0A1S2XME4	60S ribosomal protein L9-like	Cicer arietinum	41.082	0.034	-3.088	protein synthesis
tr A0A1S2YY93	mitochondrial outer membrane protein porin 2	Cicer arietinum	20.59	0.011	-3.175	transport
tr A0A1S2YAY9	uncharacterized aarF domain-containing protein kinase At1g79600, chloroplastic	Cicer arietinum	5.227	0.007	-3.223	protein synthesis
tr A0A1S2Z521	Peroxidase	Cicer arietinum	5.798	0.029	-3.278	disease and defence

tr A0A1S2YMU2	protein TOC75, chloroplastic	Cicer arietinum	32.258	0.004	-3.45	transport
tr A0A1S2YIQ0	uncharacterized protein LOC101494085	Cicer arietinum	48.393	0.049	-3.457	disease and defence
tr A0A1S2Z5P2	30S ribosomal protein 2, chloroplastic	Cicer arietinum	28.996	0.036	-3.689	protein synthesis
tr A0A1S2YJ61	ADP,ATP carrier protein 3, mitochondrial	Cicer arietinum	50.197	0.008	-3.714	transport
tr B5LMQ8	30S ribosomal protein S8, chloroplastic	Cicer arietinum	38.059	0.008	-3.74	protein synthesis
tr A0A1S2XN51	UDP-glucose 6-dehydrogenase	Cicer arietinum	17.129	0.022	-3.749	metabolism
tr A0A1S2YD89	Starch synthase, chloroplastic/amyloplastic	Cicer arietinum	14.837	0.009	-3.906	metabolism
tr A0A1S2XGE6	trifunctional UDP-glucose 4,6-dehydratase/UDP-4-keto-6-deoxy-D-glucose 3,5-epimerase/UDP-4-keto-L-rhamnose-reductase RHM1	Cicer arietinum	15.844	0.033	-3.965	metabolism
tr A0A1S2YV39	Lipoxygenase	Cicer arietinum	89.569	0.031	-3.976	metabolism
tr A0A1S2Y0R0	glutathione S-transferase L3-like	Cicer arietinum	57.926	0.006	-4.098	disease and defence
tr A0A1S2XH77	serine protease SPPA, chloroplastic-like OS	Cicer arietinum	11.186	0.011	-4.621	protein synthesis

tr A0A1S2Z5K5	uncharacterized aarF domain-containing protein kinase At1g79600, chloroplastic-like	Cicer arietinum	4.347	0.001	-4.793	protein synthesis
tr A0A1S2Z4A6	putative bark agglutinin LECRPA3	Cicer arietinum	3.583	0.04	-5.073	disease and defence
tr A0A1S3DZ63	cytochrome P450 CYP736A12-like	Cicer arietinum	28.403	0.016	-5.17	metabolism
tr A0A1S2Y105	60S acidic ribosomal protein P2-4-like	Cicer arietinum	12.342	0.03	-5.259	protein synthesis
tr O81927	Thaumatin-like protein PR-5a	Cicer arietinum	43.701	0.02	-7.688	disease and defence
tr A0A1S2XGT2	class-10 pathogenesis-related protein 1-like	Cicer arietinum	15.301	0.014	-7.837	disease and defence
sp P36908	Acidic endochitinase	Cicer arietinum	37.306	0.015	-9.848	disease and defence
tr A0A1S2XYW4	early light-induced protein, chloroplastic-like	Cicer arietinum	25.147	0.002	-61.61	metabolism