

**Supplementary Table 1.** The list of primers used in this study along with their target, amplicon size and physical position in the whole genome of Barley.

Target	full length gene	Primer 5' - 3'	Amp. size (bp)	Physical Position
HvWak2	GA_WAK2_F1	GGGTCAAAACGTTTGTACTAGTGAT	1022	27959229
	GA_WAK2_R1	AGAGGAACTCCATCTGCATATTTAC		27960250
	GA_WAK2_F2	AGTTCGGTAAAACACATCCTTAC	1092	27960081
	GA_WAK2_R2_G dna	CTTTTCTGATACTCAGCCCATAGAG		27961172
	GA_WAK2_F3_G dna	TTATCAGTCTGCATTCATACCATGC	895	27960974
	GA_WAK2_R3_G dna	AAGCTGTAGACGTCGCTCTTCTCT		27961868
	GA_WAK2_F4_G dna	GAACATCCTCTTGGACGACAAGTA	1001	27961695
	GA_WAK2_R4_G dna	GCACGGGTCTTTTGCTAGTATTTAT		27962695
Sbs1	GA_WAK3_F1_G dna	ATGGAGCGCACAGTATAGATAATTC	931	28039259
	GA_WAK3_R1_G dna	GATGTCAACTTGTTCTTGGTGTG		28038693
	GA_WAK3_F2_G dna	G TTCAGAATCCACATATAGCAACAC	890 (Morex); 1525 (Steptoe)	28038817
	GA_WAK3_R2_G dna	AATTCATAGACCAGTATGGGGACTT		28037928
	GA_WAK3_F3_G dna	GGATAACAGGGTAATAGCTGTCAAA	567	28038090
	GA_WAK3_R3_G dna	CATCTGAAACTATCATCTGGGTGTA		n/a
Sbs2	GA_WAK4_F0_G dna	TCACCAAAGGTAAGGTTGATGTCTA	863	28145586
	GA_WAK4_R0_G dna	CTTTGCTGAAATGACCAATATACCC		28144605
	GA_WAK4_F1_G dna	GCATCCTCCTTGTAGGTAAGGATTA	903	28146229
	GA_WAK4_R1_G dna	GGTCAGAAGCTCTTACTACTTGTGCG		28145327
	GA_WAK4_F2_G dna	ATCCTTAAGAATGCCCTTGTACACT	979	28147055
	GA_WAK4_R2_G dna	GGTAATGGAAGTTGTTTCAGAAGCTA		28146077
	GA_WAK4_F3_G dna	GACTGAACTATCATCTGGGTGTCT	1097	28148112
	GA_WAK4_R3_G dna	GAACAGAATGGTGGTCAGATATTGT		28146888
HvWak5	GA_WAK5_F1_G dna	TACATGTCTTGATTGTTGCCTACAG	916	28135129
	GA_WAK5_R1_G dna	TGTAGGTATGGATTGCCCTCATAA		28136044
	GA_WAK5_F2_G dna	TTGATCGTTCATATGTCAGCTCTAC	1039	28135828
	GA_WAK5_R2_G dna	CCTTCTTAAGGTCTTCTTGTGTGAA		28136821

Target	full length gene	Primer 5' - 3'	Amp. size (bp)	Physical Position
	GA_WAK5_F3_G dna	CGAGTATCAGAAAAGGAAGTTGAAG	1129	28136685
	GA_WAK5_R3_G dna	CCTGGGTGTTTCTATACTTATTCCA		28137813
	<b>Walking</b>			
	AP1	GTAATACGACTCACTATAGGGC	Adaptor primer	
	AP2	ACTATAGGGCACGCGTGGT		
Sbs2	ctg35_2_GSP3'	ACCGTCATGATTTTCAGGCACATCCG	second Walk	28038369
	ctg35_2_GSP5'	CACTGCCTACAGGTCAGAAGCTCTTA CTA	second Walk	28039080
	CTG35_GSP3'_1	GTGCGAACCTCCAAACCAGTCCTTGT ATCC	First Walk	27960562
	CTG35_GSP3'_2	CACCGTTGGGAGCTACACCTGTTTCAT GCTC	nested to first	27960613
	CTG35_GSP5'_1	CAAGCTGGTTCTTGCCCTTGGCTTGT CCC	First Walk	28038634
	CTG35_GSP5'_2	CCATTGCAAGTCCACCACAGCCGATT GATG	nested to first	28038667
	ctg35_3_GSP3	CCCGAACGGCAGCTTTTTTCAGTTCA TCCA	Third Walk	28037924
HvWak5	Ctg37_2_GSP5'_1	TCCATCCCGGCGCTAACTATGCTTGC ATCC	second Walk	28137551
	Ctg37_2_GSP5'_2	GGATGGCATCAAGGCTTCCATCCTTC ATCG	nested to second	28137520
	CTG37_GSP3'_1	TCCATCGACGAGCACGGTCTCGACTG	First Walk	28137750
	CTG37_GSP3'_2	CATGTCTGGAATAAGTATAGAAACA CCCAGGT	nested to first	28137783
	CTG37_GSP5'_1	CAGGTGAGGAGCACATGACCAGACG CTCTG	First Walk	28137727
	CTG37_GSP5'_2	TCTCAAGCACGAGTTTTCGCCCTCCAG GTGC	nested to first	28137688
	<b>Markers</b>			
BF627428	BF627428_F	GGTATGACAGGAAAAGAGAGACAGT	1031	30199300
	BF627428_R	CTATTGTTACAACCTGTGTGGTTGC		30200330
cMWG773	cMWG773-5_F	CTGAATGAATCTCGTCGAAACTACT	865	26188406
	cMWG773-5_R	ACGAATCTGGACTTCATCTTGGAC		26189270
BF627428_S teptoe	GA_Step_BF627428_F1	GTTGCTGCATTCCGTTTCAGTTTC	1031, 727	steptoe specific
	BF627428_R	CTATTGTTACAACCTGTGTGGTTGC		30200330
BF627428_ Morex	BF627428_F	GGTATGACAGGAAAAGAGAGACAGT	1031, 355	30199300
	GA_Mor_BF627428_R1	TCATGACCGATCATGTGATAATTT		30199654
cMWG773_ Steptoe	GA_Step_CMWG773-5_F1	ACGATGAGCCGCGAGCCTCGAC	865, 217	steptoe specific
	cMWG773-5_R	ACGAATCTGGACTTCATCTTGGAC		26189270
cMWG773_ Morex	cMWG773-5_F	CTGAATGAATCTCGTCGAAACTACT	865, 689	26188406
	GA_MOR_CMWG773-5_R1	GCTCTTCAGGAGGAGAATGGCATTG		26189094

Target	full length gene	Primer 5' - 3'	Amp. size (bp)	Physical Position
HvWak1 SNP	GA_rcs5_1584_F1	GTCTTAGGCATATCCTTCAGTACCAT	771	27972826
	GA_rcs5_1584_R1	GAAACTGTACACGTCGCTCTTCTC		27973591
Ctg7	Ctg7_CAPS	TGTACCGGAGCATCCATCTTGATAC	487	28203453
	Ctg7_CAPS	GCAGTTTCTTGGGACATCGACGAAC		28203940
BF263248	GA_BF263248_F1	GAGGTCGACTTCGCCAACTACTTCT	1265	27861430
	GA_BF263248_R1	TGTCACATTTTTTCATACCGAAAGCA		27862695
BF257002	GA_BF257002_F1	CTTCTTCTCCACCCTCGGTAAGC	781	27991817
	GA_BF257002_R1	CCTCCTTTTACCCAACATGTCTTCC		27991036
11_20162	11_20162_F1	GAACCTGCTGCGCATTATTTGATCT	614	28121569
	11_20162_R1	AAAAGCACACTGCTGCTGCTCTACT		28122183
790 SNP	GA_790_F1	ATGGCGTGGCAAATAAAGAAAGTCT	2249	28115641
	GA_790_R1	CAGTGAAGTGTGTGAGGCAAGAAGA		28113392
ctg_1606998 STS	GA_Mor_ctg_1606998_F1	TCAAAAGCCAACACTCCTTCCATTA	489	28116556
	GA_Mor_ctg_1606998_R1	CATGCATGTCCTATACACTTAGACGA A		28116067
800 SNP	GA_800_F1	CCCAAGGAAGTGAAGTGAACGGTA	1514	28122194
	GA_800_R1	CCAAAACCTCCACGTTCTTTTCTCT		28123708
BF256735	GA_BF256735_F1	GGAATCGTGCCATTGATATTGTTGT	1373	28140935
	GA_BF256735_R1	GTTGCTTTGCATCGTTTGGAGTATC		28139562
W4_SNP	GA_W4_SNP_F1	TTGACAATGGGTAACCAAGCTGGT	518	28145790
	GA_W4_SNP_R1	ATGGGCTCAGATAGATCGGTATGTA		28145272
	<b>VIGS knock-down Primers</b>			
HvWak2	GA-WAK2KD-FP	AGTTTAATTAAGCAAACATCAGTTC CGTTAAAAC	181	27960071
	GA-WAK2KD-RP	AGTGCGGCCGCCAGGAACTCCAT CTGCATATTTAC		27960252
	GA-WAK2KD-REV-FP	AGTGCGGCCGCAGCAAACATCAGTT CCGTTAAAAC	181	27960071
	GA-WAK2KD-REV-RP	AGTTTAATTAACAGGAACTCCATC TGCATATTTAC		27960252
Sbs1	GA-WAK3KD-FP	AGTTTAATTAATATCTGGGCTCAA CGGACTTAG	157	28038878
	GA-WAK3KD-RP	AGTGCGGCCGCCGTATGAAAAGGAT CAAGGGTTAAG		28038721
	GA-WAK3KD-REV-FP	AGTGCGGCCGCATATCTGGGCTCAA ACGACTTAG	157	28038878
	GA-WAK3KD-REV-RP	AGTTTAATTAACGTATGAAAAGGAT CAAGGGTTAAG		28038721
Sbs2	GA-WAK4KD2-FP	AGTTTAATTAATGAAGGTGTAATTAT GGACTGAAAC	156	28148131
	GA-WAK4KD2-RP	AGTGCGGCCGCCATGGGAAAATAGA TCGTCTGGTC		28147975
	GA-WAK4KD2-REV-FP	AGTGCGGCCGCTGAAGGTGTAATTA TGGACTGAAAC	156	28148131
	GA-WAK4KD2-REV-RP	AGTTTAATTAACATGGGAAAATAGA TCGTCTGGTC		28147975

Target	full length gene	Primer 5' - 3'	Amp. size (bp)	Physical Position
HvWak5	GA-WAK5KD-FP	AGTTTAATTAACCTCTGCGAAGCACCT GGAGGGCGAAAC	165	28137650
	GA-WAK5KD-RP1	AGTGCGGCCGCACCTGGGTGTTTCTA TACTTATTCC		28137815
	GA-WAK5KD-REV-FP	AGTGCGGCCGCCTCTGCGAAGCACCT TGGAGGGCGAAAC	165	28137650
	GA-WAK5KD-REV-RP1	AGTTTAATTAACCTGGGTGTTTCTA TACTTATTCC		28137815
	<b>VIGS-q-PCR Primers</b>			
HvuSnoR14	HvuSnoR14 -F1	GATGTTTATGTATGATAGTCTGTC	67	34228595, 34229909
	HvuSnoR14 -R1	GTCGGGATGTATGCGTGTC		34228529, 34229843
Sbs1	SS-W3-QFP1	CTTGAGTACCTCACCGCTGACTCAT	63	28038637
	SS-W3-QRP1	ATTACCGATGCTGCTTACGTCCAT		28038575
Sbs2	WAK4_QPCR_F6	TCCGCTGGTGTAGTCTTCCTCATAG	197	28146795
	WAK4_QPCR_R6	AAACCGCTTGTAGCCTTCTTCAGAT		28146991
HvWak5	W5-QF1	CCGCGCCAGTACCAACTATATACAA	97	28135738
	W5-QR1	CGATCAAACCTGAACAAGTCCACCT		28135834
	<b>time-course q-PCR Primers</b>			
HvWak2	WAK2Q-F1	GGCATAGAGACGCCCGATGATCAG	180	27962272
	WAK2Q-R1	AAGCTCAGATGCCGCATAGTCAGAC		27962455
Sbs1	WAK3Q-F1	ATATCTGGGCTCAAACGGACTTAG	157	28038878
	WAK3Q-R1	CGTATGAAAAGGATCAAGGGTTAAG		28038722
Sbs2	WAK4Q-F1	GATGAAGGTGTAATTATGGACTGAA	158	28148133
	WAK4Q-R1	CATGGGAAAATAGATCGTCTGGTC		28147975
HvWak5	W5-QF1	CCGCGCCAGTACCAACTATATACAA	97	28135738
	W5-QR1	CGATCAAACCTGAACAAGTCCACCT		28135834
<b>Allele Analysis Primers</b>				
Sbs1	Sbs1-F4	CTCAAGTGTATGGTGAAACCTAGTGC	4347	28169296
	Sbs1_Pro_R1	GAAACAGAGCAAGTAGATGGGAGCA		n/a
Sbs2	Sbs2_F3	GACTGAAACTATCATCTGGGTGTCT	4885	28148112
	Sbs2_R5	TCCTCCTGCTGTCCAAATTAACAA		28142992



**Supplementary Table 2.** The differentially expressed genes in the barley susceptible cultivar Harrington at 72 hpi with *Bipolaris sorokiniana* isolate ND85F. The transcripts were normalized with the non-inoculated DEGs in Harrington (n=3).

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1	HORVU5Hr1G051970	Pathogenesis-related thaumatin superfamily protein	19346.11	AT4G11650.1
2	HORVU7Hr1G033530	Cysteine-rich venom protein	13346.17	AT2G14610.1
3	HORVU3Hr1G111600	Pathogenesis-related protein	11819.76	AT1G64790.1
4	HORVU1Hr1G089540	Chalcone synthase 2	11360.32	AT5G13930.1
5	HORVU1Hr1G089520	O-methyltransferase family protein	10060.05	AT4G35160.1
6	HORVU1Hr1G065150	undescribed protein	8959.19	AT2G43550.1
7	HORVU3Hr1G113120	Wound-induced protein	8509.44	AT3G04720.1
8	HORVU7Hr1G122120	Thaumatin-like pathogenesis-related protein 1	8398.99	AT4G11650.1
9	HORVU5Hr1G055950	Cysteine-rich venom protein	8287.05	AT4G33720.1
10	HORVU2Hr1G018510	Peroxidase superfamily protein	8262.48	AT5G05340.1
11	HORVU5Hr1G056040	Cysteine-rich venom protein	6896.29	AT4G33720.1
12	HORVU3Hr1G113620	Wound-induced protein	6399.76	AT3G04720.1
13	HORVU3Hr1G111620	undescribed protein	5502.03	AT5G65090.3
14	HORVU5Hr1G106010	Cysteine-rich secretory protein 3	5380.60	AT3G19690.1
15	HORVU3Hr1G105630	Glucan endo-1,3-beta-glucosidase GI	4735.11	AT4G16260.1
16	HORVU5Hr1G005230	0	3889.00	#N/A
17	HORVU2Hr1G028670	Chymotrypsin inhibitor	3220.06	AT5G43580.1
18	HORVU1Hr1G089620	O-methyltransferase 1	3205.48	AT5G54160.1
19	HORVU2Hr1G044340	Peroxidase superfamily protein	3094.16	AT5G05340.1
20	HORVU1Hr1G065670	undescribed protein	2872.94	AT5G47910.1
21	HORVU1Hr1G065660	undescribed protein	2397.53	AT4G19140.1
22	HORVU2Hr1G076320	undescribed protein	2212.32	AT4G34600.1
23	HORVU3Hr1G006440	Xylanase inhibitor	2061.09	AT1G03230.1
24	HORVU1Hr1G089700	O-methyltransferase 1	1985.02	AT5G54160.1
25	HORVU3Hr1G006450	Xylanase inhibitor	1514.40	AT1G03230.1
26	HORVU3Hr1G003980	Bowman-Birk type trypsin inhibitor	1395.88	ATCG00180.1
27	HORVU1Hr1G019750	Laccase-19	1345.50	AT3G09220.1
28	HORVU5Hr1G067760	Kiwellin	1295.61	#N/A
29	HORVU5Hr1G010130	undescribed protein	1246.50	AT4G16120.1
30	HORVU2Hr1G004550	Cytochrome P450 superfamily protein	1222.78	AT1G64940.1
31	HORVU4Hr1G005380	germin-like protein 4	1151.80	AT1G18980.1
32	HORVU6Hr1G014600	Bowman-Birk type trypsin inhibitor	1150.36	AT1G61420.1
33	HORVU1Hr1G065650	undescribed protein	1079.97	AT2G05635.2
34	HORVU5Hr1G023720	Pathogenesis-related protein STH-2	1041.15	AT1G35260.1
35	HORVU6Hr1G001850	undescribed protein	1030.78	AT2G29780.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
36	HORVU0Hr1G005300	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	1014.24	AT5G24530.1
37	HORVU2Hr1G118020	undescribed protein	982.87	AT1G09580.1
38	HORVU2Hr1G118010	Leucine-rich receptor-like protein kinase family protein	942.08	AT3G47570.1
39	HORVU5Hr1G122520	undescribed protein	882.93	AT3G25727.1
40	HORVU3Hr1G105560	Glucan endo-1,3-beta-glucosidase GI	853.01	AT4G16260.1
41	HORVU4Hr1G005440	germin-like protein 4	852.12	AT1G18980.1
42	HORVU0Hr1G000840	undescribed protein	850.04	AT5G47910.1
43	HORVU2Hr1G004600	Cytochrome P450 superfamily protein	848.71	AT3G26310.1
44	HORVU2Hr1G004530	Cytochrome P450 superfamily protein	847.84	AT5G25120.1
45	HORVU2Hr1G004640	Cytochrome P450 superfamily protein	795.77	AT3G26300.1
46	HORVU3Hr1G100190	Jasmonate O-methyltransferase	793.81	AT5G04370.1
47	HORVU2Hr1G004540	KS protein	765.98	AT1G79460.1
48	HORVU7Hr1G085450	Double-strand break repair protein MRE11	751.32	AT5G54260.1
49	HORVU2Hr1G018430	Peroxidase superfamily protein	729.65	AT5G05340.1
50	HORVU6Hr1G088440	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	659.14	AT5G20400.1
51	HORVU7Hr1G011930	undescribed protein	648.70	AT1G45474.2
52	HORVU3Hr1G001950	undescribed protein	635.14	AT4G39970.1
53	HORVU2Hr1G117940	Heavy metal transport/detoxification superfamily protein	624.95	AT1G01490.2
54	HORVU0Hr1G009470	germin-like protein 2	611.78	AT5G39110.1
55	HORVU2Hr1G114390	L-tyrosine decarboxylase	603.79	AT2G20340.1
56	HORVU6Hr1G066380	germin-like protein 1	593.23	AT1G72610.1
57	HORVU2Hr1G004620	Copalyl diphosphate synthase 2	593.07	AT4G02780.1
58	HORVU3Hr1G109350	receptor kinase 1	588.64	AT4G03230.3
59	HORVU3Hr1G105600	Glucan endo-1,3-beta-glucosidase GI	559.07	AT4G16260.1
60	HORVU4Hr1G002640	Pathogenesis-related thaumatin superfamily protein	550.05	AT4G11650.1
61	HORVU7Hr1G011940	undescribed protein	544.93	AT5G60540.1
62	HORVU2Hr1G095460	Glutathione S-transferase family protein	542.73	AT3G62760.1
63	HORVU5Hr1G023730	Pathogenesis-related protein STH-21	524.53	AT1G35260.1
64	HORVU4Hr1G071370	Membrane protein	520.85	AT5G47530.1
65	HORVU7Hr1G012240	undescribed protein	507.69	AT5G63840.2
66	HORVU0Hr1G011720	Major pollen allergen Bet v 1-B	507.17	AT1G35260.1
67	HORVU6Hr1G053710	High-affinity nitrate transporter 3.1	504.55	AT5G50200.3
68	HORVU4Hr1G002650	Pathogenesis-related thaumatin superfamily protein	495.88	AT4G11650.1
69	HORVU3Hr1G071470	ABC transporter G family member 32	486.24	AT1G15520.1
70	HORVU2Hr1G114440	L-tyrosine decarboxylase	478.18	AT2G20340.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
71	HORVU2Hr1G028660	Chymotrypsin inhibitor	453.27	AT2G38900.2
72	HORVU6Hr1G094790	receptor-like protein kinase 1	449.17	AT3G21630.1
73	HORVU5Hr1G124650	ABC transporter G family member 48	447.49	AT1G66950.1
74	HORVU7Hr1G121260	Flavin-containing monooxygenase family protein	430.35	AT1G19250.1
75	HORVU2Hr1G028720	Chymotrypsin inhibitor	405.31	AT5G43580.1
76	HORVU3Hr1G105480	0	398.95	#N/A
77	HORVU5Hr1G023660	unknown function	396.17	AT5G51770.1
78	HORVU5Hr1G009940	undescribed protein	388.82	AT2G33150.1
79	HORVU1Hr1G001220	receptor kinase 3	387.96	AT4G23180.3
80	HORVU2Hr1G083570	Cytochrome P450 superfamily protein	385.65	AT3G26330.1
81	HORVU3Hr1G064470	Chitinase family protein	385.21	AT3G12500.1
82	HORVU5Hr1G072520	FAD-binding Berberine family protein	383.95	AT4G20820.1
83	HORVU5Hr1G010120	Protein WIR1A	370.99	AT2G23450.2
84	HORVU3Hr1G105420	Glucan endo-1,3-beta-glucosidase GI	368.52	AT3G57240.1
85	HORVU3Hr1G091780	undescribed protein	368.10	AT2G18140.1
86	HORVU3Hr1G099760	L-gulonolactone oxidase 2	361.55	AT2G46750.1
87	HORVU7Hr1G002740	laccase 7	347.36	AT3G09220.1
88	HORVU3Hr1G032370	Isoflavone reductase-like protein	346.99	AT4G39230.1
89	HORVU3Hr1G105290	Glucan endo-1,3-beta-glucosidase GI	346.83	AT3G57240.1
90	HORVU3Hr1G104940	Leucine-rich repeat receptor-like protein kinase family protein	343.65	AT1G71830.1
91	HORVU2Hr1G114450	L-tyrosine decarboxylase	333.20	AT2G20340.1
92	HORVU3Hr1G095730	Glutathione S-transferase family protein	328.32	AT1G10360.1
93	HORVU7Hr1G019380	Cytochrome P450 superfamily protein	325.48	AT3G26300.1
94	HORVU5Hr1G118800	Glutathione S-transferase family protein	319.93	AT3G62760.1
95	HORVU3Hr1G091740	Peroxidase superfamily protein	316.99	AT5G06730.1
96	HORVU4Hr1G079620	Cytochrome P450 superfamily protein	316.39	AT2G26170.1
97	HORVU2Hr1G018480	Peroxidase superfamily protein	316.07	AT5G05340.1
98	HORVU3Hr1G112060	undescribed protein	312.59	AT2G42270.1
99	HORVU3Hr1G097860	Laccase-19	310.87	AT3G09220.1
100	HORVU1Hr1G009490	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	309.84	AT3G22600.1
101	HORVU3Hr1G094340	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	302.23	AT1G14590.1
102	HORVU4Hr1G074780	Protein of unknown function (DUF1997)	297.15	AT5G39530.1
103	HORVU1Hr1G062380	CASP-like protein 1	286.71	AT3G06390.1
104	HORVU5Hr1G106020	Cysteine-rich venom protein	285.11	AT3G19690.1
105	HORVU2Hr1G109640	Cytochrome P450 superfamily protein	277.03	AT2G45550.1
106	HORVU7Hr1G084920	Chitinase 1	276.30	AT1G14430.1
107	HORVU1Hr1G049280	Glutathione S-transferase family protein	276.11	AT1G10370.1
108	HORVU3Hr1G002900	receptor kinase 2	273.36	AT1G70520.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
109	HORVU1Hr1G010120	L-tyrosine decarboxylase	271.34	AT2G20340.1
110	HORVU1Hr1G090930	unknown function	263.36	AT2G31900.4
111	HORVU5Hr1G123550	receptor kinase 2	262.20	AT4G21390.1
112	HORVU7Hr1G017640	Enolase	261.44	AT2G36530.1
113	HORVU5Hr1G052150	Indole-3-glycerol phosphate synthase	258.86	AT5G48220.1
114	HORVU1Hr1G043910	Plant basic secretory protein (BSP) family protein	258.15	AT2G15130.1
115	HORVU1Hr1G052430	Chitinase family protein	250.79	AT3G12500.1
116	HORVU7Hr1G081700	lipid phosphate phosphatase 3	249.44	AT3G02600.9
117	HORVU3Hr1G099530	UDP-Glycosyltransferase superfamily protein	247.29	AT3G11340.1
118	HORVU1Hr1G090860	unknown function	239.77	AT3G62650.2
119	HORVU6Hr1G008640	catalase 1	229.19	AT1G20630.1
120	HORVU5Hr1G122410	undescribed protein	229.15	AT1G69850.1
121	HORVU3Hr1G091750	Peroxidase superfamily protein	226.99	AT5G06730.1
122	HORVU1Hr1G008360	laccase 7	225.60	AT3G09220.1
123	HORVU4Hr1G056890	LOB domain-containing protein 1	225.53	AT1G07900.1
124	HORVU2Hr1G112060	undescribed protein	214.70	AT1G49560.1
125	HORVU5Hr1G009930	undescribed protein	207.62	AT5G37660.1
126	HORVU7Hr1G085420	undescribed protein	204.05	AT3G29830.2
127	HORVU1Hr1G009800	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	203.95	AT3G22600.1
128	HORVU2Hr1G126150	1-deoxy-D-xylulose 5-phosphate synthase 1	202.30	AT4G15560.1
129	HORVU7Hr1G008830	Glutathione S-transferase family protein	202.26	AT1G10360.1
130	HORVU2Hr1G119500	Late embryogenesis abundant (LEA) hydroxyproline-rich glycoprotein family	202.01	AT5G36970.1
131	HORVU7Hr1G075760	L-gulonolactone oxidase 2	200.61	AT2G46750.1
132	HORVU5Hr1G115870	PLANT CADMIUM RESISTANCE 2	196.48	AT1G14870.1
133	HORVU5Hr1G119640	undescribed protein	187.67	AT1G33600.2
134	HORVU3Hr1G077880	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	187.34	AT3G20340.1
135	HORVU3Hr1G104990	undescribed protein	186.79	#N/A
136	HORVU6Hr1G004770	unknown function	186.42	AT1G21230.1
137	HORVU3Hr1G112050	undescribed protein	185.93	AT3G55640.3
138	HORVU5Hr1G083340	purple acid phosphatase 15	185.01	AT3G07130.1
139	HORVU2Hr1G101150	xyloglucan endotransglucosylase/hydrolase 13	179.39	AT5G57540.1
140	HORVU6Hr1G069710	receptor kinase 2	179.04	AT4G21390.1
141	HORVU5Hr1G081620	Two-component response regulator-like PRR95	177.28	AT2G46790.3
142	HORVU7Hr1G116650	Glutathione S-transferase family protein	176.36	AT3G62760.1
143	HORVU4Hr1G077300	Bowman-Birk type trypsin inhibitor	173.76	AT1G18197.1
144	HORVU7Hr1G010840	L-tyrosine decarboxylase	166.40	AT4G28680.4

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
145	HORVU2Hr1G124300	Glutathione S-transferase family protein	165.37	AT1G78380.1
146	HORVU3Hr1G013380	Leucine-rich repeat protein kinase family protein	161.83	AT4G29990.2
147	HORVU1Hr1G062030	Chitinase family protein	160.17	AT3G12500.1
148	HORVU2Hr1G001780	WRKY DNA-binding protein 75	158.55	AT5G13080.1
149	HORVU5Hr1G000940	receptor kinase 2	158.16	AT5G10530.1
150	HORVU6Hr1G061420	Cytochrome b5	157.71	AT5G53560.1
151	HORVU7Hr1G011950	undescribed protein	157.31	AT5G35620.3
152	HORVU6Hr1G013690	undescribed protein	154.39	AT3G51350.1
153	HORVU3Hr1G002000	germin-like protein 9	141.37	AT5G38960.1
154	HORVU4Hr1G071300	LL-diaminopimelate aminotransferase	137.71	AT4G33680.1
155	HORVU5Hr1G009840	RAB GDP dissociation inhibitor 2	134.35	AT3G59920.1
156	HORVU6Hr1G020540	Cytochrome P450 superfamily protein	133.75	AT3G26230.1
157	HORVU0Hr1G008950	Branched-chain-amino-acid aminotransferase 6	131.78	AT3G49680.1
158	HORVU3Hr1G084210	ferredoxin 3	129.03	AT2G27510.1
159	HORVU2Hr1G102710	Protein NRT1/ PTR FAMILY 8.3	128.37	AT2G02040.1
160	HORVU6Hr1G005720	high affinity nitrate transporter 2.6	127.85	AT1G08090.1
161	HORVU5Hr1G096850	Cytochrome P450 superfamily protein	127.08	AT5G57260.1
162	HORVU2Hr1G122630	early nodulin-like protein 12	126.46	AT5G26330.1
163	HORVU7Hr1G017810	Protein kinase superfamily protein	126.38	AT5G60900.1
164	HORVU3Hr1G074960	Peroxidase superfamily protein	126.01	AT4G11290.1
165	HORVU7Hr1G010990	L-tyrosine decarboxylase	124.38	AT2G20340.1
166	HORVU2Hr1G039670	Disease resistance protein (TIR-NBS class)	123.44	AT1G52900.1
167	HORVU3Hr1G099550	Eukaryotic aspartyl protease family protein	122.91	AT1G03230.1
168	HORVU3Hr1G086840	C2H2-like zinc finger protein	122.76	AT2G28710.1
169	HORVU7Hr1G107360	SAUR-like auxin-responsive protein family	119.45	AT1G56150.1
170	HORVU3Hr1G096280	Sec14p-like phosphatidylinositol transfer family protein	119.39	AT1G01630.1
171	HORVU1Hr1G071380	unknown function	119.26	AT1G74540.1
172	HORVU7Hr1G080190	ADP-ribosylation factor 3	118.48	AT3G62560.1
173	HORVU3Hr1G011870	Cytochrome P450 superfamily protein	118.16	AT5G57260.1
174	HORVU7Hr1G007480	receptor-like protein kinase 2	117.76	AT3G47570.1
175	HORVU1Hr1G022430	Leucine aminopeptidase 1	117.62	AT2G24200.3
176	HORVU1Hr1G091960	undescribed protein	115.99	AT1G06475.1
177	HORVU2Hr1G124960	Peroxidase superfamily protein	115.12	AT1G71695.1
178	HORVU7Hr1G009310	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	115.08	AT5G20400.1
179	HORVU2Hr1G102720	Protein NRT1/ PTR FAMILY 8.3	115.02	AT2G02040.1
180	HORVU3Hr1G096360	HXXXD-type acyl-transferase family protein	114.43	AT3G62160.1



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181	HORVU1Hr1G089530	sugar transporter protein 7	113.65	AT1G19450.1
182	HORVU5Hr1G099460	NAC domain protein,	113.54	AT2G43000.1
183	HORVU2Hr1G071570	Potassium transporter family protein	113.10	AT4G13420.1
184	HORVU0Hr1G019300	Glutathione S-transferase family protein	113.02	AT3G09270.1
185	HORVU7Hr1G043540	Cytochrome P450 superfamily protein	112.84	AT3G48280.1
186	HORVU6Hr1G089460	dihydroflavonol 4-reductase-like1	112.56	AT1G15950.3
187	HORVU6Hr1G012640	Chymotrypsin inhibitor	110.29	AT5G43580.1
188	HORVU3Hr1G026330	Subtilisin-like protease	109.25	AT4G10540.1
189	HORVU7Hr1G118770	Disease resistance-responsive (dirigent-like protein) family protein	109.23	AT5G42500.1
190	HORVU2Hr1G122610	Blue copper protein	109.00	AT2G31050.1
191	HORVU7Hr1G008140	receptor-like protein kinase 4	108.39	AT5G10530.1
192	HORVU2Hr1G063690	MATE efflux family protein	106.73	AT3G23550.1
193	HORVU3Hr1G094250	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	105.88	AT4G19975.1
194	HORVU6Hr1G021870	Homeobox-leucine zipper protein family	105.77	AT5G06710.1
195	HORVU5Hr1G052760	Heavy metal transport/detoxification superfamily protein	104.18	AT3G20180.3
196	HORVU6Hr1G013710	Plant basic secretory protein (BSP) family protein	102.92	AT2G15220.1
197	HORVU7Hr1G073340	early nodulin-like protein 15	101.76	AT2G32300.2
198	HORVU3Hr1G022780	Protein kinase family protein	101.54	AT5G02070.1
199	HORVU7Hr1G108490	Leucine-rich receptor-like protein kinase family protein	101.53	AT3G47570.1
200	HORVU6Hr1G033060	alpha/beta-Hydrolases superfamily protein	100.54	AT2G36290.1
201	HORVU2Hr1G118030	undescribed protein	100.30	AT1G48980.3
202	HORVU2Hr1G111780	receptor-like protein kinase 4	99.91	AT4G32300.1
203	HORVU2Hr1G125250	receptor kinase 2	99.46	AT4G23180.3
204	HORVU3Hr1G067510	WRKY DNA-binding protein 50	99.06	AT5G26170.1
205	HORVU3Hr1G105400	Glucan endo-1,3-beta-glucosidase GV	99.02	AT3G57270.1
206	HORVU4Hr1G011760	UDP-Glycosyltransferase superfamily protein	98.97	AT3G11340.1
207	HORVU1Hr1G020720	Peroxidase superfamily protein	98.88	AT5G19890.1
208	HORVU5Hr1G115750	PLANT CADMIUM RESISTANCE 2	98.29	AT1G14870.1
209	HORVU7Hr1G002820	alpha dioxygenase	97.62	AT3G01420.1
210	HORVU1Hr1G044000	Plant basic secretory protein (BSP) family protein	96.29	AT2G15220.1
211	HORVU2Hr1G034670	Auxin-responsive GH3 family protein	96.03	AT2G14960.1
212	HORVU3Hr1G112140	Abscisic stress-ripening protein 1	95.78	#N/A
213	HORVU1Hr1G049230	Glutathione S-transferase family protein	94.42	AT1G10360.1
214	HORVU3Hr1G091730	Peroxidase superfamily protein	94.04	AT5G06730.1
215	HORVU7Hr1G121290	flavin-dependent monooxygenase 1	94.00	AT1G19250.1
216	HORVU1Hr1G041720	Nucleotide/sugar transporter family protein	93.51	AT2G28315.1

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217	HORVU2Hr1G002750	receptor kinase 2	93.39	AT5G10530.1
218	HORVU5Hr1G080090	serine carboxypeptidase-like 17	93.17	AT1G33540.2
219	HORVU4Hr1G018100	undescribed protein	92.37	AT1G77400.1
220	HORVU1Hr1G049290	unknown function	91.07	AT5G63420.1
221	HORVU3Hr1G087020	alpha/beta-Hydrolases superfamily protein	91.06	AT2G39420.1
222	HORVU6Hr1G001520	protein kinase family protein	90.80	AT4G29990.1
223	HORVU7Hr1G092510	ABC transporter G family member 44	90.14	AT1G15520.1
224	HORVU2Hr1G085260	Protein NRT1/ PTR FAMILY 4.3	89.49	AT1G59740.1
225	HORVU2Hr1G119250	Lipase/lipoxygenase, PLAT/LH2 family protein	89.05	AT2G22170.1
226	HORVU7Hr1G122110	0	88.80	#N/A
227	HORVU6Hr1G002530	receptor kinase 2	88.26	AT1G21230.1
228	HORVU5Hr1G099470	NAC domain protein,	87.17	AT2G43000.1
229	HORVU5Hr1G075540	Oxidoreductase, zinc-binding dehydrogenase family protein	85.83	AT4G13010.1
230	HORVU2Hr1G067710	undescribed protein	85.35	AT4G34480.1
231	HORVU2Hr1G028780	Chymotrypsin inhibitor	83.92	AT2G38900.2
232	HORVU3Hr1G023230	UDP-Glycosyltransferase superfamily protein	83.23	AT3G53150.1
233	HORVU3Hr1G111640	Glutathione S-transferase family protein	83.05	AT1G10360.1
234	HORVU7Hr1G040780	undescribed protein	82.79	AT4G06634.2
235	HORVU4Hr1G071330	Cytochrome b561 and DOMON domain-containing protein	82.38	AT3G59070.1
236	HORVU5Hr1G012040	receptor kinase 2	82.02	AT5G65600.1
237	HORVU2Hr1G124320	Glutathione S-transferase family protein	81.87	AT1G78380.1
238	HORVU3Hr1G098610	Leucine-rich repeat receptor-like protein kinase family protein	80.79	AT5G06860.1
239	HORVU0Hr1G008830	MLO-like protein 1	80.33	AT4G02600.2
240	HORVU2Hr1G122270	Glutathione S-transferase family protein	80.29	AT1G10360.1
241	HORVU6Hr1G066420	HXXXD-type acyl-transferase family protein	80.12	AT5G48930.1
242	HORVU5Hr1G099390	NAC domain containing protein 42	79.91	AT2G43000.1
243	HORVU1Hr1G088550	undescribed protein	79.59	AT4G10930.2
244	HORVU2Hr1G085270	Chitinase	77.97	AT3G54420.1
245	HORVU7Hr1G034270	Major pollen allergen Bet v 1-F/I	77.83	AT2G40330.1
246	HORVU2Hr1G104240	germin-like protein 2	77.53	AT5G39160.1
247	HORVU7Hr1G010850	L-tyrosine decarboxylase	76.89	AT2G20340.1
248	HORVU3Hr1G001840	undescribed protein	75.53	#N/A
249	HORVU7Hr1G009760	undescribed protein	75.42	AT4G26440.1
250	HORVU4Hr1G007190	Basic blue protein	75.36	AT2G02850.1
251	HORVU5Hr1G118590	ammonium transporter 2	75.17	AT2G38290.1
252	HORVU3Hr1G111550	undescribed protein	72.80	AT5G43210.1
253	HORVU3Hr1G011990	germin-like protein 2	72.60	AT5G39100.1

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254	HORVU0Hr1G005160	L-allo-threonine aldolase	72.52	AT1G08630.6
255	HORVU5Hr1G066250	Vacuolar-processing enzyme	72.37	AT2G25940.1
256	HORVU2Hr1G112040	undescribed protein	71.99	#N/A
257	HORVU5Hr1G079680	UDP-glycosyltransferase 74 F1	70.91	AT2G43840.1
258	HORVU1Hr1G014450	undescribed protein	70.82	AT5G23430.1
259	HORVU7Hr1G011860	undescribed protein	70.01	AT3G04960.2
260	HORVU2Hr1G004480	Cytochrome P450 superfamily protein	69.89	AT3G26300.1
261	HORVU4Hr1G065000	Peroxidase superfamily protein	69.60	AT5G06730.1
262	HORVU7Hr1G024360	Non-specific lipid-transfer protein	69.16	AT5G59310.1
263	HORVU3Hr1G112080	undescribed protein	69.12	AT2G14680.4
264	HORVU2Hr1G067700	undescribed protein	68.64	AT2G19820.1
265	HORVU5Hr1G011540	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	68.53	AT2G36690.2
266	HORVU3Hr1G109430	receptor kinase 2	67.78	AT4G03230.3
267	HORVU2Hr1G079580	unknown function	67.68	AT2G14095.1
268	HORVU3Hr1G006620	Cysteine-rich receptor-like protein kinase 25	67.63	AT4G23160.1
269	HORVU1Hr1G063740	NAC domain protein,	67.32	AT1G01720.1
270	HORVU3Hr1G006140	GDSL esterase/lipase	67.28	AT3G26430.1
271	HORVU4Hr1G020230	rRNA N-glycosidase	67.12	AT3G56810.1
272	HORVU2Hr1G085280	Chitinase	66.83	AT3G54420.1
273	HORVU7Hr1G040740	Cysteine-rich venom protein	66.51	AT5G57625.1
274	HORVU2Hr1G112120	Anthranilate N-benzoyltransferase protein 1	66.43	AT5G48930.1
275	HORVU6Hr1G077180	undescribed protein	66.22	AT3G17100.2
276	HORVU7Hr1G019390	receptor kinase 2	65.88	AT2G37710.1
277	HORVU5Hr1G010880	germin-like protein 2	65.58	AT5G39100.1
278	HORVU4Hr1G014670	Calcineurin-like metallo-phosphoesterase superfamily protein	65.22	AT1G18480.1
279	HORVU3Hr1G026270	Subtilisin-like protease	65.10	AT4G10520.1
280	HORVU5Hr1G114700	UDP-Glycosyltransferase superfamily protein	64.67	AT3G11340.1
281	HORVU4Hr1G053150	Plant protein of unknown function (DUF247)	64.49	AT3G50170.1
282	HORVU2Hr1G008220	G-type lectin S-receptor-like serine/threonine-protein kinase	64.40	AT4G21380.2
283	HORVU4Hr1G001250	Caffeic acid 3-O-methyltransferase	64.23	AT5G54160.1
284	HORVU6Hr1G055000	Chalcone synthase 1	63.58	AT5G13930.1
285	HORVU4Hr1G010740	undescribed protein	63.30	AT1G72060.1
286	HORVU7Hr1G003630	receptor kinase 2	62.89	AT4G21390.1
287	HORVU4Hr1G087840	Protein of unknown function (DUF1218)	62.40	AT5G17210.1
288	HORVU4Hr1G085820	UDP-galactose transporter 2	62.21	AT4G23010.1
289	HORVU3Hr1G004050	myb domain protein 62	62.08	AT1G68320.1



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290	HORVU2Hr1G071270	Ethylene-responsive transcription factor 1	61.56	AT5G13330.1
291	HORVU1Hr1G092650	UDP-Glycosyltransferase superfamily protein	61.31	AT3G16520.3
292	HORVU6Hr1G038470	unknown function	61.12	AT2G25735.1
293	HORVU6Hr1G094480	Flavin-containing monooxygenase family protein	61.09	AT1G12160.1
294	HORVU4Hr1G009190	Sec14p-like phosphatidylinositol transfer family protein	60.74	AT1G75170.2
295	HORVU5Hr1G056420	Flavin-containing monooxygenase family protein	60.70	AT1G19250.1
296	HORVU7Hr1G024930	Subtilisin-like protease	60.24	AT4G10540.1
297	HORVU2Hr1G017440	unknown function	60.17	AT2G39050.1
298	HORVU2Hr1G008130	Serine/threonine-protein kinase BRI1-like 1	60.08	AT4G21380.2
299	HORVU5Hr1G124810	receptor kinase 1	60.06	AT4G23230.1
300	HORVU2Hr1G098710	undescribed protein	59.82	AT3G49845.2
301	HORVU3Hr1G108360	Orotidine 5'-phosphate decarboxylase	59.77	AT3G54470.1
302	HORVU3Hr1G077790	Polyphenol oxidase, chloroplastic	59.28	AT3G02210.1
303	HORVU5Hr1G077920	beta glucosidase 11	59.12	AT1G02850.2
304	HORVU2Hr1G003230	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	58.84	AT3G14470.2
305	HORVU3Hr1G059480	Acidic endochitinase	58.57	AT5G24090.1
306	HORVU4Hr1G054870	Major pollen allergen Bet v 1-F/I	58.46	AT2G26040.1
307	HORVU6Hr1G000130	Rhodanese-like domain-containing protein 17	58.40	AT5G66170.3
308	HORVU4Hr1G066240	Non-symbiotic hemoglobin	58.06	AT2G16060.1
309	HORVU2Hr1G012140	Leucine-rich repeat receptor-like protein kinase family protein	57.54	AT1G74190.1
310	HORVU7Hr1G091880	undescribed protein	57.44	AT4G37290.1
311	HORVU0Hr1G011730	unknown function	57.05	AT5G65440.2
312	HORVU3Hr1G002830	Glutathione S-transferase family protein	57.02	AT1G10360.1
313	HORVU7Hr1G007520	Leucine-rich repeat receptor-like protein kinase family protein	56.78	AT5G44700.1
314	HORVU7Hr1G019400	receptor kinase 1	56.19	AT2G37710.1
315	HORVU5Hr1G102900	Cysteine-rich receptor-like protein kinase 25	56.02	AT5G48540.1
316	HORVU7Hr1G025930	undescribed protein	55.97	#N/A
317	HORVU7Hr1G028710	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	55.70	AT5G20400.1
318	HORVU3Hr1G098340	methyl esterase 1	55.61	AT2G23620.1
319	HORVU1Hr1G061140	Pyrophosphate-energized proton pump 1	55.54	AT1G15690.1
320	HORVU3Hr1G112040	Peroxidase superfamily protein	55.48	AT1G71695.1
321	HORVU5Hr1G041660	protein kinase family protein	54.68	AT1G51890.1
322	HORVU6Hr1G001530	protein kinase family protein	54.29	AT1G49100.1

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323	HORVU5Hr1G123540	receptor kinase 1	54.11	AT4G23180.1
324	HORVU7Hr1G082180	undescribed protein	53.86	AT1G16030.1
325	HORVU1Hr1G021140	Glutathione S-transferase family protein	53.21	AT3G62760.1
326	HORVU5Hr1G057800	L-ascorbate oxidase	53.13	AT4G39830.4
327	HORVU4Hr1G005540	germin-like protein 4	52.94	AT1G18970.1
328	HORVU3Hr1G080100	NAC domain containing protein 102	52.65	AT5G63790.1
329	HORVU6Hr1G077960	UDP-Glycosyltransferase superfamily protein	52.57	AT1G22360.2
330	HORVU2Hr1G103180	L-lactate dehydrogenase	52.09	AT4G18360.4
331	HORVU3Hr1G098620	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	51.08	AT4G08350.1
332	HORVU2Hr1G044360	Peroxidase superfamily protein	51.03	AT5G05340.1
333	HORVU7Hr1G085480	undescribed protein	50.45	#N/A
334	HORVU5Hr1G014170	Basic-leucine zipper (bZIP) transcription factor family protein	50.31	AT5G28770.2
335	HORVU7Hr1G031650	sugar transporter 4	50.12	AT4G36670.1
336	HORVU7Hr1G091800	germin-like protein 2	50.11	AT5G39150.1
337	HORVU4Hr1G067450	sugar transporter protein 7	49.60	AT5G26340.1
338	HORVU3Hr1G006130	GDSL esterase/lipase	49.55	AT3G26430.1
339	HORVU5Hr1G111240	receptor kinase 1	49.28	AT4G21410.3
340	HORVU4Hr1G004000	Major facilitator superfamily protein	49.23	AT2G39210.1
341	HORVU1Hr1G049070	Glutathione S-transferase family protein	48.41	AT1G10370.1
342	HORVU3Hr1G016860	Chymotrypsin inhibitor	48.19	AT2G38870.1
343	HORVU1Hr1G084900	1-deoxy-D-xylulose 5-phosphate synthase 1	48.06	AT4G15560.1
344	HORVU3Hr1G079620	Protein RETICULATA-RELATED 3, chloroplastic	47.84	AT3G08640.1
345	HORVU7Hr1G029460	undescribed protein	47.18	AT2G17780.4
346	HORVU7Hr1G114660	Indole-3-glycerol phosphate synthase	47.09	AT2G04400.1
347	HORVU2Hr1G110230	Protein kinase superfamily protein	46.97	AT1G78290.3
348	HORVU3Hr1G074230	Auxin-responsive GH3 family protein	46.93	AT4G37390.1
349	HORVU5Hr1G115900	PLANT CADMIUM RESISTANCE 2	46.68	AT1G14870.1
350	HORVU7Hr1G074640	lysine histidine transporter 1	46.66	AT5G40780.1
351	HORVU7Hr1G035980	undescribed protein	46.53	AT5G22870.1
352	HORVU7Hr1G091860	L-tyrosine decarboxylase	45.99	AT2G20340.1
353	HORVU1Hr1G014500	undescribed protein	45.94	AT1G66730.1
354	HORVU7Hr1G042120	Protein NRT1/ PTR FAMILY 3.1	45.26	AT1G68570.1
355	HORVU3Hr1G018980	basic helix-loop-helix (bHLH) DNA-binding family protein	45.16	AT5G56960.1
356	HORVU4Hr1G012750	Adenine/guanine permease AZG2	45.07	AT5G50300.2
357	HORVU7Hr1G076120	Peroxidase superfamily protein	44.90	AT4G33420.1
358	HORVU2Hr1G122620	Blue copper protein	44.75	AT2G31050.1
359	HORVU2Hr1G003210	Cytochrome P450 superfamily protein	44.45	AT1G11680.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
360	HORVU7Hr1G121950	Retrotransposon protein, putative, unclassified	44.28	AT4G29090.1
361	HORVU7Hr1G049580	Protein kinase family protein	44.20	AT1G21230.1
362	HORVU1Hr1G084720	unknown function	44.19	AT3G20630.1
363	HORVU3Hr1G090220	Protein kinase superfamily protein	44.17	AT2G19130.1
364	HORVU1Hr1G019500	sucrose-phosphatase 1	44.05	AT2G35840.4
365	HORVU7Hr1G110840	Nodulin-like / Major Facilitator Superfamily protein	43.97	AT2G39210.1
366	HORVU7Hr1G116310	Cytochrome P450 superfamily protein	43.88	AT3G14660.1
367	HORVU1Hr1G051580	PLAC8 family protein	43.87	AT1G63830.3
368	HORVU4Hr1G064070	U-box domain-containing protein 21	43.67	AT5G37490.1
369	HORVU7Hr1G107670	Two-component response regulator ORR21	43.59	AT1G14600.1
370	HORVU2Hr1G033610	dihydroflavonol 4-reductase	43.48	AT4G27250.1
371	HORVU0Hr1G021480	Arabidopsis thaliana protein of unknown function (DUF821)	43.42	AT5G23850.1
372	HORVU2Hr1G088660	Caleosin-related family protein	43.42	AT4G26740.1
373	HORVU4Hr1G074080	undescribed protein	43.34	AT2G30620.2
374	HORVU2Hr1G006100	receptor kinase 2	43.32	AT3G53810.1
375	HORVU1Hr1G038780	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	42.86	AT1G07040.1
376	HORVU2Hr1G044270	receptor kinase 1	42.81	AT4G05200.2
377	HORVU7Hr1G056250	undescribed protein	42.74	AT4G28460.1
378	HORVU2Hr1G076490	unknown function	42.57	AT3G19380.1
379	HORVU7Hr1G092800	Tryptophan synthase beta chain 2	42.40	AT5G38530.1
380	HORVU1Hr1G003210	beta-galactosidase 7	42.26	AT5G20710.1
381	HORVU5Hr1G124120	gibberellin 20 oxidase 2	42.24	AT4G25420.1
382	HORVU2Hr1G121170	Cytochrome P450 superfamily protein	42.21	AT3G61040.2
383	HORVU4Hr1G057550	pseudo-response regulator 7	42.06	AT5G02810.1
384	HORVU3Hr1G086680	zinc-finger protein 3	41.91	AT2G28710.1
385	HORVU3Hr1G021140	gigantea protein (GI)	41.51	AT1G22770.1
386	HORVU6Hr1G073990	early nodulin-like protein 19	41.50	AT2G32300.2
387	HORVU5Hr1G066460	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	41.43	AT1G23110.7
388	HORVU2Hr1G113180	D-3-phosphoglycerate dehydrogenase	41.32	AT4G34200.1
389	HORVU4Hr1G028780	myb domain protein 112	41.31	AT5G49620.1
390	HORVU6Hr1G073160	unknown function	41.20	AT2G18690.1
391	HORVU6Hr1G004300	unknown function	41.03	AT1G21240.2
392	HORVU1Hr1G010210	Bidirectional sugar transporter N3	40.89	AT3G48740.1
393	HORVU5Hr1G074030	N-terminal protein myristoylation	40.85	AT5G66580.1
394	HORVU2Hr1G113080	Protein kinase family protein	40.66	AT1G16260.2
395	HORVU1Hr1G045580	undescribed protein	40.02	AT1G55020.1

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396	HORVU3Hr1G031020	Cytochrome P450 superfamily protein	39.76	AT3G48320.1
397	HORVU3Hr1G025810	serine/threonine protein kinase 1	39.72	AT5G45810.1
398	HORVU7Hr1G028370	Pheophorbide a oxygenase, chloroplastic	39.63	AT4G25650.1
399	HORVU5Hr1G000910	Serine/threonine-protein kinase	39.43	AT4G32300.1
400	HORVU3Hr1G006760	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	39.15	AT3G14460.1
401	HORVU3Hr1G006730	Cysteine-rich receptor-like protein kinase 10	39.02	AT4G23180.1
402	HORVU3Hr1G024820	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	38.82	AT5G06570.4
403	HORVU2Hr1G044440	glucan endo-1,3-beta-glucosidase-like protein 3	38.63	AT2G39640.1
404	HORVU3Hr1G035680	flowering promoting factor 1	38.38	AT5G24860.1
405	HORVU3Hr1G001740	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	38.37	AT5G22050.1
406	HORVU2Hr1G062730	Protein NRT1/ PTR FAMILY 4.5	38.29	AT1G27040.2
407	HORVU5Hr1G122510	Leucine-rich receptor-like protein kinase family protein	38.23	AT3G47570.1
408	HORVU6Hr1G088420	2-oxoglutarate (2OG) and Fe(II)- dependent oxygenase superfamily protein	38.09	AT1G49390.1
409	HORVU3Hr1G001990	germin-like protein 9	37.71	AT3G05950.1
410	HORVU6Hr1G090600	Glutathione S-transferase family protein	37.50	AT1G10370.1
411	HORVU7Hr1G100810	2-oxoglutarate (2OG) and Fe(II)- dependent oxygenase superfamily protein	37.35	AT1G06620.1
412	HORVU5Hr1G071140	cellulose synthase like E1	37.23	AT1G55850.1
413	HORVU7Hr1G006940	receptor kinase 1	37.12	AT1G56130.2
414	HORVU1Hr1G090820	unknown function	36.79	AT2G25625.2
415	HORVU2Hr1G083020	Cytochrome P450 superfamily protein	36.67	AT3G48270.1
416	HORVU2Hr1G076470	U-box domain-containing protein	36.58	AT5G64660.1
417	HORVU2Hr1G030660	unknown function	36.40	AT5G42900.2
418	HORVU2Hr1G004500	Cytochrome P450 superfamily protein	36.09	AT2G30770.1
419	HORVU7Hr1G024350	Long-chain-fatty-acid--CoA ligase 1	36.05	AT4G23850.1
420	HORVU6Hr1G088960	Cytochrome P450 superfamily protein	35.93	AT3G14690.1
421	HORVU3Hr1G006800	receptor kinase 2	35.83	AT4G23280.1
422	HORVU6Hr1G001420	Protein kinase family protein	35.75	AT1G21230.1
423	HORVU1Hr1G025530	Lactoylglutathione lyase / glyoxalase I family protein	35.63	AT1G15380.2
424	HORVU5Hr1G093090	cationic amino acid transporter 5	35.62	AT4G21120.1
425	HORVU4Hr1G051450	Phospholipid-transporting ATPase 1	35.45	AT5G04930.1
426	HORVU4Hr1G043960	Eukaryotic aspartyl protease family protein	35.41	AT2G03200.1
427	HORVU6Hr1G077940	unknown function	35.36	AT1G66170.1
428	HORVU3Hr1G028620	Cytochrome P450 61	35.34	AT2G34500.1

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429	HORVU2Hr1G096380	Branched-chain-amino-acid aminotransferase 6	35.30	AT5G65780.1
430	HORVU5Hr1G066720	Family of unknown function (DUF716)	35.28	AT1G55230.1
431	HORVU7Hr1G035190	RNA ligase/cyclic nucleotide phosphodiesterase family protein	35.27	AT4G18930.1
432	HORVU3Hr1G069320	WRKY DNA-binding protein 65	35.23	AT1G29280.1
433	HORVU7Hr1G040170	Benzoate O-methyltransferase	35.14	AT3G21950.1
434	HORVU6Hr1G069980	receptor kinase 2	35.02	AT5G06740.1
435	HORVU6Hr1G074060	Chalcone synthase A	34.79	AT5G13930.1
436	HORVU4Hr1G063590	Chaperone protein DnaJ	34.66	AT2G17880.1
437	HORVU3Hr1G117480	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	34.29	AT4G16765.6
438	HORVU5Hr1G047730	ferritin 4	34.27	AT2G40300.1
439	HORVU5Hr1G106000	RING/U-box superfamily protein	33.99	AT3G05200.1
440	HORVU1Hr1G072690	Aldose reductase A	33.85	AT2G37790.1
441	HORVU6Hr1G088400	Leucine-rich receptor-like protein kinase family protein	33.76	AT3G47570.1
442	HORVU4Hr1G064480	ethylene responsive element binding factor 5	33.34	AT5G19790.1
443	HORVU4Hr1G072880	phosphoserine aminotransferase	33.31	AT4G35630.1
444	HORVU3Hr1G018690	receptor kinase 2	33.24	AT2G37710.1
445	HORVU2Hr1G008140	receptor kinase 3	32.89	AT4G27300.1
446	HORVU3Hr1G021150	gigantea protein (GI)	32.87	AT1G22770.1
447	HORVU3Hr1G028020	GDSL esterase/lipase	32.76	AT1G28570.2
448	HORVU1Hr1G001570	O-methyltransferase family protein	32.76	AT4G35160.1
449	HORVU3Hr1G072210	undescribed protein	32.61	AT3G63150.1
450	HORVU3Hr1G094370	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	32.59	AT4G19975.1
451	HORVU6Hr1G074370	undescribed protein	32.57	AT1G44970.1
452	HORVU6Hr1G077930	UDP-Glycosyltransferase superfamily protein	32.52	AT1G22380.1
453	HORVU3Hr1G056110	Cytochrome P450 superfamily protein	32.41	AT3G14690.1
454	HORVU3Hr1G087570	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	32.18	AT5G05600.2
455	HORVU6Hr1G053700	undescribed protein	31.97	AT3G27473.1
456	HORVU3Hr1G026050	delta(3), delta(2)-enoyl CoA isomerase 1	31.68	AT4G14440.1
457	HORVU4Hr1G051290	NAC domain protein,	31.53	AT1G69490.1
458	HORVU3Hr1G011850	Cytochrome P450 superfamily protein	31.42	AT3G48270.1
459	HORVU1Hr1G015090	tyrosine aminotransferase 3	31.40	AT5G53970.1
460	HORVU4Hr1G001040	Leucine-rich repeat receptor-like protein kinase family protein	31.39	AT2G34930.1
461	HORVU2Hr1G045350	Syntaxin-132	31.16	AT3G03800.2
462	HORVU4Hr1G078370	undescribed protein	30.95	AT1G78880.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
463	HORVU7Hr1G101300	undescribed protein	30.95	AT5G04220.2
464	HORVU1Hr1G016870	Peroxidase superfamily protein	30.94	AT1G05260.1
465	HORVU3Hr1G109510	undescribed protein	30.93	AT4G20020.2
466	HORVU7Hr1G113290	unknown function	30.82	AT2G38465.1
467	HORVU3Hr1G024660	Acetyl esterase	30.69	AT5G06570.4
468	HORVU2Hr1G109440	Cytochrome P450 superfamily protein	30.44	AT4G36220.1
469	HORVU6Hr1G083050	lysine-ketoglutarate reductase/saccharopine dehydrogenase bifunctional enzyme	30.34	AT4G33150.3
470	HORVU1Hr1G092680	FAD-binding Berberine family protein	30.30	AT5G44390.1
471	HORVU1Hr1G090730	3-ketoacyl-CoA synthase 11	30.14	AT2G26640.1
472	HORVU2Hr1G018260	serine/threonine protein kinase 1	30.13	AT5G58380.1
473	HORVU1Hr1G016840	Peroxidase superfamily protein	30.06	AT1G05260.1
474	HORVU5Hr1G096210	UDP-Glycosyltransferase superfamily protein	29.98	AT3G02100.1
475	HORVU7Hr1G024940	Subtilisin-like protease	29.81	AT4G10520.1
476	HORVU3Hr1G002910	0	29.62	#N/A
477	HORVU5Hr1G086670	Flavin-binding monooxygenase family protein	29.45	AT1G19250.1
478	HORVU3Hr1G064680	Protein transport protein Sec61 subunit alpha	29.44	AT2G34250.3
479	HORVU3Hr1G108100	carotenoid cleavage dioxygenase 1	29.42	AT3G63520.1
480	HORVU3Hr1G020210	WRKY DNA-binding protein 72	29.14	AT5G15130.1
481	HORVU2Hr1G044890	receptor kinase 3	29.07	AT4G05200.1
482	HORVU4Hr1G056240	Asparagine synthetase [glutamine-hydrolyzing] 1	29.05	AT5G65010.1
483	HORVU2Hr1G084130	malate synthase	29.03	AT5G03860.2
484	HORVU6Hr1G079950	undescribed protein	28.99	#N/A
485	HORVU7Hr1G021260	WRKY DNA-binding protein 61	28.99	AT5G15130.1
486	HORVU1Hr1G058520	beta glucosidase 11	28.96	AT1G02850.5
487	HORVU5Hr1G122060	Basic blue protein	28.92	AT2G02850.1
488	HORVU5Hr1G014130	Tuliposide A-converting enzyme b3, amyloplastic	28.89	AT1G47480.1
489	HORVU4Hr1G066200	Non-symbiotic hemoglobin	28.75	AT2G16060.1
490	HORVU5Hr1G050940	cinnamoyl coa reductase	28.73	AT1G15950.3
491	HORVU2Hr1G044450	Glucan endo-1,3-beta-glucosidase 3	28.70	AT5G55180.2
492	HORVU7Hr1G098810	Heat shock 70 kDa protein C	28.57	AT5G42020.1
493	HORVU7Hr1G106160	Protein NRT1/ PTR FAMILY 5.1	28.56	AT2G40460.1
494	HORVU3Hr1G007590	Protein kinase superfamily protein	28.44	AT1G18390.2
495	HORVU3Hr1G085890	ABC transporter C family member 3	28.43	AT3G13080.4
496	HORVU7Hr1G114790	Laccase	28.36	AT3G09510.1
497	HORVU0Hr1G023570	HXXXD-type acyl-transferase family protein	28.31	AT5G48930.1
498	HORVU3Hr1G018740	sugar transporter 1	28.19	AT5G61520.1



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499	HORVU2Hr1G123590	Protein kinase family protein	28.11	AT1G21210.1
500	HORVU2Hr1G042550	receptor kinase 1	28.04	AT4G23180.2
501	HORVU6Hr1G073510	Potassium transporter family protein	27.98	AT4G13420.1
502	HORVU1Hr1G065630	undescribed protein	27.84	AT5G50930.1
503	HORVU4Hr1G022270	Peroxidase superfamily protein	27.80	AT5G05340.1
504	HORVU2Hr1G104090	undescribed protein	27.80	AT1G16630.1
505	HORVU1Hr1G013480	sugar transporter 1	27.75	AT1G34580.1
506	HORVU2Hr1G027480	Cytochrome P450 superfamily protein	27.75	AT2G46950.1
507	HORVU3Hr1G109590	Glycosyltransferase family 61 protein	27.52	AT2G41640.1
508	HORVU2Hr1G126120	Protein NRT1/ PTR FAMILY 5.10	27.46	AT1G22570.2
509	HORVU2Hr1G019790	Rubber elongation factor, putative isoform 2	27.40	AT2G47780.1
510	HORVU4Hr1G061120	Anthranilate synthase component 1	27.10	AT5G05730.1
511	HORVU1Hr1G090460	undescribed protein	27.10	AT1G78410.2
512	HORVU7Hr1G107640	0	27.08	#N/A
513	HORVU5Hr1G115310	Mannan endo-1,4-beta-mannosidase 4	27.03	AT5G66460.1
514	HORVU4Hr1G089030	Protein of unknown function, DUF584	27.00	AT3G15040.1
515	HORVU7Hr1G028750	F-box domain containing protein, expressed	26.80	AT3G06240.1
516	HORVU2Hr1G092440	undescribed protein	26.71	AT2G32240.1
517	HORVU2Hr1G093660	Ethylene-responsive transcription factor 1B	26.67	AT3G23240.1
518	HORVU5Hr1G061810	Protein kinase superfamily protein	26.60	AT2G05940.1
519	HORVU1Hr1G091030	Auxin efflux carrier family protein	26.56	AT1G70940.1
520	HORVU6Hr1G008730	catalase 3	26.56	AT1G20620.4
521	HORVU2Hr1G083010	undescribed protein	26.53	AT4G12120.1
522	HORVU6Hr1G089560	U-box domain-containing protein	26.51	AT2G35930.1
523	HORVU4Hr1G088930	P-loop containing nucleoside triphosphate hydrolases superfamily protein	26.39	AT2G46620.1
524	HORVU6Hr1G092020	Leucine-rich repeat receptor-like protein kinase family protein	26.36	AT5G20480.2
525	HORVU3Hr1G096860	Potassium transporter family protein	26.31	AT4G13420.1
526	HORVU7Hr1G001520	undescribed protein	26.20	AT4G00300.1
527	HORVU0Hr1G021610	F-box protein PP2-B7	26.03	AT2G02360.1
528	HORVU1Hr1G071390	unknown function	26.03	AT1G74540.1
529	HORVU6Hr1G067910	Protein NRT1/ PTR FAMILY 8.3	25.90	AT2G02040.1
530	HORVU3Hr1G053350	ABC transporter G family member 36	25.72	AT1G15520.1
531	HORVU4Hr1G003450	undescribed protein	25.67	AT1G22680.1
532	HORVU5Hr1G106850	ABC transporter G family member 48	25.45	AT1G66950.1
533	HORVU2Hr1G042540	unknown function	25.43	AT1G32660.1
534	HORVU5Hr1G061580	Secretory carrier-associated membrane protein 4	25.38	AT2G20840.1
535	HORVU7Hr1G117850	O-methyltransferase family protein	25.37	AT4G35160.1

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536	HORVU3Hr1G068700	Ribose-phosphate pyrophosphokinase 4	25.30	AT1G10700.1
537	HORVU6Hr1G077120	U-box domain-containing protein 21	25.30	AT5G37490.1
538	HORVU3Hr1G105920	Amino-acid permease BAT1 homolog	25.13	AT2G01170.1
539	HORVU3Hr1G057180	unknown function	25.10	AT5G62770.1
540	HORVU2Hr1G122580	Blue copper protein	24.96	AT2G32300.1
541	HORVU2Hr1G046370	18.8 kDa class V heat shock protein	24.85	AT4G21870.1
542	HORVU6Hr1G001370	undescribed protein	24.84	#N/A
543	HORVU2Hr1G080890	Anthranilate synthase	24.82	AT1G25220.1
544	HORVU7Hr1G101310	Calcium-dependent lipid-binding (CaLB domain) family protein	24.81	AT5G04220.2
545	HORVU2Hr1G124930	Peroxidase superfamily protein	24.81	AT1G71695.1
546	HORVU6Hr1G004310	unknown function	24.70	AT1G12120.1
547	HORVU6Hr1G074310	undescribed protein	24.63	AT3G57020.2
548	HORVU7Hr1G026640	FAR1-related sequence 5	24.58	AT4G38180.1
549	HORVU7Hr1G084610	3-ketoacyl-CoA synthase 11	24.49	AT2G26640.1
550	HORVU5Hr1G070400	ABC transporter G family member 11	24.38	AT1G17840.1
551	HORVU6Hr1G067980	Protein NRT1/ PTR FAMILY 8.3	24.32	AT2G02040.1
552	HORVU2Hr1G061670	undescribed protein	24.27	AT2G26170.1
553	HORVU7Hr1G107150	undescribed protein	24.25	AT2G29690.2
554	HORVU3Hr1G091120	amino acid permease 3	24.24	AT5G09220.1
555	HORVU1Hr1G077420	Inositol-tetrakisphosphate 1-kinase 4	24.19	AT5G16760.1
556	HORVU6Hr1G089590	U-box domain-containing protein	23.94	AT2G35930.1
557	HORVU6Hr1G057310	undescribed protein	23.88	AT1G24062.1
558	HORVU2Hr1G004510	Cytochrome P450 superfamily protein	23.84	AT5G25120.1
559	HORVU5Hr1G089840	receptor kinase 3	23.77	AT1G21230.1
560	HORVU3Hr1G070550	Transferrin receptor protein 2	23.76	AT5G19740.1
561	HORVU4Hr1G009230	receptor kinase 2	23.25	AT5G10530.1
562	HORVU5Hr1G061820	Protein kinase superfamily protein	23.24	AT2G05940.1
563	HORVU3Hr1G074940	Peroxidase superfamily protein	23.14	AT4G11290.1
564	HORVU7Hr1G040850	unknown function	23.04	AT5G18520.1
565	HORVU2Hr1G109330	WRKY family transcription factor	22.92	AT3G56400.1
566	HORVU3Hr1G020140	WRKY DNA-binding protein 50	22.86	AT5G26170.1
567	HORVU5Hr1G080300	Dehydration-responsive element-binding protein 1B	22.50	AT4G25470.1
568	HORVU1Hr1G090870	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	22.49	AT1G52820.1
569	HORVU5Hr1G121520	unknown function	22.44	AT5G18980.1
570	HORVU3Hr1G018610	receptor kinase 2	22.37	AT3G53810.1
571	HORVU4Hr1G090140	germin-like protein 9	22.22	AT5G39150.1
572	HORVU1Hr1G082670	AP2/B3 transcription factor family protein	22.21	AT1G68840.2
573	HORVU6Hr1G063480	cysteine synthase D1	22.21	AT2G43750.2



S No	Feature ID	Barley Annotation	Fold change	Ara. homology
574	HORVU6Hr1G022590	RING/U-box superfamily protein	22.20	AT3G05200.1
575	HORVU3Hr1G077890	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	22.11	AT4G21920.1
576	HORVU5Hr1G094710	Disease resistance-responsive (dirigent- like protein) family protein	22.05	AT1G58170.1
577	HORVU3Hr1G064960	Protein kinase superfamily protein	22.03	AT5G60900.1
578	HORVU0Hr1G000780	unknown function	21.91	AT5G24275.4
579	HORVU2Hr1G100360	SAUR-like auxin-responsive protein family	21.89	AT2G24400.1
580	HORVU7Hr1G049610	Sterile alpha motif (SAM) domain- containing protein	21.89	AT1G80520.1
581	HORVU5Hr1G054510	BZIP transcription factor	21.86	AT1G75390.1
582	HORVU3Hr1G105680	0	21.84	#N/A
583	HORVU1Hr1G093480	tryptophan synthase alpha chain	21.82	AT4G02610.1
584	HORVU5Hr1G006460	unknown function	21.81	AT2G38470.1
585	HORVU1Hr1G019410	HXXXD-type acyl-transferase family protein	21.78	AT5G48930.1
586	HORVU5Hr1G123330	Cysteine/Histidine-rich C1 domain family protein	21.72	AT2G37810.1
587	HORVU3Hr1G096890	Avr9/Cf-9 rapidly elicited protein	21.62	AT4G29110.1
588	HORVU3Hr1G087690	ammonium transporter 2	21.60	AT2G38290.1
589	HORVU1Hr1G057880	Eukaryotic peptide chain release factor subunit 1-2	21.47	AT1G12920.1
590	HORVU1Hr1G057650	rRNA N-glycosidase	21.38	AT5G33406.1
591	HORVU6Hr1G020570	ATP-dependent RNA helicase DeaD	21.32	AT5G60990.1
592	HORVU7Hr1G059520	undescribed protein	21.30	AT4G31210.1
593	HORVU0Hr1G000760	undescribed protein	21.20	AT4G19140.1
594	HORVU1Hr1G016660	Peroxidase superfamily protein	21.19	AT4G33420.1
595	HORVU6Hr1G058820	phenylalanine ammonia-lyase 2	21.18	AT2G37040.1
596	HORVU4Hr1G056500	2-oxoglutarate (2OG) and Fe(II)- dependent oxygenase superfamily protein	21.16	AT3G11180.1
597	HORVU2Hr1G120010	Chaperone protein DnaJ	21.11	AT5G23240.1
598	HORVU7Hr1G096870	SAUR-like auxin-responsive protein family	21.08	AT3G20220.1
599	HORVU7Hr1G107630	Homeodomain-like superfamily protein	20.94	AT1G14600.1
600	HORVU7Hr1G083270	WRKY DNA-binding protein 70	20.91	AT3G56400.1
601	HORVU5Hr1G065620	2-oxoglutarate (2OG) and Fe(II)- dependent oxygenase superfamily protein	20.81	AT5G20400.1
602	HORVU2Hr1G045200	Glutathione S-transferase family protein	20.78	AT1G10370.1
603	HORVU6Hr1G088430	2-oxoglutarate (2OG) and Fe(II)- dependent oxygenase superfamily protein	20.72	AT1G49390.1
604	HORVU2Hr1G098700	undescribed protein	20.68	#N/A
605	HORVU5Hr1G006480	undescribed protein	20.62	AT5G66750.1
606	HORVU0Hr1G009460	germin-like protein 9	20.50	AT5G39110.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
607	HORVU4Hr1G089560	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	20.49	AT5G42900.2
608	HORVU2Hr1G081510	unknown function	20.18	AT1G55775.1
609	HORVU2Hr1G070880	Protein TIFY 9	20.17	AT5G13220.1
610	HORVU7Hr1G033430	Chaperone DnaJ domain protein	20.16	AT3G14200.1
611	HORVU7Hr1G010340	Anthocyanin 5-aromatic acyltransferase-like	19.96	AT5G39080.1
612	HORVU2Hr1G094330	GDSL esterase/lipase	19.96	AT5G41890.1
613	HORVU5Hr1G045850	Glutathione S-transferase family protein	19.63	AT2G29420.1
614	HORVU7Hr1G002850	26S protease regulatory subunit 6A homolog	19.56	AT3G01610.2
615	HORVU2Hr1G091190	sugar transporter 9	19.51	AT2G20780.1
616	HORVU2Hr1G017350	NAC domain containing protein 100	19.43	AT5G61430.1
617	HORVU5Hr1G034300	undescribed protein	19.40	AT5G10140.4
618	HORVU2Hr1G126100	Protein NRT1/ PTR FAMILY 5.10	19.36	AT1G72125.1
619	HORVU6Hr1G067920	Protein NRT1/ PTR FAMILY 8.1	19.22	AT1G62200.1
620	HORVU7Hr1G028660	unknown function	19.15	AT3G17240.3
621	HORVU0Hr1G006150	receptor kinase 1	19.14	AT5G38240.2
622	HORVU2Hr1G070700	Glycerophosphodiester phosphodiesterase GDE1	19.09	AT5G41080.2
623	HORVU5Hr1G060620	Centromere protein V	18.94	AT5G16940.2
624	HORVU4Hr1G000700	Ethylene-responsive transcription factor 1B	18.85	AT3G23240.1
625	HORVU2Hr1G103930	NAC domain containing protein 1	18.84	AT3G12977.1
626	HORVU5Hr1G045580	mini zinc finger 2	18.81	AT3G28917.1
627	HORVU4Hr1G039300	Kelch repeat-containing protein 3	18.80	AT1G68050.1
628	HORVU5Hr1G057320	LAG1 longevity assurance homolog 3	18.80	AT1G13580.3
629	HORVU5Hr1G094700	Disease resistance-responsive (dirigent-like protein) family protein	18.78	AT1G58170.1
630	HORVU5Hr1G093350	Solute carrier family 22 member 1	18.66	AT3G13050.4
631	HORVU1Hr1G092310	Glucan endo-1,3-beta-glucosidase 13	18.57	AT4G26830.1
632	HORVU1Hr1G080300	WRKY DNA-binding protein 51	18.54	AT5G64810.1
633	HORVU1Hr1G015210	Leucine-rich repeat receptor-like protein kinase family protein	18.50	AT4G08850.1
634	HORVU4Hr1G083650	Protein NRT1/ PTR FAMILY 5.2	18.47	AT5G46050.1
635	HORVU7Hr1G076480	Non-lysosomal glucosylceramidase	18.42	AT5G49900.3
636	HORVU1Hr1G085240	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein	18.39	AT5G11730.1
637	HORVU3Hr1G062920	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	18.37	AT3G49210.2
638	HORVU2Hr1G082370	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	18.34	AT1G14130.1
639	HORVU3Hr1G077950	Subtilisin-like protease	18.24	AT4G10540.1
640	HORVU4Hr1G087630	Cytochrome P450 superfamily protein	18.21	AT2G30490.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
641	HORVU0Hr1G000340	cystathionine beta-lyase	18.11	AT1G64660.1
642	HORVU5Hr1G050970	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	18.07	AT2G24100.1
643	HORVU3Hr1G028870	undescribed protein	18.01	AT4G19510.9
644	HORVU5Hr1G063430	glutamate receptor 2.8	17.99	AT2G29120.1
645	HORVU5Hr1G104670	Glutathione S-transferase family protein	17.91	AT3G62760.1
646	HORVU2Hr1G028430	ribonuclease 1	17.80	AT2G02990.1
647	HORVU6Hr1G011120	Glutathione S-transferase family protein	17.75	AT4G19880.1
648	HORVU3Hr1G077110	receptor kinase 2	17.52	AT4G21390.1
649	HORVU3Hr1G013650	Gamma-glutamyltranspeptidase 3	17.36	AT4G29210.1
650	HORVU1Hr1G075640	ABC transporter ATP-binding protein NatA	17.36	AT3G47730.1
651	HORVU0Hr1G015930	Ergosterol biosynthetic protein 28	17.31	AT1G10030.1
652	HORVU5Hr1G081500	Protein STAY-GREEN, chloroplastic	17.29	AT4G22920.2
653	HORVU3Hr1G057730	unknown protein; Has 19 Blast hits to 19 proteins in 6 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 19; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	17.11	AT2G01400.1
654	HORVU4Hr1G078210	purine permease 3	16.98	AT1G28220.1
655	HORVU2Hr1G099640	VACUOLAR SORTING RECEPTOR 5	16.93	AT2G34940.1
656	HORVU6Hr1G014340	undescribed protein	16.89	AT2G40660.1
657	HORVU5Hr1G097940	undescribed protein	16.88	AT2G15960.1
658	HORVU1Hr1G026200	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	16.86	AT5G04160.1
659	HORVU1Hr1G072720	unknown protein; Has 30 Blast hits to 30 proteins in 10 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 30; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	16.84	AT5G02090.1
660	HORVU5Hr1G006330	Glutathione S-transferase family protein	16.80	AT3G62760.1
661	HORVU3Hr1G089900	undescribed protein	16.77	AT3G32090.1
662	HORVU2Hr1G117840	Protein kinase superfamily protein	16.69	AT4G21390.1
663	HORVU2Hr1G117620	undescribed protein	16.67	#N/A
664	HORVU5Hr1G058020	Major facilitator superfamily protein	16.66	AT5G10190.2
665	HORVU7Hr1G083550	Peroxidase superfamily protein	16.63	AT5G66390.1
666	HORVU2Hr1G108290	Solute carrier family 22 member 15-like	16.60	AT3G20660.1
667	HORVU7Hr1G106760	unknown function	16.51	AT5G16610.2
668	HORVU7Hr1G083370	Alpha/beta hydrolase	16.50	AT5G13800.3
669	HORVU6Hr1G078110	UDP-Glycosyltransferase superfamily protein	16.31	AT1G22400.1
670	HORVU7Hr1G032740	unknown function	16.27	AT3G16670.1
671	HORVU4Hr1G012530	Plant protein of unknown function (DUF863)	16.23	AT5G67390.3

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
672	HORVU2Hr1G013170	2-oxoglutarate dehydrogenase, E1 component	16.21	AT3G55410.2
673	HORVU2Hr1G017360	NAC domain containing protein 100	16.20	AT5G61430.1
674	HORVU1Hr1G070220	alanine:glyoxylate aminotransferase 3	16.19	AT3G08860.1
675	HORVU6Hr1G070740	undescribed protein	16.19	AT2G41905.1
676	HORVU3Hr1G093550	receptor kinase 2	16.11	AT1G56130.2
677	HORVU6Hr1G077280	Armadillo repeat-containing protein 6	16.08	AT4G33945.1
678	HORVU4Hr1G021040	exocyst subunit exo70 family protein A2	15.99	AT5G52340.1
679	HORVU3Hr1G090170	tropinone reductase	15.98	AT5G06060.1
680	HORVU7Hr1G028730	receptor kinase 2	15.89	AT2G37710.1
681	HORVU5Hr1G048810	Coffea canephora DH200=94 genomic scaffold, scaffold_93	15.87	AT2G17710.1
682	HORVU1Hr1G052250	undescribed protein	15.84	AT3G54710.1
683	HORVU0Hr1G039620	Receptor-like protein kinase	15.73	AT1G21230.1
684	HORVU7Hr1G118560	Blue copper protein	15.67	AT3G17675.1
685	HORVU5Hr1G085780	SAUR-like auxin-responsive protein family	15.63	AT1G29450.2
686	HORVU3Hr1G065320	ABC transporter B family member 4	15.36	AT2G47000.7
687	HORVU2Hr1G101980	Ubiquinol oxidase	15.32	AT3G22370.1
688	HORVU6Hr1G090630	alpha/beta-Hydrolases superfamily protein	15.20	AT5G06570.2
689	HORVU1Hr1G075620	ABC transporter ATP-binding protein NatA	15.15	AT3G47780.1
690	HORVU1Hr1G002590	receptor-like protein kinase 4	15.09	AT1G66920.2
691	HORVU5Hr1G115780	Epoxide hydrolase 3	15.03	AT4G02340.1
692	HORVU2Hr1G044650	receptor kinase 1	15.02	AT4G23180.1
693	HORVU2Hr1G042520	Protein kinase superfamily protein	14.97	AT4G21390.1
694	HORVU3Hr1G051820	Protein kinase superfamily protein	14.94	AT2G05940.1
695	HORVU3Hr1G063430	MATE efflux family protein	14.76	AT1G71140.1
696	HORVU7Hr1G048570	Glycosyltransferase family 61 protein	14.76	AT3G18180.1
697	HORVU3Hr1G064450	lipid phosphate phosphatase 2	14.74	AT3G02600.9
698	HORVU2Hr1G017470	NAC domain protein,	14.74	AT1G69490.1
699	HORVU2Hr1G109590	HXXXD-type acyl-transferase family protein	14.70	AT5G48930.1
700	HORVU1Hr1G002900	unknown function	14.67	AT3G14470.2
701	HORVU3Hr1G066220	ABC transporter G family member 19	14.66	AT3G55130.1
702	HORVU5Hr1G061770	Cathepsin B-like cysteine proteinase	14.66	AT5G60360.1
703	HORVU1Hr1G059130	Protein phosphatase 2C family protein	14.59	AT3G05640.3
704	HORVU0Hr1G007680	inositol polyphosphate 5-phosphatase 11	14.56	AT1G47510.1
705	HORVU5Hr1G063480	glutamate receptor 2.8	14.51	AT2G29120.1
706	HORVU5Hr1G023990	unknown function	14.47	AT1G67120.1
707	HORVU2Hr1G112580	endonuclease 4	14.43	AT4G21585.4
708	HORVU5Hr1G057740	unknown function	14.43	AT2G26110.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
709	HORVU1Hr1G069800	Non-specific lipid-transfer protein	14.38	AT5G01870.1
710	HORVU5Hr1G075470	Peptidyl-prolyl cis-trans isomerase	14.26	AT4G14200.1
711	HORVU4Hr1G043910	Protein disulfide-isomerase	14.10	AT1G21750.1
712	HORVU6Hr1G067380	myb domain protein 63	14.09	AT1G79180.1
713	HORVU3Hr1G090070	undescribed protein	14.07	AT1G20400.1
714	HORVU4Hr1G007180	microsomal glutathione s-transferase, putative	14.06	AT1G65820.1
715	HORVU6Hr1G090560	Glutathione S-transferase family protein	13.95	AT1G10360.1
716	HORVU2Hr1G125600	unknown function	13.89	AT4G35920.5
717	HORVU7Hr1G057650	RING/U-box superfamily protein	13.81	AT2G17730.1
718	HORVU4Hr1G083210	Anthranilate phosphoribosyltransferase	13.79	AT5G17990.1
719	HORVU4Hr1G023390	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	13.77	AT3G48860.2
720	HORVU1Hr1G026520	HXXXD-type acyl-transferase family protein	13.76	AT3G62160.1
721	HORVU2Hr1G098110	nudix hydrolase homolog 8	13.76	AT5G47240.1
722	HORVU7Hr1G108820	unknown function	13.70	AT2G18680.1
723	HORVU6Hr1G009360	Peroxidase superfamily protein	13.69	AT5G05340.1
724	HORVU4Hr1G038810	undescribed protein	13.59	AT2G34140.1
725	HORVU2Hr1G000120	undescribed protein	13.48	AT1G59960.1
726	HORVU1Hr1G049400	undescribed protein	13.45	AT4G25990.3
727	HORVU4Hr1G072560	Blue copper protein	13.43	AT2G32300.2
728	HORVU5Hr1G106640	rRNA N-glycosidase	13.43	AT5G07280.1
729	HORVU2Hr1G075970	Peroxidase superfamily protein	13.42	AT4G08390.3
730	HORVU6Hr1G000070	Rhodanese-like domain-containing protein 17	13.35	AT5G66170.3
731	HORVU7Hr1G077470	GDP-mannose transporter 1	13.22	AT2G13650.3
732	HORVU6Hr1G013610	beta-1,4-N-acetylglucosaminyltransferase family protein	13.10	AT2G13290.2
733	HORVU5Hr1G019880	unknown function	13.09	AT5G39380.5
734	HORVU1Hr1G083700	Galactosyltransferase family protein	13.04	AT5G57500.1
735	HORVU6Hr1G005400	Epoxide hydrolase 4	12.96	AT3G51000.1
736	HORVU3Hr1G028860	cationic amino acid transporter 5	12.93	AT2G34960.1
737	HORVU6Hr1G028590	undescribed protein	12.78	AT3G01430.1
738	HORVU5Hr1G084740	phospholipase D delta	12.61	AT4G35790.3
739	HORVU4Hr1G076970	Cyanate hydratase	12.54	AT3G23490.3
740	HORVU7Hr1G079160	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	12.47	AT2G29220.1
741	HORVU6Hr1G067740	Protein NRT1/ PTR FAMILY 8.3	12.47	AT2G02040.1
742	HORVU7Hr1G048970	caffeoyl-CoA 3-O-methyltransferase	12.47	AT4G34050.1
743	HORVU2Hr1G080140	Aldose 1-epimerase	12.34	AT5G15140.1
744	HORVU4Hr1G071020	sugar transporter 9	12.33	AT3G18830.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
745	HORVU0Hr1G007750	0	12.31	#N/A
746	HORVU2Hr1G064150	sugar transporter 1	12.14	AT1G11260.1
747	HORVU4Hr1G062440	Phosphoenolpyruvate carboxykinase [ATP]	12.08	AT4G37870.1
748	HORVU7Hr1G038370	Beta-1,3-galactosyltransferase 15	12.05	AT1G26810.2
749	HORVU7Hr1G073460	Tryptophan synthase beta chain 1	12.05	AT4G27070.1
750	HORVU5Hr1G063270	GRAS family transcription factor	12.02	AT1G07520.1
751	HORVU1Hr1G037150	Protein kinase superfamily protein	11.95	AT5G03320.2
752	HORVU5Hr1G045640	NAC domain protein,	11.94	AT5G53950.1
753	HORVU4Hr1G000070	Poly(A) RNA polymerase protein 1	11.91	AT3G45750.1
754	HORVU7Hr1G046130	undescribed protein	11.89	AT5G42740.2
755	HORVU7Hr1G099340	receptor kinase 1	11.80	AT4G23280.2
756	HORVU5Hr1G012120	receptor kinase 2	11.79	AT5G10530.1
757	HORVU7Hr1G110570	Protein of unknown function (DUF679)	11.77	AT4G24310.1
758	HORVU1Hr1G089830	Dehydrogenase/reductase SDR family member 12	11.75	AT1G01800.1
759	HORVU5Hr1G079690	Acyl-coenzyme A thioesterase 9, mitochondrial	11.70	AT5G48370.2
760	HORVU0Hr1G002930	unknown function	11.68	AT2G15760.1
761	HORVU1Hr1G085720	undescribed protein	11.57	AT1G09480.2
762	HORVU3Hr1G116350	Ankyrin repeat family protein	11.53	AT2G28840.2
763	HORVU5Hr1G046900	Peroxidase superfamily protein	11.53	AT5G05340.1
764	HORVU2Hr1G066200	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein	11.44	AT1G71070.1
765	HORVU2Hr1G081790	amino acid permease 2	11.41	AT5G09220.1
766	HORVU7Hr1G051060	undescribed protein	11.40	AT1G66880.1
767	HORVU2Hr1G100090	Solute carrier family 22 member 6-A	11.31	AT3G13050.4
768	HORVU2Hr1G117870	Protein kinase superfamily protein	11.24	AT4G21390.1
769	HORVU6Hr1G060500	membrane steroid binding protein 1	11.24	AT3G48890.1
770	HORVU5Hr1G024400	Calmodulin-binding protein	11.15	AT2G18750.3
771	HORVU1Hr1G092240	Glucan endo-1,3-beta-glucosidase 13	11.13	AT5G55180.2
772	HORVU6Hr1G084080	MATE efflux family protein	11.09	AT3G23560.1
773	HORVU1Hr1G057460	Aldolase-type TIM barrel family protein	11.08	AT5G64250.1
774	HORVU7Hr1G044160	Embryogenesis transmembrane protein-like	10.95	AT4G11000.1
775	HORVU7Hr1G079460	unknown function	10.95	AT5G53710.2
776	HORVU6Hr1G066250	Tetratricopeptide repeat (TPR)-like superfamily protein	10.94	AT3G18420.1
777	HORVU7Hr1G029370	undescribed protein	10.92	AT5G35360.3
778	HORVU1Hr1G037550	RING finger protein 141	10.91	AT5G01520.1
779	HORVU6Hr1G008880	Heat shock 70 kDa protein C	10.90	AT5G42020.1
780	HORVU2Hr1G109950	undescribed protein	10.89	AT1G30450.4



S No	Feature ID	Barley Annotation	Fold change	Ara. homology
781	HORVU6Hr1G068990	Adenine nucleotide alpha hydrolases-like superfamily protein	10.87	AT2G21620.1
782	HORVU5Hr1G109190	germin-like protein 4	10.84	AT1G18980.1
783	HORVU5Hr1G109290	Calcium-binding EF-hand family protein	10.79	AT2G44310.1
784	HORVU5Hr1G117910	ferredoxin 3	10.76	AT2G27510.1
785	HORVU0Hr1G030830	WRKY family transcription factor	10.75	AT3G56400.1
786	HORVU1Hr1G021160	Glutathione S-transferase family protein	10.73	AT3G62760.1
787	HORVU0Hr1G015180	AT-hook motif nuclear-localized protein 1	10.67	AT4G12080.1
788	HORVU2Hr1G089760	undescribed protein	10.65	AT5G18700.1
789	HORVU5Hr1G087880	Auxin efflux carrier family protein	10.65	AT5G65980.1
790	HORVU1Hr1G065820	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	10.64	AT3G14460.1
791	HORVU3Hr1G076890	sphingosine kinase 1	10.63	AT4G21534.2
792	HORVU3Hr1G105190	Glucan endo-1,3-beta-glucosidase GI	10.60	AT3G57260.2
793	HORVU1Hr1G009130	unknown function	10.59	AT2G18690.1
794	HORVU2Hr1G017460	NAC domain protein,	10.57	AT1G69490.1
795	HORVU2Hr1G114190	UDP-Glycosyltransferase superfamily protein	10.51	AT2G43820.1
796	HORVU2Hr1G004720	UDP-Glycosyltransferase superfamily protein	10.49	AT1G22400.1
797	HORVU3Hr1G001060	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	10.47	AT1G49000.1
798	HORVU3Hr1G093400	RNA-binding protein 1	10.45	AT3G23830.2
799	HORVU2Hr1G093040	undescribed protein	10.43	AT4G00060.4
800	HORVU3Hr1G076400	undescribed protein	10.42	AT2G32210.1
801	HORVU2Hr1G107100	Protein translation factor SUI1 homolog 1	10.40	AT5G54760.4
802	HORVU3Hr1G014270	Phloem-specific lectin	10.37	AT2G02340.1
803	HORVU2Hr1G064160	sugar transporter 1	10.32	AT1G11260.1
804	HORVU5Hr1G051960	Pathogenesis-related thaumatin superfamily protein	10.31	AT1G77700.1
805	HORVU2Hr1G090200	UDP-Glycosyltransferase superfamily protein	10.23	AT3G53150.1
806	HORVU6Hr1G030880	Receptor-like protein kinase 5	10.17	AT2G20850.1
807	HORVU7Hr1G096660	histone H2A 2	10.15	AT4G27230.2
808	HORVU3Hr1G062940	O-acyltransferase (WSD1-like) family protein	10.14	AT5G53390.1
809	HORVU5Hr1G115230	non-specific phospholipase C1	10.11	AT1G07230.1
810	HORVU5Hr1G005180	Pathogenesis-related thaumatin superfamily protein	10.11	AT4G11650.1
811	HORVU7Hr1G050670	lipoxygenase 2	10.11	AT3G45140.1
812	HORVU2Hr1G109370	Adenosylhomocysteinase	10.05	AT4G13940.1
813	HORVU4Hr1G000810	undescribed protein	10.04	AT1G63720.1
814	HORVU2Hr1G001940	undescribed protein	10.04	AT4G25120.1
815	HORVU3Hr1G105870	Amino-acid permease BAT1 homolog	10.01	AT2G01170.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
816	HORVU1Hr1G063390	AAA-ATPase 1	10.01	AT5G40010.1
817	HORVU7Hr1G028840	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	9.98	AT5G54000.2
818	HORVU2Hr1G017400	NAC domain protein,	9.97	AT5G39610.1
819	HORVU4Hr1G011430	pfkB-like carbohydrate kinase family protein	9.94	AT5G58730.1
820	HORVU6Hr1G081850	Subtilisin-like protease	9.93	AT3G14067.1
821	HORVU4Hr1G084740	sugar transporter 1	9.92	AT1G34580.1
822	HORVU5Hr1G019820	ATP-dependent zinc metalloprotease FtsH 2	9.89	AT5G40010.1
823	HORVU7Hr1G043690	UDP-Glycosyltransferase superfamily protein	9.87	AT4G01070.1
824	HORVU7Hr1G079630	undescribed protein	9.86	AT2G33600.1
825	HORVU6Hr1G035420	cinnamyl alcohol dehydrogenase 5	9.83	AT3G19450.1
826	HORVU5Hr1G104580	UDP-Glycosyltransferase superfamily protein	9.82	AT2G15480.2
827	HORVU7Hr1G000970	HXXXD-type acyl-transferase family protein	9.79	AT5G42830.1
828	HORVU4Hr1G067490	Myosin-related, putative	9.75	AT1G51405.2
829	HORVU4Hr1G014970	Kelch-like protein 23	9.69	AT2G44130.1
830	HORVU1Hr1G075950	unknown function	9.67	AT3G16330.1
831	HORVU5Hr1G095130	Beta-glucosidase C	9.64	AT5G04885.2
832	HORVU4Hr1G069530	unknown function	9.64	AT5G43150.1
833	HORVU7Hr1G011250	E3 ubiquitin-protein ligase XBAT33	9.61	AT5G07270.1
834	HORVU1Hr1G002470	receptor-like protein kinase 4	9.57	AT1G70250.1
835	HORVU6Hr1G093740	Receptor-like protein kinase	9.56	AT1G21230.1
836	HORVU1Hr1G039720	Protein NRT1/ PTR FAMILY 5.2	9.54	AT5G46050.1
837	HORVU5Hr1G062090	Aldehyde dehydrogenase family 7 member A1	9.54	AT1G54100.2
838	HORVU2Hr1G118080	Heavy metal transport/detoxification superfamily protein	9.53	AT5G52740.1
839	HORVU2Hr1G090170	UDP-Glycosyltransferase superfamily protein	9.53	AT2G36790.1
840	HORVU1Hr1G070690	PEBP (phosphatidylethanolamine-binding protein) family protein	9.49	AT5G01300.1
841	HORVU2Hr1G038830	Ferredoxin--NADP reductase	9.48	AT4G05390.1
842	HORVU4Hr1G023680	jacalin-related lectin 23	9.48	AT1G19715.2
843	HORVU3Hr1G027700	Class I glutamine amidotransferase-like superfamily protein	9.44	AT1G53280.1
844	HORVU2Hr1G001790	Vacuolar protein sorting-associated protein 27	9.39	AT5G16880.4
845	HORVU4Hr1G065800	Inactive poly [ADP-ribose] polymerase RCD1	9.36	AT1G32230.3
846	HORVU3Hr1G006640	receptor kinase 2	9.35	AT4G23180.1
847	HORVU7Hr1G101590	Cytochrome P450 superfamily protein	9.34	AT3G14690.1



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848	HORVU7Hr1G090280	Tetratricopeptide repeat (TPR)-like superfamily protein	9.33	AT5G20190.1
849	HORVU1Hr1G002600	receptor-like protein kinase 4	9.32	AT1G70250.1
850	HORVU3Hr1G066450	IAA-amino acid hydrolase ILR1-like 2	9.32	AT1G51760.1
851	HORVU6Hr1G085870	Transmembrane 9 superfamily member 11	9.31	AT5G35160.4
852	HORVU6Hr1G032710	50S ribosomal protein L7/L12	9.29	AT3G06040.3
853	HORVU2Hr1G072210	Arogenate dehydratase/prephenate dehydratase 6, chloroplastic	9.25	AT5G53460.3
854	HORVU0Hr1G009390	germin-like protein 2	9.24	AT5G39110.1
855	HORVU2Hr1G014890	receptor kinase 2	9.23	AT3G53810.1
856	HORVU7Hr1G050660	lipoxygenase 2	9.06	AT3G45140.2
857	HORVU3Hr1G070560	Transferrin receptor protein 2	8.98	AT5G19740.1
858	HORVU1Hr1G020690	Peroxidase superfamily protein	8.97	AT5G06730.1
859	HORVU5Hr1G050240	Cyclase family protein	8.94	AT4G35220.1
860	HORVU5Hr1G098030	undescribed protein	8.88	AT2G15960.1
861	HORVU3Hr1G001790	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	8.88	AT2G29050.2
862	HORVU7Hr1G031430	glutamate receptor 2.9	8.80	AT5G11210.3
863	HORVU2Hr1G114590	Synaptotagmin-5	8.78	AT1G05500.1
864	HORVU6Hr1G000180	60 kDa chaperonin 2	8.78	AT3G13470.1
865	HORVU5Hr1G084900	Glucan endo-1,3-beta-glucosidase 13	8.74	AT5G55180.1
866	HORVU1Hr1G012680	UDP-Glycosyltransferase superfamily protein	8.71	AT2G36970.1
867	HORVU6Hr1G090170	50S ribosomal protein L14	8.71	AT3G04400.2
868	HORVU1Hr1G003720	Mitochondrial import inner membrane translocase subunit TIM14-2	8.69	AT3G09700.1
869	HORVU5Hr1G096930	Cytochrome P450 superfamily protein	8.67	AT4G37330.1
870	HORVU1Hr1G093890	Pathogen-related protein	8.66	AT1G78780.5
871	HORVU5Hr1G097270	Peroxidase superfamily protein	8.65	AT3G49960.1
872	HORVU2Hr1G019180	UDP-glucuronic acid decarboxylase 1	8.64	AT2G47650.1
873	HORVU1Hr1G080680	Cytochrome P450 superfamily protein	8.58	AT3G48520.1
874	HORVU1Hr1G054390	lipoxygenase 1	8.57	AT3G22400.1
875	HORVU5Hr1G024160	Adenine nucleotide alpha hydrolases-like superfamily protein	8.56	AT2G47710.1
876	HORVU2Hr1G099530	cationic amino acid transporter 8	8.55	AT1G17120.1
877	HORVU2Hr1G027370	tRNA pseudouridine synthase B	8.54	AT3G57150.1
878	HORVU6Hr1G057680	inter-alpha-trypsin inhibitor heavy chain-related	8.53	AT5G60710.1
879	HORVU2Hr1G110120	Adenosylhomocysteinase	8.50	AT4G13940.1
880	HORVU1Hr1G049100	Glutathione S-transferase family protein	8.49	AT1G10360.1
881	HORVU4Hr1G076520	Protein kinase superfamily protein	8.49	AT2G05940.1
882	HORVU4Hr1G068530	unknown protein; Has 65 Blast hits to 65 proteins in 11 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0;	8.48	AT3G57450.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
		Plants - 65; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).		
883	HORVU2Hr1G031410	Transmembrane protein 87A	8.41	AT1G72480.1
884	HORVU1Hr1G056600	Protein kinase superfamily protein	8.41	AT3G51990.1
885	HORVU6Hr1G070130	undescribed protein	8.41	AT2G43420.1
886	HORVU2Hr1G078890	unknown function	8.40	AT4G37030.1
887	HORVU2Hr1G096510	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	8.38	AT5G20400.1
888	HORVU5Hr1G114440	unknown function	8.37	AT4G35920.5
889	HORVU5Hr1G070360	Protein kinase family protein	8.32	AT1G21240.1
890	HORVU0Hr1G039970	Leucine-rich receptor-like protein kinase family protein	8.31	AT3G47090.1
891	HORVU5Hr1G016400	Peroxisomal membrane 22 kDa (Mpv17/PMP22) family protein	8.28	AT4G14305.1
892	HORVU4Hr1G085750	Hydroxymethylglutaryl-CoA synthase	8.27	AT4G11820.2
893	HORVU1Hr1G074840	unknown function	8.25	AT5G17210.1
894	HORVU5Hr1G080310	Dehydration-responsive element-binding protein 1B	8.21	AT4G25470.1
895	HORVU2Hr1G009830	Cystic fibrosis transmembrane conductance regulator	8.21	AT2G47800.1
896	HORVU6Hr1G009420	undescribed protein	8.18	AT3G59100.1
897	HORVU6Hr1G024850	Cytochrome P450 superfamily protein	8.18	AT3G48310.1
898	HORVU3Hr1G065390	Lipid A export ATP-binding/permease protein MsbA	8.13	AT2G47000.6
899	HORVU1Hr1G080320	aldehyde dehydrogenase 12A1	8.12	AT5G62530.1
900	HORVU2Hr1G017950	B12D protein	8.12	AT3G48140.1
901	HORVU2Hr1G102110	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	8.10	AT5G48485.1
902	HORVU5Hr1G087240	receptor kinase 3	8.10	AT4G21390.2
903	HORVU1Hr1G084620	CASP-like protein 1U2	8.07	AT4G15630.1
904	HORVU4Hr1G090130	germin-like protein 2	8.05	AT5G39110.1
905	HORVU5Hr1G014060	calmodulin-like 11	8.04	AT3G22930.1
906	HORVU7Hr1G050680	lipoxygenase 2	8.04	AT3G45140.1
907	HORVU1Hr1G043920	Plant basic secretory protein (BSP) family protein	7.98	AT2G15220.1
908	HORVU3Hr1G117370	Glutathione S-transferase family protein	7.97	AT3G62760.1
909	HORVU6Hr1G052060	unknown function	7.96	AT5G41240.1
910	HORVU3Hr1G028260	RING/U-box superfamily protein	7.96	AT2G27940.1
911	HORVU4Hr1G060280	AT-hook motif nuclear-localized protein 22	7.95	AT1G76500.1
912	HORVU0Hr1G009400	germin-like protein 9	7.90	AT5G39110.1
913	HORVU5Hr1G084860	Cysteine-rich receptor-like protein kinase 10	7.89	AT3G45860.1
914	HORVU2Hr1G114260	Glycerol kinase	7.89	AT1G80460.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
915	HORVU2Hr1G022500	undescribed protein	7.88	AT3G03770.3
916	HORVU7Hr1G108450	Leucine-rich repeat receptor-like protein kinase family protein	7.88	AT5G20480.2
917	HORVU7Hr1G033520	receptor-like protein kinase 1	7.80	AT5G10530.1
918	HORVU2Hr1G042210	Serine/threonine-protein kinase	7.79	AT2G19130.1
919	HORVU2Hr1G093020	undescribed protein	7.77	AT5G08780.1
920	HORVU1Hr1G051200	ERD (early-responsive to dehydration stress) family protein	7.74	AT1G32090.1
921	HORVU7Hr1G118610	Protein kinase superfamily protein	7.70	AT1G68690.3
922	HORVU4Hr1G088860	Major facilitator superfamily protein	7.66	AT1G64650.1
923	HORVU6Hr1G068160	undescribed protein	7.64	AT5G61120.3
924	HORVU2Hr1G023450	Carboxypeptidase Y homolog A	7.63	AT3G63470.1
925	HORVU4Hr1G023740	receptor-like protein kinase 1	7.58	AT1G72300.1
926	HORVU6Hr1G005900	alpha/beta-Hydrolases superfamily protein	7.58	AT1G47480.1
927	HORVU1Hr1G089310	B12D protein	7.58	AT3G48140.1
928	HORVU3Hr1G048610	Protein transport protein Sec61 subunit beta	7.58	AT3G60540.3
929	HORVU6Hr1G089510	germin-like protein 5	7.49	AT1G02335.1
930	HORVU2Hr1G039850	MATE efflux family protein	7.48	AT1G15170.2
931	HORVU6Hr1G086560	Protein phosphatase 2C family protein	7.46	AT2G25620.2
932	HORVU7Hr1G019240	sugar transporter 9	7.46	AT5G61520.2
933	HORVU5Hr1G062410	Hypersensitive-induced response protein 1	7.45	AT5G62740.1
934	HORVU3Hr1G004850	UDP-Glycosyltransferase superfamily protein	7.45	AT4G01070.1
935	HORVU1Hr1G090430	CTP synthase family protein	7.43	AT1G30820.1
936	HORVU5Hr1G096950	Cytochrome P450 superfamily protein	7.40	AT5G67310.1
937	HORVU2Hr1G105240	purine permease 11	7.39	AT1G44750.1
938	HORVU2Hr1G090260	Protein RETICULATA, chloroplastic	7.38	AT2G37860.4
939	HORVU7Hr1G090950	adenylate kinase 1	7.38	AT5G63400.1
940	HORVU7Hr1G017950	Cytochrome P450 superfamily protein	7.37	AT2G45560.1
941	HORVU1Hr1G000660	Leucine-rich receptor-like protein kinase family protein	7.33	AT1G35710.1
942	HORVU1Hr1G045110	RING finger protein 141	7.29	AT3G47160.1
943	HORVU4Hr1G052010	WRKY DNA-binding protein 46	7.29	AT2G46400.1
944	HORVU1Hr1G021150	Glutathione S-transferase family protein	7.29	AT3G62760.1
945	HORVU3Hr1G063840	alpha/beta-Hydrolases superfamily protein	7.29	AT1G77420.1
946	HORVU3Hr1G070540	Transferrin receptor protein 2	7.22	AT5G19740.1
947	HORVU5Hr1G072730	undescribed protein	7.22	#N/A
948	HORVU7Hr1G040730	Cysteine-rich venom protein	7.22	AT5G57625.1
949	HORVU4Hr1G078690	Ras-related protein Rab-6A	7.21	AT2G44610.1
950	HORVU2Hr1G036800	Geranylgeranyl diphosphate synthase	7.19	AT4G36810.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
951	HORVU2Hr1G090280	YELLOW STRIPE like 7	7.19	AT1G65730.1
952	HORVU6Hr1G074690	receptor-like protein kinase 4	7.17	AT1G34300.1
953	HORVU2Hr1G043400	undescribed protein	7.16	#N/A
954	HORVU5Hr1G047060	plastid transcriptionally active 6	7.16	AT1G21600.2
955	HORVU2Hr1G108460	unknown function	7.11	AT3G16660.2
956	HORVU2Hr1G095330	undescribed protein	7.11	AT3G29810.1
957	HORVU2Hr1G043890	Xylanase inhibitor protein 1	7.09	AT5G24090.1
958	HORVU4Hr1G000910	Peptidyl-prolyl cis-trans isomerase	7.07	AT3G56070.2
959	HORVU7Hr1G048690	BTB/POZ domain-containing protein	7.07	AT1G55760.1
960	HORVU4Hr1G078830	Heat shock 70 kDa protein 17	7.07	AT4G16660.1
961	HORVU5Hr1G103770	alpha/beta-Hydrolases superfamily protein	7.07	AT5G06570.2
962	HORVU7Hr1G091350	SAUR-like auxin-responsive protein family	7.07	AT2G46690.1
963	HORVU2Hr1G032360	undescribed protein	7.06	AT5G61412.1
964	HORVU7Hr1G080950	WRKY DNA-binding protein 27	7.03	AT4G01250.1
965	HORVU3Hr1G096050	Transaldolase 1	7.03	AT5G13420.1
966	HORVU4Hr1G084330	Inter-alpha-trypsin inhibitor heavy chain H4	7.01	AT5G60710.1
967	HORVU7Hr1G106960	Protein LIGHT-DEPENDENT SHORT HYPOCOTYLS 4	6.97	AT1G07090.1
968	HORVU7Hr1G037910	shikimate kinase 1	6.95	AT2G21940.5
969	HORVU2Hr1G066920	Voltage-gated potassium channel subunit beta-3	6.89	AT1G60730.3
970	HORVU3Hr1G056100	Cytochrome P450 superfamily protein	6.88	AT3G14680.1
971	HORVU7Hr1G037510	Protein of unknown function, DUF547	6.88	AT4G08550.2
972	HORVU7Hr1G073050	External alternative NAD(P)H-ubiquinone oxidoreductase B3, mitochondrial	6.88	AT4G21490.2
973	HORVU4Hr1G066270	allene oxide synthase	6.88	AT5G42650.1
974	HORVU2Hr1G044910	receptor kinase 2	6.87	AT4G23180.3
975	HORVU2Hr1G034370	receptor-like protein kinase 2	6.84	AT1G74360.1
976	HORVU4Hr1G021000	undescribed protein	6.83	AT3G10195.1
977	HORVU6Hr1G070710	unknown function	6.75	AT3G12650.1
978	HORVU5Hr1G112210	Transmembrane amino acid transporter family protein	6.74	AT3G11900.2
979	HORVU2Hr1G065100	unknown protein; Has 978 Blast hits to 254 proteins in 81 species: Archae - 0; Bacteria - 8; Metazoa - 109; Fungi - 53; Plants - 41; Viruses - 0; Other Eukaryotes - 767 (source: NCBI BLINK).	6.74	AT2G39950.9
980	HORVU5Hr1G093160	ATP-dependent RNA helicase DeaD	6.72	AT4G16630.1
981	HORVU6Hr1G081000	allene oxide cyclase 4	6.69	AT3G25780.1
982	HORVU7Hr1G019280	sugar transporter 1	6.67	AT5G61520.1
983	HORVU5Hr1G074360	undescribed protein	6.66	AT5G35320.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
984	HORVU3Hr1G117910	PLAC8 family protein	6.64	AT5G05350.1
985	HORVU4Hr1G019410	alkaline/neutral invertase	6.62	AT4G09510.1
986	HORVU4Hr1G076570	lipoxygenase 3	6.62	AT1G72520.1
987	HORVU2Hr1G004230	12-oxophytodienoate reductase 2	6.62	AT1G76680.1
988	HORVU5Hr1G118750	Zinc finger protein 668	6.61	AT1G34370.2
989	HORVU5Hr1G062510	Dormancy/auxin associated family protein	6.59	AT1G56220.2
990	HORVU3Hr1G062430	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	6.58	AT4G21700.1
991	HORVU2Hr1G077220	12-oxophytodienoate reductase 2	6.54	AT1G76690.1
992	HORVU2Hr1G044680	receptor kinase 1	6.54	AT4G23180.1
993	HORVU2Hr1G024160	chaperone protein dnaJ-related	6.52	AT2G38000.1
994	HORVU5Hr1G066130	unknown function	6.51	AT3G47510.1
995	HORVU4Hr1G064010	Protein kinase superfamily protein	6.49	AT1G77280.2
996	HORVU0Hr1G018830	Cell division protein FtsZ	6.49	AT5G55280.1
997	HORVU3Hr1G071880	unknown protein; Has 35333 Blast hits to 34131 proteins in 2444 species: Archae - 798; Bacteria - 22429; Metazoa - 974; Fungi - 991; Plants - 531; Viruses - 0; Other Eukaryotes - 9610 (source: NCBI BLINK).	6.49	AT1G06475.1
998	HORVU2Hr1G009580	ABC transporter C family member 14	6.49	AT3G62700.1
999	HORVU4Hr1G088720	Palmitoyl-protein thioesterase 1	6.47	AT3G60340.2
1000	HORVU2Hr1G022540	undescribed protein	6.44	AT2G03370.2
1001	HORVU5Hr1G079180	3-beta hydroxysteroid dehydrogenase/isomerase family protein	6.42	AT2G43420.1
1002	HORVU5Hr1G104050	purine permease 3	6.40	AT1G28220.1
1003	HORVU1Hr1G040940	Heat shock 70 kDa protein 17	6.39	AT4G16660.1
1004	HORVU0Hr1G020420	17.6 kDa class II heat shock protein	6.37	AT5G37670.1
1005	HORVU7Hr1G116060	Cytochrome P450 superfamily protein	6.37	AT3G48310.1
1006	HORVU0Hr1G005420	Ubiquinol oxidase	6.36	AT3G22360.1
1007	HORVU7Hr1G048430	Glycosyltransferase	6.32	AT3G18180.1
1008	HORVU5Hr1G106550	histone H1-3	6.32	AT2G30620.2
1009	HORVU7Hr1G091100	Glucan endo-1,3-beta-glucosidase 13	6.29	AT2G05790.1
1010	HORVU4Hr1G012510	unknown function	6.26	AT3G10020.1
1011	HORVU0Hr1G015140	undescribed protein	6.21	AT5G09850.5
1012	HORVU7Hr1G010250	Peroxisomal membrane protein 11-5	6.20	AT1G01820.1
1013	HORVU1Hr1G042370	receptor kinase 1	6.20	AT1G70520.1
1014	HORVU7Hr1G042260	Cytochrome P450 superfamily protein	6.18	AT5G07990.1
1015	HORVU1Hr1G073330	HXXXD-type acyl-transferase family protein	6.17	AT2G39980.1
1016	HORVU2Hr1G121440	Cathepsin B-like cysteine proteinase	6.15	AT5G43060.1
1017	HORVU4Hr1G046610	Heavy metal transport/detoxification superfamily protein	6.15	AT1G56210.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1018	HORVU3Hr1G018650	pyruvate decarboxylase-2	6.13	AT5G01320.1
1019	HORVU0Hr1G005070	F-box protein	6.12	AT1G47056.1
1020	HORVU5Hr1G055060	IAA-amino acid hydrolase ILR1-like 9	6.10	AT3G02875.1
1021	HORVU1Hr1G001950	12-oxophytodienoate reductase 2	6.10	AT1G76680.1
1022	HORVU7Hr1G043810	Embryogenesis transmembrane protein-like	6.09	AT4G11000.1
1023	HORVU2Hr1G084200	undescribed protein	6.07	AT3G11402.1
1024	HORVU7Hr1G013170	Flavin-containing monooxygenase family protein	6.05	AT1G21430.1
1025	HORVU3Hr1G078840	UDP-Glycosyltransferase superfamily protein	6.02	AT2G30150.2
1026	HORVU6Hr1G093180	Electron transfer flavoprotein subunit beta	6.00	AT5G43430.1
1027	HORVU2Hr1G064530	glutamate receptor 3.4	5.97	AT1G05200.6
1028	HORVU1Hr1G017050	Glutathione S-transferase family protein	5.95	AT3G62760.1
1029	HORVU2Hr1G039050	copper transporter 1	5.95	AT2G26975.1
1030	HORVU2Hr1G073320	60S ribosomal protein L5-1	5.95	AT5G39740.2
1031	HORVU6Hr1G013750	Protein kinase superfamily protein	5.95	AT2G19130.1
1032	HORVU2Hr1G010590	Leucine-rich repeat receptor-like protein kinase family protein	5.92	AT3G47570.1
1033	HORVU6Hr1G021320	Lipid A export ATP-binding/permease protein MsbA	5.91	AT2G47000.7
1034	HORVU1Hr1G047050	undescribed protein	5.91	AT1G02110.1
1035	HORVU1Hr1G038680	60 kDa chaperonin 1	5.90	AT3G23990.1
1036	HORVU7Hr1G091250	alpha-amylase-like	5.88	AT4G25000.1
1037	HORVU2Hr1G122290	unknown function	5.86	AT1G48720.1
1038	HORVU2Hr1G089160	3-hydroxyacyl-[acyl-carrier-protein] dehydratase FabZ	5.86	AT2G22230.1
1039	HORVU5Hr1G040740	Long-chain-fatty-acid--CoA ligase 1	5.86	AT5G27600.1
1040	HORVU1Hr1G011430	Pyrimidine-specific ribonucleoside hydrolase RihA	5.85	AT2G36310.1
1041	HORVU4Hr1G078470	alcohol dehydrogenase 1	5.85	AT5G42250.1
1042	HORVU3Hr1G106720	Pyrroline-5-carboxylate reductase	5.81	AT5G14800.1
1043	HORVU4Hr1G087340	60 kDa jasmonate-induced protein	5.80	AT2G35330.2
1044	HORVU2Hr1G018570	Peroxidase superfamily protein	5.78	AT5G05340.1
1045	HORVU7Hr1G079830	Diacylglycerol kinase	5.77	AT2G18730.1
1046	HORVU2Hr1G036590	sugar transporter 9	5.77	AT3G18830.1
1047	HORVU5Hr1G060070	unknown function	5.77	AT1G70160.1
1048	HORVU6Hr1G085370	Elongation factor 1-alpha	5.77	AT5G60390.3
1049	HORVU6Hr1G069400	formate dehydrogenase	5.75	AT5G14780.3
1050	HORVU4Hr1G048700	Zinc finger protein CONSTANS-LIKE 13	5.74	AT2G47890.1
1051	HORVU2Hr1G023470	undescribed protein	5.74	AT2G33100.2
1052	HORVU1Hr1G053070	metallo-beta-lactamase family protein	5.73	AT4G33540.2
1053	HORVU4Hr1G067840	GDP-mannose transporter GONST3	5.73	AT1G76340.1



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1054	HORVU3Hr1G117760	DnaJ protein P58IPK homolog	5.73	AT5G03160.1
1055	HORVU2Hr1G028330	EF hand family protein	5.72	AT5G04990.1
1056	HORVU5Hr1G105480	alpha/beta-Hydrolases superfamily protein	5.72	AT1G47480.1
1057	HORVU2Hr1G022350	UDP-N-acetylglucosamine--dolichyl-phosphate N-acetylglucosaminephosphotransferase	5.71	AT3G57220.1
1058	HORVU1Hr1G072250	Chitinase 2	5.70	AT4G20095.1
1059	HORVU7Hr1G118450	receptor kinase 2	5.70	AT4G38830.1
1060	HORVU4Hr1G081100	Glutathione S-transferase family protein	5.70	AT3G03190.1
1061	HORVU2Hr1G121990	calreticulin 1b	5.68	AT1G56340.2
1062	HORVU6Hr1G043980	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 4A	5.67	AT3G09455.2
1063	HORVU2Hr1G101920	Ubiquinol oxidase	5.65	AT3G22370.1
1064	HORVU7Hr1G086580	protein kinase family protein	5.64	AT5G57035.1
1065	HORVU7Hr1G088770	undescribed protein	5.60	AT2G20420.1
1066	HORVU5Hr1G073580	DNA-binding bromodomain-containing protein	5.58	AT2G44430.1
1067	HORVU2Hr1G109380	Carboxypeptidase Y	5.57	AT3G10410.1
1068	HORVU1Hr1G079070	Farnesyl pyrophosphate synthase	5.54	AT5G47770.1
1069	HORVU7Hr1G026720	early nodulin-related	5.53	AT5G25940.1
1070	HORVU7Hr1G047080	MATE efflux family protein	5.52	AT5G52450.1
1071	HORVU4Hr1G005450	Protein of unknown function, DUF538	5.51	AT5G19860.1
1072	HORVU7Hr1G071020	RING/U-box superfamily protein	5.51	AT3G43430.1
1073	HORVU7Hr1G083180	Protein of unknown function (DUF1218)	5.50	AT1G13380.1
1074	HORVU4Hr1G013330	zinc finger protein 7	5.49	AT1G24625.1
1075	HORVU5Hr1G077010	NAC domain containing protein 41	5.49	AT2G33480.2
1076	HORVU5Hr1G076250	purple acid phosphatase 27	5.49	AT5G50400.1
1077	HORVU0Hr1G027290	1-acyl-sn-glycerol-3-phosphate acyltransferase 2	5.44	AT3G18850.4
1078	HORVU6Hr1G018420	calnexin 1	5.44	AT5G61790.1
1079	HORVU4Hr1G084340	Inter-alpha-trypsin inhibitor heavy chain H1	5.44	AT5G60710.1
1080	HORVU1Hr1G001660	receptor-like protein kinase 4	5.42	AT1G66920.2
1081	HORVU3Hr1G095820	cyclin-dependent kinase C;1	5.41	AT5G50860.1
1082	HORVU7Hr1G078530	Protein kinase superfamily protein	5.38	AT1G63500.1
1083	HORVU5Hr1G002120	ADP-ribosylation factor family protein	5.36	AT2G18390.1
1084	HORVU4Hr1G018150	sterol C4-methyl oxidase 1-2	5.34	AT4G22756.1
1085	HORVU1Hr1G053440	Proline dehydrogenase 2, mitochondrial	5.33	AT5G38710.1
1086	HORVU5Hr1G002150	RNA-binding protein 1	5.33	AT4G39260.3
1087	HORVU2Hr1G077990	F-box protein SKIP19	5.32	AT4G05460.1
1088	HORVU3Hr1G033550	Carboxypeptidase Y homolog A	5.32	AT3G17180.2
1089	HORVU3Hr1G028060	GDSL esterase/lipase	5.29	AT5G45910.1
1090	HORVU1Hr1G068170	tubulin beta chain 2	5.28	AT5G12250.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1091	HORVU4Hr1G081940	4-coumarate--CoA ligase-like 4	5.27	AT1G20510.1
1092	HORVU5Hr1G115250	unknown function	5.24	AT1G19530.2
1093	HORVU4Hr1G064790	glutamate decarboxylase	5.24	AT5G17330.1
1094	HORVU3Hr1G085930	Protein phosphatase 2C family protein	5.24	AT2G29380.1
1095	HORVU1Hr1G092290	receptor kinase 1	5.22	AT4G23180.1
1096	HORVU4Hr1G002270	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase 2	5.22	AT5G17920.2
1097	HORVU2Hr1G121060	polyamine oxidase 2	5.22	AT1G65840.1
1098	HORVU4Hr1G021010	Two-component response regulator-like APRR5	5.20	AT5G24470.1
1099	HORVU5Hr1G063340	ATP-dependent zinc metalloprotease FtsH 2	5.19	AT5G57480.1
1100	HORVU7Hr1G121700	catalase 2	5.18	AT4G35090.1
1101	HORVU2Hr1G111600	Adenine nucleotide alpha hydrolases-like superfamily protein	5.17	AT1G68300.1
1102	HORVU3Hr1G093100	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	5.16	AT5G55410.1
1103	HORVU1Hr1G045610	membrane steroid binding protein 1	5.16	AT5G52240.1
1104	HORVU1Hr1G002460	receptor-like protein kinase 4	5.16	AT1G66910.1
1105	HORVU5Hr1G019110	Amino acid permease family protein	5.16	AT3G19553.1
1106	HORVU2Hr1G072180	prephenate dehydratase 1	5.13	AT1G08250.1
1107	HORVU5Hr1G087780	Glutamyl-tRNA(Gln) amidotransferase subunit A	5.12	AT4G34880.2
1108	HORVU6Hr1G065240	undescribed protein	5.12	AT5G42900.3
1109	HORVU5Hr1G063420	glutamate receptor 2.8	5.09	AT2G29120.1
1110	HORVU2Hr1G121050	polyamine oxidase 4	5.09	AT1G65840.1
1111	HORVU4Hr1G074990	DOF zinc finger protein 1	5.08	AT5G39660.3
1112	HORVU3Hr1G004140	Bowman-Birk type trypsin inhibitor	5.07	AT1G23580.1
1113	HORVU5Hr1G096940	Cytochrome P450 superfamily protein	5.06	AT4G37330.1
1114	HORVU5Hr1G054060	ferrochelataase 1	5.02	AT5G26030.2
1115	HORVU7Hr1G106600	patatin-like protein 6	4.99	AT3G54950.1
1116	HORVU7Hr1G081910	60S ribosomal protein L37a	4.97	AT3G10950.1
1117	HORVU7Hr1G002130	receptor-like protein kinase 2	4.96	AT3G47570.1
1118	HORVU5Hr1G056370	Domain of unknown function (DUF220)	4.96	AT1G70480.1
1119	HORVU4Hr1G074450	Alba DNA/RNA-binding protein	4.95	AT3G07030.3
1120	HORVU2Hr1G121070	Adenylate kinase	4.94	AT2G37250.1
1121	HORVU6Hr1G061140	GATA transcription factor 5	4.92	AT5G66320.2
1122	HORVU4Hr1G076840	Protein TIFY 3A	4.92	AT1G74950.1
1123	HORVU4Hr1G069320	Divalent metal cation transporter MntH	4.92	AT1G47240.1
1124	HORVU1Hr1G054560	DYNAMIN-like 1E	4.92	AT3G60190.1
1125	HORVU3Hr1G082590	Abhydrolase domain-containing protein 1	4.91	AT1G34340.1
1126	HORVU5Hr1G001920	Leucine-rich receptor-like protein kinase family protein	4.91	AT1G09970.1



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1127	HORVU1Hr1G045220	Calcium uniporter protein 2, mitochondrial	4.89	AT2G23790.1
1128	HORVU3Hr1G088570	fructose-bisphosphate aldolase 2	4.87	AT2G36460.1
1129	HORVU3Hr1G058170	ADP,ATP carrier protein 1	4.84	AT1G80300.1
1130	HORVU1Hr1G049900	Leucine-rich repeat family protein	4.83	AT4G35470.1
1131	HORVU7Hr1G075710	N-(5'-phosphoribosyl)anthranilate isomerase	4.81	AT1G07780.9
1132	HORVU0Hr1G005210	Protein of unknown function, DUF584	4.81	AT2G28400.1
1133	HORVU2Hr1G113260	N-terminal nucleophile aminohydrolases (Ntn hydrolases) superfamily protein	4.81	AT3G16150.1
1134	HORVU5Hr1G073990	proton pump interactor 1	4.80	AT1G20970.1
1135	HORVU3Hr1G099630	unknown function	4.80	AT3G20980.1
1136	HORVU7Hr1G090830	Copine family protein 2	4.79	AT5G14420.4
1137	HORVU3Hr1G067910	Alliinase	4.77	AT1G34060.1
1138	HORVU6Hr1G008930	receptor-like protein kinase 2	4.76	AT3G47570.1
1139	HORVU6Hr1G070270	ATP-dependent 6-phosphofructokinase 7	4.76	AT1G76550.1
1140	HORVU4Hr1G056610	protein kinase family protein	4.72	AT3G01090.2
1141	HORVU2Hr1G020680	Protein kinase superfamily protein	4.72	AT1G54610.3
1142	HORVU5Hr1G071720	undescribed protein	4.69	AT5G04690.1
1143	HORVU6Hr1G062830	Ceramide kinase	4.68	AT5G51290.1
1144	HORVU7Hr1G089960	phospholipase D P2	4.68	AT3G15730.1
1145	HORVU3Hr1G090730	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	4.68	AT1G33780.1
1146	HORVU4Hr1G072310	FAD/NAD(P)-binding oxidoreductase family protein	4.68	AT4G38540.1
1147	HORVU7Hr1G008050	Receptor-like protein kinase	4.67	AT1G35710.1
1148	HORVU7Hr1G034350	Chalcone-flavonone isomerase family protein	4.66	AT2G26310.5
1149	HORVU3Hr1G080830	Cytochrome P450 superfamily protein	4.66	AT2G30490.1
1150	HORVU2Hr1G053620	Senescence-associated protein, putative	4.66	AT1G27320.1
1151	HORVU6Hr1G059940	GRAM domain-containing protein / ABA-responsive protein-related	4.66	AT5G08350.1
1152	HORVU5Hr1G077120	Esterase/lipase/thioesterase family protein	4.64	AT1G54570.1
1153	HORVU2Hr1G036440	Heat shock 70 kDa protein 17	4.63	AT4G16660.1
1154	HORVU6Hr1G064650	unknown function	4.63	AT1G76240.1
1155	HORVU6Hr1G065210	transcription factor-related	4.63	AT2G27230.2
1156	HORVU0Hr1G000050	receptor-like protein kinase 4	4.62	AT5G38240.2
1157	HORVU1Hr1G045630	membrane steroid binding protein 1	4.61	AT3G48890.1
1158	HORVU2Hr1G090730	GRAM domain-containing protein / ABA-responsive protein-related	4.61	AT5G23370.1
1159	HORVU1Hr1G092300	receptor kinase 2	4.59	AT4G23190.2
1160	HORVU5Hr1G056790	arginine methyltransferase 11	4.59	AT4G29510.1
1161	HORVU2Hr1G118950	receptor kinase 1	4.59	AT3G09010.1

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1162	HORVU0Hr1G009430	0	4.59	#N/A
1163	HORVU4Hr1G074770	unknown function	4.57	AT1G13990.1
1164	HORVU2Hr1G123030	Calcium-dependent lipid-binding (CaLB domain) family protein	4.57	AT1G63220.1
1165	HORVU3Hr1G090920	NAC domain protein,	4.56	AT1G01720.1
1166	HORVU2Hr1G028540	Lipase/lipoxygenase, putative isoform 3	4.56	AT1G55280.1
1167	HORVU6Hr1G076510	matrix metalloproteinase	4.54	AT1G24140.1
1168	HORVU3Hr1G094720	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	4.53	AT3G01960.1
1169	HORVU3Hr1G081300	U-box domain-containing protein 16	4.52	AT5G01830.1
1170	HORVU5Hr1G081860	Chaperone protein ClpB	4.52	AT5G51070.1
1171	HORVU6Hr1G018370	calnexin 1	4.51	AT5G61790.1
1172	HORVU1Hr1G047570	undescribed protein	4.51	AT5G24660.1
1173	HORVU7Hr1G055900	Eukaryotic protein of unknown function (DUF914)	4.51	AT3G59330.2
1174	HORVU5Hr1G072740	undescribed protein	4.50	#N/A
1175	HORVU4Hr1G054060	Argininosuccinate lyase	4.50	AT5G10920.1
1176	HORVU2Hr1G125110	Peroxidase superfamily protein	4.50	AT1G71695.1
1177	HORVU5Hr1G043460	calmodulin like 23	4.49	AT3G10190.1
1178	HORVU3Hr1G054640	NAD(P)-linked oxidoreductase superfamily protein	4.49	AT1G60690.1
1179	HORVU7Hr1G045140	39S ribosomal protein L46, mitochondrial	4.48	AT1G14620.1
1180	HORVU4Hr1G079330	Pheophorbide a oxygenase, chloroplastic	4.48	AT3G44880.1
1181	HORVU2Hr1G022140	Nucleolar protein 56	4.47	AT3G12860.1
1182	HORVU0Hr1G006610	0	4.46	#N/A
1183	HORVU7Hr1G033390	Stromal cell-derived factor 2-like protein	4.46	AT2G25110.1
1184	HORVU6Hr1G076520	unknown function	4.46	AT1G19020.1
1185	HORVU2Hr1G091130	Thioredoxin superfamily protein	4.46	AT3G15360.1
1186	HORVU2Hr1G049420	Transmembrane protein 41B	4.46	AT4G17790.1
1187	HORVU6Hr1G053140	Senescence-associated protein, putative	4.46	AT1G27320.1
1188	HORVU4Hr1G007550	receptor-like kinase 902	4.45	AT1G48480.1
1189	HORVU1Hr1G081550	malate dehydrogenase	4.44	AT3G47520.1
1190	HORVU2Hr1G046590	BNR/Asp-box repeat family protein	4.44	AT5G57700.3
1191	HORVU5Hr1G058070	Major facilitator superfamily protein	4.43	AT1G78130.1
1192	HORVU5Hr1G089620	receptor kinase 2	4.41	AT1G21240.1
1193	HORVU3Hr1G100350	Xylanase inhibitor	4.39	AT1G03220.1
1194	HORVU3Hr1G081880	Galactose-binding protein	4.38	AT1G22882.1
1195	HORVU4Hr1G058340	Cytochrome P450 superfamily protein	4.36	AT3G14690.1
1196	HORVU5Hr1G069090	alpha/beta-Hydrolases superfamily protein	4.35	AT1G47480.1
1197	HORVU1Hr1G025890	Boron transporter 4	4.35	AT1G15460.2
1198	HORVU6Hr1G067430	oligopeptide transporter 4	4.35	AT5G64410.1

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1199	HORVU3Hr1G023400	UDP-Glycosyltransferase superfamily protein	4.34	AT2G36800.1
1200	HORVU7Hr1G119870	undescribed protein	4.33	AT1G80245.7
1201	HORVU1Hr1G064860	Isopentenyl-diphosphate Delta-isomerase I	4.33	AT5G16440.1
1202	HORVU3Hr1G073150	Glucan endo-1,3-beta-glucosidase GI	4.32	AT3G57260.1
1203	HORVU5Hr1G007550	Ubiquitin carboxyl-terminal hydrolase 8	4.31	AT5G22030.1
1204	HORVU2Hr1G091270	beta-xylosidase 2	4.31	AT5G10560.1
1205	HORVU4Hr1G022170	unknown function	4.30	AT3G52710.1
1206	HORVU6Hr1G084740	Cytochrome c oxidase copper chaperone 2	4.30	AT1G53030.1
1207	HORVU2Hr1G043860	histone H2A 2	4.30	AT4G27230.2
1208	HORVU6Hr1G089960	undescribed protein	4.29	AT1G47890.1
1209	HORVU2Hr1G022620	Disease resistance protein	4.29	AT1G50180.1
1210	HORVU5Hr1G013360	40S ribosomal protein S20	4.28	AT5G62300.2
1211	HORVU6Hr1G075590	Kelch repeat-containing protein	4.28	AT1G14330.1
1212	HORVU4Hr1G023260	BTB/POZ domain-containing protein	4.27	AT2G30520.1
1213	HORVU3Hr1G057970	undescribed protein	4.27	AT1G66730.1
1214	HORVU7Hr1G110630	Disease resistance protein	4.26	AT3G07040.1
1215	HORVU1Hr1G027700	WRKY DNA-binding protein 50	4.26	AT5G26170.1
1216	HORVU1Hr1G049210	Glutathione S-transferase family protein	4.24	AT1G10360.1
1217	HORVU3Hr1G040710	PENTATRICOPEPTIDE REPEAT 596	4.23	AT1G80270.5
1218	HORVU1Hr1G022810	Protein disulfide isomerase-like 2-1	4.23	AT2G47470.1
1219	HORVU5Hr1G120570	Membrane protein insertase YidC	4.22	AT1G24490.1
1220	HORVU5Hr1G112610	rRNA N-glycosidase	4.22	AT3G59490.3
1221	HORVU5Hr1G124160	Chlorophyll a-b binding protein 2, chloroplastic	4.21	AT2G34420.1
1222	HORVU5Hr1G048890	Carbamoyl-phosphate synthase small chain	4.21	AT3G27740.1
1223	HORVU3Hr1G108900	LORELEI-LIKE-GPI-ANCHORED PROTEIN 1	4.19	AT5G56170.1
1224	HORVU7Hr1G007540	unknown function	4.18	AT1G09070.1
1225	HORVU1Hr1G022020	alpha/beta-Hydrolases superfamily protein	4.18	AT3G14360.1
1226	HORVU3Hr1G096190	Protein kinase family protein	4.15	AT1G21230.1
1227	HORVU2Hr1G016650	Guanine nucleotide-binding protein-like 3 homolog	4.15	AT3G07050.1
1228	HORVU2Hr1G089810	undescribed protein	4.14	AT1G58190.1
1229	HORVU3Hr1G078850	UDP-Glycosyltransferase superfamily protein	4.14	AT2G30150.2
1230	HORVU1Hr1G033630	undescribed protein	4.14	AT1G04985.1
1231	HORVU3Hr1G076750	Secretory carrier-associated membrane protein 2	4.13	AT1G61250.1
1232	HORVU5Hr1G106960	Major facilitator superfamily protein	4.13	AT2G39210.1
1233	HORVU3Hr1G090410	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	4.13	AT3G59880.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1234	HORVU5Hr1G024420	Senescence-associated protein, putative	4.13	AT1G27320.1
1235	HORVU2Hr1G113460	Cysteine proteinases superfamily protein	4.12	AT1G47128.1
1236	HORVU5Hr1G026120	Syntaxin-132	4.11	AT3G03800.2
1237	HORVU5Hr1G125130	60 kDa chaperonin 2	4.09	AT2G28000.1
1238	HORVU5Hr1G098090	allene oxide synthase	4.09	AT5G42650.1
1239	HORVU6Hr1G031640	unknown function	4.09	AT4G39720.4
1240	HORVU2Hr1G037750	receptor kinase 3	4.07	AT4G23180.1
1241	HORVU1Hr1G094070	Cytoplasmic membrane protein	4.06	AT4G10140.1
1242	HORVU4Hr1G052320	unknown function	4.06	AT3G56710.2
1243	HORVU2Hr1G072830	alpha/beta-Hydrolases superfamily protein	4.05	AT3G48410.1
1244	HORVU3Hr1G006290	Alanine--tRNA ligase	4.05	AT3G16565.6
1245	HORVU7Hr1G099390	receptor kinase 1	4.03	AT4G11530.1
1246	HORVU1Hr1G044960	CBS domain-containing protein CBSX5	4.03	AT4G27460.1
1247	HORVU2Hr1G046550	Protein of unknown function, DUF584	4.02	AT1G61930.1
1248	HORVU3Hr1G087740	TRICHOME BIREFRINGENCE-LIKE 28	4.01	AT3G55990.1
1249	HORVU2Hr1G020690	Nucleolar protein 58	4.01	AT5G27120.1
1250	HORVU5Hr1G117900	actin 7	4.00	AT5G09810.1
1251	HORVU1Hr1G043710	Protein of unknown function (DUF789)	4.00	AT1G03610.1
1252	HORVU5Hr1G085020	receptor kinase 1	3.99	AT4G21410.1
1253	HORVU6Hr1G068150	Ubiquinol oxidase	3.99	AT3G22370.1
1254	HORVU1Hr1G072060	30S ribosomal protein S8	3.98	AT5G59850.1
1255	HORVU7Hr1G045420	Protein FATTY ACID EXPORT 1, chloroplastic	3.97	AT3G57280.1
1256	HORVU3Hr1G080500	Cytochrome P450 superfamily protein	3.96	AT4G13290.1
1257	HORVU3Hr1G057550	Single-stranded DNA-binding protein	3.96	AT3G18580.1
1258	HORVU2Hr1G092820	YELLOW STRIPE like 2	3.96	AT5G24380.1
1259	HORVU3Hr1G099620	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	3.95	AT3G20980.1
1260	HORVU4Hr1G003400	Coffea canephora DH200=94 genomic scaffold, scaffold_6	3.93	AT2G01820.1
1261	HORVU2Hr1G092880	YELLOW STRIPE like 2	3.93	AT5G24380.1
1262	HORVU3Hr1G098400	methyl esterase 1	3.92	AT2G23620.1
1263	HORVU7Hr1G088260	Inositol oxygenase 1	3.92	AT1G14520.4
1264	HORVU1Hr1G021760	BTB-POZ and MATH domain 2	3.91	AT3G06190.1
1265	HORVU7Hr1G117000	Chaperone protein htpG family protein	3.91	AT4G24190.1
1266	HORVU6Hr1G002030	Multiple organellar RNA editing factor 5, mitochondrial	3.91	AT1G32580.1
1267	HORVU5Hr1G099820	citrate synthase 3	3.91	AT3G58750.1
1268	HORVU4Hr1G010470	sugar transporter 9	3.91	AT3G18830.1
1269	HORVU1Hr1G015770	receptor kinase 2	3.90	AT5G40380.1
1270	HORVU1Hr1G047390	SAUR-like auxin-responsive protein family	3.88	AT2G46690.1

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1271	HORVU6Hr1G001980	Ankyrin repeat family protein	3.88	AT5G07840.1
1272	HORVU5Hr1G104850	receptor kinase 2	3.87	AT2G37710.1
1273	HORVU5Hr1G000800	Protein NRT1/ PTR FAMILY 2.11	3.86	AT5G62680.1
1274	HORVU6Hr1G014960	Ubiquitin family protein	3.86	AT4G05050.3
1275	HORVU7Hr1G046980	Mitochondrial glycoprotein family protein	3.86	AT5G02050.1
1276	HORVU6Hr1G055250	Isochorismatase hydrolase family protein	3.86	AT2G22570.1
1277	HORVU2Hr1G056750	Small nuclear ribonucleoprotein-associated protein	3.85	AT5G44500.2
1278	HORVU5Hr1G077020	Multiple organellar RNA editing factor 8, chloroplastic/mitochondrial	3.85	AT1G53260.1
1279	HORVU3Hr1G040350	Coatomer, beta subunit	3.84	AT4G31480.9
1280	HORVU2Hr1G048220	Transmembrane protein 184A	3.84	AT4G21570.1
1281	HORVU6Hr1G057270	Subtilisin-like protease SBT3.6	3.82	AT1G71950.1
1282	HORVU2Hr1G006140	undescribed protein	3.82	#N/A
1283	HORVU6Hr1G084590	Isopentenyl-diphosphate Delta-isomerase	3.82	AT1G79690.2
1284	HORVU7Hr1G100100	histone H2A 6	3.82	AT5G02560.1
1285	HORVU2Hr1G016720	Protein kinase superfamily protein	3.82	AT1G26970.1
1286	HORVU4Hr1G003180	SBP (S-ribonuclease binding protein) family protein	3.82	AT3G12920.1
1287	HORVU2Hr1G075010	nicotinate phosphoribosyltransferase 2	3.82	AT2G23420.1
1288	HORVU4Hr1G003060	Histone-lysine N-methyltransferase	3.81	AT4G00570.1
1289	HORVU6Hr1G014910	D.melanogaster polytene	3.80	AT1G65349.1
1290	HORVU3Hr1G087680	Phytol kinase 1, chloroplastic	3.80	AT5G58560.1
1291	HORVU0Hr1G013910	undescribed protein	3.77	AT3G29060.1
1292	HORVU2Hr1G010560	Thioredoxin superfamily protein	3.77	AT1G20225.1
1293	HORVU1Hr1G068030	Cytochrome P450 superfamily protein	3.77	AT2G40890.1
1294	HORVU5Hr1G008300	30S ribosomal protein S10	3.76	AT5G62300.2
1295	HORVU2Hr1G056490	undescribed protein	3.76	AT2G40030.1
1296	HORVU5Hr1G008820	p21-activated protein kinase-interacting protein 1-like	3.75	AT1G65030.1
1297	HORVU0Hr1G022290	receptor kinase 2	3.75	AT5G10530.1
1298	HORVU2Hr1G028510	Ribosomal protein S4	3.74	AT5G15200.1
1299	HORVU1Hr1G000140	Phospholipid-transporting ATPase 10	3.74	AT1G68710.2
1300	HORVU5Hr1G071270	F-box and associated interaction domains-containing protein	3.74	AT3G22730.1
1301	HORVU6Hr1G063560	S-adenosylmethionine synthase 2	3.73	AT3G17390.1
1302	HORVU3Hr1G024210	ABC transporter C family member 3	3.73	AT3G13080.5
1303	HORVU6Hr1G075400	Exocyst complex component SEC6	3.73	AT1G71820.1
1304	HORVU3Hr1G083830	29 kDa ribonucleoprotein B, chloroplastic	3.73	AT2G37220.1
1305	HORVU3Hr1G116740	myb domain protein 59	3.72	AT5G59780.3

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1306	HORVU5Hr1G098190	Cold acclimation protein WCOR413 family	3.72	AT3G50830.1
1307	HORVU7Hr1G048810	Transmembrane 9 superfamily member 12	3.70	AT4G12650.1
1308	HORVU1Hr1G037760	Divalent ion symporter	3.70	AT1G02260.2
1309	HORVU5Hr1G068230	bZIP transcription factor 27	3.69	AT3G56850.1
1310	HORVU5Hr1G054180	Phosphoenolpyruvate/phosphate translocator 1, chloroplastic	3.69	AT5G33320.1
1311	HORVU7Hr1G112980	DNA-directed RNA polymerase 2A	3.69	AT2G24120.1
1312	HORVU1Hr1G062900	Argininosuccinate synthase	3.68	AT4G24830.1
1313	HORVU2Hr1G007570	S-adenosylmethionine-dependent methyltransferase	3.68	AT2G41380.1
1314	HORVU2Hr1G022490	ATP-dependent RNA helicase DeaD	3.67	AT5G60990.1
1315	HORVU3Hr1G096550	glutamine cyclotransferase	3.67	AT4G25720.1
1316	HORVU4Hr1G084930	TVP38/TMEM64 family membrane protein slr0305	3.66	AT2G02370.3
1317	HORVU2Hr1G087090	adenine phosphoribosyltransferase 5	3.65	AT1G80050.1
1318	HORVU5Hr1G080170	ATP-dependent RNA helicase DeaD	3.64	AT5G62190.1
1319	HORVU6Hr1G071780	Transmembrane 9 superfamily member 12	3.64	AT4G12650.1
1320	HORVU1Hr1G074590	aspartate aminotransferase	3.63	AT2G22250.3
1321	HORVU7Hr1G000850	RING/U-box superfamily protein	3.62	AT3G19950.3
1322	HORVU3Hr1G002920	Glycosyltransferase	3.62	AT3G18180.1
1323	HORVU3Hr1G080940	unknown function	3.62	AT1G47970.1
1324	HORVU7Hr1G028290	Cytochrome P450 superfamily protein	3.62	AT3G26300.1
1325	HORVU6Hr1G090810	Acetyl-coenzyme A synthetase	3.62	AT5G36880.2
1326	HORVU5Hr1G123490	Protein BCCIP homolog	3.62	AT2G44510.1
1327	HORVU3Hr1G052980	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	3.60	AT2G01410.1
1328	HORVU6Hr1G016150	ubiquitin 4	3.59	AT4G05050.3
1329	HORVU7Hr1G085180	UDP-galactose transporter 3	3.59	AT1G14360.1
1330	HORVU2Hr1G031700	unknown function	3.58	AT4G30140.1
1331	HORVU7Hr1G013710	3-phosphoshikimate 1-carboxyvinyltransferase 2	3.58	AT2G45300.4
1332	HORVU3Hr1G038060	Glycosyl hydrolase, family 31	3.56	AT2G44970.3
1333	HORVU1Hr1G044020	myosin XI B	3.56	AT1G04160.1
1334	HORVU2Hr1G085160	inositol transporter 1	3.55	AT2G43330.1
1335	HORVU2Hr1G005520	Stress responsive A/B Barrel Domain	3.55	AT3G17210.2
1336	HORVU2Hr1G005990	Nucleotide-diphospho-sugar transferase family protein	3.55	AT4G19975.1
1337	HORVU5Hr1G118010	RNA-binding protein 1	3.55	AT3G26420.1
1338	HORVU5Hr1G027590	Zinc finger CCCH domain-containing protein 67	3.54	AT2G41900.1
1339	HORVU3Hr1G066810	Cytokinin riboside 5'-monophosphate phosphoribohydrolase LOG8	3.53	AT2G35990.1
1340	HORVU3Hr1G083560	Uricase	3.53	AT2G26230.1



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1341	HORVU5Hr1G028030	sugar transporter 9	3.53	AT3G18830.1
1342	HORVU5Hr1G044780	Glutamine--fructose-6-phosphate aminotransferase [isomerizing] 2	3.52	AT3G24090.1
1343	HORVU3Hr1G073220	aspartate aminotransferase 3	3.52	AT5G11520.1
1344	HORVU3Hr1G023780	HXXXD-type acyl-transferase family protein	3.52	AT5G42830.1
1345	HORVU5Hr1G113180	Heat shock 70 kDa protein 3	3.52	AT5G02500.1
1346	HORVU3Hr1G092660	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 2	3.52	AT4G21150.3
1347	HORVU6Hr1G091860	rRNA/tRNA 2'-O-methyltransferase fibrillar-like protein 1	3.51	AT5G52470.1
1348	HORVU6Hr1G021700	polyubiquitin 3	3.51	AT5G20620.1
1349	HORVU5Hr1G011460	ATP-dependent RNA helicase DeaD	3.51	AT3G22330.1
1350	HORVU4Hr1G047580	H/ACA ribonucleoprotein complex subunit 1-like protein 2	3.51	AT3G03920.1
1351	HORVU4Hr1G085800	flowering promoting factor 1	3.50	AT5G10625.1
1352	HORVU4Hr1G043760	Leucine-rich repeat receptor-like protein kinase family protein	3.50	AT1G34420.1
1353	HORVU5Hr1G096480	RING/U-box superfamily protein	3.50	AT1G72310.1
1354	HORVU3Hr1G019480	myb-like transcription factor family protein	3.50	AT5G56840.1
1355	HORVU6Hr1G016200	ubiquitin 4	3.49	AT4G05320.7
1356	HORVU5Hr1G001090	BEL1-like homeodomain 6	3.49	AT4G34610.4
1357	HORVU3Hr1G006330	Signal peptidase complex subunit 3A	3.48	AT3G05230.1
1358	HORVU6Hr1G018460	unknown function	3.48	AT1G48120.1
1359	HORVU5Hr1G109910	30S ribosomal protein S5	3.47	AT3G57490.1
1360	HORVU7Hr1G100230	Heavy metal transport/detoxification superfamily protein	3.47	AT1G66240.1
1361	HORVU7Hr1G012700	Lung seven transmembrane receptor family protein	3.46	AT5G42090.1
1362	HORVU5Hr1G061140	Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex	3.46	AT3G25860.1
1363	HORVU4Hr1G003100	aminopeptidase M1	3.46	AT4G33090.1
1364	HORVU7Hr1G051070	Aminoacylase-1	3.46	AT4G38220.1
1365	HORVU1Hr1G050330	undescribed protein	3.45	AT3G01990.8
1366	HORVU4Hr1G009560	Sulfite exporter TauE/SafE family protein	3.45	AT2G36630.1
1367	HORVU1Hr1G073040	Phosphatidylinositol:ceramide inositolphosphotransferase	3.45	AT3G54020.1
1368	HORVU4Hr1G064870	Protein NRT1/ PTR FAMILY 8.3	3.44	AT2G02040.1
1369	HORVU2Hr1G110110	serine hydroxymethyltransferase 4	3.44	AT4G13930.1
1370	HORVU3Hr1G024500	Glutathione S-transferase family protein	3.44	AT1G59700.1
1371	HORVU7Hr1G036000	Dipeptidyl peptidase family member 6	3.44	AT5G36210.1
1372	HORVU4Hr1G066310	Wall-associated receptor kinase-like 14	3.44	AT4G00955.1
1373	HORVU7Hr1G010320	Protein MID1-COMPLEMENTING ACTIVITY 2	3.44	AT2G17780.4

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1374	HORVU7Hr1G108600	DUF21 domain-containing protein	3.43	AT4G14240.1
1375	HORVU6Hr1G058740	cryptochrome 2	3.42	AT1G04400.2
1376	HORVU4Hr1G062740	8-amino-7-oxononanoate synthase	3.42	AT4G36480.2
1377	HORVU7Hr1G077630	F-box family protein	3.41	AT5G39450.1
1378	HORVU2Hr1G043900	Xylanase inhibitor protein 1	3.41	AT5G24090.1
1379	HORVU3Hr1G067130	calcineurin B-like protein 10	3.41	AT4G33000.1
1380	HORVU5Hr1G067570	Protein disulfide isomerase-like 2-3	3.41	AT1G04980.1
1381	HORVU1Hr1G088880	Chlorophyll a-b binding protein, chloroplastic	3.38	AT2G34420.1
1382	HORVU5Hr1G075490	Peptidyl-prolyl cis-trans isomerase	3.38	AT3G25220.1
1383	HORVU2Hr1G120150	2-succinylbenzoate--CoA ligase	3.37	AT5G16370.1
1384	HORVU0Hr1G027680	Metal-dependent protein hydrolase	3.37	AT5G41970.1
1385	HORVU1Hr1G064210	Cold shock protein 1	3.37	AT4G36020.2
1386	HORVU5Hr1G026780	Auxin-binding protein 4	3.37	AT4G02980.1
1387	HORVU5Hr1G120600	ER lumen protein retaining receptor family protein	3.35	AT3G25040.1
1388	HORVU1Hr1G008230	dual specificity protein phosphatase 1	3.35	AT3G55270.1
1389	HORVU7Hr1G018850	unknown function	3.35	AT4G00850.2
1390	HORVU3Hr1G049610	Carbamoyl-phosphate synthase large chain	3.34	AT1G29900.1
1391	HORVU3Hr1G040270	Coatomer, beta subunit	3.34	AT4G31480.6
1392	HORVU3Hr1G085640	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	3.34	AT3G54000.3
1393	HORVU1Hr1G074110	histone deacetylase 8	3.34	AT1G08460.1
1394	HORVU4Hr1G046230	Acyl carrier protein	3.34	AT1G65290.1
1395	HORVU7Hr1G009730	undescribed protein	3.34	AT1G66930.2
1396	HORVU7Hr1G031850	60S ribosomal protein L35a-3	3.32	AT1G74270.1
1397	HORVU7Hr1G035340	3-phosphoserine phosphatase	3.32	AT1G18640.2
1398	HORVU6Hr1G080000	SAUR-like auxin-responsive protein family	3.32	AT2G46690.1
1399	HORVU2Hr1G029870	Phospho-2-dehydro-3-deoxyheptonate aldolase 2, chloroplastic	3.31	AT1G22410.1
1400	HORVU3Hr1G069200	BnaA08g17720D protein	3.31	AT4G12543.1
1401	HORVU3Hr1G045480	dehydroquinate dehydratase, putative / shikimate dehydrogenase, putative	3.31	AT3G06350.1
1402	HORVU7Hr1G033360	2-oxoglutarate (2OG) and Fe(II)- dependent oxygenase superfamily protein	3.30	AT4G10490.1
1403	HORVU1Hr1G013820	isovaleryl-CoA-dehydrogenase	3.30	AT3G45300.1
1404	HORVU5Hr1G072480	Protein kinase family protein	3.30	AT1G21240.1
1405	HORVU4Hr1G075710	60S ribosomal protein L4-1	3.29	AT3G09630.1
1406	HORVU2Hr1G005140	Glyoxylate/hydroxypyruvate reductase B	3.29	AT2G45630.2
1407	HORVU3Hr1G078650	Nucleotide-sugar transporter family protein	3.29	AT4G32390.1
1408	HORVU7Hr1G113350	NADPH HC toxin reductase	3.28	AT4G27250.1

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1409	HORVU6Hr1G011970	Calcium-binding EF-hand family protein	3.28	AT2G46600.1
1410	HORVU4Hr1G038960	Alpha-1,4-glucan-protein synthase [UDP-forming]	3.27	AT5G15650.1
1411	HORVU5Hr1G067110	Ribosomal L5P family protein	3.27	ATMG00210.1
1412	HORVU3Hr1G066720	Glycylpeptide N-tetradecanoyltransferase 1	3.27	AT5G57020.1
1413	HORVU2Hr1G078350	Peptidyl-prolyl cis-trans isomerase	3.27	AT4G25340.1
1414	HORVU3Hr1G055650	loricrin-related	3.27	AT1G64140.1
1415	HORVU1Hr1G083710	Guanine nucleotide-binding protein subunit beta-like protein A	3.27	AT1G18080.1
1416	HORVU1Hr1G080040	ADP,ATP carrier protein 2, mitochondrial	3.27	AT5G56450.1
1417	HORVU7Hr1G056980	6-phosphogluconolactonase 5	3.26	AT5G24400.1
1418	HORVU4Hr1G071360	Cytochrome b561 and DOMON domain-containing protein	3.25	AT3G25290.2
1419	HORVU7Hr1G074660	Transmembrane amino acid transporter family protein	3.24	AT5G40780.1
1420	HORVU0Hr1G004790	Unplaced genomic scaffold supercont1.2, whole genome shotgun sequence	3.24	AT1G21370.2
1421	HORVU7Hr1G049370	heat shock protein 81-3	3.24	AT5G56010.1
1422	HORVU4Hr1G028310	myb domain protein 59	3.24	AT5G59780.3
1423	HORVU1Hr1G013990	Exosome complex component RRP41 homolog	3.24	AT3G61620.2
1424	HORVU2Hr1G060680	Transcription factor PIF5	3.23	AT2G20180.7
1425	HORVU5Hr1G106460	Diphosphomevalonate decarboxylase	3.23	AT3G54250.1
1426	HORVU3Hr1G108720	NADPH:quinone oxidoreductase	3.23	AT3G27890.1
1427	HORVU2Hr1G086380	hydroxycinnamoyl-CoA shikimate/quinic hydroxycinnamoyl transferase	3.21	AT5G48930.1
1428	HORVU1Hr1G048970	phospholipase D P2	3.20	AT2G42010.1
1429	HORVU5Hr1G056670	Leucine-rich repeat transmembrane protein kinase	3.20	AT1G07650.4
1430	HORVU7Hr1G106230	Exonuclease 3'-5' domain-containing protein 2	3.20	AT5G01830.1
1431	HORVU2Hr1G031910	Stress responsive alpha-beta barrel domain protein	3.20	AT2G31670.1
1432	HORVU1Hr1G030390	Abscisic acid receptor PYR1	3.20	AT5G53160.1
1433	HORVU4Hr1G004460	Protein NRT1/ PTR FAMILY 2.9	3.19	AT3G47960.1
1434	HORVU1Hr1G015660	bZIP transcription factor 53	3.19	AT3G62420.1
1435	HORVU5Hr1G122350	Elongation factor Tu	3.19	AT4G02930.1
1436	HORVU1Hr1G023510	GDSL esterase/lipase	3.19	AT1G56670.1
1437	HORVU3Hr1G092520	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	3.18	AT4G34900.1
1438	HORVU6Hr1G021520	Peroxidase superfamily protein	3.18	AT5G05340.1
1439	HORVU1Hr1G083330	Quinolone resistance protein NorA	3.17	AT5G10190.1
1440	HORVU5Hr1G066930	Superoxide dismutase [Cu-Zn] 4A	3.15	AT1G08830.2

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1441	HORVU7Hr1G111600	Protein transport protein Sec61 subunit gamma	3.15	AT5G50460.1
1442	HORVU2Hr1G083940	glucose-6-phosphate dehydrogenase 6	3.15	AT5G40760.2
1443	HORVU5Hr1G036790	O-fucosyltransferase family protein	3.15	AT1G35510.1
1444	HORVU7Hr1G048330	Alpha-glucan water dikinase 2	3.14	AT1G10760.3
1445	HORVU5Hr1G089780	Molybdenum cofactor sulfurase family protein	3.13	AT1G30910.1
1446	HORVU3Hr1G106140	Glucan endo-1,3-beta-glucosidase GI	3.12	AT4G16260.1
1447	HORVU4Hr1G008700	glutamate decarboxylase	3.12	AT5G17330.1
1448	HORVU7Hr1G033870	zinc-finger protein 3	3.11	AT1G27730.1
1449	HORVU3Hr1G014730	Translocon-associated protein subunit beta	3.11	AT5G14030.4
1450	HORVU5Hr1G023530	Calmodulin-binding protein	3.11	AT5G57580.1
1451	HORVU3Hr1G077000	Adenine nucleotide alpha hydrolases-like superfamily protein	3.11	AT1G11360.4
1452	HORVU2Hr1G006250	Dihydrolipoyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex	3.10	AT5G55070.2
1453	HORVU4Hr1G058840	Arginine biosynthesis bifunctional protein ArgJ 1	3.10	AT2G37500.1
1454	HORVU6Hr1G006560	1-deoxy-D-xylulose 5-phosphate synthase 3	3.10	AT1G55510.1
1455	HORVU5Hr1G110180	phosphate transporter 1;7	3.09	AT3G54700.2
1456	HORVU6Hr1G072910	Eukaryotic aspartyl protease family protein	3.09	AT1G49050.1
1457	HORVU1Hr1G003600	Protein of unknown function (DUF707)	3.08	AT1G67850.4
1458	HORVU3Hr1G011460	Mitochondrial glycoprotein family protein	3.08	AT5G05990.1
1459	HORVU3Hr1G070270	Amino-acid acetyltransferase	3.08	AT4G37670.2
1460	HORVU7Hr1G018190	GDP-D-mannose 4,6-dehydratase 1	3.07	AT3G51160.1
1461	HORVU5Hr1G028550	ureide permease 1	3.07	AT2G03530.5
1462	HORVU1Hr1G025670	Auxin-responsive protein IAA15	3.07	AT2G22670.4
1463	HORVU4Hr1G009040	Histone H2B.1	3.06	AT3G45980.1
1464	HORVU1Hr1G028200	hexokinase 2	3.06	AT4G29130.1
1465	HORVU7Hr1G028910	Pyrophosphate-energized proton pump 1	3.05	AT1G15690.1
1466	HORVU2Hr1G068670	Acyl-[acyl-carrier-protein] 6-desaturase	3.05	AT2G43710.1
1467	HORVU3Hr1G084170	Glucan endo-1,3-beta-glucosidase 14	3.04	AT2G27500.2
1468	HORVU5Hr1G028870	GRF1-interacting factor 3	3.04	AT4G00850.1
1469	HORVU5Hr1G095140	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	3.04	AT5G56050.1
1470	HORVU3Hr1G090500	DOF zinc finger protein 1	3.04	AT3G55370.1
1471	HORVU4Hr1G074270	40S ribosomal protein S27	3.03	AT3G61110.1
1472	HORVU7Hr1G071240	60S ribosomal protein L34	3.03	AT1G26880.1
1473	HORVU6Hr1G016180	undescribed protein	3.03	AT1G16360.2
1474	HORVU7Hr1G008690	Protein kinase superfamily protein	3.03	AT4G19110.1
1475	HORVU6Hr1G002280	undescribed protein	3.03	AT3G62960.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1476	HORVU7Hr1G091740	post-illumination chlorophyll fluorescence increase	3.02	AT3G15840.1
1477	HORVU3Hr1G094450	Mannosyl-oligosaccharide glucosidase	3.02	AT1G67490.1
1478	HORVU3Hr1G002280	sucrose phosphate synthase 1F	3.02	AT5G20280.1
1479	HORVU4Hr1G014130	40S ribosomal protein S27	3.02	AT3G61110.1
1480	HORVU4Hr1G000850	Calcium-dependent lipid-binding (CaLB domain) family protein	3.02	AT5G23950.2
1481	HORVU1Hr1G062940	peroxisomal adenine nucleotide carrier 1	3.01	AT3G05290.1
1482	HORVU5Hr1G043190	2-isopropylmalate synthase 1	3.01	AT1G74040.1
1483	HORVU4Hr1G052210	calmodulin 5	3.01	AT3G43810.2
1484	HORVU2Hr1G037940	40S ribosomal protein S13-1	3.01	AT4G00100.1
1485	HORVU2Hr1G089490	Protein of unknown function (DUF3317)	3.00	AT1G06515.2
1486	HORVU4Hr1G064710	Transmembrane 9 superfamily member 3	3.00	AT2G01970.1
1487	HORVU2Hr1G005320	arginase	3.00	AT4G08900.1
1488	HORVU1Hr1G052040	polyol/monosaccharide transporter 5	3.00	AT4G35300.8
1489	HORVU3Hr1G064080	zinc finger protein-related	-3.01	AT3G18290.1
1490	HORVU7Hr1G115990	Disease resistance protein	-3.01	AT3G07040.1
1491	HORVU6Hr1G060720	cytochrome B561-1	-3.01	AT4G25570.2
1492	HORVU0Hr1G004760	0	-3.01	#N/A
1493	HORVU5Hr1G070160	Glycogen debranching enzyme	-3.02	AT4G09020.1
1494	HORVU1Hr1G004430	NAD(P)-binding Rossmann-fold superfamily protein	-3.02	AT2G37660.1
1495	HORVU2Hr1G118740	allantoinase	-3.02	AT4G04955.1
1496	HORVU0Hr1G022500	Ubiquitin system component Cue protein	-3.02	AT5G32440.3
1497	HORVU4Hr1G012240	Histidine triad (HIT) protein	-3.02	AT5G48545.1
1498	HORVU2Hr1G111840	Glutathione S-transferase family protein	-3.03	AT1G10360.1
1499	HORVU5Hr1G018840	unknown protein; LOCATED IN: chloroplast; EXPRESSED IN: 24 plant structures; EXPRESSED DURING: 15 growth stages; BEST Arabidopsis thaliana protein match is: unknown protein .	-3.03	AT2G14910.1
1500	HORVU4Hr1G050230	Pentatricopeptide repeat-containing protein	-3.03	AT1G62680.2
1501	HORVU5Hr1G079600	undescribed protein	-3.03	AT3G57300.2
1502	HORVU6Hr1G047770	chaperone protein dnaJ-related	-3.03	AT5G06130.2
1503	HORVU2Hr1G035220	fatty acid desaturase 6	-3.03	AT4G30950.1
1504	HORVU5Hr1G118340	nicotinate phosphoribosyltransferase 1	-3.04	AT4G36940.1
1505	HORVU2Hr1G047020	undescribed protein	-3.04	#N/A
1506	HORVU5Hr1G020200	RNA-binding protein 47	-3.04	AT4G00830.5
1507	HORVU4Hr1G071050	alpha/beta-Hydrolases superfamily protein	-3.04	AT1G29840.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1508	HORVU4Hr1G078610	Mitochondrial import inner membrane translocase subunit Tim17/Tim22/Tim23 family protein	-3.05	AT1G34630.1
1509	HORVU7Hr1G107330	SAUR-like auxin-responsive protein family	-3.05	AT1G56150.1
1510	HORVU3Hr1G030210	Abscisic acid receptor PYR1	-3.05	AT2G26040.1
1511	HORVU1Hr1G041290	undescribed protein	-3.05	AT1G16400.1
1512	HORVU4Hr1G077420	receptor kinase 2	-3.05	AT1G53730.1
1513	HORVU5Hr1G074200	serine/threonine protein phosphatase 2A	-3.06	AT3G58500.1
1514	HORVU6Hr1G035260	30S ribosomal protein S21	-3.06	AT3G27160.2
1515	HORVU5Hr1G078960	CDGSH iron-sulfur domain-containing protein 2	-3.06	AT5G51720.1
1516	HORVU7Hr1G116600	unknown function	-3.06	AT3G19810.2
1517	HORVU4Hr1G069390	Protein kinase superfamily protein	-3.07	AT5G67380.1
1518	HORVU7Hr1G118440	Disease resistance protein	-3.07	AT3G07040.1
1519	HORVU3Hr1G056580	Ribosomal protein L31	-3.07	AT1G75350.1
1520	HORVU6Hr1G014700	calcium-dependent protein kinase 28	-3.07	AT5G66210.2
1521	HORVU6Hr1G069190	monodehydroascorbate reductase 4	-3.07	AT3G27820.1
1522	HORVU5Hr1G120210	Ras-related protein Rab-25	-3.07	AT1G09630.1
1523	HORVU4Hr1G059050	Sterol 3-beta-glucosyltransferase UGT80A2	-3.08	AT3G07020.1
1524	HORVU6Hr1G074830	undescribed protein	-3.08	AT1G50000.1
1525	HORVU6Hr1G034490	receptor kinase 2	-3.08	AT2G33580.1
1526	HORVU5Hr1G100140	Photosystem I reaction center subunit III	-3.08	AT1G31330.1
1527	HORVU6Hr1G067890	Guanosine-3',5'-bis(diphosphate) 3'-pyrophosphohydrolase	-3.09	AT1G54130.1
1528	HORVU6Hr1G079070	unknown function	-3.10	AT4G19100.1
1529	HORVU2Hr1G019650	F-actin-capping protein subunit alpha	-3.10	AT3G05520.1
1530	HORVU2Hr1G123610	undescribed protein	-3.10	AT3G26040.1
1531	HORVU7Hr1G013600	Transketolase	-3.11	AT3G60750.1
1532	HORVU2Hr1G072010	Mitochondrial import inner membrane translocase subunit Tim17/Tim22/Tim23 family protein	-3.11	AT5G24650.1
1533	HORVU1Hr1G082380	Hexosyltransferase	-3.11	AT5G47780.1
1534	HORVU3Hr1G096780	Kelch repeat-containing protein	-3.12	AT1G67480.3
1535	HORVU6Hr1G035560	unknown protein; Has 83 Blast hits to 82 proteins in 37 species: Archae - 0; Bacteria - 51; Metazoa - 0; Fungi - 0; Plants - 30; Viruses - 0; Other Eukaryotes - 2 (source: NCBI BLink).	-3.12	AT4G13150.5
1536	HORVU5Hr1G040400	TLD domain-containing protein 1	-3.12	AT5G06260.3
1537	HORVU2Hr1G079840	Lipase/lipoxygenase, PLAT/LH2 family protein	-3.12	AT4G39730.1
1538	HORVU6Hr1G013620	transferases, transferring glycosyl groups	-3.12	AT4G14100.1
1539	HORVU1Hr1G021800	NAC domain protein,	-3.12	AT1G69490.1



S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1540	HORVU3Hr1G073480	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3.12	AT5G48960.1
1541	HORVU6Hr1G090380	Haloacid dehalogenase-like hydrolase (HAD) superfamily protein	-3.13	AT2G33255.1
1542	HORVU3Hr1G024540	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-3.14	AT5G25360.3
1543	HORVU6Hr1G095270	MATE efflux family protein	-3.15	AT4G38380.5
1544	HORVU7Hr1G092460	Alpha/beta hydrolase domain-containing protein 13	-3.15	AT3G30380.2
1545	HORVU3Hr1G064730	Threonine synthase	-3.15	AT4G29840.1
1546	HORVU1Hr1G010820	Ribonuclease II/R family protein	-3.15	AT5G02250.1
1547	HORVU7Hr1G026580	BnaC07g25690D protein	-3.15	AT3G29240.2
1548	HORVU3Hr1G066420	Regulator of Vps4 activity in the MVB pathway protein	-3.15	AT1G34220.1
1549	HORVU7Hr1G046280	Thioredoxin domain-containing protein 17	-3.15	AT5G42850.2
1550	HORVU6Hr1G017710	undescribed protein	-3.16	AT4G22160.2
1551	HORVU3Hr1G006270	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3.16	AT1G18060.1
1552	HORVU3Hr1G004320	MULTISPECIES: hypothetical protein	-3.16	AT5G19730.1
1553	HORVU3Hr1G115840	Dual-specificity RNA methyltransferase RlmN	-3.16	AT2G39670.1
1554	HORVU5Hr1G118070	undescribed protein	-3.17	AT3G49670.1
1555	HORVU3Hr1G029200	phosphoenolpyruvate carboxylase 3	-3.17	AT3G14940.2
1556	HORVU6Hr1G043170	FAR1-related sequence 5	-3.17	AT4G38180.1
1557	HORVU5Hr1G053950	Bifunctional aspartokinase/homoserine dehydrogenase 1	-3.17	AT4G19710.2
1558	HORVU4Hr1G072930	Photosynthetic NDH subunit of subcomplex B 2, chloroplastic	-3.17	AT1G64770.1
1559	HORVU6Hr1G016240	Transcription factor HBP-1a	-3.17	AT2G35530.1
1560	HORVU5Hr1G103750	unknown function	-3.18	AT3G10650.2
1561	HORVU6Hr1G042840	Monosaccharide-sensing protein 2	-3.18	AT4G35300.5
1562	HORVU4Hr1G021190	Late embryogenesis abundant (LEA) hydroxyproline-rich glycoprotein family	-3.19	AT3G44220.1
1563	HORVU4Hr1G017680	NAD kinase 2	-3.19	AT1G21640.1
1564	HORVU3Hr1G023470	undescribed protein	-3.19	AT5G15300.1
1565	HORVU4Hr1G084410	50S ribosomal protein L5	-3.19	AT4G01310.1
1566	HORVU6Hr1G088370	GATA transcription factor 9	-3.19	AT4G32890.1
1567	HORVU2Hr1G037020	alpha/beta-Hydrolases superfamily protein	-3.19	AT5G19850.1
1568	HORVU7Hr1G040390	Alanine--tRNA ligase	-3.19	AT5G22800.1
1569	HORVU4Hr1G020030	Abscisic stress-ripening protein 1	-3.19	AT5G37710.1
1570	HORVU4Hr1G014070	UPF0454 protein C12orf49 homolog	-3.19	AT3G59390.2
1571	HORVU4Hr1G056060	APRATAXIN-like	-3.20	AT5G01310.1
1572	HORVU5Hr1G024250	nucleoside diphosphate kinase 2	-3.20	AT5G63310.1

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1573	HORVU4Hr1G007420	Zinc finger protein CONSTANS-LIKE 16	-3.20	AT1G25440.1
1574	HORVU3Hr1G084660	Phosphoglucan, water dikinase, chloroplastic	-3.20	AT5G01260.3
1575	HORVU4Hr1G085050	purple acid phosphatase 27	-3.21	AT5G50400.1
1576	HORVU6Hr1G004980	unknown function	-3.21	AT3G45050.4
1577	HORVU2Hr1G091680	Remorin family protein	-3.21	AT5G23750.3
1578	HORVU5Hr1G112340	dihydroflavonol 4-reductase-like1	-3.21	AT5G58490.1
1579	HORVU4Hr1G064580	microtubule-associated protein 65-7	-3.21	AT1G14690.2
1580	HORVU1Hr1G066910	undescribed protein	-3.22	#N/A
1581	HORVU3Hr1G050430	protein kinase family protein	-3.22	AT5G12000.1
1582	HORVU5Hr1G031410	undescribed protein	-3.22	AT5G29624.1
1583	HORVU4Hr1G068990	unknown function	-3.22	AT2G03440.1
1584	HORVU3Hr1G097280	undescribed protein	-3.23	AT1G10130.1
1585	HORVU6Hr1G055960	Bidirectional sugar transporter N3	-3.23	AT4G10850.1
1586	HORVU6Hr1G014130	undescribed protein	-3.23	AT5G51545.1
1587	HORVU4Hr1G057040	undescribed protein	-3.23	#N/A
1588	HORVU7Hr1G095810	mitogen-activated protein kinase 16	-3.23	AT3G18040.4
1589	HORVU6Hr1G092960	Aquaporin-like superfamily protein	-3.24	AT4G00430.1
1590	HORVU5Hr1G062890	Glycine--tRNA ligase beta subunit	-3.24	AT3G48110.1
1591	HORVU3Hr1G063700	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3.24	AT5G38570.1
1592	HORVU1Hr1G022840	Peroxisomal membrane protein 2	-3.25	AT1G52870.2
1593	HORVU5Hr1G070230	Dicarboxylate transporter 2.1, chloroplastic	-3.25	AT5G64290.1
1594	HORVU6Hr1G028680	Two-component response regulator ARR12	-3.25	AT2G25180.1
1595	HORVU5Hr1G014290	Auxin-responsive protein IAA31	-3.25	AT1G04240.1
1596	HORVU6Hr1G067390	Protein kinase superfamily protein	-3.25	AT5G16810.2
1597	HORVU2Hr1G109710	TLD-domain containing nucleolar protein	-3.26	AT5G39590.1
1598	HORVU5Hr1G050180	Na <sup>+</sup> /H <sup>+</sup> antiporter 2	-3.26	AT3G19490.1
1599	HORVU1Hr1G076460	Non-symbiotic hemoglobin 1	-3.26	AT2G16060.1
1600	HORVU7Hr1G012560	arginine decarboxylase 2	-3.26	AT4G34710.2
1601	HORVU3Hr1G050080	Protein of unknown function (DUF1230)	-3.27	AT5G67370.1
1602	HORVU2Hr1G023480	Uncharacterised protein family (UPF0114)	-3.27	AT5G13720.1
1603	HORVU6Hr1G082060	10 kDa chaperonin	-3.27	AT5G20720.4
1604	HORVU5Hr1G026640	ankyrin repeat family protein	-3.27	AT3G04710.1
1605	HORVU2Hr1G116090	undescribed protein	-3.27	AT1G56000.2
1606	HORVU3Hr1G032440	Two-component response regulator-like APRR2	-3.28	AT2G20570.1
1607	HORVU2Hr1G060390	Early-responsive to dehydration stress protein (ERD4)	-3.28	AT1G30360.1
1608	HORVU7Hr1G049070	caffeoyl-CoA 3-O-methyltransferase	-3.29	AT4G34050.1

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1609	HORVU6Hr1G039660	CASP-like protein 6	-3.29	AT5G54980.1
1610	HORVU5Hr1G062030	Alcohol dehydrogenase	-3.29	AT4G37980.1
1611	HORVU0Hr1G039910	Protein kinase superfamily protein	-3.29	AT3G55950.1
1612	HORVU4Hr1G042610	Rho GTPase-activating protein 7	-3.29	AT5G19390.2
1613	HORVU7Hr1G061500	Transposon Ty1-PL Gag-Pol polyprotein	-3.30	AT4G23160.3
1614	HORVU4Hr1G054580	PHD and RING finger domain-containing protein 1	-3.30	AT3G05670.3
1615	HORVU2Hr1G105830	Tetratricopeptide repeat (TPR)-like superfamily protein	-3.31	AT1G78915.1
1616	HORVU5Hr1G009890	Pentatricopeptide repeat (PPR) superfamily protein	-3.32	AT4G21190.1
1617	HORVU0Hr1G011850	undescribed protein	-3.32	AT4G10330.1
1618	HORVU1Hr1G079410	Protein of unknown function (DUF1639)	-3.32	AT1G55340.1
1619	HORVU5Hr1G004630	Photosystem II protein D1	-3.33	ATCG00020.1
1620	HORVU2Hr1G076180	Regulator of chromosome condensation (RCC1) family protein	-3.33	AT5G63860.1
1621	HORVU4Hr1G066880	Cytochrome P450 superfamily protein	-3.33	AT3G56630.1
1622	HORVU2Hr1G101390	undescribed protein	-3.34	AT5G24780.1
1623	HORVU6Hr1G041720	Glycine--tRNA ligase alpha subunit	-3.34	AT3G48110.1
1624	HORVU3Hr1G031400	Transcription factor bHLH68	-3.34	AT4G29100.2
1625	HORVU6Hr1G004230	undescribed protein	-3.34	AT1G02120.2
1626	HORVU7Hr1G113460	Chaperone protein DnaJ	-3.35	AT1G80920.1
1627	HORVU2Hr1G057700	Oxygen-evolving enhancer protein 1, chloroplastic	-3.35	AT3G50820.1
1628	HORVU2Hr1G095890	HMG1/2-like protein	-3.36	AT1G20693.2
1629	HORVU5Hr1G007980	Glutathione-regulated potassium-efflux system protein	-3.36	AT4G04850.2
1630	HORVU2Hr1G078410	Demethylmenaquinone methyltransferase	-3.36	AT1G78140.1
1631	HORVU7Hr1G076030	Beta-carotene isomerase D27, chloroplastic	-3.36	AT1G64680.1
1632	HORVU7Hr1G002350	Disease resistance protein	-3.36	AT3G14470.2
1633	HORVU7Hr1G025730	Ribosomal protein L11 methyltransferase	-3.36	AT4G28830.4
1634	HORVU4Hr1G076930	unknown function	-3.37	AT5G08390.1
1635	HORVU2Hr1G084910	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-3.37	AT1G05710.5
1636	HORVU7Hr1G019830	Acyl-ACP thioesterase	-3.37	AT1G08510.1
1637	HORVU2Hr1G038580	F-box domain containing protein	-3.37	AT2G13980.1
1638	HORVU7Hr1G041570	alpha/beta-Hydrolases superfamily protein	-3.37	AT5G37710.1
1639	HORVU5Hr1G016730	Protein kinase superfamily protein	-3.37	AT2G23450.2
1640	HORVU6Hr1G085730	Alpha/beta hydrolase domain-containing protein 13	-3.38	AT4G31020.2
1641	HORVU4Hr1G003800	BEL1-like homeodomain 6	-3.38	AT4G34610.4
1642	HORVU4Hr1G057450	50S ribosomal protein L10	-3.38	AT5G13510.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1643	HORVU6Hr1G060100	pH-response regulator protein palA/RIM20	-3.39	AT1G15130.1
1644	HORVU2Hr1G126540	translocon at the outer membrane of chloroplasts 64-V	-3.39	AT1G08980.1
1645	HORVU4Hr1G057050	undescribed protein	-3.39	AT1G10900.3
1646	HORVU1Hr1G053670	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	-3.40	AT4G12470.1
1647	HORVU5Hr1G019650	Heparanase-like protein 1	-3.40	AT5G07830.1
1648	HORVU5Hr1G045440	ADP-ribosylation factor 1	-3.40	AT2G47170.3
1649	HORVU6Hr1G063650	GRAS family transcription factor	-3.40	AT4G00150.1
1650	HORVU0Hr1G038350	Histidine protein methyltransferase 1 homolog	-3.41	AT2G43320.2
1651	HORVU2Hr1G073370	photosystem I subunit O	-3.42	AT1G08380.1
1652	HORVU3Hr1G087500	IQ-domain 3	-3.42	AT5G03040.3
1653	HORVU4Hr1G058580	Lipid A export ATP-binding/permease protein MsbA	-3.42	AT3G55320.1
1654	HORVU4Hr1G073930	glutathione reductase	-3.43	AT3G54660.1
1655	HORVU4Hr1G025330	2,3-bisphosphoglycerate-dependent phosphoglycerate mutase	-3.43	AT5G22620.6
1656	HORVU6Hr1G083930	Protein CYPRO4	-3.43	AT3G19240.1
1657	HORVU7Hr1G039810	WD-40 repeat family protein	-3.43	AT1G24130.1
1658	HORVU0Hr1G038050	0	-3.44	#N/A
1659	HORVU2Hr1G104830	undescribed protein	-3.44	AT5G40510.1
1660	HORVU3Hr1G083680	Harpin induced gene 1 homolog	-3.44	AT2G35980.1
1661	HORVU4Hr1G072220	pseudouridine synthase family protein	-3.44	AT2G39140.1
1662	HORVU5Hr1G053270	Rhodanese-like domain-containing protein 10	-3.44	AT2G42220.1
1663	HORVU1Hr1G068020	Aldehyde dehydrogenase family 2 member C4	-3.44	AT3G24503.1
1664	HORVU1Hr1G064200	RNA-binding KH domain-containing protein	-3.45	AT1G09660.3
1665	HORVU6Hr1G050440	senescence-associated family protein	-3.45	AT1G66330.2
1666	HORVU1Hr1G086070	Auxin-responsive protein IAA19	-3.45	AT2G22670.5
1667	HORVU5Hr1G052030	C2 domain-containing protein 5	-3.45	AT5G47710.4
1668	HORVU2Hr1G119760	Pentatricopeptide repeat-containing protein	-3.45	AT1G50270.1
1669	HORVU7Hr1G056310	undescribed protein	-3.45	AT1G33750.1
1670	HORVU3Hr1G114290	Protein of unknown function (DUF707)	-3.45	AT1G13000.5
1671	HORVU4Hr1G005670	Nuclear transcription factor Y subunit A-9	-3.46	AT5G12840.5
1672	HORVU7Hr1G094870	Eukaryotic aspartyl protease family protein	-3.46	AT5G10770.1
1673	HORVU3Hr1G107290	UPF0001 protein YBL036C	-3.46	AT4G26860.1
1674	HORVU4Hr1G079440	exocyst subunit exo70 family protein F1	-3.46	AT5G50380.1
1675	HORVU6Hr1G073180	methyltransferase type 11	-3.47	AT3G18000.1

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1676	HORVU4Hr1G016190	60S ribosomal protein L10-1	-3.47	AT1G66580.1
1677	HORVU0Hr1G016150	RNA-binding protein 39	-3.47	AT4G09040.2
1678	HORVU0Hr1G008940	heat shock factor 3	-3.48	AT5G16820.2
1679	HORVU3Hr1G075820	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3.48	AT5G43630.4
1680	HORVU3Hr1G016240	receptor kinase 2	-3.48	AT1G60800.2
1681	HORVU3Hr1G029210	SCAR-like protein 2	-3.49	AT2G38440.1
1682	HORVU5Hr1G018690	Eukaryotic aspartyl protease family protein	-3.49	AT2G03200.1
1683	HORVU3Hr1G098170	Mitochondrial substrate carrier family protein	-3.49	AT5G48970.1
1684	HORVU2Hr1G101440	Structural molecule, putative isoform 5	-3.49	AT1G51110.1
1685	HORVU4Hr1G048300	undescribed protein	-3.49	AT1G67160.1
1686	HORVU3Hr1G094240	23S rRNA (uracil(747)-C(5))- methyltransferase RlmC	-3.49	AT3G27180.1
1687	HORVU3Hr1G084750	Auxin transporter-like protein 1	-3.50	AT2G38120.1
1688	HORVU3Hr1G054220	undescribed protein	-3.50	AT1G19270.2
1689	HORVU5Hr1G113990	Pentatricopeptide repeat-containing protein	-3.50	AT1G59720.1
1690	HORVU5Hr1G014300	Auxin-responsive protein IAA30	-3.50	AT3G04730.1
1691	HORVU3Hr1G016700	NADH:ubiquinone oxidoreductase, 17.2kDa subunit	-3.52	AT4G26965.1
1692	HORVU5Hr1G088200	Carboxyl-terminal-processing protease	-3.52	AT4G17740.2
1693	HORVU6Hr1G063250	undescribed protein	-3.52	AT3G27190.1
1694	HORVU5Hr1G106120	Opaque-2-2 protein	-3.52	AT4G02640.4
1695	HORVU6Hr1G049260	Ribulose biphosphate carboxylase large chain	-3.53	ATCG00490.1
1696	HORVU3Hr1G092020	BTB/POZ and TAZ domain-containing protein 2	-3.53	AT3G48360.1
1697	HORVU5Hr1G060370	vacuolar iron transporter 1	-3.53	AT2G01770.1
1698	HORVU5Hr1G025960	acyl carrier protein 5	-3.53	AT4G25050.1
1699	HORVU6Hr1G058580	myb domain protein 15	-3.53	AT3G23250.1
1700	HORVU5Hr1G071250	D6 protein kinase like 2	-3.53	AT5G47750.1
1701	HORVU3Hr1G030250	unknown function	-3.53	AT3G48200.1
1702	HORVU7Hr1G062930	Peptidyl-prolyl cis-trans isomerase, chloroplastic	-3.54	AT3G01480.1
1703	HORVU0Hr1G035820	serine acetyltransferase 1;1	-3.54	AT5G56760.1
1704	HORVU3Hr1G059340	undescribed protein	-3.54	AT1G22380.1
1705	HORVU5Hr1G010960	Glutaredoxin family protein	-3.55	AT2G47870.1
1706	HORVU0Hr1G019710	alpha/beta-Hydrolases superfamily protein	-3.55	AT1G47480.1
1707	HORVU5Hr1G073310	BnaCnng49070D protein	-3.55	AT4G12070.1
1708	HORVU1Hr1G016360	Triose phosphate/phosphate translocator, chloroplastic	-3.55	AT5G46110.1
1709	HORVU3Hr1G027610	Class I glutamine amidotransferase-like superfamily protein	-3.55	AT1G53280.1

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1710	HORVU7Hr1G036380	RING/U-box superfamily protein	-3.55	AT5G27420.1
1711	HORVU6Hr1G092970	Aquaporin-like superfamily protein	-3.55	AT4G00430.1
1712	HORVU2Hr1G114580	Clustered mitochondria protein	-3.56	AT4G28080.1
1713	HORVU6Hr1G011060	unknown function	-3.56	AT2G29100.1
1714	HORVU5Hr1G008980	receptor kinase 3	-3.56	AT1G21230.1
1715	HORVU6Hr1G017860	L-aspartate oxidase	-3.57	AT5G14760.1
1716	HORVU4Hr1G074810	D-ribose-5-phosphate-3-epimerase	-3.57	AT5G61410.2
1717	HORVU1Hr1G090990	Protein CHUP1, chloroplastic	-3.57	AT3G25690.6
1718	HORVU1Hr1G034570	Ribosomal RNA small subunit methyltransferase I	-3.57	AT1G45110.1
1719	HORVU0Hr1G014950	Protein kinase superfamily protein	-3.57	AT1G61590.1
1720	HORVU3Hr1G034210	HAD-superfamily hydrolase, subfamily IG, 5'-nucleotidase	-3.58	AT5G48960.1
1721	HORVU6Hr1G025880	unknown function	-3.58	AT2G04360.1
1722	HORVU5Hr1G124210	PGR5-LIKE A	-3.58	AT4G22890.3
1723	HORVU6Hr1G014480	adenylate kinase family protein	-3.58	AT5G35170.1
1724	HORVU5Hr1G096370	UDP-glucose 6-dehydrogenase family protein	-3.59	AT5G15490.1
1725	HORVU6Hr1G015770	Photosystem II 5 kD protein	-3.59	AT1G51400.1
1726	HORVU5Hr1G098490	Cellulose-synthase-like C4	-3.59	AT4G07960.2
1727	HORVU1Hr1G086110	Protein of unknown function (DUF760)	-3.60	AT3G07310.1
1728	HORVU2Hr1G018730	alkyl hydroperoxide reductase	-3.60	AT1G21350.5
1729	HORVU3Hr1G049970	undescribed protein	-3.60	AT4G24330.1
1730	HORVU7Hr1G054530	Lipid transfer protein-like	-3.61	AT1G27950.1
1731	HORVU6Hr1G026680	Beta-1,3-galactosyltransferase 7	-3.61	AT1G05170.2
1732	HORVU4Hr1G020850	undescribed protein	-3.61	AT1G51630.1
1733	HORVU4Hr1G083080	serine/threonine protein kinase 1	-3.61	AT1G01140.1
1734	HORVU3Hr1G073040	Phosphatidate cytidyltransferase family protein	-3.62	AT1G62430.1
1735	HORVU7Hr1G036130	MADS-box transcription factor 55	-3.62	AT2G22540.2
1736	HORVU3Hr1G060730	unknown function	-3.62	AT2G42975.1
1737	HORVU2Hr1G127440	purple acid phosphatase 22	-3.62	AT3G52820.1
1738	HORVU2Hr1G086040	Photosystem II reaction center PsbP family protein	-3.62	AT1G77090.1
1739	HORVU5Hr1G008080	undescribed protein	-3.63	AT1G04150.1
1740	HORVU4Hr1G057890	Glutathione S-transferase family protein	-3.64	AT5G02790.1
1741	HORVU4Hr1G048960	UBA domain-containing protein 7	-3.64	AT5G44180.3
1742	HORVU7Hr1G021630	GDSL esterase/lipase	-3.64	AT3G16370.1
1743	HORVU1Hr1G072750	uracil phosphoribosyltransferase	-3.64	AT3G53900.2
1744	HORVU4Hr1G029350	protein kinase family protein	-3.65	AT5G49470.3
1745	HORVU2Hr1G123270	unknown function	-3.65	AT5G67610.1
1746	HORVU0Hr1G019500	HXXXD-type acyl-transferase family protein	-3.65	AT1G28680.1



S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1747	HORVU5Hr1G110960	Transcription initiation factor IIE subunit beta	-3.65	AT4G20330.1
1748	HORVU6Hr1G052230	undescribed protein	-3.66	AT5G32470.1
1749	HORVU3Hr1G054770	ATP-dependent zinc metalloprotease FtsH	-3.66	AT5G53170.1
1750	HORVU1Hr1G064290	Alpha beta-hydrolase-like protein	-3.66	AT5G38520.1
1751	HORVU2Hr1G089340	phosphoenolpyruvate carboxylase kinase 1	-3.66	AT1G08650.1
1752	HORVU4Hr1G078780	unknown function	-3.66	AT4G28760.2
1753	HORVU2Hr1G116130	bZIP transcription factor family protein	-3.66	AT5G65210.7
1754	HORVU1Hr1G006860	Glucose-6-phosphate isomerase	-3.67	AT5G42740.2
1755	HORVU6Hr1G045140	P0696G06.27 protein	-3.67	AT1G72550.2
1756	HORVU3Hr1G028810	Heme-binding protein 2	-3.68	AT1G17100.1
1757	HORVU5Hr1G016970	Retrovirus-related Pol polyprotein LINE-1	-3.68	AT3G50380.4
1758	HORVU3Hr1G041820	Protein kinase superfamily protein	-3.68	AT1G48210.7
1759	HORVU7Hr1G051760	chaperone protein dnaJ-related	-3.68	AT2G24395.1
1760	HORVU5Hr1G112710	Leucine-rich repeat-containing protein 49	-3.69	AT1G78230.1
1761	HORVU4Hr1G021950	Signal recognition particle 54 kDa protein, chloroplastic	-3.69	AT5G03940.1
1762	HORVU2Hr1G059380	RNA binding	-3.69	AT3G52380.1
1763	HORVU2Hr1G099510	terpene synthase 03	-3.69	AT1G79460.1
1764	HORVU7Hr1G012530	arginine decarboxylase 2	-3.70	AT4G34710.2
1765	HORVU2Hr1G093580	Protein kinase superfamily protein	-3.70	AT2G44830.3
1766	HORVU4Hr1G011250	Sorghum bicolor protein targeted either to mitochondria or chloroplast proteins T50848	-3.70	AT5G05250.1
1767	HORVU6Hr1G090250	unknown function	-3.70	AT5G37360.1
1768	HORVU1Hr1G047820	Aldo-keto reductase family 4 member C9	-3.70	AT5G53580.1
1769	HORVU1Hr1G083160	Non-specific lipid-transfer protein 2	-3.70	AT3G18280.2
1770	HORVU0Hr1G016560	unknown function	-3.70	AT5G62140.1
1771	HORVU2Hr1G023540	Magnesium-chelatase subunit ChlH, chloroplastic	-3.70	AT5G13630.1
1772	HORVU2Hr1G058230	Protein S-acyltransferase 24	-3.71	AT5G20350.1
1773	HORVU6Hr1G093570	Prolyl 4-hydroxylase subunit alpha-1	-3.71	AT1G20270.1
1774	HORVU7Hr1G049200	F-box protein At-B	-3.71	AT1G55590.1
1775	HORVU7Hr1G026100	undescribed protein	-3.71	AT3G54920.1
1776	HORVU2Hr1G035550	undescribed protein	-3.71	AT2G23390.2
1777	HORVU1Hr1G018080	ATP-dependent RNA helicase DOB1	-3.71	AT1G59760.1
1778	HORVU5Hr1G071920	Photosystem I reaction center subunit V	-3.72	AT1G55670.1
1779	HORVU0Hr1G016250	RNA binding	-3.72	AT3G08010.1
1780	HORVU7Hr1G019510	Dormancy/auxin associated family protein	-3.72	AT1G56220.1
1781	HORVU4Hr1G016470	Protein kinase superfamily protein	-3.72	AT4G31390.1

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1782	HORVU1Hr1G092860	Mitochondrial substrate carrier family protein	-3.73	AT4G01100.1
1783	HORVU4Hr1G072150	4-coumarate--CoA ligase-like 1	-3.73	AT4G05160.1
1784	HORVU4Hr1G050630	eukaryotic translation initiation factor 2 beta subunit	-3.74	AT5G20920.3
1785	HORVU3Hr1G078830	unknown function	-3.74	AT3G17930.1
1786	HORVU7Hr1G014840	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3.74	AT1G32928.1
1787	HORVU4Hr1G023230	undescribed protein	-3.74	#N/A
1788	HORVU6Hr1G008590	30S ribosomal protein S1	-3.74	AT1G12800.1
1789	HORVU5Hr1G073380	Ethylene insensitive 3 family protein	-3.75	AT1G73730.1
1790	HORVU3Hr1G031460	Auxin-responsive protein IAA17	-3.75	AT4G29080.1
1791	HORVU6Hr1G014100	Protein LOW PSII ACCUMULATION 2, chloroplastic	-3.75	AT5G51545.1
1792	HORVU7Hr1G052400	TBC1 domain family member 5 homolog A	-3.76	AT4G29950.1
1793	HORVU3Hr1G043870	Glucose-6-phosphate isomerase	-3.76	AT5G42740.3
1794	HORVU3Hr1G088910	Mitochondrial intermediate peptidase	-3.76	AT1G67690.1
1795	HORVU5Hr1G076100	ACT domain-containing protein	-3.76	AT1G69040.2
1796	HORVU3Hr1G057020	Dual-specificity RNA methyltransferase RlmN	-3.77	AT1G60230.1
1797	HORVU2Hr1G010520	Eukaryotic aspartyl protease family protein	-3.77	AT4G35880.1
1798	HORVU5Hr1G072120	unknown function	-3.77	AT2G33180.1
1799	HORVU6Hr1G032540	Protein kinase superfamily protein	-3.78	AT1G61590.1
1800	HORVU4Hr1G004210	ferredoxin 3	-3.78	AT1G32550.1
1801	HORVU6Hr1G046980	High mobility group B protein 15	-3.78	AT1G04880.1
1802	HORVU3Hr1G065630	Protein kinase superfamily protein	-3.79	AT5G55090.1
1803	HORVU6Hr1G060810	Pentapeptide repeat-containing protein	-3.79	AT1G12250.2
1804	HORVU2Hr1G104920	glutamate receptor 3.3	-3.79	AT1G42540.4
1805	HORVU4Hr1G008210	histidine kinase 3	-3.79	AT2G01830.6
1806	HORVU7Hr1G060530	Translation initiation factor IF-2	-3.80	AT1G17220.1
1807	HORVU6Hr1G095000	Disease resistance protein	-3.81	AT3G14470.2
1808	HORVU3Hr1G043300	zinc induced facilitator-like 2	-3.81	AT3G43790.4
1809	HORVU3Hr1G078200	Protein CHLOROPLAST ENHANCING STRESS TOLERANCE, chloroplastic	-3.81	AT5G44650.1
1810	HORVU1Hr1G020000	Protease Do-like 9	-3.81	AT2G47940.2
1811	HORVU3Hr1G036380	NAC domain protein,	-3.82	AT5G17260.1
1812	HORVU2Hr1G060880	Oxygen-evolving enhancer protein 2, chloroplastic	-3.82	AT1G06680.1
1813	HORVU7Hr1G027740	undescribed protein	-3.82	AT1G05990.1
1814	HORVU7Hr1G086340	undescribed protein	-3.83	AT2G32210.1
1815	HORVU7Hr1G108650	undescribed protein	-3.83	#N/A
1816	HORVU4Hr1G007380	undescribed protein	-3.83	AT1G63660.2

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1817	HORVU7Hr1G097660	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3.83	AT5G06570.2
1818	HORVU2Hr1G034400	Eukaryotic translation initiation factor 5A	-3.83	AT1G69410.1
1819	HORVU2Hr1G101040	calcium-transporting ATPase, putative	-3.83	AT5G57110.3
1820	HORVU3Hr1G005770	ABC transporter G family member 7	-3.84	AT2G01320.7
1821	HORVU4Hr1G079600	undescribed protein	-3.85	AT4G32700.2
1822	HORVU4Hr1G029400	undescribed protein	-3.87	AT5G10490.2
1823	HORVU0Hr1G001490	Photosystem I reaction center subunit VI, chloroplastic	-3.88	AT1G52230.1
1824	HORVU7Hr1G021180	Single-stranded DNA-binding protein WHY1, chloroplastic	-3.88	AT2G02740.1
1825	HORVU6Hr1G005020	unknown function	-3.88	AT3G45050.4
1826	HORVU6Hr1G009480	Low PSII Accumulation 3	-3.88	AT1G73060.1
1827	HORVU7Hr1G100310	2-oxoglutarate (2OG) and Fe(II)- dependent oxygenase superfamily protein	-3.88	AT3G50210.2
1828	HORVU2Hr1G079180	unknown function	-3.89	AT2G14095.1
1829	HORVU4Hr1G013420	BTB/POZ domain-containing protein	-3.89	AT2G14820.2
1830	HORVU4Hr1G023580	Zeaxanthin epoxidase, chloroplastic	-3.89	AT2G21530.1
1831	HORVU3Hr1G064340	Protein PLASTID MOVEMENT IMPAIRED 2	-3.89	AT1G66840.2
1832	HORVU2Hr1G008380	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-3.89	AT5G13410.1
1833	HORVU0Hr1G008530	undescribed protein	-3.90	AT5G41190.1
1834	HORVU6Hr1G069390	histidinol phosphate aminotransferase 1	-3.90	AT5G10330.2
1835	HORVU5Hr1G119790	carotene isomerase	-3.90	AT1G57770.1
1836	HORVU7Hr1G020590	Fe superoxide dismutase 3	-3.90	AT5G23310.1
1837	HORVU4Hr1G067280	Homocysteine S-methyltransferase family protein	-3.90	AT3G25900.1
1838	HORVU1Hr1G020240	NBS-LRR disease resistance protein homologue	-3.91	AT4G19510.8
1839	HORVU7Hr1G012940	Peptidyl-prolyl cis-trans isomerase-like 3	-3.92	AT1G01940.1
1840	HORVU2Hr1G018340	protein kinase family protein	-3.92	AT2G30360.1
1841	HORVU2Hr1G087010	Calcium uptake protein 1, mitochondrial	-3.93	AT4G32060.1
1842	HORVU4Hr1G014590	unknown function	-3.93	AT5G67550.1
1843	HORVU5Hr1G043800	undescribed protein	-3.93	#N/A
1844	HORVU2Hr1G106100	Transmembrane protein 41B	-3.94	AT4G17790.1
1845	HORVU1Hr1G065250	Potassium channel AKT2	-3.94	AT4G22200.1
1846	HORVU4Hr1G026670	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3.95	AT1G15660.1
1847	HORVU3Hr1G020830	metacaspase 1	-3.96	AT1G02170.1
1848	HORVU0Hr1G004060	VQ motif family protein	-3.96	AT3G18690.1
1849	HORVU2Hr1G105930	RNA-binding protein 28	-3.96	AT2G35410.1
1850	HORVU5Hr1G042310	ACT domain-containing protein	-3.96	AT5G04740.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1851	HORVU4Hr1G014910	Ankyrin repeat protein SKIP35	-3.96	AT2G44090.5
1852	HORVU3Hr1G057240	Glutaredoxin family protein	-3.96	AT1G64500.1
1853	HORVU5Hr1G017400	Mutator-like transposase	-3.97	AT3G05850.1
1854	HORVU1Hr1G088870	Chlorophyll a-b binding protein, chloroplastic	-3.98	AT2G34420.1
1855	HORVU4Hr1G015260	Chlorophyll a-b binding protein 2, chloroplastic	-3.98	AT4G10340.1
1856	HORVU7Hr1G099350	undescribed protein	-3.99	AT3G06010.1
1857	HORVU3Hr1G062700	Polyketide cyclase/dehydrase and lipid transport superfamily protein	-3.99	AT1G02475.1
1858	HORVU3Hr1G069730	UDP-Glycosyltransferase superfamily protein	-4.00	AT3G16520.3
1859	HORVU6Hr1G075540	undescribed protein	-4.01	AT1G52990.2
1860	HORVU4Hr1G040950	50S ribosomal protein L6	-4.01	AT1G05190.1
1861	HORVU4Hr1G010430	BEL1-type homeodomain protein	-4.01	AT2G23760.3
1862	HORVU3Hr1G089650	Rhodanese/Cell cycle control phosphatase superfamily protein	-4.01	AT3G59780.1
1863	HORVU7Hr1G021430	HXXXD-type acyl-transferase family protein	-4.02	AT1G31490.1
1864	HORVU3Hr1G069650	BURP domain-containing protein	-4.02	AT5G25610.1
1865	HORVU1Hr1G016410	undescribed protein	-4.03	AT1G16460.4
1866	HORVU5Hr1G125110	RNA polymerase sigma-C factor	-4.03	AT2G36990.1
1867	HORVU1Hr1G092670	Late embryogenesis abundant protein	-4.04	AT2G46140.1
1868	HORVU5Hr1G070950	undescribed protein	-4.05	AT4G22970.3
1869	HORVU7Hr1G021950	xyloglucan endotransglucosylase/hydrolase 25	-4.05	AT5G57550.1
1870	HORVU5Hr1G065330	cinnamoyl coa reductase 1	-4.05	AT1G15950.3
1871	HORVU7Hr1G106540	Alpha-glucosidase	-4.05	AT5G11720.1
1872	HORVU3Hr1G066240	chloride channel E	-4.06	AT4G35440.1
1873	HORVU5Hr1G013400	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4.06	AT5G50760.1
1874	HORVU7Hr1G029750	Protein kinase superfamily protein	-4.08	AT3G46920.1
1875	HORVU3Hr1G065720	undescribed protein	-4.08	AT1G28240.1
1876	HORVU0Hr1G005330	RING/U-box superfamily protein	-4.09	AT3G61460.1
1877	HORVU7Hr1G092940	Potassium transporter family protein	-4.09	AT5G14880.1
1878	HORVU2Hr1G086950	Calcium-binding mitochondrial carrier protein	-4.09	AT4G32060.2
1879	HORVU1Hr1G094480	ATP-dependent Clp protease proteolytic subunit 2	-4.09	AT1G49970.1
1880	HORVU7Hr1G042080	Zinc finger protein CONSTANS-LIKE 16	-4.09	AT1G25440.1
1881	HORVU3Hr1G108540	Two-component response regulator ARR8	-4.10	AT3G57040.2
1882	HORVU7Hr1G099560	calmodulin 6	-4.10	AT1G18210.2
1883	HORVU7Hr1G024560	undescribed protein	-4.10	AT5G15180.1
1884	HORVU1Hr1G079270	Polyketide cyclase/dehydrase and lipid transport superfamily protein	-4.10	AT3G13062.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
1885	HORVU3Hr1G065640	Protein kinase superfamily protein	-4.11	AT4G26890.1
1886	HORVU4Hr1G070720	Auxilin-related protein 2	-4.11	AT1G75100.1
1887	HORVU2Hr1G023170	Thioredoxin reductase	-4.12	AT2G41680.1
1888	HORVU3Hr1G090760	Alpha/beta hydrolase domain-containing protein 11	-4.12	AT4G10030.1
1889	HORVU2Hr1G084820	undescribed protein	-4.13	AT3G06110.3
1890	HORVU0Hr1G018970	myb-like transcription factor family protein	-4.13	AT1G49010.1
1891	HORVU5Hr1G050610	PLC-like phosphodiesterases superfamily protein	-4.14	AT5G67130.1
1892	HORVU7Hr1G056320	undescribed protein	-4.14	AT3G22780.1
1893	HORVU5Hr1G033660	Valine--tRNA ligase	-4.15	AT1G14610.1
1894	HORVU7Hr1G030810	glutathione peroxidase 1	-4.15	AT2G25080.1
1895	HORVU5Hr1G082420	Chlorophyll a-b binding protein, chloroplastic	-4.16	AT3G27690.2
1896	HORVU2Hr1G043170	Pentatricopeptide repeat-containing protein	-4.16	AT5G42310.1
1897	HORVU7Hr1G101270	auxin response factor 16	-4.16	AT4G30080.1
1898	HORVU4Hr1G015820	Rpr4901.2	-4.16	AT5G63510.1
1899	HORVU2Hr1G041610	Cytochrome b6-f complex iron-sulfur subunit	-4.16	AT4G03280.1
1900	HORVU7Hr1G113850	WRKY family transcription factor	-4.17	AT1G80840.1
1901	HORVU2Hr1G105900	unknown function	-4.17	AT5G16660.1
1902	HORVU6Hr1G040040	Protein of unknown function (DUF3511)	-4.17	AT5G11970.1
1903	HORVU6Hr1G063510	unknown function	-4.18	AT5G21222.4
1904	HORVU4Hr1G057910	Glutathione S-transferase family protein	-4.18	AT5G02790.1
1905	HORVU5Hr1G072920	Zinc finger A20 and AN1 domain-containing stress-associated protein 1	-4.18	AT3G12630.1
1906	HORVU3Hr1G085380	alpha-glucan phosphorylase 2	-4.18	AT3G46970.1
1907	HORVU3Hr1G003050	glutamate decarboxylase	-4.19	AT5G17330.1
1908	HORVU5Hr1G121250	Aspartokinase 1, chloroplastic	-4.19	AT5G13280.1
1909	HORVU2Hr1G104790	unknown function	-4.19	#N/A
1910	HORVU5Hr1G066260	calmodulin like 42	-4.19	AT3G29000.1
1911	HORVU1Hr1G070740	UDP-glucose pyrophosphorylase 3	-4.20	AT3G56040.1
1912	HORVU1Hr1G000040	50S ribosomal protein L28	-4.20	AT2G33450.1
1913	HORVU3Hr1G097200	auxin response factor 2	-4.21	AT5G62000.5
1914	HORVU4Hr1G084890	Endoribonuclease Dicer homolog 1	-4.21	AT1G01040.2
1915	HORVU7Hr1G025590	undescribed protein	-4.21	AT5G15180.1
1916	HORVU2Hr1G041320	3'(2'),5'-bisphosphate nucleotidase 1	-4.22	AT4G05090.1
1917	HORVU7Hr1G101810	50S ribosomal protein L24	-4.22	AT5G54600.1
1918	HORVU3Hr1G005830	ABC transporter G family member 7	-4.22	AT2G01320.3
1919	HORVU3Hr1G089290	Late embryogenesis abundant protein Lea5-A	-4.22	AT4G02380.3
1920	HORVU3Hr1G065960	Farnesyl pyrophosphate synthase	-4.23	AT5G47770.1

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1921	HORVU2Hr1G023560	Magnesium-chelatase subunit H	-4.24	AT5G13630.1
1922	HORVU2Hr1G023530	undescribed protein	-4.24	AT1G73875.1
1923	HORVU4Hr1G076690	Protein of unknown function (DUF1677)	-4.24	AT4G14819.1
1924	HORVU2Hr1G121310	Serine/threonine-protein kinase	-4.24	AT2G19130.1
1925	HORVU2Hr1G108350	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4.25	AT2G35460.1
1926	HORVU3Hr1G013970	NAD(P)-binding Rossmann-fold superfamily protein	-4.26	AT2G37540.1
1927	HORVU3Hr1G030580	Replication protein A 32 kDa subunit B	-4.26	AT2G24490.2
1928	HORVU7Hr1G027270	MATE efflux family protein	-4.26	AT5G65380.1
1929	HORVU0Hr1G022240	Sec14p-like phosphatidylinositol transfer family protein	-4.26	AT5G63060.1
1930	HORVU5Hr1G038840	pumilio 7	-4.27	AT1G22240.1
1931	HORVU6Hr1G042170	undescribed protein	-4.27	AT1G61900.2
1932	HORVU3Hr1G096910	Beta-glucosidase 3	-4.27	AT3G60140.2
1933	HORVU5Hr1G040640	undescribed protein	-4.28	AT4G02070.2
1934	HORVU2Hr1G035990	undescribed protein	-4.28	AT1G15640.1
1935	HORVU2Hr1G066470	undescribed protein	-4.28	AT4G28760.2
1936	HORVU2Hr1G034540	unknown function	-4.29	AT3G15110.1
1937	HORVU6Hr1G033970	glycerol dehydrogenase	-4.29	AT3G21340.2
1938	HORVU7Hr1G012690	magnesium-protoporphyrin IX methyltransferase	-4.29	AT4G25080.6
1939	HORVU3Hr1G116060	undescribed protein	-4.30	AT5G21280.2
1940	HORVU3Hr1G086210	GRAS family transcription factor	-4.30	AT1G07530.1
1941	HORVU0Hr1G040200	coenzyme F420 hydrogenase family / dehydrogenase, beta subunit family	-4.30	AT1G04620.1
1942	HORVU0Hr1G003890	Phosphoadenosine phosphosulfate reductase	-4.30	AT4G21990.1
1943	HORVU5Hr1G043200	strictosidine synthase-like 2	-4.31	AT3G57030.1
1944	HORVU1Hr1G030540	basic helix-loop-helix (bHLH) DNA- binding superfamily protein	-4.31	AT4G29100.2
1945	HORVU2Hr1G094160	Beta-carotene hydroxylase	-4.31	AT4G25700.1
1946	HORVU2Hr1G009850	Thylakoid lumenal 15.0 kDa protein 2, chloroplastic	-4.31	AT5G52970.2
1947	HORVU3Hr1G086310	O-fucosyltransferase family protein	-4.32	AT2G01480.1
1948	HORVU3Hr1G053910	maternal effect embryo arrest 18	-4.32	AT2G34090.1
1949	HORVU5Hr1G001650	Protein of unknown function (DUF1218)	-4.33	AT5G17210.1
1950	HORVU4Hr1G041000	undescribed protein	-4.33	AT1G72990.2
1951	HORVU4Hr1G002020	cationic amino acid transporter 2	-4.34	AT1G58030.1
1952	HORVU2Hr1G118410	Plant cysteine oxidase 3	-4.35	AT1G18490.1
1953	HORVU4Hr1G010120	Prostamide/prostaglandin F synthase	-4.35	AT5G65840.1
1954	HORVU6Hr1G017890	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4.35	AT1G70420.1
1955	HORVU5Hr1G064130	Pentatricopeptide repeat-containing protein	-4.35	AT4G30825.1



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1956	HORVU1Hr1G045280	BnaC08g35780D protein	-4.36	AT2G21385.1
1957	HORVU2Hr1G107990	Thioredoxin superfamily protein	-4.36	AT1G11530.1
1958	HORVU1Hr1G052780	pollen development	-4.37	AT3G10405.1
1959	HORVU2Hr1G076100	Glutathione S-transferase family protein	-4.37	AT1G77290.3
1960	HORVU5Hr1G022760	Solute carrier family 40 member 1	-4.38	AT5G26820.1
1961	HORVU2Hr1G038740	Aquaporin-like superfamily protein	-4.38	AT3G54820.1
1962	HORVU5Hr1G064500	undescribed protein	-4.39	AT1G12190.1
1963	HORVU1Hr1G063090	Beta-mannosidase B	-4.40	AT1G09010.1
1964	HORVU2Hr1G111440	Ribulose biphosphate carboxylase/oxygenase activase, chloroplastic	-4.40	AT1G73110.1
1965	HORVU1Hr1G090740	unknown function	-4.40	AT2G25605.1
1966	HORVU3Hr1G110160	Signal recognition particle receptor FtsY	-4.41	AT2G45770.1
1967	HORVU1Hr1G056510	50S ribosomal protein L1	-4.41	AT3G63490.1
1968	HORVU7Hr1G113210	Mog1/PsbP/DUF1795-like photosystem II reaction center PsbP family protein	-4.41	AT5G11450.2
1969	HORVU2Hr1G095400	Iron-sulfur cluster assembly protein HesB	-4.42	AT5G52190.1
1970	HORVU4Hr1G013380	LOB domain-containing protein 37	-4.43	AT4G37540.1
1971	HORVU4Hr1G090840	ATP-dependent RNA helicase DeaD	-4.43	AT3G06980.1
1972	HORVU6Hr1G028250	Cytochrome P450 superfamily protein	-4.43	AT3G48280.1
1973	HORVU7Hr1G024210	P-loop containing nucleoside triphosphate hydrolases superfamily protein	-4.44	AT1G73170.1
1974	HORVU1Hr1G084520	Photosynthetic NDH subunit of subcomplex B 3, chloroplastic	-4.44	AT4G32590.1
1975	HORVU2Hr1G011960	DnaJ/Hsp40 cysteine-rich domain superfamily protein	-4.44	AT2G34860.2
1976	HORVU3Hr1G049900	glyoxylate reductase 2	-4.44	AT1G17650.1
1977	HORVU2Hr1G003840	Glutamyl-tRNA(Gln) amidotransferase subunit A	-4.44	AT4G34880.2
1978	HORVU2Hr1G072020	Chaperone protein ClpB	-4.45	AT5G51070.1
1979	HORVU4Hr1G084830	50S ribosomal protein L11	-4.45	AT1G32990.1
1980	HORVU1Hr1G072520	undescribed protein	-4.46	AT3G32040.1
1981	HORVU5Hr1G049280	undescribed protein	-4.46	AT1G50730.1
1982	HORVU0Hr1G012860	Alcohol dehydrogenase	-4.46	AT4G37980.1
1983	HORVU3Hr1G116470	Pectin acetyltransferase 5	-4.47	AT3G09410.1
1984	HORVU1Hr1G081370	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-4.48	AT3G14830.4
1985	HORVU7Hr1G116780	Eukaryotic aspartyl protease family protein	-4.48	AT3G59080.1
1986	HORVU1Hr1G000430	Chalcone--flavonone isomerase 1B-1	-4.48	AT1G53520.1
1987	HORVU7Hr1G035320	Tyrosine phosphatase family protein	-4.48	AT1G05000.1
1988	HORVU6Hr1G025110	Elongation factor 4	-4.48	AT5G08650.1
1989	HORVU6Hr1G076860	DEAD/DEAH box helicase, putative	-4.49	AT1G70070.1

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1990	HORVU3Hr1G039930	Magnesium-protoporphyrin IX monomethyl ester [oxidative] cyclase 3	-4.49	AT3G56940.1
1991	HORVU2Hr1G110900	Protein kinase superfamily protein	-4.50	AT3G13530.1
1992	HORVU1Hr1G022800	BEST Arabidopsis thaliana protein match is: 3'-5' exonuclease domain-containing protein / K homology domain-containing protein / KH domain-containing protein .	-4.51	AT2G25920.1
1993	HORVU2Hr1G104580	At5g37260-like protein	-4.51	AT5G37260.1
1994	HORVU5Hr1G109440	Lactoylglutathione lyase	-4.52	AT1G67280.1
1995	HORVU6Hr1G043920	undescribed protein	-4.52	AT1G06950.1
1996	HORVU3Hr1G049730	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4.52	AT4G14368.1
1997	HORVU7Hr1G038770	dehydroascorbate reductase 1	-4.52	AT5G16710.1
1998	HORVU2Hr1G036280	GRAS family transcription factor	-4.52	AT5G48150.4
1999	HORVU1Hr1G095410	Zinc finger protein CONSTANS-LIKE 4	-4.53	AT5G53420.1
2000	HORVU5Hr1G001180	lipoxygenase 2	-4.53	AT3G45140.1
2001	HORVU6Hr1G049050	Protein kinase superfamily protein	-4.53	AT5G64940.2
2002	HORVU6Hr1G014140	undescribed protein	-4.53	AT4G14500.2
2003	HORVU4Hr1G085930	Protein kinase superfamily protein	-4.53	AT3G61080.1
2004	HORVU3Hr1G085420	alpha-glucan phosphorylase 2	-4.54	AT3G46970.1
2005	HORVU2Hr1G032170	Acidic leucine-rich nuclear phosphoprotein 32-related protein 1	-4.54	AT1G09760.1
2006	HORVU0Hr1G013890	Peroxisomal (S)-2-hydroxy-acid oxidase	-4.54	AT3G14420.2
2007	HORVU3Hr1G013600	unknown function	-4.55	AT5G15802.1
2008	HORVU7Hr1G117020	Basic-leucine zipper (bZIP) transcription factor family protein	-4.56	AT4G35040.4
2009	HORVU4Hr1G011090	ATP synthase delta-subunit gene	-4.56	AT4G09650.1
2010	HORVU7Hr1G091440	CASP-like protein 1	-4.56	AT4G15630.1
2011	HORVU5Hr1G043550	Saccharopine dehydrogenase	-4.57	AT1G50450.1
2012	HORVU3Hr1G025430	undescribed protein	-4.57	AT3G50370.1
2013	HORVU4Hr1G027180	proline transporter 1	-4.57	AT2G39890.2
2014	HORVU6Hr1G025120	Elongation factor 4	-4.57	AT5G08650.1
2015	HORVU6Hr1G090510	O-methyltransferase family protein	-4.57	AT4G35160.1
2016	HORVU5Hr1G020410	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-4.58	AT5G61040.1
2017	HORVU6Hr1G011760	0	-4.58	#N/A
2018	HORVU3Hr1G116490	Pectin acetyltransferase 5	-4.59	AT3G09410.1
2019	HORVU7Hr1G082590	Haloacid dehalogenase-like hydrolase (HAD) superfamily protein	-4.60	AT3G48420.1
2020	HORVU3Hr1G086240	Calcium-dependent lipid-binding (CaLB domain) family protein	-4.60	AT3G55470.2
2021	HORVU1Hr1G061830	Beta-propeller domain-containing protein, methanol dehydrogenase	-4.62	AT1G54780.1

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2022	HORVU1Hr1G011520	Glutamyl-tRNA reductase family protein	-4.62	AT1G58290.1
2023	HORVU6Hr1G074820	Lysine-specific demethylase REF6	-4.62	AT3G48430.2
2024	HORVU1Hr1G051150	Antiholin-like protein LrgB	-4.62	AT1G32080.1
2025	HORVU3Hr1G080770	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4.63	AT5G05190.1
2026	HORVU1Hr1G067110	Ethylene-responsive transcription factor 8	-4.63	AT5G44210.1
2027	HORVU3Hr1G032490	Triose phosphate/phosphate translocator, chloroplastic	-4.64	AT5G46110.4
2028	HORVU7Hr1G074890	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit 1, mitochondrial	-4.64	AT5G40650.1
2029	HORVU7Hr1G038120	shikimate kinase like 1	-4.66	AT3G26900.3
2030	HORVU5Hr1G013840	L-galactose dehydrogenase	-4.66	AT4G33670.1
2031	HORVU7Hr1G114170	50S ribosomal protein L35	-4.67	AT2G24090.1
2032	HORVU6Hr1G081670	tyrosine aminotransferase 3	-4.67	AT5G36160.1
2033	HORVU3Hr1G117810	Zinc finger CCCH domain-containing protein 33	-4.67	AT3G55980.1
2034	HORVU5Hr1G036160	CBS domain-containing protein CBSCBSPB3	-4.67	AT3G52950.2
2035	HORVU4Hr1G067320	SprT-like domain-containing protein Spartan	-4.67	AT3G24340.1
2036	HORVU3Hr1G093260	Protein of unknown function (DUF506)	-4.67	AT3G07350.1
2037	HORVU2Hr1G029430	WRKY family transcription factor	-4.68	AT4G11070.2
2038	HORVU1Hr1G029850	calmodulin like 23	-4.68	AT5G37770.2
2039	HORVU5Hr1G056390	Galactose mutarotase-like superfamily protein	-4.68	AT5G66530.3
2040	HORVU4Hr1G076050	O-methyltransferase family protein	-4.69	AT4G35160.1
2041	HORVU3Hr1G006150	unknown protein; INVOLVED IN: biological_process unknown; LOCATED IN: chloroplast; EXPRESSED IN: 22 plant structures; EXPRESSED DURING: 13 growth stages; Has 74 Blast hits to 74 proteins in 29 species: Archae - 0; Bacteria - 19; Metazoa - 0; Fungi - 0; Plants - 49; Viruses - 0; Other Eukaryotes - 6 (source: NCBI BLink).	-4.70	AT1G18060.1
2042	HORVU5Hr1G016350	DA1	-4.70	AT4G36860.3
2043	HORVU6Hr1G015120	undescribed protein	-4.72	AT1G78080.1
2044	HORVU2Hr1G032400	alpha/beta-Hydrolases superfamily protein	-4.72	AT1G13820.1
2045	HORVU7Hr1G030800	Pco114914	-4.73	AT2G28630.2
2046	HORVU0Hr1G005340	0	-4.73	#N/A
2047	HORVU4Hr1G006730	Plastid-lipid associated protein PAP / fibrillin family protein	-4.73	AT3G26070.1
2048	HORVU4Hr1G079710	Divalent ion symporter	-4.74	AT1G02260.2
2049	HORVU2Hr1G073760	Peroxiredoxin-2	-4.74	AT5G06290.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2050	HORVU3Hr1G002820	receptor kinase 1	-4.74	AT4G05200.1
2051	HORVU1Hr1G010450	undescribed protein	-4.75	AT1G31730.1
2052	HORVU2Hr1G060480	Photosystem I reaction center subunit psaK, chloroplastic	-4.75	AT1G30380.1
2053	HORVU4Hr1G053530	PsbB mRNA maturation factor Mbb1, chloroplastic	-4.76	AT3G17040.1
2054	HORVU7Hr1G122750	BnaA09g56450D protein	-4.76	AT1G16080.1
2055	HORVU2Hr1G032970	6-phosphogluconolactonase 1	-4.77	AT1G13700.3
2056	HORVU5Hr1G020110	Protein of unknown function (DUF1336)	-4.78	AT3G29180.3
2057	HORVU6Hr1G050160	GTP binding Elongation factor Tu family protein	-4.78	AT5G13650.2
2058	HORVU0Hr1G005570	Ribulose biphosphate carboxylase/oxygenase activase 2, chloroplastic	-4.80	AT1G73110.2
2059	HORVU7Hr1G071440	undescribed protein	-4.80	AT3G01160.1
2060	HORVU3Hr1G014890	Disease resistance protein (CC-NBS-LRR class) family	-4.80	AT3G07040.1
2061	HORVU6Hr1G075850	Aquaporin-like superfamily protein	-4.81	AT5G37820.1
2062	HORVU4Hr1G011600	P-loop containing nucleoside triphosphate hydrolases superfamily protein	-4.81	AT2G30630.1
2063	HORVU5Hr1G091810	RNA binding	-4.82	AT4G24770.2
2064	HORVU5Hr1G062780	Abhydrolase domain-containing protein 1	-4.82	AT2G03140.6
2065	HORVU3Hr1G030540	Replication protein A 32 kDa subunit B	-4.82	AT2G24490.2
2066	HORVU7Hr1G023250	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-4.82	AT3G14830.4
2067	HORVU6Hr1G027910	Testis-expressed sequence 2 protein	-4.83	AT1G17820.1
2068	HORVU0Hr1G007950	undescribed protein	-4.83	#N/A
2069	HORVU4Hr1G069050	unknown protein; Has 38 Blast hits to 38 proteins in 17 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 38; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	-4.84	AT2G03420.1
2070	HORVU2Hr1G073740	Protein FAM210B	-4.85	AT2G27290.1
2071	HORVU1Hr1G064750	EG2771	-4.85	AT5G14910.2
2072	HORVU3Hr1G065700	undescribed protein	-4.86	AT3G28510.1
2073	HORVU5Hr1G080690	RHOMBOID-like protein 3	-4.86	AT1G63120.1
2074	HORVU5Hr1G028670	undescribed protein	-4.86	AT3G03090.1
2075	HORVU7Hr1G096430	myb-like transcription factor family protein	-4.86	AT3G13040.3
2076	HORVU1Hr1G055710	Ethylene-responsive transcription factor 2	-4.87	AT4G17490.1
2077	HORVU4Hr1G031320	methionine S-methyltransferase	-4.87	AT5G49810.1
2078	HORVU4Hr1G009080	undescribed protein	-4.88	AT1G16800.2
2079	HORVU6Hr1G020730	DTW domain-containing protein	-4.88	AT5G54880.1

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2080	HORVU7Hr1G080520	unknown function	-4.88	AT3G45750.1
2081	HORVU2Hr1G003460	ATP-dependent Clp protease adapter protein ClpS	-4.89	AT1G68660.1
2082	HORVU2Hr1G046740	Exonuclease 3'-5' domain-containing protein 2	-4.89	AT2G32415.1
2083	HORVU7Hr1G069930	P0696G06.27 protein	-4.90	AT3G59780.1
2084	HORVU6Hr1G084390	UDP-glucuronic acid 4-epimerase	-4.91	#N/A
2085	HORVU3Hr1G078820	Photosystem II reaction center PsbP family protein	-4.91	AT3G56650.1
2086	HORVU3Hr1G059950	undescribed protein	-4.92	AT5G47490.2
2087	HORVU3Hr1G061690	Protein DEHYDRATION-INDUCED 19 homolog 3	-4.92	AT3G05700.1
2088	HORVU1Hr1G027830	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-4.92	AT5G12010.1
2089	HORVU2Hr1G043920	beta-amylase 5	-4.92	AT4G15210.1
2090	HORVU4Hr1G011120	unknown function	-4.93	AT3G28460.1
2091	HORVU5Hr1G066350	N-lysine methyltransferase setd6	-4.93	AT1G14030.1
2092	HORVU3Hr1G037600	respiratory burst oxidase homologue D	-4.94	AT5G47910.1
2093	HORVU2Hr1G088180	triglyceride lipases;triglyceride lipases	-4.95	AT4G13550.2
2094	HORVU3Hr1G084590	Isoprenyl transferase	-4.96	AT5G58770.1
2095	HORVU2Hr1G028160	Protein of unknown function (DUF1997)	-4.96	AT5G39530.1
2096	HORVU3Hr1G114960	undescribed protein	-4.96	AT2G29525.4
2097	HORVU3Hr1G085970	Protein of unknown function (DUF668)	-4.96	AT3G23160.1
2098	HORVU6Hr1G021460	Zinc finger protein CONSTANS-LIKE 7	-4.97	AT5G57180.2
2099	HORVU7Hr1G034290	Protein kinase superfamily protein	-4.97	AT2G05940.1
2100	HORVU7Hr1G029720	RING/U-box superfamily protein	-4.97	AT2G15580.1
2101	HORVU1Hr1G070250	WRKY DNA-binding protein 33	-4.97	AT2G38470.1
2102	HORVU3Hr1G096830	Carboxypeptidase Y homolog A	-4.98	AT4G12910.1
2103	HORVU5Hr1G073950	dihydroflavonol 4-reductase-like1	-4.98	AT2G33590.1
2104	HORVU4Hr1G086250	shikimate kinase like 1	-4.98	AT3G26900.3
2105	HORVU3Hr1G116000	undescribed protein	-4.99	AT3G27040.1
2106	HORVU7Hr1G101740	Calcium-binding EF-hand family protein	-5.00	AT4G27280.1
2107	HORVU6Hr1G081330	Protein kinase superfamily protein	-5.01	AT2G05940.1
2108	HORVU0Hr1G017440	Homoserine O-acetyltransferase	-5.01	AT3G15900.1
2109	HORVU7Hr1G074600	unknown function	-5.01	AT5G47920.1
2110	HORVU6Hr1G090160	unknown function	-5.02	AT5G40810.2
2111	HORVU6Hr1G091260	Auxin-responsive protein IAA10	-5.02	AT2G33310.2
2112	HORVU5Hr1G103320	Accelerated cell death 11	-5.02	AT2G34690.1
2113	HORVU4Hr1G002700	Protein of unknown function (DUF581)	-5.02	AT3G22550.1
2114	HORVU1Hr1G051360	plastid transcriptionally active 18	-5.03	AT2G32180.2
2115	HORVU2Hr1G095070	S-adenosyl-L-methionine-dependent methyltransferases superfamily protein	-5.03	AT4G00750.1
2116	HORVU2Hr1G094090	RING zinc finger protein-like	-5.03	#N/A

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2117	HORVU7Hr1G113560	receptor-like protein kinase 4	-5.04	AT5G10530.1
2118	HORVU1Hr1G069430	Acetyltransferase NSI	-5.05	AT1G32070.1
2119	HORVU1Hr1G078140	Photosystem II reaction center W protein, chloroplastic	-5.06	AT2G30570.1
2120	HORVU1Hr1G060740	Lipase	-5.06	AT1G10740.4
2121	HORVU2Hr1G041080	sugar transporter 1	-5.06	AT1G11260.1
2122	HORVU3Hr1G035230	FHA domain-containing protein	-5.07	AT3G02400.1
2123	HORVU3Hr1G072260	vascular plant one zinc finger protein	-5.07	AT1G28520.5
2124	HORVU6Hr1G088200	Protein kinase superfamily protein	-5.08	AT2G39190.2
2125	HORVU4Hr1G020080	Protein of unknown function (DUF793)	-5.09	AT1G18740.1
2126	HORVU5Hr1G071680	0	-5.09	#N/A
2127	HORVU7Hr1G067990	unknown function	-5.09	AT5G38660.1
2128	HORVU3Hr1G070380	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-5.10	AT5G56550.1
2129	HORVU6Hr1G012320	Glutathione-specific gamma-glutamylcyclotransferase 1	-5.10	AT4G31290.1
2130	HORVU4Hr1G078440	unknown function	-5.10	AT3G25590.1
2131	HORVU0Hr1G005920	Pentatricopeptide repeat-containing protein	-5.10	AT5G27270.1
2132	HORVU1Hr1G087600	Glutaredoxin family protein	-5.11	AT1G28480.1
2133	HORVU2Hr1G041620	undescribed protein	-5.11	AT4G36440.1
2134	HORVU5Hr1G037920	histone deacetylase 14	-5.11	AT4G33470.1
2135	HORVU2Hr1G019270	undescribed protein	-5.11	AT2G06520.1
2136	HORVU3Hr1G086970	Metal tolerance protein 5	-5.11	AT2G39450.1
2137	HORVU7Hr1G010790	aspartate aminotransferase 1	-5.12	AT2G30970.2
2138	HORVU6Hr1G072740	calcium sensing receptor	-5.12	AT5G23060.1
2139	HORVU5Hr1G011100	Protoporphyrinogen oxidase	-5.12	AT4G01690.1
2140	HORVU4Hr1G048440	RNA-binding protein 1	-5.12	AT2G37220.1
2141	HORVU1Hr1G093430	BnaC06g06240D protein	-5.13	AT1G53250.1
2142	HORVU7Hr1G075700	Reticulon family protein	-5.13	AT4G11220.1
2143	HORVU3Hr1G073740	unknown protein; LOCATED IN: chloroplast; Has 35333 Blast hits to 34131 proteins in 2444 species: Archae - 798; Bacteria - 22429; Metazoa - 974; Fungi - 991; Plants - 531; Viruses - 0; Other Eukaryotes - 9610 (source: NCBI BLink).	-5.13	AT5G55570.1
2144	HORVU4Hr1G016210	unknown function	-5.14	AT1G32520.1
2145	HORVU3Hr1G098160	Calcium-dependent lipid-binding (CaLB domain) family protein	-5.14	AT1G09070.1
2146	HORVU7Hr1G100790	Remorin family protein	-5.14	AT3G57540.1
2147	HORVU5Hr1G095990	Lipid A export ATP-binding/permease protein MsbA	-5.15	AT5G39040.1
2148	HORVU5Hr1G082630	triosephosphate isomerase	-5.15	AT2G21170.3
2149	HORVU3Hr1G094600	HCP-like superfamily protein with MYND-type zinc finger	-5.16	AT1G67340.1



S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2150	HORVU6Hr1G000640	SKP1-like 4	-5.16	AT5G42190.1
2151	HORVU0Hr1G015530	receptor kinase 2	-5.17	AT1G16670.1
2152	HORVU7Hr1G043360	undescribed protein	-5.17	AT5G52630.1
2153	HORVU7Hr1G097250	Peptidyl-prolyl cis-trans isomerase B	-5.18	AT5G35100.3
2154	HORVU3Hr1G014850	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-5.20	AT3G23740.1
2155	HORVU7Hr1G000630	Disease resistance protein RPP13	-5.20	AT3G46530.1
2156	HORVU3Hr1G112930	Disease resistance protein	-5.20	AT3G07040.1
2157	HORVU3Hr1G013770	GTPase Der	-5.21	AT3G12080.1
2158	HORVU1Hr1G010440	undescribed protein	-5.21	AT4G23470.1
2159	HORVU4Hr1G042550	undescribed protein	-5.22	AT2G29640.1
2160	HORVU2Hr1G059910	undescribed protein	-5.23	AT2G07240.1
2161	HORVU1Hr1G088270	IMP dehydrogenase/GMP reductase	-5.23	AT5G01930.1
2162	HORVU3Hr1G089550	ribonuclease 2	-5.24	AT2G39780.1
2163	HORVU1Hr1G019770	Protein kinase superfamily protein	-5.25	AT2G05940.1
2164	HORVU6Hr1G071930	DNA-directed RNA polymerase II subunit 4	-5.25	AT4G15950.1
2165	HORVU3Hr1G062490	30S ribosomal protein S20	-5.25	AT3G15190.1
2166	HORVU5Hr1G039960	GCN5 family acetyltransferase	-5.26	AT1G72030.1
2167	HORVU1Hr1G082540	Protein phosphatase 2C family protein	-5.26	AT4G33500.1
2168	HORVU4Hr1G052470	30S ribosomal protein S1 homolog A	-5.27	AT5G30510.1
2169	HORVU2Hr1G096360	Aquaporin-like superfamily protein	-5.27	AT4G00430.1
2170	HORVU0Hr1G008850	ACT domain repeat 8	-5.28	AT1G12420.2
2171	HORVU4Hr1G024290	undescribed protein	-5.28	AT4G02640.4
2172	HORVU1Hr1G075580	oxidative stress 3 .	-5.28	AT5G56550.1
2173	HORVU3Hr1G107070	Phycocerythrobilin:ferredoxin oxidoreductase	-5.28	AT3G09150.3
2174	HORVU3Hr1G065770	Bidirectional sugar transporter N3	-5.29	AT3G14770.1
2175	HORVU0Hr1G022820	NAC domain containing protein 94	-5.31	AT2G17040.1
2176	HORVU6Hr1G061870	cyclin p4;3	-5.31	AT5G07450.1
2177	HORVU4Hr1G054910	xyloglucan xylosyltransferase 5	-5.33	AT3G62720.2
2178	HORVU3Hr1G094820	thylakoid rhodanese-like	-5.33	AT3G25480.1
2179	HORVU5Hr1G011960	Short-chain dehydrogenase/reductase family protein	-5.33	AT4G20760.1
2180	HORVU5Hr1G038630	ribulose biphosphate carboxylase small chain 1A	-5.34	AT1G67090.1
2181	HORVU2Hr1G098650	Protein argonaute 2	-5.34	AT1G31280.1
2182	HORVU1Hr1G013250	undescribed protein	-5.34	AT1G23450.1
2183	HORVU6Hr1G009510	chlororespiratory reduction 6	-5.34	AT2G47910.1
2184	HORVU7Hr1G090800	Lipid A export ATP-binding/permease protein MsbA	-5.35	AT4G25450.3
2185	HORVU5Hr1G059570	unknown function	-5.35	AT1G62780.1
2186	HORVU2Hr1G080260	Oxygen-evolving enhancer protein 3-1, chloroplastic	-5.36	AT3G01440.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2187	HORVU2Hr1G079970	undescribed protein	-5.36	AT5G57200.1
2188	HORVU2Hr1G115690	Protein kinase superfamily protein	-5.36	AT1G71810.1
2189	HORVU3Hr1G014860	Protein of unknown function (DUF 3339)	-5.37	AT5G63500.1
2190	HORVU5Hr1G028460	Plant calmodulin-binding protein-related	-5.37	AT5G15430.2
2191	HORVU4Hr1G060970	50S ribosomal protein L4	-5.38	AT1G07320.2
2192	HORVU6Hr1G063820	undescribed protein	-5.40	AT1G11420.1
2193	HORVU6Hr1G062040	50S ribosomal protein L19	-5.41	AT4G17560.1
2194	HORVU4Hr1G082040	catalase 2	-5.41	AT4G35090.1
2195	HORVU2Hr1G007350	flowering promoting factor 1	-5.41	AT5G24860.1
2196	HORVU1Hr1G004400	unknown function	-5.41	AT5G02160.1
2197	HORVU0Hr1G000960	Nuclear transport factor 2 (NTF2) family protein	-5.41	AT3G04890.1
2198	HORVU4Hr1G060130	RING/U-box superfamily protein	-5.43	AT5G59550.1
2199	HORVU0Hr1G008540	undescribed protein	-5.46	AT5G26850.4
2200	HORVU3Hr1G014780	shikimate kinase like 1	-5.46	AT3G26900.3
2201	HORVU2Hr1G015720	Hexosyltransferase	-5.46	AT1G56600.1
2202	HORVU5Hr1G069380	Heavy metal transport/detoxification superfamily protein	-5.46	AT1G22990.1
2203	HORVU7Hr1G000900	plastocyanin 1	-5.46	AT1G76100.1
2204	HORVU1Hr1G018010	unknown function	-5.47	AT3G62070.1
2205	HORVU7Hr1G091570	Endoglucanase 18	-5.47	AT1G19940.2
2206	HORVU2Hr1G113790	undescribed protein	-5.47	AT3G13100.1
2207	HORVU4Hr1G060630	Fructose-1,6-bisphosphatase class 1	-5.48	AT3G54050.2
2208	HORVU2Hr1G017420	Stress responsive protein	-5.48	AT2G39050.1
2209	HORVU5Hr1G098340	30S ribosomal protein S9	-5.48	AT1G74970.1
2210	HORVU0Hr1G023150	Protein of unknown function (DUF1218)	-5.48	AT1G31720.6
2211	HORVU5Hr1G111310	magnesium chelatase i2	-5.49	AT1G08520.1
2212	HORVU0Hr1G021950	Glucan endo-1,3-beta-glucosidase 14	-5.49	AT2G26600.1
2213	HORVU1Hr1G061020	unknown function	-5.49	AT4G15545.1
2214	HORVU6Hr1G085120	C2 domain-containing protein / GRAM domain-containing protein	-5.51	AT3G59660.1
2215	HORVU2Hr1G037620	Lactation elevated protein 1	-5.51	AT4G15810.1
2216	HORVU1Hr1G077160	unknown protein; Has 640 Blast hits to 638 proteins in 201 species: Archae - 0; Bacteria - 293; Metazoa - 0; Fungi - 71; Plants - 72; Viruses - 0; Other Eukaryotes - 204 (source: NCBI BLink).	-5.51	AT3G01060.3
2217	HORVU5Hr1G087920	plastid movement impaired1	-5.52	AT1G42550.1
2218	HORVU3Hr1G114220	ATP-dependent RNA helicase RhlB	-5.52	AT5G19210.2
2219	HORVU2Hr1G075180	undescribed protein	-5.52	AT5G61350.1
2220	HORVU4Hr1G086110	F-box protein PP2-B1	-5.52	AT3G61060.1
2221	HORVU6Hr1G054430	methionine aminopeptidase 1B	-5.53	AT1G13270.1
2222	HORVU1Hr1G038620	plastid transcriptionally active 3	-5.54	AT3G04260.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2223	HORVU6Hr1G053680	Elongation factor Tu	-5.54	AT4G20360.2
2224	HORVU2Hr1G113850	undescribed protein	-5.54	AT4G14465.1
2225	HORVU5Hr1G122820	Ankyrin repeat domain-containing protein 2A	-5.54	AT4G35450.3
2226	HORVU5Hr1G056130	WRKY family transcription factor	-5.54	AT4G11070.2
2227	HORVU4Hr1G003040	regulatory protein (NPR1)	-5.55	AT5G45110.1
2228	HORVU5Hr1G073330	Lysine-specific demethylase 8	-5.55	AT3G20810.1
2229	HORVU6Hr1G005920	NADPH:quinone oxidoreductase	-5.56	AT3G27890.1
2230	HORVU3Hr1G063280	D-glycerate 3-kinase, chloroplastic	-5.57	AT1G80380.2
2231	HORVU2Hr1G120490	Two-component response regulator ORR6	-5.59	AT3G57040.2
2232	HORVU5Hr1G024470	elongation factor Ts family protein	-5.59	AT4G29060.1
2233	HORVU0Hr1G031850	myb-like transcription factor family protein	-5.59	AT5G52660.1
2234	HORVU1Hr1G041640	undescribed protein	-5.60	AT1G37020.1
2235	HORVU5Hr1G049980	Protein translocase subunit SecY	-5.61	AT2G18710.1
2236	HORVU2Hr1G037610	undescribed protein	-5.61	#N/A
2237	HORVU6Hr1G078290	50S ribosomal protein L29	-5.61	AT5G65220.1
2238	HORVU0Hr1G017140	Methyltransferase-like protein 7A	-5.62	AT1G69523.1
2239	HORVU1Hr1G046550	undescribed protein	-5.63	AT2G38130.2
2240	HORVU6Hr1G025170	undescribed protein	-5.64	#N/A
2241	HORVU6Hr1G087720	Thioredoxin-like 2-2, chloroplastic	-5.64	AT1G76080.1
2242	HORVU3Hr1G003410	tryptophan synthase alpha chain	-5.64	AT4G02610.1
2243	HORVU6Hr1G025730	Quinone oxidoreductase-like protein 2 homolog	-5.65	AT1G23740.1
2244	HORVU1Hr1G074940	Tubby-like F-box protein 8	-5.65	AT1G25280.1
2245	HORVU5Hr1G037660	amino acid permease 3	-5.65	AT5G09220.1
2246	HORVU2Hr1G068880	alpha/beta-Hydrolases superfamily protein	-5.66	AT5G38360.1
2247	HORVU7Hr1G034430	receptor-like protein kinase 2	-5.67	AT2G26330.1
2248	HORVU3Hr1G055260	myb domain protein 66	-5.68	AT4G01060.1
2249	HORVU7Hr1G109380	Peptidyl-prolyl cis-trans isomerase	-5.68	AT5G45680.1
2250	HORVU2Hr1G093220	Pentatricopeptide repeat-containing protein	-5.68	AT1G02150.1
2251	HORVU1Hr1G068500	unknown function	-5.69	AT3G51510.1
2252	HORVU3Hr1G068300	Cytosolic Fe-S cluster assembly factor NUBP2 homolog	-5.69	AT3G24430.1
2253	HORVU5Hr1G120250	30S ribosomal protein S6	-5.70	AT1G64510.1
2254	HORVU1Hr1G072180	Riboflavin biosynthesis protein RibBA	-5.70	AT5G59750.1
2255	HORVU5Hr1G124520	unknown function	-5.71	AT1G17850.2
2256	HORVU5Hr1G118680	Mitochondrial transcription termination factor family protein	-5.72	AT4G09620.2
2257	HORVU7Hr1G067110	rubredoxin family protein	-5.73	AT5G17170.1
2258	HORVU5Hr1G046250	RING/U-box superfamily protein	-5.73	AT5G01980.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2259	HORVU4Hr1G054770	COBRA-like protein 7	-5.74	AT4G16120.1
2260	HORVU6Hr1G067470	xyloglucan endotransglucosylase/hydrolase 28	-5.74	AT2G01850.1
2261	HORVU1Hr1G070190	Nodulin-like / Major Facilitator Superfamily protein	-5.74	AT2G30300.1
2262	HORVU2Hr1G121200	nodulin MtN21 /EamA-like transporter family protein	-5.75	AT5G64700.1
2263	HORVU7Hr1G102730	Protein of unknown function, DUF642	-5.76	AT5G25460.1
2264	HORVU2Hr1G091860	DNA helicase INO80	-5.77	AT5G66750.1
2265	HORVU2Hr1G112450	purple acid phosphatase 21	-5.77	AT3G52810.1
2266	HORVU1Hr1G053510	GRAS family transcription factor	-5.78	AT4G00150.1
2267	HORVU5Hr1G050120	undescribed protein	-5.79	AT3G53210.2
2268	HORVU4Hr1G016510	Chaperone protein DnaJ	-5.80	AT4G09350.1
2269	HORVU5Hr1G068520	EF hand family protein	-5.80	AT1G66400.1
2270	HORVU5Hr1G081750	alpha/beta hydrolase	-5.81	AT4G25290.1
2271	HORVU1Hr1G022110	Ran guanine nucleotide release factor	-5.81	AT1G69680.1
2272	HORVU5Hr1G103440	zinc-finger protein 1	-5.82	AT5G48890.2
2273	HORVU0Hr1G001280	Calmodulin	-5.83	AT3G43810.1
2274	HORVU6Hr1G014080	StAR-related lipid transfer protein 7, mitochondrial	-5.83	AT1G64720.1
2275	HORVU2Hr1G089030	Plastid transcriptionally active 5, putative isoform 1	-5.83	AT4G13670.1
2276	HORVU7Hr1G105500	Nuclear transcription factor Y subunit B-2	-5.83	AT4G14540.1
2277	HORVU2Hr1G115920	Protein kinase superfamily protein	-5.84	AT3G09830.3
2278	HORVU5Hr1G118100	Transposable element protein, putative	-5.84	AT3G28674.1
2279	HORVU6Hr1G068640	syntaxin, putative	-5.84	AT5G46860.1
2280	HORVU1Hr1G091520	Transcription factor RADIALIS	-5.85	AT1G75250.2
2281	HORVU1Hr1G017120	Protein kinase superfamily protein	-5.85	AT2G47060.4
2282	HORVU3Hr1G018800	RING/U-box superfamily protein	-5.86	AT4G34040.1
2283	HORVU5Hr1G094210	Protein transport protein sec23-1	-5.86	AT5G43670.1
2284	HORVU3Hr1G020640	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-5.86	AT4G01935.1
2285	HORVU5Hr1G039210	Chaperone DnaJ-domain superfamily protein	-5.86	AT5G21430.1
2286	HORVU4Hr1G060140	Pentatricopeptide repeat-containing protein	-5.86	AT5G59600.1
2287	HORVU2Hr1G106880	chloroplastic lipocalin	-5.87	AT3G47860.1
2288	HORVU1Hr1G050130	Mitochondrial substrate carrier family protein	-5.87	AT5G46800.3
2289	HORVU1Hr1G005600	ACT domain-containing protein	-5.87	AT2G39570.1
2290	HORVU3Hr1G083350	Fructose-1,6-bisphosphatase class 1	-5.89	AT1G43670.1
2291	HORVU7Hr1G023600	Thiocyanate methyltransferase 1	-5.91	AT2G43940.1
2292	HORVU2Hr1G112330	purple acid phosphatase 22	-5.92	AT3G52820.1
2293	HORVU7Hr1G051200	NAD(P)H-quinone oxidoreductase subunit 3, chloroplastic	-5.93	ATCG00440.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2294	HORVU3Hr1G018110	Protein phosphatase PTC7 homolog	-5.95	AT2G30170.1
2295	HORVU1Hr1G022660	Chlororespiratory reduction31	-5.96	AT4G23890.1
2296	HORVU1Hr1G061230	resistance to phytophthora 1	-5.98	AT2G48070.2
2297	HORVU2Hr1G089940	Aquaporin-like superfamily protein	-5.98	AT2G37170.2
2298	HORVU6Hr1G013670	cellulose synthase 1	-5.98	AT4G32410.1
2299	HORVU6Hr1G020960	UDP-Glycosyltransferase superfamily protein	-5.98	AT4G01070.1
2300	HORVU1Hr1G049760	Homeobox protein BEL1 homolog	-5.99	AT5G41410.1
2301	HORVU1Hr1G090150	undescribed protein	-5.99	AT3G48110.1
2302	HORVU3Hr1G067760	S-adenosyl-L-methionine-dependent methyltransferases superfamily protein	-6.02	AT4G22530.2
2303	HORVU7Hr1G036450	O-fucosyltransferase family protein	-6.02	AT1G22460.1
2304	HORVU1Hr1G001890	Tubulin-specific chaperone E	-6.03	AT1G71440.1
2305	HORVU5Hr1G010870	Glutaredoxin family protein	-6.03	AT2G47870.1
2306	HORVU6Hr1G064620	Dehydrin COR410	-6.05	AT1G20440.1
2307	HORVU1Hr1G093180	RNA polymerase sigma-B factor	-6.05	AT5G24120.3
2308	HORVU7Hr1G108930	F-box family protein	-6.06	AT5G07610.1
2309	HORVU6Hr1G054110	Protein HHL1, chloroplastic	-6.07	AT1G67700.4
2310	HORVU7Hr1G060130	Superoxide dismutase [Cu-Zn] 4A	-6.07	AT2G28190.1
2311	HORVU3Hr1G086380	ENTH/VHS family protein	-6.08	AT3G46540.3
2312	HORVU4Hr1G076000	O-methyltransferase family protein	-6.08	AT4G35160.1
2313	HORVU2Hr1G079920	Chlorophyll a-b binding protein, chloroplastic	-6.08	AT1G15820.1
2314	HORVU6Hr1G001690	RING/U-box superfamily protein	-6.12	AT5G60580.3
2315	HORVU3Hr1G070360	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-6.13	AT4G26288.1
2316	HORVU3Hr1G070690	hexokinase 1	-6.13	AT4G29130.1
2317	HORVU5Hr1G021340	Rubredoxin-like superfamily protein	-6.14	AT1G54500.1
2318	HORVU5Hr1G097150	Subtilisin-like protease	-6.14	AT5G67360.1
2319	HORVU4Hr1G041010	undescribed protein	-6.15	AT1G25290.2
2320	HORVU2Hr1G118060	Heavy metal transport/detoxification superfamily protein	-6.15	AT1G01490.2
2321	HORVU4Hr1G052990	haloacid dehalogenase-like hydrolase family protein	-6.18	AT1G56500.3
2322	HORVU3Hr1G105260	unknown function	-6.18	AT4G31560.1
2323	HORVU7Hr1G052500	Oxysterol-binding protein-related protein 4C	-6.18	AT5G57240.5
2324	HORVU1Hr1G041990	RING/FYVE/PHD zinc finger superfamily protein	-6.19	AT2G45530.1
2325	HORVU6Hr1G049120	Photosystem II reaction center protein M	-6.20	ATCG00220.1
2326	HORVU5Hr1G087830	Histone superfamily protein	-6.20	AT5G59970.2
2327	HORVU5Hr1G073870	dihydroflavonol 4-reductase-like1	-6.21	AT1G76470.1
2328	HORVU7Hr1G036090	kinesin 4	-6.21	AT5G10470.1
2329	HORVU2Hr1G080510	undescribed protein	-6.22	AT2G47800.1



S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2330	HORVU1Hr1G004650	purple acid phosphatase 22	-6.23	AT3G52820.1
2331	HORVU2Hr1G101720	Multiple organellar RNA editing factor 5, mitochondrial	-6.23	AT1G32580.1
2332	HORVU6Hr1G071520	Eukaryotic aspartyl protease family protein	-6.25	AT5G10770.1
2333	HORVU4Hr1G009380	Lariat debranching enzyme	-6.25	AT3G22436.1
2334	HORVU7Hr1G109580	tRNA pseudouridine synthase A	-6.26	AT5G35400.1
2335	HORVU2Hr1G123390	unknown function	-6.26	AT4G10220.1
2336	HORVU5Hr1G117780	Nodulation signaling protein 1	-6.26	AT3G13840.1
2337	HORVU2Hr1G104740	RAB GDP dissociation inhibitor 2	-6.27	AT2G44100.2
2338	HORVU2Hr1G071850	Protein phosphatase 2C family protein	-6.27	AT3G16560.4
2339	HORVU4Hr1G014080	enzyme binding;tetrapyrrole binding	-6.28	AT3G59400.1
2340	HORVU2Hr1G101340	undescribed protein	-6.28	#N/A
2341	HORVU5Hr1G100990	Obg-like ATPase 1	-6.29	AT1G56050.1
2342	HORVU7Hr1G076840	vesicle-associated membrane protein 725	-6.30	AT4G10170.2
2343	HORVU2Hr1G069880	Protein of unknown function (DUF 3339)	-6.31	AT3G48660.1
2344	HORVU4Hr1G000230	PsbP-like protein 1	-6.31	AT3G55330.1
2345	HORVU6Hr1G012270	terpene synthase 14	-6.32	AT1G61680.1
2346	HORVU3Hr1G062250	Chlororespiratory reduction 41	-6.32	AT1G51100.1
2347	HORVU5Hr1G118120	unknown function	-6.36	AT1G40087.1
2348	HORVU1Hr1G054190	unknown function	-6.36	AT5G65750.1
2349	HORVU3Hr1G070340	Protein-tyrosine phosphatase mitochondrial 1-like protein	-6.37	AT2G35680.1
2350	HORVU2Hr1G113050	sulfate transporter 91	-6.37	AT1G23090.1
2351	HORVU4Hr1G037290	Ferredoxin-thioredoxin reductase, catalytic chain	-6.39	AT2G04700.3
2352	HORVU2Hr1G066790	UDP-Glycosyltransferase superfamily protein	-6.39	AT1G22360.1
2353	HORVU1Hr1G014240	undescribed protein	-6.40	AT1G70290.1
2354	HORVU6Hr1G085170	Photosystem II 10 kDa polypeptide	-6.40	AT1G79040.1
2355	HORVU6Hr1G009350	Acylamino-acid-releasing enzyme	-6.42	AT4G14570.1
2356	HORVU7Hr1G040790	U-box domain-containing protein 21	-6.43	AT5G37490.1
2357	HORVU1Hr1G045520	Thylakoid lumenal 17.4 kDa protein, chloroplastic	-6.43	AT5G53490.2
2358	HORVU5Hr1G084490	Eukaryotic aspartyl protease family protein	-6.43	AT4G35880.1
2359	HORVU1Hr1G069180	Protein LURP-one-related 8	-6.45	AT2G38640.1
2360	HORVU6Hr1G067660	Phosphoribulokinase / Uridine kinase family	-6.46	AT1G32060.1
2361	HORVU6Hr1G011670	unknown function	-6.47	AT2G24960.1
2362	HORVU1Hr1G068960	MATE efflux family protein	-6.48	AT1G51340.1
2363	HORVU1Hr1G046360	undescribed protein	-6.49	AT5G49110.4
2364	HORVU1Hr1G031930	undescribed protein	-6.50	AT1G55640.1



S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2365	HORVU2Hr1G121110	auxin response factor 6	-6.50	AT5G37020.1
2366	HORVU5Hr1G098890	malate dehydrogenase	-6.50	AT2G22780.1
2367	HORVU1Hr1G031940	undescribed protein	-6.51	AT4G19650.2
2368	HORVU5Hr1G098980	HAD-superfamily hydrolase, subfamily IG, 5'-nucleotidase	-6.52	AT1G75210.3
2369	HORVU3Hr1G094270	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-6.52	AT2G35450.1
2370	HORVU5Hr1G039850	actin 7	-6.52	AT5G09810.1
2371	HORVU3Hr1G095700	metacaspase 1	-6.52	AT1G02170.1
2372	HORVU3Hr1G112010	Abscisic stress-ripening protein 1	-6.53	#N/A
2373	HORVU0Hr1G000900	undescribed protein	-6.53	AT5G17310.5
2374	HORVU2Hr1G077630	Histone H2B.1	-6.54	AT3G45980.1
2375	HORVU6Hr1G068760	Inorganic pyrophosphatase	-6.54	AT1G01050.2
2376	HORVU5Hr1G033540	ribulose biphosphate carboxylase small chain 1A	-6.55	AT1G67090.1
2377	HORVU4Hr1G063420	3-ketoacyl-CoA synthase 1	-6.57	AT1G01120.1
2378	HORVU3Hr1G096650	NAD(P)H dehydrogenase 18	-6.58	AT5G43750.1
2379	HORVU3Hr1G010030	Repressor of RNA polymerase III transcription	-6.58	AT5G13240.1
2380	HORVU4Hr1G006530	beta glucosidase 43	-6.59	AT3G18080.1
2381	HORVU5Hr1G009460	Pentatricopeptide repeat (PPR) superfamily protein	-6.60	AT5G24060.1
2382	HORVU5Hr1G063380	Pentatricopeptide repeat-containing protein	-6.60	AT5G10690.2
2383	HORVU3Hr1G046900	UDP-N-acetylglucosamine--N-acetylmuramyl-(pentapeptide) pyrophosphoryl-undecaprenol N-acetylglucosamine transferase	-6.60	AT1G73740.1
2384	HORVU4Hr1G063270	Filament-like plant protein 4	-6.61	AT1G19835.6
2385	HORVU4Hr1G066860	glutamine synthetase 1;4	-6.62	AT5G16570.1
2386	HORVU2Hr1G039100	Protein TIC 20-I, chloroplastic	-6.66	AT1G04940.1
2387	HORVU5Hr1G079950	plastid movement impaired1	-6.67	AT1G42550.1
2388	HORVU4Hr1G009120	undescribed protein	-6.72	AT4G37910.2
2389	HORVU0Hr1G001170	unknown function	-6.73	AT3G51510.1
2390	HORVU7Hr1G078490	Casparian strip membrane protein 2	-6.74	AT2G27370.1
2391	HORVU7Hr1G080270	unknown function	-6.74	AT5G08560.3
2392	HORVU5Hr1G060250	annexin 5	-6.74	AT1G68090.1
2393	HORVU5Hr1G082310	Protein kinase superfamily protein	-6.75	AT5G47070.1
2394	HORVU3Hr1G113920	undescribed protein	-6.75	AT5G04895.1
2395	HORVU3Hr1G019750	Auxin-responsive protein IAA2	-6.76	AT1G51950.1
2396	HORVU3Hr1G047030	Ferredoxin-thioredoxin reductase, catalytic chain	-6.76	AT2G04700.3
2397	HORVU5Hr1G062880	Kelch repeat-containing protein	-6.77	AT1G14330.1
2398	HORVU6Hr1G075280	ATP synthase delta-subunit gene	-6.80	AT4G09650.1
2399	HORVU5Hr1G056270	undescribed protein	-6.81	AT1G23050.1

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2400	HORVU4Hr1G004590	Inositol hexakisphosphate and diphosphoinositol-pentakisphosphate kinase	-6.81	AT5G15070.4
2401	HORVU1Hr1G063010	S-adenosyl-L-methionine-dependent methyltransferases superfamily protein	-6.81	AT3G60910.1
2402	HORVU2Hr1G065700	unknown function	-6.82	AT5G39380.5
2403	HORVU7Hr1G098410	Inositol polyphosphate multikinase	-6.82	AT5G61760.2
2404	HORVU2Hr1G017450	unknown function	-6.84	AT2G39050.1
2405	HORVU3Hr1G030010	GDT1-like protein 1, chloroplastic	-6.87	AT1G64150.1
2406	HORVU3Hr1G109830	undescribed protein	-6.87	AT2G16440.1
2407	HORVU2Hr1G029900	Protein kinase superfamily protein	-6.89	AT1G78290.3
2408	HORVU5Hr1G097060	Protein phosphatase 2C family protein	-6.90	AT4G33920.1
2409	HORVU1Hr1G042490	aspartate aminotransferase	-6.92	AT1G77670.1
2410	HORVU7Hr1G058030	3-beta hydroxysteroid dehydrogenase	-6.92	AT4G35250.1
2411	HORVU7Hr1G095100	stress enhanced protein 1	-6.92	AT4G34190.1
2412	HORVU7Hr1G118340	Heavy metal transport/detoxification superfamily protein	-6.93	AT1G23000.1
2413	HORVU3Hr1G087180	CCT motif family protein	-6.93	AT5G41380.1
2414	HORVU4Hr1G086660	Cyclin-dependent protein kinase inhibitor SMR1	-6.94	AT5G02420.1
2415	HORVU2Hr1G007080	Nuclear transport factor 2 (NTF2) family protein	-6.95	AT1G71480.1
2416	HORVU7Hr1G069710	ACT domain-containing protein	-6.95	AT1G16880.1
2417	HORVU4Hr1G079230	Aquaporin-like superfamily protein	-6.96	AT2G36830.1
2418	HORVU2Hr1G007840	60 kDa chaperonin 2	-6.96	AT2G28000.1
2419	HORVU4Hr1G075160	unknown function	-6.96	AT1G14345.1
2420	HORVU4Hr1G007260	unknown function	-6.97	AT1G73885.1
2421	HORVU2Hr1G090980	Starch synthase 2, chloroplastic/amyloplastic	-6.97	AT1G32900.1
2422	HORVU3Hr1G075960	Jacalin-related lectin 3	-6.98	AT1G19715.2
2423	HORVU7Hr1G096140	Thylakoid lumenal 16.5 kDa protein, chloroplastic	-6.98	AT4G02530.1
2424	HORVU4Hr1G081310	serine acetyltransferase 3;2	-7.03	AT2G17640.1
2425	HORVU2Hr1G029490	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-7.07	AT5G65030.1
2426	HORVU0Hr1G014060	unknown function	-7.08	AT4G20880.1
2427	HORVU6Hr1G032680	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-7.12	AT4G26555.1
2428	HORVU0Hr1G039030	nodulin MtN21 /EamA-like transporter family protein	-7.12	AT1G25270.1
2429	HORVU1Hr1G064780	receptor-like protein kinase 2	-7.14	AT5G48380.1
2430	HORVU6Hr1G064910	Argonaute family protein	-7.15	AT1G48410.3
2431	HORVU5Hr1G067530	1-aminocyclopropane-1-carboxylate oxidase 1	-7.16	AT1G05010.1
2432	HORVU1Hr1G026780	Protein of unknown function (DUF581)	-7.16	AT5G11460.1

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2433	HORVU3Hr1G080640	Auxin efflux carrier family protein	-7.17	AT5G01990.1
2434	HORVU7Hr1G033500	Peroxiredoxin Q, chloroplastic	-7.17	AT4G16410.1
2435	HORVU1Hr1G000720	Protein of unknown function (DUF 3339)	-7.17	AT5G08391.1
2436	HORVU2Hr1G045620	Protein LHCP TRANSLOCATION DEFECT	-7.18	AT1G50900.1
2437	HORVU7Hr1G114890	UDP-Glycosyltransferase superfamily protein	-7.19	AT4G01070.1
2438	HORVU4Hr1G050730	undescribed protein	-7.19	AT5G15710.2
2439	HORVU4Hr1G009980	unknown function	-7.20	AT1G44920.1
2440	HORVU2Hr1G076010	PsbP domain-containing protein 2, chloroplastic	-7.20	AT2G28605.1
2441	HORVU2Hr1G039510	Cytochrome c	-7.21	AT5G45040.1
2442	HORVU2Hr1G101730	ascorbate peroxidase 4	-7.21	AT4G09010.1
2443	HORVU1Hr1G055140	beta-amylase 1	-7.23	AT4G17090.1
2444	HORVU4Hr1G050700	Receptor-like protein kinase	-7.23	AT3G51550.1
2445	HORVU4Hr1G076990	undescribed protein	-7.24	AT5G26670.1
2446	HORVU7Hr1G050520	undescribed protein	-7.24	AT3G10180.2
2447	HORVU6Hr1G072050	Ribulose-1,5-bisphosphate carboxylase/oxygenase small subunit N-methyltransferase I	-7.27	AT3G07670.2
2448	HORVU1Hr1G089760	50S ribosomal protein L7/L12	-7.28	AT3G27850.1
2449	HORVU2Hr1G094190	Nuclear transport factor 2 (NTF2) family protein	-7.29	AT2G46100.1
2450	HORVU6Hr1G061780	undescribed protein	-7.30	AT4G18240.1
2451	HORVU7Hr1G079190	PSRP4	-7.31	AT2G38140.1
2452	HORVU3Hr1G026500	B-box zinc finger family protein	-7.32	AT1G78600.1
2453	HORVU2Hr1G104730	#N/A	-7.33	#N/A
2454	HORVU1Hr1G073790	Zinc finger protein 282	-7.34	AT1G08290.1
2455	HORVU4Hr1G046120	undescribed protein	-7.35	AT5G23010.3
2456	HORVU3Hr1G048410	undescribed protein	-7.36	AT1G53580.2
2457	HORVU3Hr1G071530	50S ribosomal protein L13	-7.36	AT1G78630.1
2458	HORVU3Hr1G084830	Nematode resistance protein-like HSPRO2	-7.36	AT3G55840.1
2459	HORVU1Hr1G084090	oligopeptide transporter 7	-7.37	AT4G10770.1
2460	HORVU3Hr1G034640	unknown function	-7.38	AT4G01935.1
2461	HORVU3Hr1G007290	Calmodulin-binding protein	-7.39	AT5G57580.1
2462	HORVU2Hr1G115620	Loricrin-like protein	-7.40	AT5G64550.1
2463	HORVU7Hr1G040720	Endoglucanase 16	-7.40	AT2G32990.1
2464	HORVU5Hr1G009430	undescribed protein	-7.41	AT5G44760.1
2465	HORVU5Hr1G086710	Flavin-containing monooxygenase family protein	-7.43	AT1G19250.1
2466	HORVU0Hr1G012920	receptor-like kinase 1	-7.44	AT1G48480.1
2467	HORVU4Hr1G080810	Late embryogenesis abundant protein D-	-7.46	AT1G52690.2

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2468	HORVU7Hr1G113020	Low temperature and salt responsive protein family	-7.46	AT4G28088.1
2469	HORVU3Hr1G077570	Sulfite exporter TauE/SafE family protein	-7.47	AT4G21250.1
2470	HORVU0Hr1G004850	Peroxidase superfamily protein	-7.47	AT4G17690.1
2471	HORVU3Hr1G026870	Protein kinase superfamily protein	-7.48	AT5G58950.1
2472	HORVU3Hr1G007420	calmodulin like 23	-7.49	AT5G37770.2
2473	HORVU7Hr1G083670	Cytochrome P450 superfamily protein	-7.49	AT5G06900.1
2474	HORVU6Hr1G066340	oxidative stress 3	-7.50	AT5G56550.1
2475	HORVU7Hr1G041080	SOUL heme-binding family protein	-7.50	AT3G10130.1
2476	HORVU4Hr1G062920	Protein disulfide-isomerase LQY1, chloroplastic	-7.53	AT1G75690.1
2477	HORVU4Hr1G032780	Peptide chain release factor 1	-7.54	AT3G62910.1
2478	HORVU7Hr1G042480	aluminum-activated malate transporter 9	-7.54	AT3G18440.1
2479	HORVU3Hr1G010460	Peptidase M50 family protein	-7.55	AT5G05740.2
2480	HORVU7Hr1G118020	Eukaryotic aspartyl protease family protein	-7.55	AT4G35880.1
2481	HORVU3Hr1G093510	Zinc finger CCCH domain-containing protein 12	-7.56	AT5G16540.4
2482	HORVU3Hr1G105620	Glucan endo-1,3-beta-glucosidase	-7.57	AT4G16260.1
2483	HORVU0Hr1G015440	Ethylene responsive transcription factor 4	-7.58	#N/A
2484	HORVU1Hr1G015000	unknown function	-7.58	AT1G50732.1
2485	HORVU2Hr1G092280	NAD(P)H-quinone oxidoreductase subunit M	-7.59	AT4G37925.1
2486	HORVU3Hr1G093220	undescribed protein	-7.62	AT1G51630.1
2487	HORVU7Hr1G064100	proton gradient regulation 5	-7.62	AT2G05620.2
2488	HORVU6Hr1G021050	unknown function	-7.64	AT3G57062.2
2489	HORVU5Hr1G110380	purple acid phosphatase 10	-7.64	AT2G16430.2
2490	HORVU3Hr1G066960	Phospholipase A1-II 5	-7.66	AT2G42690.1
2491	HORVU4Hr1G067930	Ninja-family protein	-7.66	AT1G69260.1
2492	HORVU7Hr1G041380	Caleosin-related family protein	-7.70	AT1G70680.2
2493	HORVU3Hr1G068840	WD-40 repeat family protein	-7.72	AT3G15354.5
2494	HORVU5Hr1G115340	50S ribosomal protein L18	-7.73	AT1G48350.1
2495	HORVU3Hr1G091150	Protein of unknown function (DUF803)	-7.73	AT1G71900.1
2496	HORVU7Hr1G045640	Epoxide hydrolase 3	-7.73	AT4G02340.1
2497	HORVU7Hr1G104490	glutamate receptor 3.4	-7.74	AT1G05200.6
2498	HORVU1Hr1G090190	WRKY family transcription factor	-7.76	AT4G23810.1
2499	HORVU2Hr1G097670	Plastid-lipid associated protein	-7.76	AT4G00030.1
2500	HORVU7Hr1G049870	alanine:glyoxylate aminotransferase	-7.78	AT2G13360.3
2501	HORVU6Hr1G052420	Glycerophosphodiester phosphodiesterase GDPDL4	-7.79	AT5G55480.1
2502	HORVU1Hr1G024070	Protein kinase superfamily protein	-7.79	AT3G46290.1
2503	HORVU7Hr1G113890	unknown function	-7.80	AT4G31805.1

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2504	HORVU2Hr1G014710	Methyltransferase domain protein	-7.82	AT5G01710.1
2505	HORVU2Hr1G080870	vacuolar iron transporter 1	-7.82	AT2G01770.1
2506	HORVU2Hr1G045970	unknown function	-7.85	AT3G21710.2
2507	HORVU1Hr1G063220	unknown function	-7.85	AT1G03160.1
2508	HORVU1Hr1G090130	WRKY DNA-binding protein 30	-7.86	AT4G11070.2
2509	HORVU6Hr1G012750	undescribed protein	-7.86	AT3G47460.1
2510	HORVU6Hr1G078480	undescribed protein	-7.88	AT5G11360.2
2511	HORVU2Hr1G086920	Major facilitator superfamily protein	-7.90	AT1G80530.1
2512	HORVU4Hr1G002350	N utilization substance protein B homolog	-7.90	AT4G26370.1
2513	HORVU7Hr1G083690	Two-component response regulator-like APRR2	-7.92	AT2G20570.1
2514	HORVU2Hr1G031570	undescribed protein	-7.92	AT3G23550.1
2515	HORVU5Hr1G103590	Syntaxin-121	-7.92	AT1G61290.2
2516	HORVU2Hr1G072890	Glucan endo-1,3-beta-glucosidase 14	-7.93	AT2G27500.2
2517	HORVU1Hr1G079400	undescribed protein	-7.93	AT1G20110.1
2518	HORVU6Hr1G059990	unknown function	-7.94	AT5G14895.1
2519	HORVU5Hr1G093860	Structural constituent of ribosome protein	-7.94	AT4G19390.2
2520	HORVU7Hr1G105950	undescribed protein	-7.94	#N/A
2521	HORVU3Hr1G037780	PQ-loop repeat family protein / transmembrane family protein	-7.94	AT2G41050.3
2522	HORVU2Hr1G039070	calcium-dependent protein kinase 19	-7.95	AT5G12480.1
2523	HORVU4Hr1G067020	Caleosin-related family protein	-7.95	AT2G33380.1
2524	HORVU7Hr1G109180	VACUOLAR SORTING RECEPTOR 6	-7.95	AT1G30900.1
2525	HORVU1Hr1G054930	SBP (S-ribonuclease-binding protein) family protein	-7.96	AT4G17680.1
2526	HORVU2Hr1G022780	Haloacid dehalogenase-like hydrolase domain-containing protein 3	-8.00	AT2G41250.1
2527	HORVU0Hr1G007660	0	-8.02	#N/A
2528	HORVU1Hr1G023160	Flavin-containing monooxygenase family protein	-8.06	AT1G19250.1
2529	HORVU7Hr1G113830	WRKY family transcription factor	-8.07	AT1G80840.1
2530	HORVU5Hr1G103990	early nodulin-like protein 14	-8.10	AT2G26720.1
2531	HORVU2Hr1G017080	alpha/beta-Hydrolases superfamily protein	-8.10	AT5G17780.2
2532	HORVU6Hr1G029160	Protein phosphatase 2C family protein	-8.10	AT4G31860.1
2533	HORVU5Hr1G063820	Fatty acid hydroxylase superfamily	-8.12	AT5G57800.1
2534	HORVU2Hr1G037550	tubulin alpha-4 chain	-8.12	AT5G19780.1
2535	HORVU3Hr1G089510	formin homology 1	-8.12	AT3G25500.1
2536	HORVU1Hr1G035870	undescribed protein	-8.14	AT4G15760.1
2537	HORVU0Hr1G013900	L-lactate dehydrogenase	-8.14	AT3G14415.3
2538	HORVU6Hr1G033290	MLO-like protein 1	-8.16	AT4G02600.2
2539	HORVU5Hr1G110000	Cellulose synthase family protein	-8.18	AT5G05170.1

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2540	HORVU6Hr1G009170	NAD(P)-binding Rossmann-fold superfamily protein	-8.19	AT1G72640.1
2541	HORVU4Hr1G038570	30S ribosomal protein S5	-8.19	AT2G33800.1
2542	HORVU3Hr1G077530	Sulfite exporter TauE/SafE family protein	-8.20	AT1G61740.1
2543	HORVU4Hr1G024950	Double Clp-N motif-containing P-loop nucleoside triphosphate hydrolases superfamily protein	-8.20	AT2G29970.1
2544	HORVU7Hr1G079720	GDSL esterase/lipase	-8.22	AT5G45910.1
2545	HORVU7Hr1G114700	unknown function	-8.24	AT5G11070.1
2546	HORVU5Hr1G087210	Receptor-like serine/threonine-protein kinase SD1-8	-8.24	AT4G21390.2
2547	HORVU2Hr1G104810	undescribed protein	-8.28	ATCG01050.1
2548	HORVU4Hr1G004160	Exostosin-2	-8.29	AT5G04500.1
2549	HORVU7Hr1G082380	Class I glutamine amidotransferase-like superfamily protein	-8.29	AT4G34020.1
2550	HORVU0Hr1G021630	Auxin-responsive protein IAA21	-8.29	AT4G29080.1
2551	HORVU6Hr1G077440	Threonine endopeptidase	-8.31	AT4G38100.1
2552	HORVU6Hr1G015430	alpha/beta-Hydrolases superfamily protein	-8.37	AT5G17670.1
2553	HORVU1Hr1G094050	Protein kinase superfamily protein	-8.38	AT3G59110.1
2554	HORVU7Hr1G086120	Leucine-rich repeat receptor-like protein kinase family protein	-8.39	AT3G47570.1
2555	HORVU6Hr1G053550	beta-1,4-N-acetylglucosaminyltransferase family protein	-8.39	AT5G14480.1
2556	HORVU5Hr1G106790	GTPase Obg	-8.39	AT5G18570.1
2557	HORVU7Hr1G121210	At5g37260-like protein	-8.39	AT5G37260.1
2558	HORVU2Hr1G013870	fatty acid desaturase 8	-8.40	AT5G05580.1
2559	HORVU3Hr1G097330	undescribed protein	-8.41	AT5G19180.1
2560	HORVU4Hr1G066230	allene oxide synthase	-8.44	AT5G42650.1
2561	HORVU5Hr1G102530	Hfr-2-like protein	-8.44	AT5G44010.2
2562	HORVU5Hr1G087970	plastid movement impaired1	-8.44	AT1G42550.1
2563	HORVU3Hr1G095330	50S ribosomal protein L27	-8.48	AT5G40950.1
2564	HORVU1Hr1G093390	TPR repeat-containing thioredoxin TTL1	-8.49	AT1G53300.1
2565	HORVU2Hr1G049560	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-8.51	AT1G20810.2
2566	HORVU7Hr1G052920	undescribed protein	-8.51	AT2G17510.1
2567	HORVU7Hr1G078020	Pentatricopeptide repeat (PPR) superfamily protein	-8.52	AT1G64430.2
2568	HORVU3Hr1G078780	Ribosomal protein L34	-8.53	AT1G29070.1
2569	HORVU1Hr1G066530	22.3 kDa class VI heat shock protein	-8.56	AT5G54660.1
2570	HORVU3Hr1G029260	Peptide-N4-(N-acetyl-beta-glucosaminyl)asparagine amidase A protein	-8.58	AT3G14920.1
2571	HORVU3Hr1G081180	expansin A1	-8.58	AT1G69530.2



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2572	HORVU3Hr1G117590	23 kDa jasmonate-induced protein	-8.61	AT1G53990.1
2573	HORVU0Hr1G005320	IQ-domain 22	-8.63	AT4G23060.1
2574	HORVU6Hr1G053730	Protein GLE1	-8.66	AT1G13120.1
2575	HORVU7Hr1G114510	BZIP transcription factor	-8.66	AT4G36730.2
2576	HORVU5Hr1G100870	undescribed protein	-8.70	AT5G64640.1
2577	HORVU4Hr1G069990	Diacylglycerol kinase	-8.70	AT1G48390.3
2578	HORVU4Hr1G077310	Ethylene-responsive transcription factor 1	-8.71	AT1G72360.3
2579	HORVU7Hr1G002200	nodulin MtN21 /EamA-like transporter family protein	-8.72	AT3G30340.1
2580	HORVU0Hr1G029600	undescribed protein	-8.73	AT3G17240.3
2581	HORVU5Hr1G098370	Cytochrome c biogenesis protein CcsB	-8.73	AT1G49380.1
2582	HORVU7Hr1G085980	Salt overly sensitive 1	-8.74	AT2G01980.1
2583	HORVU4Hr1G011160	Endoglucanase 10	-8.74	AT5G49720.1
2584	HORVU0Hr1G009860	PI-PLC X domain-containing protein	-8.75	AT1G13680.1
2585	HORVU5Hr1G092700	Nuclear transcription factor Y subunit A-10	-8.78	AT5G06510.3
2586	HORVU4Hr1G017030	GDP-L-galactose phosphorylase 2	-8.79	AT5G55120.1
2587	HORVU7Hr1G073860	2-succinylbenzoate--CoA ligase	-8.82	AT1G30520.2
2588	HORVU5Hr1G050510	kinesin 4	-8.82	AT5G47820.2
2589	HORVU1Hr1G071500	undescribed protein	-8.83	AT3G59100.1
2590	HORVU4Hr1G035330	Tryptophan synthase beta chain 2	-8.84	AT5G38530.1
2591	HORVU7Hr1G042160	Protein CURVATURE THYLAKOID 1A, chloroplastic	-8.84	AT4G01150.1
2592	HORVU2Hr1G106080	WEB family protein At5g16730, chloroplastic	-8.84	AT5G16730.1
2593	HORVU4Hr1G023830	FRAGILE HISTIDINE TRIAD	-8.85	AT5G58240.2
2594	HORVU4Hr1G021140	Harpin-induced protein 1 containing protein, expressed	-8.85	AT2G27260.1
2595	HORVU4Hr1G016260	ATP-dependent protease La (LON) domain protein	-8.85	AT1G35340.1
2596	HORVU4Hr1G074320	ABC-type Co <sup>2+</sup> transport system, permease component	-8.86	AT4G19100.1
2597	HORVU2Hr1G111590	unknown function	-8.86	AT3G22210.1
2598	HORVU2Hr1G072880	ferredoxin 3	-8.89	AT2G27510.1
2599	HORVU2Hr1G021700	4-alpha-glucanotransferase	-8.91	AT2G40840.1
2600	HORVU3Hr1G010310	Disease resistance protein	-8.92	AT3G07040.1
2601	HORVU3Hr1G090270	thylakoid rhodanese-like	-8.92	AT3G25480.1
2602	HORVU6Hr1G080750	sulfite reductase	-8.94	AT2G15620.1
2603	HORVU6Hr1G077900	Non-specific lipid transfer protein-like 1	-8.97	AT5G64080.2
2604	HORVU3Hr1G067110	Glycine dehydrogenase (decarboxylating)	-8.97	AT2G26080.1
2605	HORVU3Hr1G077660	nuclear transport factor 2A	-8.97	AT1G27310.1
2606	HORVU6Hr1G034620	Peroxiredoxin-2B	-8.98	AT3G52960.1
2607	HORVU5Hr1G034830	WRKY family transcription factor	-8.98	AT4G11070.2

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2608	HORVU4Hr1G075730	unknown function	-9.00	AT3G52105.1
2609	HORVU4Hr1G056100	Mitochondrial substrate carrier family protein	-9.02	AT5G01340.1
2610	HORVU3Hr1G016460	undescribed protein	-9.04	AT1G07990.2
2611	HORVU3Hr1G065570	undescribed protein	-9.06	#N/A
2612	HORVU2Hr1G084750	2-phosphoglycolate phosphatase 1	-9.07	AT5G36790.3
2613	HORVU2Hr1G078980	Folic acid and derivative biosynthetic process	-9.11	AT4G24380.4
2614	HORVU7Hr1G050530	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-9.11	AT2G42280.1
2615	HORVU7Hr1G117370	Senescence/dehydration-associated protein-related	-9.13	AT3G51250.1
2616	HORVU3Hr1G107090	calmodulin like 23	-9.14	AT1G24620.1
2617	HORVU5Hr1G111330	unknown function	-9.15	AT4G13500.1
2618	HORVU7Hr1G000120	Protein of unknown function (DUF3754)	-9.24	AT2G46915.1
2619	HORVU2Hr1G001500	undescribed protein	-9.24	AT4G14500.2
2620	HORVU0Hr1G016780	Cytochrome P450 superfamily protein	-9.24	AT5G45340.1
2621	HORVU5Hr1G120650	polyribonucleotide nucleotidyltransferase, putative	-9.25	AT3G23700.1
2622	HORVU3Hr1G044430	undescribed protein	-9.26	AT1G57770.1
2623	HORVU2Hr1G025720	C-repeat binding factor 3-like protein	-9.30	AT4G25490.1
2624	HORVU1Hr1G013970	3-oxo-5-alpha-steroid 4-dehydrogenase family protein	-9.33	AT5G16010.1
2625	HORVU2Hr1G016440	Pentatricopeptide repeat-containing protein	-9.34	AT1G13040.2
2626	HORVU2Hr1G111570	alpha/beta-Hydrolases superfamily protein	-9.36	AT5G67050.1
2627	HORVU6Hr1G028220	Disease resistance protein	-9.36	AT3G07040.1
2628	HORVU2Hr1G063740	alanine aminotransferase 2	-9.38	AT1G70580.4
2629	HORVU2Hr1G072530	Calcineurin-like metallo-phosphoesterase superfamily protein	-9.39	AT3G09970.1
2630	HORVU7Hr1G109280	Fructose-1,6-bisphosphatase class 1	-9.41	AT5G64380.1
2631	HORVU3Hr1G093230	undescribed protein	-9.43	AT5G16750.1
2632	HORVU3Hr1G017000	Tetratricopeptide repeat 6	-9.44	AT1G62340.1
2633	HORVU6Hr1G075520	undescribed protein	-9.44	AT3G12940.1
2634	HORVU5Hr1G114990	GDP-mannose transporter	-9.44	AT2G13650.3
2635	HORVU5Hr1G115460	ATP-dependent RNA helicase DeaD	-9.44	AT5G26742.2
2636	HORVU4Hr1G068870	Pentatricopeptide repeat-containing protein	-9.44	AT3G29290.5
2637	HORVU2Hr1G077970	3-oxoacyl-[acyl-carrier-protein] synthase 2	-9.45	AT5G46290.1
2638	HORVU5Hr1G031210	undescribed protein	-9.50	AT3G47600.1
2639	HORVU4Hr1G083230	S-adenosyl-L-methionine-dependent methyltransferases superfamily protein	-9.52	AT5G44600.1
2640	HORVU7Hr1G095160	KAR-UP F-box 1	-9.53	AT1G31350.1
2641	HORVU2Hr1G093210	cyclin p4;1	-9.53	AT2G44740.1

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2642	HORVU3Hr1G019820	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	-9.57	AT1G35190.1
2643	HORVU6Hr1G058780	Protein kinase superfamily protein	-9.58	AT1G08650.1
2644	HORVU5Hr1G104230	Glucan endo-1,3-beta-glucosidase 8	-9.62	AT2G19440.2
2645	HORVU3Hr1G050800	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-9.67	AT1G74730.1
2646	HORVU6Hr1G003300	nitrate reductase 1	-9.68	AT1G77760.1
2647	HORVU6Hr1G005050	flowering promoting factor 1	-9.72	AT5G24860.1
2648	HORVU2Hr1G007070	Cyclopropane-fatty-acyl-phospholipid synthase	-9.73	AT3G23510.1
2649	HORVU3Hr1G028410	RING/U-box superfamily protein	-9.75	AT2G42350.1
2650	HORVU6Hr1G031870	Retrotransposon protein, putative, Ty1-copia subclass	-9.75	AT3G16785.3
2651	HORVU5Hr1G101020	ribose-5-phosphate isomerase 2	-9.76	AT5G44520.2
2652	HORVU0Hr1G014040	PI-PLC X domain-containing protein	-9.77	AT1G13680.1
2653	HORVU5Hr1G095540	Outward rectifying potassium channel protein	-9.80	AT5G55630.2
2654	HORVU4Hr1G076180	unknown function	-9.82	AT2G26340.1
2655	HORVU2Hr1G091360	receptor kinase 2	-9.83	AT2G37710.1
2656	HORVU7Hr1G050540	DNA binding protein	-9.83	AT1G51140.1
2657	HORVU7Hr1G055890	50S ribosomal protein 6, chloroplastic	-9.85	AT5G17870.1
2658	HORVU4Hr1G021820	DUF3049 family protein	-9.85	AT5G22390.1
2659	HORVU5Hr1G115000	Thylakoid soluble phosphoprotein TSP9 protein	-9.85	AT3G47070.1
2660	HORVU4Hr1G065660	MATE efflux family protein	-9.86	AT1G58340.1
2661	HORVU4Hr1G015250	Zinc-finger homeodomain protein 4	-9.87	AT1G14440.2
2662	HORVU5Hr1G082460	Endoglucanase 24	-9.89	AT1G75680.1
2663	HORVU3Hr1G095300	stress enhanced protein 1	-9.91	AT4G34190.1
2664	HORVU3Hr1G089190	Pentatricopeptide repeat (PPR) superfamily protein	-9.97	AT3G59300.1
2665	HORVU5Hr1G093640	Auxin-responsive protein IAA12	-10.01	AT1G04240.1
2666	HORVU6Hr1G067620	Pentatricopeptide repeat-containing protein	-10.01	AT1G31920.1
2667	HORVU2Hr1G125280	unknown function	-10.02	AT1G45688.1
2668	HORVU3Hr1G088020	dihydroflavonol 4-reductase-like1	-10.03	AT5G58490.1
2669	HORVU2Hr1G118050	undescribed protein	-10.05	AT1G01490.2
2670	HORVU1Hr1G038750	Double-stranded RNA-binding protein 5	-10.07	AT5G37180.3
2671	HORVU3Hr1G055940	Kinesin-related protein 6	-10.10	AT3G16060.1
2672	HORVU2Hr1G007000	Cyclopropane-fatty-acyl-phospholipid synthase	-10.15	AT3G23510.1
2673	HORVU6Hr1G068690	Cytochrome P450 superfamily protein	-10.25	AT5G45340.1
2674	HORVU7Hr1G015160	unknown function	-10.25	AT1G32928.1
2675	HORVU6Hr1G068910	alpha/beta hydrolase	-10.25	AT4G36530.2
2676	HORVU2Hr1G115710	unknown protein; LOCATED IN: chloroplast; EXPRESSED IN: 22 plant	-10.26	AT2G21960.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
		structures; EXPRESSED DURING: 13 growth stages; BEST Arabidopsis thaliana protein match is: unknown protein .		
2677	HORVU7Hr1G056240	Peptidyl-prolyl cis-trans isomerase	-10.26	AT2G43560.1
2678	HORVU5Hr1G093850	Phototropic-responsive NPH3 family protein	-10.28	AT5G66560.1
2679	HORVU3Hr1G082280	Glutamine--fructose-6-phosphate aminotransferase [isomerizing]	-10.28	AT2G16570.1
2680	HORVU1Hr1G076350	trehalose-6-phosphate synthase	-10.28	AT1G78580.4
2681	HORVU5Hr1G016270	Sulfurtransferase	-10.32	AT1G27320.1
2682	HORVU6Hr1G018830	50S ribosomal protein L3	-10.34	AT2G43030.1
2683	HORVU4Hr1G019570	fructose-bisphosphate aldolase 2	-10.35	AT4G38970.1
2684	HORVU6Hr1G010050	Protein kinase superfamily protein	-10.37	AT2G17220.1
2685	HORVU2Hr1G036110	NADP-dependent glyceraldehyde-3-phosphate dehydrogenase	-10.43	AT2G24270.4
2686	HORVU6Hr1G000650	Glyoxylate/hydroxypyruvate reductase B	-10.45	AT1G68010.1
2687	HORVU7Hr1G081590	Protein kinase superfamily protein	-10.46	AT3G46290.1
2688	HORVU2Hr1G108070	Glycosyltransferase family 61 protein	-10.47	AT3G18170.1
2689	HORVU5Hr1G109680	Protein of Unknown Function (DUF239)	-10.47	AT1G55360.1
2690	HORVU7Hr1G092550	Transmembrane amino acid transporter family protein	-10.47	AT3G30390.3
2691	HORVU4Hr1G060440	Digalactosyldiacylglycerol synthase 2, chloroplastic	-10.47	AT4G00550.2
2692	HORVU6Hr1G082710	UDP-Glycosyltransferase superfamily protein	-10.47	AT1G22360.1
2693	HORVU2Hr1G099890	Ethylene-responsive transcription factor 4	-10.49	AT3G15210.1
2694	HORVU5Hr1G053230	RNA-binding protein 1	-10.49	AT3G52150.2
2695	HORVU7Hr1G043030	HD1	-10.50	AT3G02380.1
2696	HORVU4Hr1G015330	Rieske (2Fe-2S) domain-containing protein	-10.51	AT1G71500.1
2697	HORVU2Hr1G077460	cytochrome P450, family 87, subfamily A, polypeptide 6	-10.52	AT1G64940.1
2698	HORVU2Hr1G092180	Elongation factor G	-10.52	AT1G62750.1
2699	HORVU2Hr1G022920	glutamate synthase 1	-10.53	AT5G04140.1
2700	HORVU0Hr1G017160	Glutaredoxin family protein	-10.54	AT5G39865.1
2701	HORVU5Hr1G048300	Double Clp-N motif-containing P-loop nucleoside triphosphate hydrolases superfamily protein	-10.55	AT2G29970.1
2702	HORVU1Hr1G024400	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase	-10.58	AT1G07110.1
2703	HORVU5Hr1G042160	purple acid phosphatase 22	-10.58	AT3G52820.1
2704	HORVU3Hr1G039790	50S ribosomal protein L40	-10.58	AT3G56910.1
2705	HORVU2Hr1G111540	Farnesyl pyrophosphate synthase 2	-10.60	AT5G47770.1
2706	HORVU1Hr1G073300	myb-like transcription factor family protein	-10.64	AT2G38090.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2707	HORVU6Hr1G022680	Late embryogenesis abundant (LEA) hydroxyproline-rich glycoprotein family	-10.64	AT5G06320.1
2708	HORVU2Hr1G010830	alcohol dehydrogenase 1	-10.66	AT4G39330.1
2709	HORVU3Hr1G091140	NAD(P)H-quinone oxidoreductase subunit N	-10.66	AT5G58260.1
2710	HORVU4Hr1G042560	undescribed protein	-10.66	AT1G32960.1
2711	HORVU3Hr1G019830	undescribed protein	-10.68	AT3G49180.1
2712	HORVU1Hr1G064970	amino acid permease 2	-10.69	AT5G09220.1
2713	HORVU3Hr1G001080	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-10.71	AT2G35350.1
2714	HORVU2Hr1G015470	Protein phosphatase 2C family protein	-10.74	AT1G09160.2
2715	HORVU7Hr1G115040	30S ribosomal protein S17	-10.75	AT1G79850.1
2716	HORVU6Hr1G009500	Peroxidase superfamily protein	-10.75	AT5G05340.1
2717	HORVU4Hr1G051820	Retrotransposon protein, putative, Ty1-copia subclass	-10.75	AT4G23160.3
2718	HORVU2Hr1G071100	Myb/SANT-like DNA-binding domain protein	-10.76	AT2G33550.1
2719	HORVU1Hr1G068910	unknown function	-10.77	AT3G47510.1
2720	HORVU4Hr1G062330	unknown function	-10.77	AT4G11000.1
2721	HORVU1Hr1G025440	Embryo-specific protein 3, (ATS3)	-10.80	AT2G41475.1
2722	HORVU4Hr1G056080	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	-10.80	AT1G06640.1
2723	HORVU7Hr1G098510	Peroxidase superfamily protein	-10.82	AT2G18980.1
2724	HORVU3Hr1G082730	Photosystem II 22 kDa protein, chloroplastic	-10.82	AT1G44575.3
2725	HORVU5Hr1G001730	Leucine-rich receptor-like protein kinase family protein	-10.85	AT5G49660.1
2726	HORVU2Hr1G066020	undescribed protein	-10.87	AT3G55380.2
2727	HORVU6Hr1G000620	Ferredoxin--NADP reductase	-10.88	AT5G66190.1
2728	HORVU3Hr1G010370	DNA damage-binding protein 2	-10.92	AT5G58760.1
2729	HORVU2Hr1G061010	undescribed protein	-10.93	AT5G07380.4
2730	HORVU7Hr1G112280	undescribed protein	-10.94	#N/A
2731	HORVU6Hr1G031370	Calcineurin-like metallo-phosphoesterase superfamily protein	-11.03	AT1G07010.1
2732	HORVU5Hr1G022750	PsbP domain-containing protein 1, chloroplastic	-11.03	AT4G15510.5
2733	HORVU5Hr1G018220	Two-component response regulator ARR18	-11.03	AT2G03500.1
2734	HORVU1Hr1G061970	'putative endo-1,3;1,4-beta-D-glucanase'	-11.03	AT3G23600.1
2735	HORVU6Hr1G090240	undescribed protein	-11.05	#N/A
2736	HORVU3Hr1G022540	Auxin-responsive protein IAA1	-11.06	AT1G04250.1
2737	HORVU5Hr1G072980	serine carboxypeptidase-like 18	-11.07	AT1G33540.1
2738	HORVU5Hr1G050990	ribulose biphosphate carboxylase small chain 1A	-11.20	AT1G67090.1
2739	HORVU3Hr1G115610	Vacuolar-processing enzyme	-11.25	AT4G32940.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2740	HORVU2Hr1G076880	Protein NRT1/ PTR FAMILY 4.3	-11.31	AT1G59740.1
2741	HORVU3Hr1G082740	Photosystem II 22 kDa protein, chloroplastic	-11.35	AT1G44575.3
2742	HORVU2Hr1G039000	unknown function	-11.42	AT2G01870.1
2743	HORVU7Hr1G084420	RAS-related GTP-binding nuclear protein 2	-11.45	AT5G55190.1
2744	HORVU2Hr1G010630	ribulose biphosphate carboxylase small chain 1A	-11.49	AT1G67090.1
2745	HORVU0Hr1G022410	undescribed protein	-11.52	AT1G05860.3
2746	HORVU4Hr1G011500	serine hydroxymethyltransferase 2	-11.53	AT4G37930.1
2747	HORVU7Hr1G078690	cytochrome B561-1	-11.57	AT4G25570.1
2748	HORVU2Hr1G089970	Aquaporin-like superfamily protein	-11.58	AT2G16850.1
2749	HORVU6Hr1G066050	RING/U-box superfamily protein	-11.59	AT3G61460.1
2750	HORVU1Hr1G075520	Jacalin-related lectin 3	-11.61	AT1G19715.1
2751	HORVU1Hr1G049420	Heavy metal transport/detoxification superfamily protein	-11.62	AT1G01490.2
2752	HORVU6Hr1G086210	RING-H2 zinc finger protein-like	-11.62	AT2G15580.1
2753	HORVU6Hr1G073100	Protein CURVATURE THYLAKOID 1A, chloroplastic	-11.62	AT4G01150.1
2754	HORVU4Hr1G075400	undescribed protein	-11.63	AT5G02400.1
2755	HORVU1Hr1G001900	undescribed protein	-11.66	AT1G21640.1
2756	HORVU4Hr1G048560	Tubby-like F-box protein 6	-11.72	AT2G47900.3
2757	HORVU4Hr1G027260	Ribulose biphosphate carboxylase/oxygenase activase A, chloroplastic	-11.73	AT2G39730.1
2758	HORVU6Hr1G063310	trehalose-6-phosphate phosphatase	-11.75	AT5G51460.4
2759	HORVU5Hr1G018790	Cytochrome P450 superfamily protein	-11.76	AT1G66540.2
2760	HORVU5Hr1G074000	NAD(P)-binding Rossmann-fold superfamily protein	-11.77	AT3G18890.1
2761	HORVU1Hr1G065810	Secretory carrier-associated membrane protein 3	-11.79	AT1G61250.1
2762	HORVU7Hr1G114710	unknown function	-11.82	AT5G11070.1
2763	HORVU6Hr1G075900	Geranylgeranyl diphosphate reductase	-11.82	AT1G74470.1
2764	HORVU3Hr1G024970	GDSL esterase/lipase	-11.84	AT1G28650.1
2765	HORVU6Hr1G072540	signal peptide peptidase	-11.85	AT1G73990.2
2766	HORVU3Hr1G117770	Zinc finger CCCH domain-containing protein 33	-11.85	AT5G58620.1
2767	HORVU3Hr1G036600	TRAM, LAG1 and CLN8 (TLC) lipid-sensing domain containing protein	-11.86	AT1G35180.1
2768	HORVU4Hr1G002050	2-methyl-6-phytyl-1,4-hydroquinone methyltransferase 2, chloroplastic	-11.89	AT3G63410.1
2769	HORVU1Hr1G026650	Leucine-rich repeat receptor-like protein kinase family protein	-11.92	AT3G24480.1
2770	HORVU1Hr1G007810	UDP-Glycosyltransferase superfamily protein	-12.00	AT1G22360.1
2771	HORVU1Hr1G005120	outer plastid envelope protein 16-1	-12.02	AT2G28900.1
2772	HORVU6Hr1G088610	terpene synthase 14	-12.05	AT1G61680.1



S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2773	HORVU0Hr1G023540	trehalose-6-phosphate phosphatase	-12.06	AT5G51460.4
2774	HORVU6Hr1G055660	Dehydrogenase/reductase SDR family member 7B	-12.08	AT3G59710.3
2775	HORVU4Hr1G009440	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-12.12	AT4G37850.2
2776	HORVU5Hr1G020500	Protein of unknown function (DUF1118)	-12.15	AT5G08050.1
2777	HORVU2Hr1G060010	L-lactate dehydrogenase	-12.15	AT3G14420.2
2778	HORVU2Hr1G108090	undescribed protein	-12.18	AT5G45100.2
2779	HORVU6Hr1G067120	unknown protein; Has 149 Blast hits to 140 proteins in 44 species: Archae - 0; Bacteria - 6; Metazoa - 40; Fungi - 6; Plants - 39; Viruses - 0; Other Eukaryotes - 58 (source: NCBI BLink).	-12.28	AT2G35200.1
2780	HORVU4Hr1G002900	Protein of unknown function (DUF1677)	-12.32	AT3G22540.1
2781	HORVU2Hr1G084420	BnaA09g28020D protein	-12.35	AT1G27300.1
2782	HORVU7Hr1G071000	undescribed protein	-12.36	#N/A
2783	HORVU5Hr1G111640	50S ribosomal protein L17	-12.42	AT3G54210.1
2784	HORVU0Hr1G020750	beta glucosidase 17	-12.42	AT2G44480.1
2785	HORVU1Hr1G013760	undescribed protein	-12.45	AT3G08530.1
2786	HORVU7Hr1G077750	ferredoxin 1	-12.46	AT1G60950.1
2787	HORVU7Hr1G120660	PHYTOENE SYNTHASE	-12.49	AT5G17230.4
2788	HORVU5Hr1G022570	Stress responsive alpha-beta barrel domain protein	-12.54	AT2G32500.2
2789	HORVU7Hr1G112290	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-12.56	AT2G24710.3
2790	HORVU7Hr1G112240	undescribed protein	-12.60	AT5G40250.1
2791	HORVU7Hr1G044780	undescribed protein	-12.64	AT1G21450.1
2792	HORVU1Hr1G060610	1-deoxy-D-xylulose 5-phosphate synthase 1	-12.64	AT4G15560.1
2793	HORVU4Hr1G004800	Tetratricopeptide repeat (TPR)-like superfamily protein	-12.65	AT1G27150.1
2794	HORVU5Hr1G025610	Glutaredoxin family protein	-12.66	AT2G47880.1
2795	HORVU7Hr1G047210	Phosphate transporter PHO1-3	-12.69	AT1G68740.1
2796	HORVU6Hr1G080420	sugar transporter 2	-12.70	AT2G48020.3
2797	HORVU7Hr1G057100	Cytochrome P450 superfamily protein	-12.73	AT3G61880.2
2798	HORVU2Hr1G085300	haloacid dehalogenase-like hydrolase family protein	-12.73	AT4G39970.1
2799	HORVU2Hr1G071940	Photosystem II stability/assembly factor HCF136	-12.74	AT5G23120.1
2800	HORVU7Hr1G038300	Transmembrane amino acid transporter family protein	-12.91	AT3G28960.5
2801	HORVU4Hr1G085960	Peroxisomal membrane protein 11-1	-12.92	AT1G01820.1
2802	HORVU4Hr1G057020	Low temperature and salt responsive protein family	-12.92	AT2G38905.1
2803	HORVU3Hr1G056830	glycerol-3-phosphate acyltransferase 1	-13.02	AT1G06520.1
2804	HORVU7Hr1G036720	germin-like protein 1	-13.05	AT1G72610.1
2805	HORVU4Hr1G025010	undescribed protein	-13.13	#N/A

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2806	HORVU7Hr1G121250	Aquaporin-like superfamily protein	-13.14	AT4G18910.1
2807	HORVU2Hr1G098820	Trypsin family protein	-13.20	AT5G45030.2
2808	HORVU3Hr1G078860	UDP-Glycosyltransferase superfamily protein	-13.25	AT2G30140.1
2809	HORVU3Hr1G018050	undescribed protein	-13.25	AT4G28706.4
2810	HORVU6Hr1G002550	Nitric oxide-associated protein 1	-13.27	AT3G47450.2
2811	HORVU1Hr1G022490	unknown function	-13.27	AT5G60360.3
2812	HORVU4Hr1G008160	PHD finger protein	-13.29	AT1G66170.1
2813	HORVU7Hr1G119100	Serine/threonine-protein kinase	-13.30	AT1G34300.1
2814	HORVU5Hr1G024410	rapid alkalization factor 23	-13.34	AT4G15800.1
2815	HORVU5Hr1G025820	Retrotransposon protein, putative, unclassified	-13.36	AT3G62300.1
2816	HORVU3Hr1G040880	F-box family protein	-13.38	AT2G32560.1
2817	HORVU2Hr1G074770	Abscisic stress-ripening protein 3	-13.39	AT2G03140.9
2818	HORVU5Hr1G070140	undescribed protein	-13.40	AT3G61180.1
2819	HORVU7Hr1G082350	UDP-Glycosyltransferase superfamily protein	-13.41	AT3G16520.3
2820	HORVU1Hr1G047100	Aquaporin-like superfamily protein	-13.42	AT4G10380.1
2821	HORVU2Hr1G038570	Ribosome-recycling factor	-13.42	AT3G63190.1
2822	HORVU6Hr1G045650	undescribed protein	-13.45	AT2G41720.1
2823	HORVU3Hr1G024980	undescribed protein	-13.45	AT3G28223.1
2824	HORVU5Hr1G051010	ribulose biphosphate carboxylase small chain 1A	-13.51	AT1G67090.1
2825	HORVU1Hr1G069830	expansin A1	-13.52	AT1G69530.2
2826	HORVU7Hr1G088920	Heat stress transcription factor C-2b	-13.58	AT3G24520.1
2827	HORVU3Hr1G058230	undescribed protein	-13.59	AT4G21200.3
2828	HORVU2Hr1G096270	calcium-dependent protein kinase 29	-13.61	AT1G76040.2
2829	HORVU7Hr1G091560	C-repeat binding factor 3-like protein	-13.62	AT4G25470.1
2830	HORVU5Hr1G077140	Esterase/lipase/thioesterase family protein	-13.66	AT5G41130.1
2831	HORVU6Hr1G093030	50S ribosomal protein L9	-13.71	AT3G44890.1
2832	HORVU7Hr1G050500	unknown protein; INVOLVED IN: biological_process unknown; LOCATED IN: chloroplast; EXPRESSED IN: 21 plant structures; EXPRESSED DURING: 12 growth stages; BEST Arabidopsis thaliana protein match is: unknown protein .	-13.74	AT5G12900.1
2833	HORVU3Hr1G057400	BnaA07g15680D protein	-13.76	AT5G42070.1
2834	HORVU3Hr1G019320	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-13.77	AT3G11760.1
2835	HORVU2Hr1G111530	alpha/beta-Hydrolases superfamily protein	-13.83	AT3G14360.1
2836	HORVU4Hr1G013190	Protein of unknown function (DUF620)	-13.84	AT3G19540.1
2837	HORVU1Hr1G076910	serine/threonine protein kinase 1	-13.87	AT4G18700.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2838	HORVU4Hr1G072060	Heavy metal transport/detoxification superfamily protein	-13.87	AT5G03380.1
2839	HORVU7Hr1G089850	Plant protein of unknown function (DUF247)	-13.93	AT3G50120.1
2840	HORVU6Hr1G077610	RING/U-box superfamily protein	-13.95	AT3G05200.1
2841	HORVU2Hr1G009980	Eukaryotic aspartyl protease family protein	-14.07	AT2G03200.1
2842	HORVU2Hr1G089960	undescribed protein	-14.08	AT5G63950.2
2843	HORVU7Hr1G065970	undescribed protein	-14.11	AT3G48430.1
2844	HORVU1Hr1G070290	proline-rich family protein	-14.13	AT5G07020.1
2845	HORVU1Hr1G052790	undescribed protein	-14.13	AT1G78000.7
2846	HORVU7Hr1G039140	Glutathione S-transferase family protein	-14.18	AT3G62760.1
2847	HORVU7Hr1G009800	LEA	-14.19	AT1G32560.1
2848	HORVU7Hr1G077740	ferredoxin 1	-14.24	AT1G60950.1
2849	HORVU2Hr1G076970	Pentatricopeptide repeat-containing protein	-14.26	AT5G08490.8
2850	HORVU2Hr1G096850	Haloacid dehalogenase-like hydrolase (HAD) superfamily protein	-14.29	AT4G11570.2
2851	HORVU3Hr1G085270	Fructose-1,6-bisphosphatase class 1	-14.32	AT3G55800.1
2852	HORVU7Hr1G038530	Pentatricopeptide repeat-containing protein	-14.37	AT5G06540.1
2853	HORVU6Hr1G010940	undescribed protein	-14.43	AT4G16120.1
2854	HORVU4Hr1G032020	undescribed protein	-14.53	AT5G62630.1
2855	HORVU0Hr1G031970	Protein DEHYDRATION-INDUCED 19 homolog 5	-14.57	AT3G05700.1
2856	HORVU6Hr1G010900	undescribed protein	-14.64	AT2G39330.2
2857	HORVU2Hr1G094280	Protein FATTY ACID EXPORT 4, chloroplastic	-14.73	AT1G33265.1
2858	HORVU2Hr1G068610	violaxanthin de-epoxidase-related	-14.75	AT1G08550.3
2859	HORVU1Hr1G017310	undescribed protein	-14.82	AT5G17980.1
2860	HORVU7Hr1G058120	Chlorophyll a-b binding protein 1B, chloroplastic	-14.85	AT2G34430.1
2861	HORVU0Hr1G017560	Cytochrome P450 superfamily protein	-14.96	AT1G31800.1
2862	HORVU4Hr1G014010	NAD(P)H dehydrogenase subunit 48	-14.98	AT1G15980.1
2863	HORVU0Hr1G021130	undescribed protein	-15.05	AT4G29900.2
2864	HORVU7Hr1G076790	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein	-15.06	AT1G10280.1
2865	HORVU1Hr1G084390	GDSL esterase/lipase	-15.09	AT5G45910.1
2866	HORVU0Hr1G025440	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-15.09	AT3G15630.1
2867	HORVU4Hr1G087350	UPF0187 protein YneE	-15.13	AT3G61320.1
2868	HORVU3Hr1G063630	N-terminal protein myristoylation	-15.14	AT3G03280.1
2869	HORVU5Hr1G009200	NAD-dependent epimerase/dehydratase	-15.24	AT1G09340.1
2870	HORVU0Hr1G004830	glyceraldehyde-3-phosphate dehydrogenase C2	-15.28	AT1G12900.5

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2871	HORVU7Hr1G098400	Chlororespiratory reduction 42	-15.31	AT5G20935.1
2872	HORVU7Hr1G022050	undescribed protein	-15.32	AT1G10170.4
2873	HORVU2Hr1G019560	Adenine nucleotide alpha hydrolases-like superfamily protein	-15.33	AT2G47710.1
2874	HORVU2Hr1G029460	WRKY family transcription factor	-15.33	AT4G11070.2
2875	HORVU1Hr1G090110	WRKY family transcription factor	-15.45	AT5G24110.1
2876	HORVU7Hr1G120190	Ycf48-like protein	-15.53	AT5G23120.2
2877	HORVU7Hr1G041230	Protein TIFY 3A	-15.57	AT1G19180.2
2878	HORVU3Hr1G085180	myb-like transcription factor family protein	-15.65	AT2G38090.1
2879	HORVU3Hr1G031130	Pentatricopeptide repeat-containing protein	-15.71	AT5G25630.1
2880	HORVU6Hr1G011790	serine/threonine protein kinase 2	-15.72	AT3G04810.3
2881	HORVU4Hr1G008180	Protein kinase superfamily protein	-15.73	AT1G66150.1
2882	HORVU2Hr1G080480	30S ribosomal protein 3, chloroplastic	-15.80	AT1G68590.2
2883	HORVU3Hr1G052490	5'-methylthioadenosine/S-adenosylhomocysteine nucleosidase	-15.87	AT4G28940.1
2884	HORVU5Hr1G053480	Protein FLUORESCENT IN BLUE LIGHT, chloroplastic	-15.87	AT3G14110.2
2885	HORVU3Hr1G005420	Lecithin-cholesterol acyltransferase-like 1	-15.92	AT1G27480.1
2886	HORVU3Hr1G051330	One-helix protein 2	-15.93	AT1G34000.1
2887	HORVU5Hr1G046480	Chalcone--flavonone isomerase	-15.96	AT5G05270.2
2888	HORVU1Hr1G067300	phosphoglycerate kinase 1	-15.98	AT3G12780.1
2889	HORVU7Hr1G111190	D-3-phosphoglycerate dehydrogenase	-16.01	AT4G34200.1
2890	HORVU6Hr1G051650	Oxygen-evolving enhancer protein 3-1, chloroplastic	-16.01	AT1G14150.1
2891	HORVU7Hr1G057460	beta-galactosidase 11	-16.03	AT4G38590.1
2892	HORVU5Hr1G040430	undescribed protein	-16.04	AT5G48970.2
2893	HORVU5Hr1G075660	UDP-glucose 4-epimerase	-16.06	AT3G23820.1
2894	HORVU5Hr1G119830	UDP-Glycosyltransferase superfamily protein	-16.06	AT2G36800.1
2895	HORVU7Hr1G115600	heptahelical transmembrane protein1	-16.09	AT5G20270.1
2896	HORVU1Hr1G043900	Chloroplast inner envelope protein, putative, expressed	-16.17	AT1G06950.1
2897	HORVU2Hr1G079020	Ovarian cancer-associated gene 2 protein homolog	-16.33	AT4G24380.6
2898	HORVU4Hr1G082800	unknown function	-16.43	AT4G38225.1
2899	HORVU5Hr1G088550	undescribed protein	-16.46	AT3G43190.2
2900	HORVU2Hr1G111580	undescribed protein	-16.47	AT1G22990.1
2901	HORVU5Hr1G075570	FASCICLIN-like arabinogalactan 1	-16.49	AT4G12730.1
2902	HORVU2Hr1G090400	Protein of unknown function (DUF177)	-16.49	AT3G19800.2
2903	HORVU1Hr1G087570	FASCICLIN-like arabinogalactan 6	-16.52	AT2G20520.1
2904	HORVU2Hr1G092710	Homeobox-leucine zipper protein family	-16.56	AT2G46680.1
2905	HORVU3Hr1G050590	WRKY DNA-binding protein 50	-16.57	AT5G26170.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2906	HORVU6Hr1G070290	unknown function	-16.59	AT4G35320.1
2907	HORVU2Hr1G039880	Cyclophilin-like peptidyl-prolyl cis-trans isomerase family protein	-16.60	AT3G15520.3
2908	HORVU1Hr1G029180	Late embryogenesis abundant (LEA) hydroxyproline-rich glycoprotein family	-16.62	AT1G17620.1
2909	HORVU5Hr1G112670	Chalcone--flavonone isomerase	-16.83	AT3G55120.1
2910	HORVU3Hr1G071770	cellulose synthase family protein	-16.88	AT4G18780.1
2911	HORVU2Hr1G039020	unknown function	-16.96	AT2G29750.1
2912	HORVU6Hr1G084650	Clustered mitochondria protein	-17.04	AT4G28080.1
2913	HORVU4Hr1G063870	Subtilisin-like protease	-17.09	AT4G34980.1
2914	HORVU3Hr1G029750	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-17.15	AT5G41761.1
2915	HORVU5Hr1G001280	#N/A	-17.22	#N/A
2916	HORVU4Hr1G083020	hydroxyproline-rich glycoprotein family protein	-17.29	AT5G51680.1
2917	HORVU7Hr1G120060	Cathepsin B-like cysteine proteinase 1	-17.32	AT2G34080.1
2918	HORVU7Hr1G036410	unknown function	-17.36	AT1G35210.1
2919	HORVU1Hr1G024860	arabinogalactan protein 16	-17.41	AT2G46330.1
2920	HORVU1Hr1G048610	RHOMBOID-like 2	-17.45	AT1G63120.1
2921	HORVU4Hr1G078510	1,4-dihydroxy-2-naphthoate phytyltransferase	-17.49	AT1G60600.2
2922	HORVU3Hr1G108550	undescribed protein	-17.50	AT3G43920.5
2923	HORVU6Hr1G050760	undescribed protein	-17.50	AT5G02390.3
2924	HORVU3Hr1G059810	50S ribosomal protein L7/L12	-17.51	AT3G27850.1
2925	HORVU1Hr1G035720	ribulose biphosphate carboxylase small chain 1A	-17.56	AT1G67090.1
2926	HORVU7Hr1G006880	undescribed protein	-17.56	AT3G60380.1
2927	HORVU4Hr1G075090	unknown protein; Has 39 Blast hits to 39 proteins in 10 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 39; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	-17.58	AT2G35290.1
2928	HORVU1Hr1G026080	undescribed protein	-17.70	AT4G33500.1
2929	HORVU1Hr1G050830	dihydroflavonol 4-reductase-like1	-17.71	AT2G23910.1
2930	HORVU4Hr1G080820	Group 3 late embryogenesis abundant protein	-17.75	AT1G52690.2
2931	HORVU6Hr1G080870	zinc finger protein 8	-17.75	AT2G41940.1
2932	HORVU2Hr1G002870	undescribed protein	-17.78	AT4G21120.1
2933	HORVU7Hr1G021550	Myosin heavy chain-related-like	-17.79	AT3G49055.1
2934	HORVU2Hr1G074280	unknown function	-17.81	AT5G09820.2
2935	HORVU5Hr1G112100	unknown function	-18.05	AT3G11740.1
2936	HORVU6Hr1G004860	3-beta hydroxysteroid dehydrogenase	-18.10	AT3G63140.1
2937	HORVU3Hr1G109500	Plant protein of unknown function (DUF247)	-18.14	AT3G50150.1

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2938	HORVU5Hr1G110940	UDP-Glycosyltransferase superfamily protein	-18.15	AT5G49690.1
2939	HORVU6Hr1G054890	undescribed protein	-18.20	AT5G06760.1
2940	HORVU4Hr1G073650	Heat stress transcription factor A-2d	-18.28	AT3G22830.1
2941	HORVU3Hr1G082210	myb domain protein 4	-18.39	AT4G38620.1
2942	HORVU4Hr1G010770	unknown protein; Has 65 Blast hits to 65 proteins in 11 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 65; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLINK).	-18.54	AT3G57450.1
2943	HORVU1Hr1G063450	alpha/beta-Hydrolases superfamily protein	-18.58	AT5G16080.1
2944	HORVU6Hr1G077790	Phosphate-responsive 1 family protein	-18.84	AT4G08950.1
2945	HORVU1Hr1G066510	Domain of unknown function (DUF1995)	-18.85	AT3G20680.1
2946	HORVU2Hr1G039960	Receptor-like protein kinase 5	-18.90	AT2G20850.1
2947	HORVU3Hr1G094000	Auxin efflux carrier family protein	-18.93	AT5G16530.2
2948	HORVU2Hr1G075110	PLC-like phosphodiesterases superfamily protein	-18.94	AT1G49740.1
2949	HORVU1Hr1G019680	undescribed protein	-18.99	AT5G01130.1
2950	HORVU5Hr1G067010	Homeobox-leucine zipper protein family	-19.00	AT5G06710.1
2951	HORVU3Hr1G000900	Peptidyl-prolyl cis-trans isomerase B	-19.10	AT1G74070.1
2952	HORVU7Hr1G022310	NAC domain protein,	-19.12	AT5G63790.1
2953	HORVU1Hr1G054260	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-19.23	AT4G00050.1
2954	HORVU5Hr1G096260	UDP-Glycosyltransferase superfamily protein	-19.24	AT3G02100.1
2955	HORVU1Hr1G014140	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-19.36	AT2G15020.1
2956	HORVU3Hr1G011030	Plant protein of unknown function (DUF247)	-19.39	AT5G22540.1
2957	HORVU3Hr1G093310	Transcription factor bHLH62	-19.40	AT3G07340.1
2958	HORVU7Hr1G058940	RNA-binding protein 1	-19.40	AT4G24770.2
2959	HORVU5Hr1G094770	photosystem II 11 kDa protein-related	-19.58	AT1G05385.2
2960	HORVU3Hr1G093990	Haloalkane dehalogenase 2	-19.69	AT4G12830.1
2961	HORVU5Hr1G018970	0	-19.84	#N/A
2962	HORVU5Hr1G062240	Chlorophyll a-b binding protein 7, chloroplastic	-19.86	AT1G19150.1
2963	HORVU5Hr1G099020	Leucine carboxyl methyltransferase	-19.90	AT5G42760.2
2964	HORVU7Hr1G119930	Cathepsin B-like cysteine proteinase 1	-19.93	AT2G34080.1
2965	HORVU5Hr1G037620	undescribed protein	-19.94	#N/A
2966	HORVU2Hr1G002010	Peroxidase superfamily protein	-19.94	AT1G77490.1
2967	HORVU6Hr1G010890	undescribed protein	-20.10	AT2G14540.1
2968	HORVU4Hr1G059150	Cysteine-rich receptor-like protein kinase 25	-20.12	AT5G48540.1
2969	HORVU2Hr1G103130	Aminomethyltransferase	-20.12	AT1G11860.2



S No	Feature ID	Barley Annotation	Fold change	Ara. homology
2970	HORVU1Hr1G012110	xylulose kinase-1	-20.26	AT2G21370.1
2971	HORVU4Hr1G077350	unknown function	-20.34	AT5G20700.1
2972	HORVU6Hr1G078500	fucosyltransferase 1	-20.34	AT2G03220.1
2973	HORVU3Hr1G025820	Mitochondrial substrate carrier family protein	-20.55	AT5G19760.1
2974	HORVU5Hr1G098920	Pectin acetylerase 9	-20.63	AT5G23870.4
2975	HORVU3Hr1G068200	Heavy metal transport/detoxification superfamily protein	-20.64	AT3G24450.1
2976	HORVU2Hr1G084960	undescribed protein	-20.76	ATMG00870.1
2977	HORVU4Hr1G015570	Sucrose-phosphate synthase family protein	-20.79	AT4G10120.3
2978	HORVU7Hr1G078480	unknown function	-20.84	AT1G26220.1
2979	HORVU4Hr1G036300	undescribed protein	-20.86	AT2G48060.3
2980	HORVU3Hr1G089910	Trigger factor	-21.27	AT2G30695.3
2981	HORVU7Hr1G090340	phosphatidic acid phosphatase-related / PAP2-related	-21.32	AT3G15820.1
2982	HORVU2Hr1G109040	myb-like transcription factor family protein	-21.36	AT2G01060.1
2983	HORVU4Hr1G071730	Inositol-3-phosphate synthase	-21.37	AT2G22240.2
2984	HORVU2Hr1G126040	NAC domain containing protein 76	-21.43	AT1G71930.2
2985	HORVU4Hr1G060200	RNA polymerase sigma-C factor	-21.43	AT1G08540.1
2986	HORVU2Hr1G111300	Bifunctional lysine-specific demethylase and histidyl-hydroxylase NO66	-21.55	AT3G11560.5
2987	HORVU4Hr1G089990	Protein WEAK CHLOROPLAST MOVEMENT UNDER BLUE LIGHT 1	-21.59	AT2G26570.2
2988	HORVU3Hr1G000150	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-21.64	AT1G10585.1
2989	HORVU3Hr1G061130	FASCICLIN-like arabinogalactan-protein 11	-21.66	AT5G03170.1
2990	HORVU4Hr1G066870	Cytochrome P450 superfamily protein	-21.87	AT3G56630.1
2991	HORVU2Hr1G099470	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	-21.92	AT3G22142.1
2992	HORVU0Hr1G038040	thionin 2.1	-22.03	AT1G66100.1
2993	HORVU5Hr1G064230	Cellulose synthase family protein	-22.03	AT5G17420.1
2994	HORVU3Hr1G095080	MADS-box transcription factor family protein	-22.10	AT4G22950.2
2995	HORVU2Hr1G029450	Transcription factor WRKY	-22.12	AT4G11070.2
2996	HORVU3Hr1G013180	Serine/threonine-protein kinase	-22.22	AT2G19130.1
2997	HORVU7Hr1G117710	O-methyltransferase family protein	-22.24	AT4G35160.1
2998	HORVU4Hr1G028720	xyloglucan endotransglucosylase/hydrolase 5	-22.36	AT5G13870.3
2999	HORVU1Hr1G051700	Protein CURVATURE THYLAKOID 1B, chloroplastic	-22.37	AT2G46820.2
3000	HORVU7Hr1G096250	high chlorophyll fluorescence phenotype 173	-22.37	AT1G16720.1
3001	HORVU6Hr1G094040	undescribed protein	-22.37	AT3G62360.2

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
3002	HORVU2Hr1G063460	Peroxidase superfamily protein	-22.46	AT4G37530.1
3003	HORVU2Hr1G065450	flowering promoting factor 1	-22.55	AT5G24860.1
3004	HORVU5Hr1G120390	Thiopurine S-methyltransferase	-22.67	AT2G43940.1
3005	HORVU3Hr1G066390	Basic helix-loop-helix protein A	-22.80	AT2G46510.1
3006	HORVU7Hr1G080510	phosphoenolpyruvate carboxylase 3	-22.83	AT3G14940.2
3007	HORVU5Hr1G067490	1-aminocyclopropane-1-carboxylate oxidase 1	-23.01	AT1G05010.1
3008	HORVU7Hr1G096370	unknown protein; Has 30201 Blast hits to 17322 proteins in 780 species: Archae - 12; Bacteria - 1396; Metazoa - 17338; Fungi - 3422; Plants - 5037; Viruses - 0; Other Eukaryotes - 2996 (source: NCBI BLink).	-23.04	AT1G78995.1
3009	HORVU6Hr1G094410	unknown function	-23.23	AT3G19900.1
3010	HORVU7Hr1G006980	NBS-LRR disease resistance protein	-23.28	AT3G07040.1
3011	HORVU2Hr1G021270	Dehydrogenase/reductase SDR family member 4	-23.30	AT4G03140.1
3012	HORVU4Hr1G016450	undescribed protein	-23.40	AT5G09860.1
3013	HORVU2Hr1G029950	undescribed protein	-23.40	AT2G27660.1
3014	HORVU3Hr1G095000	undescribed protein	-23.49	AT5G09950.2
3015	HORVU6Hr1G069030	unknown function	-23.51	AT3G09510.1
3016	HORVU5Hr1G096420	WRKY DNA-binding protein 57	-23.57	AT1G69310.4
3017	HORVU3Hr1G058210	undescribed protein	-23.62	AT1G59820.1
3018	HORVU6Hr1G035470	myb domain protein r1	-23.71	AT5G67300.1
3019	HORVU6Hr1G061270	Aldehyde dehydrogenase family 3 member F1	-23.75	AT4G36250.1
3020	HORVU2Hr1G043780	GRAS family transcription factor	-23.81	AT5G48150.4
3021	HORVU1Hr1G057640	peptide chain release factor, putative	-23.83	AT3G57190.1
3022	HORVU3Hr1G056960	Siroheme synthase	-24.03	AT5G40850.1
3023	HORVU4Hr1G082700	glyceraldehyde-3-phosphate dehydrogenase C2	-24.09	AT1G42970.1
3024	HORVU2Hr1G095080	Cytochrome P450 superfamily protein	-24.14	AT1G12740.1
3025	HORVU3Hr1G086190	Photosystem II reaction center Psb28 protein	-24.38	AT1G13270.1
3026	HORVU7Hr1G036990	undescribed protein	-24.40	AT3G06530.5
3027	HORVU5Hr1G032980	fructose-bisphosphate aldolase 2	-24.41	AT4G38970.1
3028	HORVU0Hr1G017530	BnaC01g00720D protein	-24.46	AT2G46020.6
3029	HORVU4Hr1G057000	Low temperature and salt responsive protein family	-24.48	AT2G38905.1
3030	HORVU2Hr1G009970	Eukaryotic aspartyl protease family protein	-24.81	AT2G03200.1
3031	HORVU6Hr1G077770	EXORDIUM like 2	-24.96	AT4G08950.1
3032	HORVU2Hr1G021870	Tryptophan/tyrosine permease	-25.24	AT5G19500.1
3033	HORVU1Hr1G071410	undescribed protein	-25.25	AT3G09530.1
3034	HORVU3Hr1G087420	DNA-3-methyladenine glycosylase 1	-25.27	AT1G13635.2

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3035	HORVU2Hr1G008090	Transmembrane amino acid transporter family protein	-25.33	AT2G39130.2
3036	HORVU5Hr1G035300	P-loop containing nucleoside triphosphate hydrolases superfamily protein	-25.40	AT2G46620.1
3037	HORVU5Hr1G077390	Transcription factor bHLH137	-25.50	AT5G50915.4
3038	HORVU7Hr1G047690	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-25.73	AT4G20970.1
3039	HORVU5Hr1G081060	Cytochrome P450 superfamily protein	-25.76	AT2G46660.1
3040	HORVU1Hr1G013740	Dihydrolipoyl dehydrogenase	-26.12	AT1G48030.5
3041	HORVU7Hr1G037600	sodium/calcium exchanger family protein / calcium-binding EF hand family protein	-26.14	AT1G53210.1
3042	HORVU6Hr1G093940	Peroxidase superfamily protein	-26.19	AT1G77490.1
3043	HORVU4Hr1G040100	undescribed protein	-26.28	AT1G28520.3
3044	HORVU5Hr1G069480	Protein of unknown function, DUF547	-26.33	AT4G37080.3
3045	HORVU2Hr1G001320	Protein NRT1/ PTR FAMILY 8.5	-26.47	AT1G62200.1
3046	HORVU1Hr1G091530	DnaJ homolog subfamily C member 2	-26.59	AT1G75250.2
3047	HORVU3Hr1G025020	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-26.74	AT5G19875.1
3048	HORVU1Hr1G069560	Protein kinase superfamily protein	-26.78	AT5G01920.2
3049	HORVU6Hr1G071950	Zinc finger protein CONSTANS-LIKE 10	-26.91	AT5G48250.1
3050	HORVU5Hr1G099170	Protein NRT1/ PTR FAMILY 6.4	-27.11	AT3G21670.1
3051	HORVU3Hr1G024920	undescribed protein	-27.27	AT5G17650.1
3052	HORVU4Hr1G043630	undescribed protein	-27.28	AT2G46930.1
3053	HORVU5Hr1G112880	zinc-finger protein 1	-27.36	AT3G53600.1
3054	HORVU1Hr1G050730	undescribed protein	-27.39	AT2G35470.1
3055	HORVU2Hr1G095380	undescribed protein	-27.54	AT1G71120.1
3056	HORVU3Hr1G040050	undescribed protein	-27.73	AT4G15720.1
3057	HORVU7Hr1G097670	Macrophage migration inhibitory factor homolog	-27.77	AT5G57170.1
3058	HORVU7Hr1G098370	Xyloglucan endotransglucosylase/hydrolase family protein	-27.81	AT5G57560.1
3059	HORVU3Hr1G076570	undescribed protein	-27.87	AT5G56540.1
3060	HORVU1Hr1G062450	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-28.09	AT3G06070.1
3061	HORVU2Hr1G005570	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	-28.20	AT1G06620.1
3062	HORVU2Hr1G116660	BnaC07g36720D protein	-28.25	AT4G21445.1
3063	HORVU4Hr1G082430	undescribed protein	-28.25	AT1G27090.1
3064	HORVU3Hr1G110660	NADH dehydrogenase-like complex O	-28.46	AT1G74880.1
3065	HORVU7Hr1G087630	undescribed protein	-28.50	AT5G57580.1
3066	HORVU6Hr1G095380	multidrug MFS transporter	-28.92	AT2G21280.2

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
3067	HORVU6Hr1G048770	undescribed protein	-28.95	AT2G38360.1
3068	HORVU3Hr1G092820	myb domain protein 112	-28.96	AT1G48000.1
3069	HORVU4Hr1G086020	4-hydroxy-tetrahydrodipicolinate reductase	-29.14	AT5G52100.1
3070	HORVU3Hr1G039310	undescribed protein	-29.17	AT1G29720.1
3071	HORVU5Hr1G077520	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-29.34	AT4G22758.2
3072	HORVU1Hr1G082310	Ethylene-responsive transcription factor 4	-29.39	AT4G34410.1
3073	HORVU7Hr1G119060	GDSL esterase/lipase	-29.77	AT5G33370.1
3074	HORVU5Hr1G096490	Blue copper protein	-29.89	AT2G27035.1
3075	HORVU2Hr1G065420	undescribed protein	-30.08	AT4G22390.2
3076	HORVU3Hr1G114250	unknown function	-30.09	AT3G10550.1
3077	HORVU5Hr1G068110	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-30.14	AT5G67060.2
3078	HORVU6Hr1G093240	High-light-induced protein, chloroplastic	-30.37	AT5G02120.1
3079	HORVU7Hr1G037020	undescribed protein	-30.40	#N/A
3080	HORVU3Hr1G039670	undescribed protein	-30.86	#N/A
3081	HORVU4Hr1G043650	Rubredoxin-like superfamily protein	-30.99	AT5G51010.1
3082	HORVU3Hr1G058830	TRICHOME BIREFRINGENCE-LIKE 19	-31.03	AT5G15900.1
3083	HORVU5Hr1G118060	Harpin-induced protein 1 containing protein	-31.04	AT2G35460.1
3084	HORVU6Hr1G048660	E3 SUMO-protein ligase SIZ2	-31.19	AT3G16800.5
3085	HORVU7Hr1G037010	undescribed protein	-31.25	AT1G33410.2
3086	HORVU5Hr1G049590	undescribed protein	-31.25	AT1G66210.1
3087	HORVU5Hr1G062720	SAUR-like auxin-responsive protein family	-31.27	AT5G20820.1
3088	HORVU6Hr1G026370	BEST Arabidopsis thaliana protein match is: Galact s in 8 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 30; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	-31.47	AT1G30260.1
3089	HORVU1Hr1G044080	Late embryogenesis abundant (LEA) hydroxyproline-rich glycoprotein family	-31.64	AT1G65690.1
3090	HORVU1Hr1G026070	0	-31.65	#N/A
3091	HORVU5Hr1G072770	undescribed protein	-31.95	AT3G21570.1
3092	HORVU6Hr1G056210	Retrotransposon protein, putative, unclassified	-32.03	AT1G43760.1
3093	HORVU6Hr1G010520	unknown protein; Has 52 Blast hits to 46 proteins in 20 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 45; Viruses - 0; Other Eukaryotes - 7 (source: NCBI BLink).	-32.19	AT3G50685.1
3094	HORVU2Hr1G075950	zinc finger homeodomain 1	-32.36	AT2G02540.2
3095	HORVU6Hr1G059850	3'(2'),5'-bisphosphate nucleotidase 2	-32.54	AT4G05090.1
3096	HORVU5Hr1G028180	LIM domain-containing protein 2	-32.85	AT1G10200.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
3097	HORVU2Hr1G035020	undescribed protein	-32.96	AT4G25070.2
3098	HORVU6Hr1G011990	unknown function	-33.25	AT3G61870.2
3099	HORVU4Hr1G040110	undescribed protein	-33.39	AT3G52330.1
3100	HORVU7Hr1G049860	FASCICLIN-like arabinogalactan-protein 12	-34.46	AT2G04780.2
3101	HORVU3Hr1G083520	Glutathione S-transferase family protein	-34.60	AT1G17170.1
3102	HORVU5Hr1G112060	thionin 2.2	-34.81	AT1G66100.1
3103	HORVU6Hr1G066450	At5g37260-like protein	-34.91	AT1G18330.1
3104	HORVU4Hr1G088160	Eukaryotic aspartyl protease family protein	-35.41	AT2G03200.1
3105	HORVU6Hr1G076040	Photosynthetic NDH subcomplex B 4	-35.88	AT1G18730.5
3106	HORVU3Hr1G078150	Ethylene-responsive transcription factor 4	-36.31	AT3G15210.1
3107	HORVU3Hr1G057090	carbonic anhydrase 2	-36.39	AT5G14740.9
3108	HORVU3Hr1G087210	respiratory burst oxidase protein F	-36.56	AT5G60010.1
3109	HORVU4Hr1G056210	Protein phosphatase 2C family protein	-36.60	AT2G30020.1
3110	HORVU0Hr1G002410	unknown function	-36.75	AT5G05190.1
3111	HORVU3Hr1G026920	metallothionein 3	-36.79	AT3G15353.1
3112	HORVU4Hr1G088110	Eukaryotic aspartyl protease family protein	-36.93	AT2G03200.1
3113	HORVU5Hr1G043090	Two-component response regulator ARR8	-37.00	AT2G41310.1
3114	HORVU5Hr1G023160	Transmembrane amino acid transporter family protein	-37.12	AT1G47670.1
3115	HORVU3Hr1G105360	cytokinin oxidase/dehydrogenase 1	-37.17	AT2G41510.2
3116	HORVU6Hr1G090190	RNA-binding protein 1	-37.57	AT1G60000.1
3117	HORVU2Hr1G104030	Receptor-like protein kinase 2	-37.67	AT5G46330.2
3118	HORVU7Hr1G023140	Photosynthetic NDH subunit of subcomplex B 3, chloroplastic	-38.17	AT3G16250.1
3119	HORVU5Hr1G097870	Cytochrome b6-f complex subunit 7	-38.34	AT2G26500.2
3120	HORVU0Hr1G009120	Hydrolase, alpha/beta fold family protein, expressed	-38.59	AT5G21950.1
3121	HORVU3Hr1G083790	unknown function	-38.92	AT2G36145.1
3122	HORVU0Hr1G012330	undescribed protein	-39.11	AT5G42390.1
3123	HORVU6Hr1G035460	undescribed protein	-39.30	AT1G65640.2
3124	HORVU1Hr1G029840	Retroelement pol polyprotein-like	-39.36	AT2G05120.2
3125	HORVU4Hr1G081040	ABC transporter G family member 45	-39.61	AT2G36380.1
3126	HORVU7Hr1G030210	Jacalin-like lectin domain containing protein	-39.62	AT1G73040.1
3127	HORVU3Hr1G040180	undescribed protein	-40.08	AT2G39435.6
3128	HORVU5Hr1G010950	Glutaredoxin family protein	-40.11	AT5G18600.1
3129	HORVU1Hr1G000170	undescribed protein	-41.32	AT1G48490.3
3130	HORVU4Hr1G009250	undescribed protein	-41.51	AT5G44800.1
3131	HORVU5Hr1G059210	undescribed protein	-41.97	AT3G02230.1
3132	HORVU0Hr1G002390	unknown function	-42.10	AT4G05060.1

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
3133	HORVU0Hr1G022690	Senescence-associated protein DIN1	-43.18	AT4G35770.1
3134	HORVU7Hr1G095870	0	-43.46	#N/A
3135	HORVU1Hr1G024180	FASCICLIN-like arabinogalactan-protein 11	-43.46	AT5G03170.1
3136	HORVU5Hr1G030220	undescribed protein	-44.66	AT1G80490.3
3137	HORVU1Hr1G078350	Phosphoethanolamine N-methyltransferase 1	-46.14	AT3G18000.1
3138	HORVU2Hr1G040790	organic cation/carnitine transporter 2	-46.41	AT1G79360.1
3139	HORVU5Hr1G073800	dihydroflavonol 4-reductase-like1	-46.41	AT2G33590.1
3140	HORVU1Hr1G033190	undescribed protein	-46.69	AT3G15095.2
3141	HORVU2Hr1G063190	undescribed protein	-47.45	AT1G24485.3
3142	HORVU7Hr1G041500	nudix hydrolase homolog 21	-48.12	AT1G73540.1
3143	HORVU3Hr1G044870	undescribed protein	-48.22	AT2G29440.1
3144	HORVU7Hr1G007800	undescribed protein	-48.65	AT1G32560.1
3145	HORVU5Hr1G101990	undescribed protein	-48.69	#N/A
3146	HORVU6Hr1G091840	MATE efflux family protein	-48.81	AT4G00350.1
3147	HORVU2Hr1G116390	Chalcone synthase 1	-50.01	AT5G13930.1
3148	HORVU7Hr1G085070	undescribed protein	-50.10	AT5G07680.2
3149	HORVU7Hr1G027860	Glycogen debranching enzyme	-50.22	AT5G04360.2
3150	HORVU3Hr1G050380	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-51.31	AT5G12010.1
3151	HORVU7Hr1G052750	Cytochrome b561 and DOMON domain-containing protein	-51.89	AT3G25290.2
3152	HORVU1Hr1G091540	Transcription factor RADIALIS	-52.15	AT4G39250.1
3153	HORVU6Hr1G048760	undescribed protein	-52.34	AT2G27980.1
3154	HORVU1Hr1G065700	undescribed protein	-53.25	AT3G09660.2
3155	HORVU0Hr1G016540	Ethylene-responsive transcription factor 4	-53.95	AT4G25470.1
3156	HORVU6Hr1G025050	undescribed protein	-54.29	AT2G20930.1
3157	HORVU7Hr1G002210	Ferredoxin--NADP reductase	-55.08	AT1G20020.3
3158	HORVU2Hr1G040800	Solute carrier family 22 member 3	-56.38	AT1G79360.1
3159	HORVU4Hr1G068930	unknown function	-56.38	AT4G30845.1
3160	HORVU2Hr1G012460	Adenosine diphosphate glucose pyrophosphatase	-57.90	AT2G24630.2
3161	HORVU2Hr1G076630	undescribed protein	-59.26	#N/A
3162	HORVU5Hr1G102620	Amaranthin-like lectin	-59.38	AT3G23800.2
3163	HORVU5Hr1G053060	BnaA04g27590D protein	-59.54	AT3G57990.1
3164	HORVU1Hr1G032950	undescribed protein	-59.55	AT4G12680.1
3165	HORVU0Hr1G003480	Organic cation/carnitine transporter 3	-60.40	AT1G79360.1
3166	HORVU2Hr1G101230	undescribed protein	-62.88	AT5G20960.2
3167	HORVU3Hr1G073860	chlororespiratory reduction 7	-63.47	AT5G39210.1
3168	HORVU4Hr1G076650	undescribed protein	-64.59	AT1G09650.1
3169	HORVU6Hr1G076880	Glycine cleavage system H protein	-65.34	AT1G32470.1



S No	Feature ID	Barley Annotation	Fold change	Ara. homology
3170	HORVU2Hr1G002720	PLANT CADMIUM RESISTANCE 1	-66.83	AT1G14880.1
3171	HORVU3Hr1G078170	unknown function	-66.86	AT4G23160.3
3172	HORVU7Hr1G090850	fructose-bisphosphate aldolase 2	-67.88	AT4G26530.3
3173	HORVU1Hr1G076730	gibberellin 2-oxidase	-68.30	AT1G78440.1
3174	HORVU2Hr1G001620	Pyruvate dehydrogenase E1 component subunit alpha	-68.73	AT1G32920.1
3175	HORVU5Hr1G080450	C-repeat-binding factor 4	-68.88	AT4G25470.1
3176	HORVU3Hr1G012490	undescribed protein	-69.26	AT5G51920.1
3177	HORVU3Hr1G108680	Transcription factor ORG2	-70.09	AT3G56970.1
3178	HORVU4Hr1G076660	unknown function	-70.95	AT1G78410.2
3179	HORVU7Hr1G081510	DnaJ/Hsp40 cysteine-rich domain superfamily protein	-71.08	AT3G47650.1
3180	HORVU3Hr1G085520	laccase 7	-74.04	AT3G09220.1
3181	HORVU1Hr1G007630	TRICHOME BIREFRINGENCE-LIKE 11	-75.34	AT5G19160.1
3182	HORVU2Hr1G094870	MATE efflux family protein	-77.01	AT4G23030.1
3183	HORVU7Hr1G095170	Pre-mRNA-splicing factor syf2, putative	-77.89	AT2G16860.2
3184	HORVU0Hr1G000620	Chaperone protein dnaJ 3	-78.46	AT1G11040.1
3185	HORVU6Hr1G075080	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-80.20	AT4G39710.2
3186	HORVU6Hr1G068660	ROP guanine nucleotide exchange factor 5	-80.43	AT1G31650.1
3187	HORVU4Hr1G009240	undescribed protein	-80.83	AT4G24110.1
3188	HORVU4Hr1G087760	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	-83.71	AT2G45180.1
3189	HORVU2Hr1G066100	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-87.50	AT5G57150.1
3190	HORVU2Hr1G073030	Carbonic anhydrase	-87.70	AT3G52720.4
3191	HORVU1Hr1G093660	ribonuclease 3	-97.51	AT1G26820.1
3192	HORVU2Hr1G077650	ferric reduction oxidase 7	-97.84	AT5G49740.3
3193	HORVU1Hr1G089380	Subtilisin-like protease	-102.20	AT4G10550.1
3194	HORVU7Hr1G084850	undescribed protein	-104.00	AT4G11450.1
3195	HORVU3Hr1G013900	Cytochrome P450 superfamily protein	-104.60	AT3G26330.1
3196	HORVU2Hr1G010670	ribulose bisphosphate carboxylase small chain 1A	-105.64	AT1G67090.1
3197	HORVU6Hr1G041610	ROP guanine nucleotide exchange factor 5	-107.73	AT1G31650.1
3198	HORVU4Hr1G090860	metacaspase 1	-113.07	AT1G02170.1
3199	HORVU0Hr1G012340	undescribed protein	-116.07	AT2G46130.1
3200	HORVU5Hr1G089230	Fatty acyl-CoA reductase 1	-116.71	AT5G22500.1
3201	HORVU7Hr1G092880	undescribed protein	-119.41	AT3G03750.2
3202	HORVU0Hr1G019740	unknown function	-124.87	AT2G26110.1
3203	HORVU2Hr1G010690	ribulose bisphosphate carboxylase small chain 1A	-126.62	AT1G67090.1
3204	HORVU6Hr1G084860	purple acid phosphatase 10	-129.29	AT2G16430.2

S No	Feature ID	Barley Annotation	Fold change	Ara. homology
3205	HORVU3Hr1G027970	TRICHOME BIREFRINGENCE-LIKE 38	-129.93	AT1G29050.1
3206	HORVU7Hr1G084860	undescribed protein	-130.36	AT3G03305.1
3207	HORVU4Hr1G069100	beta-xylosidase 3	-145.10	AT1G78060.1
3208	HORVU7Hr1G095860	undescribed protein	-145.27	AT5G24165.2
3209	HORVU5Hr1G004700	terpene synthase 21	-153.43	AT5G23960.1
3210	HORVU5Hr1G005740	PHYTOENE SYNTHASE	-161.87	AT5G17230.4
3211	HORVU7Hr1G010690	Acid phosphatase 1	-193.16	AT4G29260.1
3212	HORVU1Hr1G093570	Ribonuclease T2 family protein	-199.97	AT1G14220.1
3213	HORVU2Hr1G114680	36.4 kDa proline-rich protein	-204.32	AT3G22142.1
3214	HORVU7Hr1G111010	unknown function	-208.75	AT3G06130.1
3215	HORVU7Hr1G098330	xyloglucan endotransglucosylase/hydrolase 25	-219.22	AT5G57550.1
3216	HORVU4Hr1G058590	unknown function	-263.29	AT1G80830.2
3217	HORVU7Hr1G098320	xyloglucan endotransglucosylase/hydrolase 25	-293.65	AT5G57550.1
3218	HORVU7Hr1G098260	xyloglucan endotransglucosylase/hydrolase 25	-319.28	AT4G25810.1
3219	HORVU3Hr1G083360	Fructose-1,6-bisphosphatase class 1	-469.73	AT1G43670.1
3220	HORVU7Hr1G098280	xyloglucan endotransglucosylase/hydrolase 25	-508.39	AT4G25810.1
3221	HORVU1Hr1G088840	Phospholipase A1-II 7	-3505.51	AT4G18550.1

**Supplementary Table 3.** The differentially expressed genes in the barley resistant cultivar Bowman at 72 hpi with *Bipolaris sorokiniana* isolate ND85F. The transcripts were normalized with the non-inoculated DEGs in Bowman (n=3).

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
1	HORVU2Hr1G004640	Cytochrome P450 superfamily protein	177.37	AT3G26300.1
2	HORVU2Hr1G004600	Cytochrome P450 superfamily protein	139.47	AT3G26310.1
3	HORVU2Hr1G004610	Cytochrome P450 superfamily protein	117.65	AT2G45550.1
4	HORVU1Hr1G089700	O-methyltransferase 1	108.10	AT5G54160.1
5	HORVU6Hr1G012640	Chymotrypsin inhibitor	102.14	AT5G43580.1
6	HORVU2Hr1G098710	undescribed protein	100.57	AT3G49845.2
7	HORVU2Hr1G004530	Cytochrome P450 superfamily protein	99.84	AT5G25120.1
8	HORVU7Hr1G012240	undescribed protein	97.83	AT5G63840.2
9	HORVU7Hr1G011930	undescribed protein	94.91	AT1G45474.2
10	HORVU2Hr1G004620	Copalyl diphosphate synthase 2	94.14	AT4G02780.1
11	HORVU6Hr1G001850	undescribed protein	90.36	AT2G29780.1
12	HORVU1Hr1G089620	O-methyltransferase 1	86.52	AT5G54160.1
13	HORVU5Hr1G041660	protein kinase family protein	86.28	AT1G51890.1
14	HORVU7Hr1G011950	undescribed protein	81.79	AT5G35620.3
15	HORVU3Hr1G112050	undescribed protein	79.11	AT3G55640.3
16	HORVU7Hr1G033530	Cysteine-rich venom protein	77.60	AT2G14610.1
17	HORVU6Hr1G014600	Bowman-Birk type trypsin inhibitor	76.65	AT1G61420.1
18	HORVU1Hr1G089520	O-methyltransferase family protein	76.38	AT4G35160.1
19	HORVU6Hr1G020540	Cytochrome P450 superfamily protein	75.86	AT3G26230.1
20	HORVU1Hr1G065670	undescribed protein	74.39	AT5G47910.1
21	HORVU1Hr1G089540	Chalcone synthase 2	73.93	AT5G13930.1
22	HORVU6Hr1G005720	high affinity nitrate transporter 2.6	73.73	AT1G08090.1
23	HORVU6Hr1G013690	undescribed protein	73.02	AT3G51350.1
24	HORVU7Hr1G011940	undescribed protein	72.83	AT5G60540.1
25	HORVU2Hr1G028660	Chymotrypsin inhibitor	71.47	AT2G38900.2
26	HORVU5Hr1G096850	Cytochrome P450 superfamily protein	71.24	AT5G57260.1
27	HORVU2Hr1G004480	Cytochrome P450 superfamily protein	71.08	AT3G26300.1
28	HORVU2Hr1G126150	1-deoxy-D-xylulose 5-phosphate synthase 1	71.06	AT4G15560.1
29	HORVU2Hr1G122570	early nodulin-like protein 12	68.19	AT5G26330.1
30	HORVU3Hr1G099760	L-gulonolactone oxidase 2	67.54	AT2G46750.1
31	HORVU2Hr1G079440	UDP-Glycosyltransferase superfamily protein	65.85	AT1G22360.1
32	HORVU3Hr1G074960	Peroxidase superfamily protein	65.55	AT4G11290.1
33	HORVU1Hr1G005510	Protein kinase family protein	64.16	AT1G21240.1
34	HORVU0Hr1G011730	unknown function	63.98	AT5G65440.2
35	HORVU2Hr1G028720	Chymotrypsin inhibitor	63.46	AT5G43580.1
36	HORVU2Hr1G122580	Blue copper protein	61.79	AT2G32300.1
37	HORVU0Hr1G011720	Major pollen allergen Bet v 1-B	58.38	AT1G35260.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
38	HORVU4Hr1G001250	Caffeic acid 3-O-methyltransferase	55.18	AT5G54160.1
39	HORVU5Hr1G124650	ABC transporter G family member 48	55.00	AT1G66950.1
40	HORVU7Hr1G017640	Enolase	54.89	AT2G36530.1
41	HORVU2Hr1G028670	Chymotrypsin inhibitor	54.87	AT5G43580.1
42	HORVU5Hr1G055950	Cysteine-rich venom protein	54.75	AT4G33720.1
43	HORVU5Hr1G056040	Cysteine-rich venom protein	54.57	AT4G33720.1
44	HORVU5Hr1G114700	UDP-Glycosyltransferase superfamily protein	54.30	AT3G11340.1
45	HORVU7Hr1G076120	Peroxidase superfamily protein	54.23	AT4G33420.1
46	HORVU4Hr1G071370	Membrane protein	54.20	AT5G47530.1
47	HORVU7Hr1G019380	Cytochrome P450 superfamily protein	52.24	AT3G26300.1
48	HORVU2Hr1G104240	germin-like protein 2	51.93	AT5G39160.1
49	HORVU4Hr1G010740	undescribed protein	50.60	AT1G72060.1
50	HORVU3Hr1G032370	Isoflavone reductase-like protein	50.25	AT4G39230.1
51	HORVU3Hr1G097860	Laccase-19	49.59	AT3G09220.1
52	HORVU5Hr1G023720	Pathogenesis-related protein STH-2	49.23	AT1G35260.1
53	HORVU4Hr1G078370	undescribed protein	48.33	AT1G78880.1
54	HORVU6Hr1G053710	High-affinity nitrate transporter 3.1	46.89	AT5G50200.3
55	HORVU7Hr1G009760	undescribed protein	46.51	AT4G26440.1
56	HORVU1Hr1G084900	1-deoxy-D-xylulose 5-phosphate synthase 1	46.40	AT4G15560.1
57	HORVU7Hr1G010110	undescribed protein	46.22	AT2G18640.1
58	HORVU2Hr1G076320	undescribed protein	45.63	AT4G34600.1
59	HORVU5Hr1G051970	Pathogenesis-related thaumatin superfamily protein	45.40	AT4G11650.1
60	HORVU0Hr1G008830	MLO-like protein 1	45.28	AT4G02600.2
61	HORVU2Hr1G124300	Glutathione S-transferase family protein	44.92	AT1G78380.1
62	HORVU5Hr1G056420	Flavin-containing monooxygenase family protein	44.82	AT1G19250.1
63	HORVU5Hr1G075540	Oxidoreductase, zinc-binding dehydrogenase family protein	44.60	AT4G13010.1
64	HORVU4Hr1G002640	Pathogenesis-related thaumatin superfamily protein	44.50	AT4G11650.1
65	HORVU4Hr1G064790	glutamate decarboxylase	44.30	AT5G17330.1
66	HORVU5Hr1G099390	NAC domain containing protein 42	43.84	AT2G43000.1
67	HORVU3Hr1G109350	receptor kinase 1	43.37	AT4G03230.3
68	HORVU1Hr1G009490	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	42.92	AT3G22600.1
69	HORVU2Hr1G071570	Potassium transporter family protein	42.42	AT4G13420.1
70	HORVU2Hr1G033520	dihydroflavonol 4-reductase	41.65	AT4G27250.1
71	HORVU2Hr1G095460	Glutathione S-transferase family protein	40.75	AT3G62760.1
72	HORVU3Hr1G077790	Polyphenol oxidase, chloroplastic	40.48	AT3G02210.1
73	HORVU5Hr1G009840	RAB GDP dissociation inhibitor 2	40.47	AT3G59920.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
74	HORVU5Hr1G072520	FAD-binding Berberine family protein	40.43	AT4G20820.1
75	HORVU2Hr1G122270	Glutathione S-transferase family protein	40.19	AT1G10360.1
76	HORVU2Hr1G122620	Blue copper protein	40.15	AT2G31050.1
77	HORVU4Hr1G084330	Inter-alpha-trypsin inhibitor heavy chain H4	40.09	AT5G60710.1
78	HORVU7Hr1G008830	Glutathione S-transferase family protein	39.87	AT1G10360.1
79	HORVU3Hr1G001840	undescribed protein	39.55	#N/A
80	HORVU5Hr1G005230	0	39.54	AT4G11650.1
81	HORVU1Hr1G020720	Peroxidase superfamily protein	38.41	AT5G19890.1
82	HORVU5Hr1G123550	receptor kinase 2	38.36	AT4G21390.1
83	HORVU2Hr1G001780	WRKY DNA-binding protein 75	38.21	AT5G13080.1
84	HORVU7Hr1G019400	receptor kinase 1	38.18	AT2G37710.1
85	HORVU1Hr1G022430	Leucine aminopeptidase 1	37.98	AT2G24200.3
86	HORVU4Hr1G002650	Pathogenesis-related thaumatin superfamily protein	37.25	AT4G11650.1
87	HORVU1Hr1G062380	CASP-like protein 1	36.42	AT3G06390.1
88	HORVU5Hr1G106010	Cysteine-rich secretory protein 3	36.18	AT3G19690.1
89	HORVU7Hr1G010990	L-tyrosine decarboxylase	36.12	AT2G20340.1
90	HORVU3Hr1G094340	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	36.05	AT1G14590.1
91	HORVU1Hr1G088550	undescribed protein	36.03	AT4G10930.2
92	HORVU3Hr1G112060	undescribed protein	35.91	AT2G42270.1
93	HORVU5Hr1G023690	Pathogenesis-related protein STH-21	35.89	AT5G51770.1
94	HORVU6Hr1G088400	Leucine-rich receptor-like protein kinase family protein	35.49	AT3G47570.1
95	HORVU6Hr1G077940	unknown function	35.42	AT1G66170.1
96	HORVU6Hr1G077960	UDP-Glycosyltransferase superfamily protein	35.06	AT1G22360.2
97	HORVU3Hr1G105400	Glucan endo-1,3-beta-glucosidase GV	34.82	AT3G57270.1
98	HORVU2Hr1G092440	undescribed protein	34.60	AT2G32240.1
99	HORVU3Hr1G112080	undescribed protein	33.83	AT2G14680.4
100	HORVU4Hr1G011760	UDP-Glycosyltransferase superfamily protein	33.70	AT3G11340.1
101	HORVU3Hr1G027910	Cathepsin B-like cysteine proteinase 2	33.64	AT5G45890.1
102	HORVU3Hr1G112030	Abscisic stress-ripening protein 2	33.56	AT3G01410.2
103	HORVU5Hr1G099460	NAC domain protein,	33.53	AT2G43000.1
104	HORVU3Hr1G098620	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	33.41	AT4G08350.1
105	HORVU3Hr1G111600	Pathogenesis-related protein	33.30	AT1G64790.1
106	HORVU2Hr1G109640	Cytochrome P450 superfamily protein	32.85	AT2G45550.1
107	HORVU3Hr1G112140	Abscisic stress-ripening protein 1	32.61	#N/A
108	HORVU6Hr1G021870	Homeobox-leucine zipper protein family	32.41	AT5G06710.1
109	HORVU3Hr1G094250	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	31.97	AT4G19975.1

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110	HORVU7Hr1G097350	YELLOW STRIPE like 3	31.89	AT5G53550.6
111	HORVU1Hr1G090930	unknown function	31.82	AT2G31900.4
112	HORVU1Hr1G049070	Glutathione S-transferase family protein	31.66	AT1G10370.1
113	HORVU5Hr1G023730	Pathogenesis-related protein STH-21	31.62	AT1G35260.1
114	HORVU3Hr1G096860	Potassium transporter family protein	31.54	AT4G13420.1
115	HORVU3Hr1G109430	receptor kinase 2	31.25	AT4G03230.3
116	HORVU7Hr1G010120	unknown function	31.20	AT5G01130.1
117	HORVU7Hr1G107670	Two-component response regulator ORR21	31.13	AT1G14600.1
118	HORVU2Hr1G119500	Late embryogenesis abundant (LEA) hydroxyproline-rich glycoprotein family	30.76	AT5G36970.1
119	HORVU6Hr1G061420	Cytochrome b5	30.64	AT5G53560.1
120	HORVU2Hr1G088640	Caleosin-related family protein	30.55	AT2G33380.1
121	HORVU3Hr1G105630	Glucan endo-1,3-beta-glucosidase GI	30.28	AT4G16260.1
122	HORVU2Hr1G079420	UDP-Glycosyltransferase superfamily protein	30.17	AT1G22360.1
123	HORVU3Hr1G018980	basic helix-loop-helix (bHLH) DNA-binding family protein	30.04	AT5G56960.1
124	HORVU5Hr1G066460	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	29.92	AT1G23110.7
125	HORVU5Hr1G080090	serine carboxypeptidase-like 17	29.75	AT1G33540.2
126	HORVU2Hr1G004540	KS protein	29.75	AT1G79460.1
127	HORVU2Hr1G114390	L-tyrosine decarboxylase	29.52	AT2G20340.1
128	HORVU2Hr1G098700	undescribed protein	29.50	#N/A
129	HORVU3Hr1G113120	Wound-induced protein	29.50	AT3G04720.1
130	HORVU2Hr1G004510	Cytochrome P450 superfamily protein	29.39	AT5G25120.1
131	HORVU3Hr1G100190	Jasmonate O-methyltransferase	29.38	AT5G04370.1
132	HORVU3Hr1G020210	WRKY DNA-binding protein 72	28.82	AT5G15130.1
133	HORVU4Hr1G009230	receptor kinase 2	28.80	AT5G10530.1
134	HORVU2Hr1G124970	Peroxidase superfamily protein	28.58	AT1G71695.1
135	HORVU7Hr1G110570	Protein of unknown function (DUF679)	28.13	AT4G24310.1
136	HORVU1Hr1G014500	undescribed protein	27.72	AT1G66730.1
137	HORVU2Hr1G102720	Protein NRT1/ PTR FAMILY 8.3	27.71	AT2G02040.1
138	HORVU3Hr1G069320	WRKY DNA-binding protein 65	27.49	AT1G29280.1
139	HORVU2Hr1G003210	Cytochrome P450 superfamily protein	27.44	AT1G11680.1
140	HORVU7Hr1G082180	undescribed protein	27.29	AT1G16030.1
141	HORVU2Hr1G114440	L-tyrosine decarboxylase	27.07	AT2G20340.1
142	HORVU6Hr1G088440	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	26.98	AT5G20400.1
143	HORVU2Hr1G071270	Ethylene-responsive transcription factor 1	26.96	AT5G13330.1
144	HORVU3Hr1G109170	calmodulin like 37	26.47	AT5G42380.1
145	HORVU2Hr1G112120	Anthranilate N-benzoyltransferase protein 1	26.41	AT5G48930.1
146	HORVU1Hr1G063390	AAA-ATPase 1	26.33	AT5G40010.1



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147	HORVU2Hr1G012140	Leucine-rich repeat receptor-like protein kinase family protein	26.30	AT1G74190.1
148	HORVU1Hr1G092650	UDP-Glycosyltransferase superfamily protein	26.23	AT3G16520.3
149	HORVU6Hr1G077930	UDP-Glycosyltransferase superfamily protein	26.08	AT1G22380.1
150	HORVU5Hr1G106850	ABC transporter G family member 48	26.04	AT1G66950.1
151	HORVU7Hr1G056250	undescribed protein	25.94	AT4G28460.1
152	HORVU3Hr1G006450	Xylanase inhibitor	25.82	AT1G03230.1
153	HORVU2Hr1G102710	Protein NRT1/ PTR FAMILY 8.3	25.72	AT2G02040.1
154	HORVU1Hr1G001220	receptor kinase 3	25.62	AT4G23180.3
155	HORVU1Hr1G075620	ABC transporter ATP-binding protein NatA	25.45	AT3G47780.1
156	HORVU2Hr1G098770	undescribed protein	25.44	AT5G03130.1
157	HORVU1Hr1G010120	L-tyrosine decarboxylase	25.25	AT2G20340.1
158	HORVU5Hr1G089840	receptor kinase 3	25.18	AT1G21230.1
159	HORVU6Hr1G069710	receptor kinase 2	25.15	AT4G21390.1
160	HORVU1Hr1G089590	undescribed protein	25.11	AT1G67120.1
161	HORVU2Hr1G122610	Blue copper protein	25.02	AT2G31050.1
162	HORVU7Hr1G035730	EF hand family protein	24.98	AT3G50360.1
163	HORVU3Hr1G095730	Glutathione S-transferase family protein	24.94	AT1G10360.1
164	HORVU1Hr1G072690	Aldose reductase A	24.67	AT2G37790.1
165	HORVU2Hr1G004550	Cytochrome P450 superfamily protein	24.52	AT1G64940.1
166	HORVU4Hr1G087630	Cytochrome P450 superfamily protein	24.52	AT2G30490.1
167	HORVU7Hr1G033870	zinc-finger protein 3	24.38	AT1G27730.1
168	HORVU7Hr1G009680	Leucine-rich receptor-like protein kinase family protein	24.35	AT3G47570.1
169	HORVU1Hr1G061140	Pyrophosphate-energized proton pump 1	24.22	AT1G15690.1
170	HORVU7Hr1G043530	serpin 2	24.11	AT1G47710.1
171	HORVU5Hr1G057800	L-ascorbate oxidase	23.85	AT4G39830.4
172	HORVU1Hr1G014450	undescribed protein	23.83	AT5G23430.1
173	HORVU2Hr1G114450	L-tyrosine decarboxylase	23.78	AT2G20340.1
174	HORVU2Hr1G112060	undescribed protein	23.71	AT1G49560.1
175	HORVU6Hr1G089590	U-box domain-containing protein	23.68	AT2G35930.1
176	HORVU3Hr1G018740	sugar transporter 1	23.59	AT5G61520.1
177	HORVU3Hr1G087020	alpha/beta-Hydrolases superfamily protein	23.57	AT2G39420.1
178	HORVU6Hr1G073510	Potassium transporter family protein	23.45	AT4G13420.1
179	HORVU5Hr1G083340	purple acid phosphatase 15	23.41	AT3G07130.1
180	HORVU6Hr1G001840	ubiquitin-protein ligase 4	23.28	AT4G38600.3
181	HORVU2Hr1G040130	Internal alternative NAD(P)H-ubiquinone oxidoreductase A1, mitochondrial	23.26	AT1G07180.1
182	HORVU4Hr1G064070	U-box domain-containing protein 21	23.25	AT5G37490.1
183	HORVU7Hr1G110840	Nodulin-like / Major Facilitator Superfamily protein	23.25	AT2G39210.1

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184	HORVU1Hr1G015090	tyrosine aminotransferase 3	23.16	AT5G53970.1
185	HORVU7Hr1G107360	SAUR-like auxin-responsive protein family	23.07	AT1G56150.1
186	HORVU7Hr1G107640	0	23.05	AT1G14600.1
187	HORVU7Hr1G118770	Disease resistance-responsive (dirigent-like protein) family protein	22.98	AT5G42500.1
188	HORVU2Hr1G067710	undescribed protein	22.82	AT4G34480.1
189	HORVU6Hr1G070130	undescribed protein	22.80	AT2G43420.1
190	HORVU7Hr1G073340	early nodulin-like protein 15	22.73	AT2G32300.2
191	HORVU5Hr1G078630	respiratory burst oxidase homologue D	22.50	AT5G47910.1
192	HORVU7Hr1G091860	L-tyrosine decarboxylase	22.47	AT2G20340.1
193	HORVU6Hr1G038470	unknown function	22.42	AT2G25735.1
194	HORVU2Hr1G111780	receptor-like protein kinase 4	22.25	AT4G32300.1
195	HORVU3Hr1G086840	C2H2-like zinc finger protein	22.11	AT2G28710.1
196	HORVU5Hr1G061580	Secretory carrier-associated membrane protein 4	22.01	AT2G20840.1
197	HORVU3Hr1G094370	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	21.93	AT4G19975.1
198	HORVU2Hr1G101150	xyloglucan endotransglucosylase/hydrolase 13	21.88	AT5G57540.1
199	HORVU2Hr1G044340	Peroxidase superfamily protein	21.87	AT5G05340.1
200	HORVU1Hr1G088300	WRKY DNA-binding protein 71	21.83	AT1G29860.1
201	HORVU3Hr1G011870	Cytochrome P450 superfamily protein	21.73	AT5G57260.1
202	HORVU3Hr1G020140	WRKY DNA-binding protein 50	21.63	AT5G26170.1
203	HORVU2Hr1G088660	Caleosin-related family protein	21.62	AT4G26740.1
204	HORVU2Hr1G109440	Cytochrome P450 superfamily protein	21.55	AT4G36220.1
205	HORVU3Hr1G006130	GDSL esterase/lipase	21.45	AT3G26430.1
206	HORVU4Hr1G079620	Cytochrome P450 superfamily protein	21.44	AT2G26170.1
207	HORVU1Hr1G002590	receptor-like protein kinase 4	21.23	AT1G66920.2
208	HORVU5Hr1G047920	Two-component response regulator ORR21	21.22	AT2G38300.1
209	HORVU7Hr1G081700	lipid phosphate phosphatase 3	21.00	AT3G02600.9
210	HORVU5Hr1G111040	UDP-Glycosyltransferase superfamily protein	20.73	AT5G49690.1
211	HORVU4Hr1G078320	undescribed protein	20.67	AT1G51850.2
212	HORVU7Hr1G040740	Cysteine-rich venom protein	20.66	AT5G57625.1
213	HORVU3Hr1G111620	undescribed protein	20.66	AT5G65090.3
214	HORVU6Hr1G079700	nitrate reductase 1	20.62	AT1G77760.1
215	HORVU7Hr1G010850	L-tyrosine decarboxylase	20.60	AT2G20340.1
216	HORVU7Hr1G107370	SAUR-like auxin-responsive protein family	20.56	AT1G56150.1
217	HORVU5Hr1G115750	PLANT CADMIUM RESISTANCE 2	20.54	AT1G14870.1
218	HORVU7Hr1G042300	Basic blue protein	20.48	AT2G02850.1
219	HORVU5Hr1G077920	beta glucosidase 11	20.38	AT1G02850.2
220	HORVU3Hr1G099550	Eukaryotic aspartyl protease family protein	20.27	AT1G03230.1

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221	HORVU2Hr1G003230	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	20.09	AT3G14470.2
222	HORVU4Hr1G053150	Plant protein of unknown function (DUF247)	19.84	AT3G50170.1
223	HORVU2Hr1G044360	Peroxidase superfamily protein	19.82	AT5G05340.1
224	HORVU5Hr1G094710	Disease resistance-responsive (dirigent-like protein) family protein	19.78	AT1G58170.1
225	HORVU3Hr1G002900	receptor kinase 2	19.69	AT1G70520.1
226	HORVU4Hr1G081590	receptor-like protein kinase 4	19.53	AT5G10530.1
227	HORVU4Hr1G010720	undescribed protein	19.48	AT1G72060.1
228	HORVU7Hr1G019390	receptor kinase 2	19.34	AT2G37710.1
229	HORVU1Hr1G065650	undescribed protein	19.28	AT2G05635.2
230	HORVU1Hr1G065150	undescribed protein	19.06	AT2G43550.1
231	HORVU1Hr1G058520	beta glucosidase 11	18.91	AT1G02850.5
232	HORVU3Hr1G050810	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	18.90	AT3G21305.1
233	HORVU3Hr1G077130	receptor kinase 2	18.80	AT4G21390.1
234	HORVU0Hr1G019300	Glutathione S-transferase family protein	18.72	AT3G09270.1
235	HORVU0Hr1G021480	Arabidopsis thaliana protein of unknown function (DUF821)	18.70	AT5G23850.1
236	HORVU4Hr1G074080	undescribed protein	18.67	AT2G30620.2
237	HORVU4Hr1G087840	Protein of unknown function (DUF1218)	18.64	AT5G17210.1
238	HORVU3Hr1G006440	Xylanase inhibitor	18.55	AT1G03230.1
239	HORVU1Hr1G049260	Glutathione S-transferase family protein	18.30	AT1G10370.1
240	HORVU2Hr1G067700	undescribed protein	18.26	AT2G19820.1
241	HORVU0Hr1G000840	undescribed protein	18.13	AT5G47910.1
242	HORVU5Hr1G099470	NAC domain protein,	17.89	AT2G43000.1
243	HORVU5Hr1G000910	Serine/threonine-protein kinase	17.79	AT4G32300.1
244	HORVU3Hr1G096280	Sec14p-like phosphatidylinositol transfer family protein	17.77	AT1G01630.1
245	HORVU3Hr1G099530	UDP-Glycosyltransferase superfamily protein	17.75	AT3G11340.1
246	HORVU5Hr1G109190	germin-like protein 4	17.72	AT1G18980.1
247	HORVU2Hr1G113120	Protein kinase superfamily protein	17.71	AT5G59700.1
248	HORVU4Hr1G068530	unknown protein; Has 65 Blast hits to 65 proteins in 11 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 65; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLINK).	17.67	AT3G57450.1
249	HORVU6Hr1G067980	Protein NRT1/ PTR FAMILY 8.3	17.58	AT2G02040.1
250	HORVU3Hr1G026330	Subtilisin-like protease	17.50	AT4G10540.1
251	HORVU6Hr1G094790	receptor-like protein kinase 1	17.41	AT3G21630.1
252	HORVU3Hr1G006140	GDSL esterase/lipase	17.38	AT3G26430.1
253	HORVU7Hr1G092510	ABC transporter G family member 44	17.01	AT1G15520.1
254	HORVU6Hr1G073990	early nodulin-like protein 19	16.99	AT2G32300.2

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255	HORVU7Hr1G057650	RING/U-box superfamily protein	16.93	AT2G17730.1
256	HORVU7Hr1G046180	undescribed protein	16.87	AT2G29580.1
257	HORVU6Hr1G060500	membrane steroid binding protein 1	16.82	AT3G48890.1
258	HORVU3Hr1G023230	UDP-Glycosyltransferase superfamily protein	16.78	AT3G53150.1
259	HORVU7Hr1G106760	unknown function	16.73	AT5G16610.2
260	HORVU1Hr1G075640	ABC transporter ATP-binding protein NatA	16.58	AT3G47730.1
261	HORVU1Hr1G090860	unknown function	16.56	AT3G62650.2
262	HORVU2Hr1G034670	Auxin-responsive GH3 family protein	16.52	AT2G14960.1
263	HORVU1Hr1G008360	laccase 7	16.49	AT3G09220.1
264	HORVU2Hr1G079580	unknown function	16.45	AT2G14095.1
265	HORVU2Hr1G111760	receptor-like protein kinase 4	16.42	AT4G32300.1
266	HORVU2Hr1G096380	Branched-chain-amino-acid aminotransferase 6	16.41	AT5G65780.1
267	HORVU1Hr1G062030	Chitinase family protein	16.38	AT3G12500.1
268	HORVU5Hr1G112610	rRNA N-glycosidase	16.24	AT3G59490.3
269	HORVU5Hr1G045640	NAC domain protein,	16.10	AT5G53950.1
270	HORVU7Hr1G086340	undescribed protein	16.04	AT2G32210.1
271	HORVU7Hr1G021260	WRKY DNA-binding protein 61	15.77	AT5G15130.1
272	HORVU4Hr1G084810	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	15.76	AT5G24530.1
273	HORVU6Hr1G074370	undescribed protein	15.72	AT1G44970.1
274	HORVU5Hr1G034830	WRKY family transcription factor	15.69	AT4G11070.2
275	HORVU1Hr1G090460	undescribed protein	15.64	AT1G78410.2
276	HORVU3Hr1G065320	ABC transporter B family member 4	15.59	AT2G47000.7
277	HORVU2Hr1G018430	Peroxidase superfamily protein	15.45	AT5G05340.1
278	HORVU4Hr1G056890	LOB domain-containing protein 1	15.42	AT1G07900.1
279	HORVU7Hr1G108150	Protein kinase superfamily protein	15.41	AT2G05940.1
280	HORVU2Hr1G012980	Cytochrome P450 superfamily protein	15.39	AT1G13110.1
281	HORVU4Hr1G020230	rRNA N-glycosidase	15.37	AT3G56810.1
282	HORVU3Hr1G021500	Transposable element protein, putative	15.35	AT1G62270.1
283	HORVU3Hr1G083680	Harpin induced gene 1 homolog	15.34	AT2G35980.1
284	HORVU7Hr1G032740	unknown function	15.31	AT3G16670.1
285	HORVU2Hr1G063690	MATE efflux family protein	15.28	AT3G23550.1
286	HORVU1Hr1G085240	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein	15.27	AT5G11730.1
287	HORVU3Hr1G001950	undescribed protein	15.08	AT4G39970.1
288	HORVU3Hr1G002910	0	15.07	AT1G56120.3
289	HORVU3Hr1G024820	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	15.05	AT5G06570.4
290	HORVU1Hr1G080680	Cytochrome P450 superfamily protein	15.04	AT3G48520.1
291	HORVU4Hr1G051450	Phospholipid-transporting ATPase 1	14.96	AT5G04930.1

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292	HORVU3Hr1G064470	Chitinase family protein	14.93	AT3G12500.1
293	HORVU2Hr1G013760	MLO-like protein 1	14.91	AT2G44110.2
294	HORVU5Hr1G124810	receptor kinase 1	14.87	AT4G23230.1
295	HORVU2Hr1G091190	sugar transporter 9	14.75	AT2G20780.1
296	HORVU4Hr1G051290	NAC domain protein,	14.75	AT1G69490.1
297	HORVU3Hr1G090170	tropinone reductase	14.69	AT5G06060.1
298	HORVU3Hr1G086980	alpha/beta-Hydrolases superfamily protein	14.68	AT2G39420.1
299	HORVU3Hr1G011990	germin-like protein 2	14.65	AT5G39100.1
300	HORVU1Hr1G004980	Glycosyltransferase family 61 protein	14.47	AT2G41640.1
301	HORVU2Hr1G013170	2-oxoglutarate dehydrogenase, E1 component	14.47	AT3G55410.2
302	HORVU4Hr1G056500	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	14.45	AT3G11180.1
303	HORVU3Hr1G057730	unknown protein; Has 19 Blast hits to 19 proteins in 6 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 19; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLINK).	14.44	AT2G01400.1
304	HORVU3Hr1G014140	NAC domain protein,	14.43	AT1G61110.1
305	HORVU7Hr1G038330	amino acid permease 1	14.29	AT1G58360.1
306	HORVU2Hr1G112580	endonuclease 4	14.20	AT4G21585.4
307	HORVU3Hr1G022780	Protein kinase family protein	14.05	AT5G02070.1
308	HORVU3Hr1G024660	Acetyl esterase	13.93	AT5G06570.4
309	HORVU7Hr1G092800	Tryptophan synthase beta chain 2	13.92	AT5G38530.1
310	HORVU3Hr1G028020	GDSL esterase/lipase	13.88	AT1G28570.2
311	HORVU2Hr1G103180	L-lactate dehydrogenase	13.71	AT4G18360.4
312	HORVU1Hr1G014460	undescribed protein	13.65	#N/A
313	HORVU5Hr1G063270	GRAS family transcription factor	13.61	AT1G07520.1
314	HORVU7Hr1G080950	WRKY DNA-binding protein 27	13.55	AT4G01250.1
315	HORVU5Hr1G046730	undescribed protein	13.51	AT3G17700.2
316	HORVU2Hr1G018510	Peroxidase superfamily protein	13.51	AT5G05340.1
317	HORVU4Hr1G074780	Protein of unknown function (DUF1997)	13.48	AT5G39530.1
318	HORVU6Hr1G069980	receptor kinase 2	13.47	AT5G06740.1
319	HORVU1Hr1G037270	Chitinase 2	13.42	AT4G19810.2
320	HORVU3Hr1G089900	undescribed protein	13.41	AT3G32090.1
321	HORVU7Hr1G084920	Chitinase 1	13.40	AT1G14430.1
322	HORVU5Hr1G063430	glutamate receptor 2.8	13.38	AT2G29120.1
323	HORVU2Hr1G067340	exocyst subunit exo70 family protein H6	13.29	AT1G07725.1
324	HORVU1Hr1G067840	Pectin lyase-like superfamily protein	13.29	AT1G02460.1
325	HORVU3Hr1G018610	receptor kinase 2	13.23	AT3G53810.1
326	HORVU4Hr1G005440	germin-like protein 4	13.23	AT1G18980.1
327	HORVU7Hr1G075760	L-gulonolactone oxidase 2	13.19	AT2G46750.1



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328	HORVU0Hr1G016280	undescribed protein	13.07	AT5G20360.6
329	HORVU0Hr1G016310	Endochitinase A	13.05	AT3G54420.1
330	HORVU5Hr1G066250	Vacuolar-processing enzyme	13.05	AT2G25940.1
331	HORVU3Hr1G098340	methyl esterase 1	13.03	AT2G23620.1
332	HORVU3Hr1G056100	Cytochrome P450 superfamily protein	13.01	AT3G14680.1
333	HORVU7Hr1G084610	3-ketoacyl-CoA synthase 11	12.95	AT2G26640.1
334	HORVU7Hr1G077970	PLC-like phosphodiesterases superfamily protein	12.90	AT4G36945.1
335	HORVU3Hr1G113620	Wound-induced protein	12.89	AT3G04720.1
336	HORVU4Hr1G084930	TVP38/TMEM64 family membrane protein slr0305	12.84	AT2G02370.3
337	HORVU2Hr1G075970	Peroxidase superfamily protein	12.79	AT4G08390.3
338	HORVU7Hr1G114660	Indole-3-glycerol phosphate synthase	12.75	AT2G04400.1
339	HORVU3Hr1G018920	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	12.65	AT1G71010.1
340	HORVU1Hr1G019500	sucrose-phosphatase 1	12.62	AT2G35840.4
341	HORVU2Hr1G101980	Ubiquinol oxidase	12.61	AT3G22370.1
342	HORVU3Hr1G053350	ABC transporter G family member 36	12.60	AT1G15520.1
343	HORVU7Hr1G101310	Calcium-dependent lipid-binding (CaLB domain) family protein	12.53	AT5G04220.2
344	HORVU5Hr1G043460	calmodulin like 23	12.52	AT3G10190.1
345	HORVU3Hr1G080100	NAC domain containing protein 102	12.52	AT5G63790.1
346	HORVU7Hr1G024350	Long-chain-fatty-acid--CoA ligase 1	12.51	AT4G23850.1
347	HORVU1Hr1G009130	unknown function	12.46	AT2G18690.1
348	HORVU5Hr1G052150	Indole-3-glycerol phosphate synthase	12.45	AT5G48220.1
349	HORVU5Hr1G000940	receptor kinase 2	12.43	AT5G10530.1
350	HORVU2Hr1G085260	Protein NRT1/ PTR FAMILY 4.3	12.42	AT1G59740.1
351	HORVU2Hr1G028780	Chymotrypsin inhibitor	12.37	AT2G38900.2
352	HORVU5Hr1G041590	Leucine-rich repeat protein kinase family protein	12.37	AT4G29180.1
353	HORVU1Hr1G065660	undescribed protein	12.28	AT4G19140.1
354	HORVU3Hr1G104990	undescribed protein	12.24	#N/A
355	HORVU1Hr1G051580	PLAC8 family protein	12.22	AT1G63830.3
356	HORVU4Hr1G076750	methyl esterase 1	12.21	AT2G23620.1
357	HORVU1Hr1G019770	Protein kinase superfamily protein	12.16	AT2G05940.1
358	HORVU1Hr1G015210	Leucine-rich repeat receptor-like protein kinase family protein	12.15	AT4G08850.1
359	HORVU6Hr1G027640	SAUR25-auxin-responsive SAUR family member	12.12	AT1G56150.1
360	HORVU4Hr1G054770	COBRA-like protein 7	12.08	AT4G16120.1
361	HORVU1Hr1G019750	Laccase-19	12.08	AT3G09220.1
362	HORVU2Hr1G090170	UDP-Glycosyltransferase superfamily protein	11.88	AT2G36790.1
363	HORVU0Hr1G005420	Ubiquinol oxidase	11.88	AT3G22360.1



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364	HORVU4Hr1G028780	myb domain protein 112	11.81	AT5G49620.1
365	HORVU3Hr1G068700	Ribose-phosphate pyrophosphokinase 4	11.79	AT1G10700.1
366	HORVU3Hr1G065390	Lipid A export ATP-binding/permease protein MsbA	11.79	AT2G47000.6
367	HORVU2Hr1G018480	Peroxidase superfamily protein	11.78	AT5G05340.1
368	HORVU2Hr1G033610	dihydroflavonol 4-reductase	11.76	AT4G27250.1
369	HORVU5Hr1G062090	Aldehyde dehydrogenase family 7 member A1	11.75	AT1G54100.2
370	HORVU5Hr1G087240	receptor kinase 3	11.73	AT4G21390.2
371	HORVU5Hr1G060620	Centromere protein V	11.71	AT5G16940.2
372	HORVU7Hr1G013170	Flavin-containing monooxygenase family protein	11.69	AT1G21430.1
373	HORVU5Hr1G095130	Beta-glucosidase C	11.67	AT5G04885.2
374	HORVU3Hr1G028620	Cytochrome P450 61	11.65	AT2G34500.1
375	HORVU4Hr1G081430	NAC domain containing protein 36	11.62	AT2G17040.1
376	HORVU6Hr1G053700	undescribed protein	11.61	AT3G27473.1
377	HORVU1Hr1G038780	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	11.56	AT1G07040.1
378	HORVU4Hr1G063660	UDP-Glycosyltransferase superfamily protein	11.56	AT3G02100.1
379	HORVU3Hr1G006760	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	11.53	AT3G14460.1
380	HORVU7Hr1G038370	Beta-1,3-galactosyltransferase 15	11.52	AT1G26810.2
381	HORVU4Hr1G004000	Major facilitator superfamily protein	11.50	AT2G39210.1
382	HORVU6Hr1G067920	Protein NRT1/ PTR FAMILY 8.1	11.46	AT1G62200.1
383	HORVU3Hr1G117910	PLAC8 family protein	11.44	AT5G05350.1
384	HORVU1Hr1G081410	Chaperone protein DnaJ	11.42	AT2G42750.1
385	HORVU5Hr1G094700	Disease resistance-responsive (dirigent-like protein) family protein	11.39	AT1G58170.1
386	HORVU7Hr1G107330	SAUR-like auxin-responsive protein family	11.32	AT1G56150.1
387	HORVU7Hr1G106600	patatin-like protein 6	11.17	AT3G54950.1
388	HORVU3Hr1G077950	Subtilisin-like protease	11.12	AT4G10540.1
389	HORVU4Hr1G085820	UDP-galactose transporter 2	11.06	AT4G23010.1
390	HORVU2Hr1G125250	receptor kinase 2	11.06	AT4G23180.3
391	HORVU2Hr1G007570	S-adenosylmethionine-dependent methyltransferase	11.06	AT2G41380.1
392	HORVU6Hr1G074690	receptor-like protein kinase 4	11.05	AT1G34300.1
393	HORVU3Hr1G002000	germin-like protein 9	10.99	AT5G38960.1
394	HORVU0Hr1G030830	WRKY family transcription factor	10.97	AT3G56400.1
395	HORVU4Hr1G005380	germin-like protein 4	10.95	AT1G18980.1
396	HORVU5Hr1G068320	Heat stress transcription factor B-1	10.87	AT4G36990.1
397	HORVU2Hr1G100360	SAUR-like auxin-responsive protein family	10.85	AT2G24400.1
398	HORVU5Hr1G115870	PLANT CADMIUM RESISTANCE 2	10.84	AT1G14870.1
399	HORVU1Hr1G073820	Glucan endo-1,3-beta-glucosidase 14	10.77	AT2G27500.2

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400	HORVU2Hr1G114590	Synaptotagmin-5	10.75	AT1G05500.1
401	HORVU2Hr1G101920	Ubiquinol oxidase	10.70	AT3G22370.1
402	HORVU5Hr1G104580	UDP-Glycosyltransferase superfamily protein	10.69	AT2G15480.2
403	HORVU6Hr1G031640	unknown function	10.66	AT4G39720.4
404	HORVU2Hr1G008220	G-type lectin S-receptor-like serine/threonine-protein kinase	10.65	AT4G21380.2
405	HORVU2Hr1G006100	receptor kinase 2	10.64	AT3G53810.1
406	HORVU2Hr1G110230	Protein kinase superfamily protein	10.63	AT1G78290.3
407	HORVU5Hr1G118750	Zinc finger protein 668	10.62	AT1G34370.2
408	HORVU4Hr1G017390	Eukaryotic aspartyl protease family protein	10.57	AT4G33490.2
409	HORVU7Hr1G086250	undescribed protein	10.50	AT3G24460.2
410	HORVU5Hr1G095580	Cathepsin B-like cysteine proteinase	10.49	AT5G45890.1
411	HORVU4Hr1G071330	Cytochrome b561 and DOMON domain-containing protein	10.48	AT3G59070.1
412	HORVU2Hr1G120660	receptor kinase 2	10.45	AT3G53810.1
413	HORVU7Hr1G029460	undescribed protein	10.44	AT2G17780.4
414	HORVU1Hr1G067870	Cysteine proteinase inhibitor	10.36	AT3G12490.1
415	HORVU1Hr1G027700	WRKY DNA-binding protein 50	10.32	AT5G26170.1
416	HORVU4Hr1G001040	Leucine-rich repeat receptor-like protein kinase family protein	10.30	AT2G34930.1
417	HORVU3Hr1G113100	Beta-fructofuranosidase, insoluble isoenzyme 4	10.26	AT3G13790.2
418	HORVU3Hr1G067510	WRKY DNA-binding protein 50	10.26	AT5G26170.1
419	HORVU3Hr1G072210	undescribed protein	10.26	AT3G63150.1
420	HORVU2Hr1G100090	Solute carrier family 22 member 6-A	10.23	AT3G13050.4
421	HORVU7Hr1G003630	receptor kinase 2	10.19	AT4G21390.1
422	HORVU3Hr1G111550	undescribed protein	10.18	AT5G43210.1
423	HORVU1Hr1G089310	B12D protein	10.17	AT3G48140.1
424	HORVU0Hr1G005300	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	10.12	AT5G24530.1
425	HORVU3Hr1G117470	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	10.08	AT1G35190.2
426	HORVU2Hr1G093020	undescribed protein	9.99	AT5G08780.1
427	HORVU5Hr1G072740	undescribed protein	9.96	#N/A
428	HORVU5Hr1G096210	UDP-Glycosyltransferase superfamily protein	9.94	AT3G02100.1
429	HORVU7Hr1G028710	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	9.94	AT5G20400.1
430	HORVU6Hr1G008640	catalase 1	9.94	AT1G20630.1
431	HORVU2Hr1G028330	EF hand family protein	9.91	AT5G04990.1
432	HORVU6Hr1G062380	Ethylene-responsive transcription factor 1	9.83	AT4G17500.1
433	HORVU5Hr1G052760	Heavy metal transport/detoxification superfamily protein	9.82	AT3G20180.3
434	HORVU2Hr1G016720	Protein kinase superfamily protein	9.81	AT1G26970.1

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435	HORVU4Hr1G061120	Anthranilate synthase component 1	9.79	AT5G05730.1
436	HORVU0Hr1G006150	receptor kinase 1	9.77	AT5G38240.2
437	HORVU6Hr1G083050	lysine-ketoglutarate reductase/saccharopine dehydrogenase bifunctional enzyme	9.69	AT4G33150.3
438	HORVU1Hr1G041720	Nucleotide/sugar transporter family protein	9.64	AT2G28315.1
439	HORVU7Hr1G089160	FAD-binding Berberine family protein	9.61	AT5G44400.1
440	HORVU1Hr1G052430	Chitinase family protein	9.58	AT3G12500.1
441	HORVU1Hr1G039720	Protein NRT1/ PTR FAMILY 5.2	9.56	AT5G46050.1
442	HORVU3Hr1G013380	Leucine-rich repeat protein kinase family protein	9.56	AT4G29990.2
443	HORVU2Hr1G010560	Thioredoxin superfamily protein	9.56	AT1G20225.1
444	HORVU7Hr1G116650	Glutathione S-transferase family protein	9.56	AT3G62760.1
445	HORVU2Hr1G076470	U-box domain-containing protein	9.55	AT5G64660.1
446	HORVU3Hr1G117480	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	9.54	AT4G16765.6
447	HORVU3Hr1G108360	Orotidine 5'-phosphate decarboxylase	9.49	AT3G54470.1
448	HORVU2Hr1G028430	ribonuclease 1	9.42	AT2G02990.1
449	HORVU1Hr1G074310	receptor kinase 1	9.34	AT4G23180.1
450	HORVU4Hr1G076520	Protein kinase superfamily protein	9.34	AT2G05940.1
451	HORVU7Hr1G101740	Calcium-binding EF-hand family protein	9.31	AT4G27280.1
452	HORVU3Hr1G018690	receptor kinase 2	9.28	AT2G37710.1
453	HORVU1Hr1G081300	Heat stress transcription factor A-4d	9.21	AT4G18880.1
454	HORVU1Hr1G054290	Subtilisin-like protease SBT3.17	9.21	AT1G71950.1
455	HORVU2Hr1G004720	UDP-Glycosyltransferase superfamily protein	9.18	AT1G22400.1
456	HORVU5Hr1G063480	glutamate receptor 2.8	9.16	AT2G29120.1
457	HORVU5Hr1G122410	undescribed protein	9.14	AT1G69850.1
458	HORVU3Hr1G093100	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	9.11	AT5G55410.1
459	HORVU2Hr1G089020	Disease resistance protein	9.09	AT4G26090.1
460	HORVU7Hr1G089530	RING/U-box superfamily protein	9.08	AT1G53820.1
461	HORVU3Hr1G110580	undescribed protein	9.03	AT4G04750.3
462	HORVU2Hr1G094640	unknown function	9.01	AT5G54080.2
463	HORVU3Hr1G071470	ABC transporter G family member 32	8.95	AT1G15520.1
464	HORVU3Hr1G105560	Glucan endo-1,3-beta-glucosidase GI	8.94	AT4G16260.1
465	HORVU6Hr1G084080	MATE efflux family protein	8.93	AT3G23560.1
466	HORVU5Hr1G104620	Type IV inositol polyphosphate 5-phosphatase 7	8.92	AT2G32010.4
467	HORVU7Hr1G007520	Leucine-rich repeat receptor-like protein kinase family protein	8.92	AT5G44700.1
468	HORVU4Hr1G052320	unknown function	8.92	AT3G56710.2
469	HORVU5Hr1G045850	Glutathione S-transferase family protein	8.91	AT2G29420.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
470	HORVU6Hr1G077120	U-box domain-containing protein 21	8.90	AT5G37490.1
471	HORVU2Hr1G045200	Glutathione S-transferase family protein	8.79	AT1G10370.1
472	HORVU4Hr1G067450	sugar transporter protein 7	8.75	AT5G26340.1
473	HORVU2Hr1G124930	Peroxidase superfamily protein	8.74	AT1G71695.1
474	HORVU7Hr1G121290	flavin-dependent monooxygenase 1	8.74	AT1G19250.1
475	HORVU5Hr1G102900	Cysteine-rich receptor-like protein kinase 25	8.74	AT5G48540.1
476	HORVU7Hr1G002740	laccase 7	8.73	AT3G09220.1
477	HORVU2Hr1G123480	CCR4-NOT transcription complex subunit 8	8.66	AT5G22250.1
478	HORVU3Hr1G070700	Leucine-rich receptor-like protein kinase family protein	8.63	AT5G25930.1
479	HORVU7Hr1G091250	alpha-amylase-like	8.55	AT4G25000.1
480	HORVU2Hr1G091410	unknown function	8.52	AT3G14460.1
481	HORVU1Hr1G063740	NAC domain protein,	8.46	AT1G01720.1
482	HORVU2Hr1G075220	unknown function	8.39	AT1G45688.2
483	HORVU1Hr1G070250	WRKY DNA-binding protein 33	8.39	AT2G38470.1
484	HORVU2Hr1G085280	Chitinase	8.39	AT3G54420.1
485	HORVU5Hr1G010130	undescribed protein	8.35	AT4G16120.1
486	HORVU3Hr1G007290	Calmodulin-binding protein	8.31	AT5G57580.1
487	HORVU5Hr1G112210	Transmembrane amino acid transporter family protein	8.31	AT3G11900.2
488	HORVU7Hr1G028370	Pheophorbide a oxygenase, chloroplastic	8.30	AT4G25650.1
489	HORVU6Hr1G068990	Adenine nucleotide alpha hydrolases-like superfamily protein	8.26	AT2G21620.1
490	HORVU1Hr1G021150	Glutathione S-transferase family protein	8.26	AT3G62760.1
491	HORVU4Hr1G084340	Inter-alpha-trypsin inhibitor heavy chain H1	8.22	AT5G60710.1
492	HORVU6Hr1G005900	alpha/beta-Hydrolases superfamily protein	8.22	AT1G47480.1
493	HORVU7Hr1G086260	undescribed protein	8.21	AT3G46990.1
494	HORVU3Hr1G001740	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	8.14	AT5G22050.1
495	HORVU3Hr1G085890	ABC transporter C family member 3	8.04	AT3G13080.4
496	HORVU4Hr1G053130	calmodulin 3	8.03	AT5G49480.1
497	HORVU1Hr1G071380	unknown function	7.98	AT1G74540.1
498	HORVU4Hr1G071360	Cytochrome b561 and DOMON domain-containing protein	7.89	AT3G25290.2
499	HORVU5Hr1G072730	undescribed protein	7.88	#N/A
500	HORVU1Hr1G071670	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	7.84	AT5G24530.1
501	HORVU5Hr1G024400	Calmodulin-binding protein	7.84	AT2G18750.3
502	HORVU5Hr1G114440	unknown function	7.83	AT4G35920.5
503	HORVU1Hr1G021140	Glutathione S-transferase family protein	7.81	AT3G62760.1
504	HORVU4Hr1G072480	Blue copper protein	7.77	AT2G32300.1
505	HORVU7Hr1G042120	Protein NRT1/ PTR FAMILY 3.1	7.75	AT1G68570.1
506	HORVU3Hr1G028260	RING/U-box superfamily protein	7.75	AT2G27940.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
507	HORVU2Hr1G044640	receptor kinase 1	7.69	AT4G23160.1
508	HORVU3Hr1G063430	MATE efflux family protein	7.67	AT1G71140.1
509	HORVU3Hr1G092680	Aldehyde dehydrogenase family 2 member C4	7.67	AT3G24503.1
510	HORVU2Hr1G083570	Cytochrome P450 superfamily protein	7.65	AT3G26330.1
511	HORVU7Hr1G031360	glutamate receptor 3.3	7.64	AT5G11210.11
512	HORVU7Hr1G101590	Cytochrome P450 superfamily protein	7.60	AT3G14690.1
513	HORVU5Hr1G097270	Peroxidase superfamily protein	7.60	AT3G49960.1
514	HORVU7Hr1G083550	Peroxidase superfamily protein	7.56	AT5G66390.1
515	HORVU3Hr1G033740	WRKY family transcription factor	7.52	AT1G62300.1
516	HORVU1Hr1G037150	Protein kinase superfamily protein	7.52	AT5G03320.2
517	HORVU2Hr1G120420	undescribed protein	7.50	AT5G22010.2
518	HORVU7Hr1G104350	early nodulin-like protein 9	7.44	AT3G20570.1
519	HORVU4Hr1G009210	Sec14p-like phosphatidylinositol transfer family protein	7.43	AT1G75170.2
520	HORVU4Hr1G009190	Sec14p-like phosphatidylinositol transfer family protein	7.41	AT1G75170.2
521	HORVU4Hr1G055280	Protein of unknown function (DUF1262)	7.38	AT1G13520.1
522	HORVU1Hr1G054390	lipoxygenase 1	7.37	AT3G22400.1
523	HORVU7Hr1G075710	N-(5'-phosphoribosyl)anthranilate isomerase	7.34	AT1G07780.9
524	HORVU6Hr1G066250	Tetratricopeptide repeat (TPR)-like superfamily protein	7.34	AT3G18420.1
525	HORVU0Hr1G021610	F-box protein PP2-B7	7.33	AT2G02360.1
526	HORVU2Hr1G077220	12-oxophytodienoate reductase 2	7.32	AT1G76690.1
527	HORVU4Hr1G083210	Anthranilate phosphoribosyltransferase	7.32	AT5G17990.1
528	HORVU1Hr1G093950	receptor-like protein kinase 1	7.32	AT5G10530.1
529	HORVU4Hr1G076840	Protein TIFY 3A	7.31	AT1G74950.1
530	HORVU6Hr1G018070	Zinc transporter 2	7.30	AT1G55910.1
531	HORVU2Hr1G032780	methyl esterase 13	7.27	AT1G26360.1
532	HORVU2Hr1G036570	sugar transporter 1	7.26	AT2G16120.1
533	HORVU7Hr1G028730	receptor kinase 2	7.24	AT2G37710.1
534	HORVU5Hr1G118590	ammonium transporter 2	7.24	AT2G38290.1
535	HORVU2Hr1G038830	Ferredoxin--NADP reductase	7.23	AT4G05390.1
536	HORVU7Hr1G036380	RING/U-box superfamily protein	7.22	AT5G27420.1
537	HORVU2Hr1G008130	Serine/threonine-protein kinase BRI1-like 1	7.21	AT4G21380.2
538	HORVU4Hr1G059170	NAD(P)H dehydrogenase (quinone)	7.19	AT4G27270.1
539	HORVU1Hr1G093480	tryptophan synthase alpha chain	7.19	AT4G02610.1
540	HORVU3Hr1G077580	Peroxidase superfamily protein	7.17	AT5G15180.1
541	HORVU7Hr1G101240	Indole-3-glycerol phosphate lyase, chloroplastic	7.16	AT1G33320.3
542	HORVU7Hr1G077710	phosphatidylinositol-4-phosphate 5-kinase family protein	7.13	AT1G34260.3
543	HORVU5Hr1G058170	unknown function	7.12	AT4G39720.4



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544	HORVU2Hr1G017950	B12D protein	7.06	AT3G48140.1
545	HORVU7Hr1G074660	Transmembrane amino acid transporter family protein	7.03	AT5G40780.1
546	HORVU4Hr1G055270	Protein of unknown function, DUF538	7.00	AT5G37070.1
547	HORVU0Hr1G039970	Leucine-rich receptor-like protein kinase family protein	6.91	AT3G47090.1
548	HORVU2Hr1G003830	Amidase family protein, expressed	6.89	AT4G34880.1
549	HORVU4Hr1G086660	Cyclin-dependent protein kinase inhibitor SMR1	6.88	AT5G02420.1
550	HORVU2Hr1G044440	glucan endo-1,3-beta-glucosidase-like protein 3	6.87	AT2G39640.1
551	HORVU7Hr1G008140	receptor-like protein kinase 4	6.87	AT5G10530.1
552	HORVU2Hr1G109330	WRKY family transcription factor	6.83	AT3G56400.1
553	HORVU7Hr1G121260	Flavin-containing monooxygenase family protein	6.82	AT1G19250.1
554	HORVU3Hr1G022640	alpha/beta-Hydrolases superfamily protein	6.80	AT1G47480.1
555	HORVU6Hr1G057270	Subtilisin-like protease SBT3.6	6.78	AT1G71950.1
556	HORVU3Hr1G096360	HXXXD-type acyl-transferase family protein	6.77	AT3G62160.1
557	HORVU4Hr1G076820	ZIM motif family protein	6.75	AT2G17390.1
558	HORVU6Hr1G074440	annexin 7	6.73	AT5G10230.1
559	HORVU6Hr1G066920	Acetylornithine deacetylase	6.73	AT4G17830.1
560	HORVU2Hr1G123390	unknown function	6.70	AT4G10220.1
561	HORVU2Hr1G080890	Anthranilate synthase	6.68	AT1G25220.1
562	HORVU3Hr1G023400	UDP-Glycosyltransferase superfamily protein	6.67	AT2G36800.1
563	HORVU5Hr1G062410	Hypersensitive-induced response protein 1	6.65	AT5G62740.1
564	HORVU5Hr1G105930	CASP-like protein 1U3	6.65	AT4G15630.1
565	HORVU5Hr1G014060	calmodulin-like 11	6.64	AT3G22930.1
566	HORVU3Hr1G092250	E3 ubiquitin-protein ligase RGLG2	6.64	AT5G14420.4
567	HORVU1Hr1G017700	Hydrophobic protein LTI6B	6.64	AT3G05880.1
568	HORVU5Hr1G098090	allene oxide synthase	6.63	AT5G42650.1
569	HORVU2Hr1G017350	NAC domain containing protein 100	6.62	AT5G61430.1
570	HORVU5Hr1G010120	Protein WIR1A	6.60	AT2G23450.2
571	HORVU1Hr1G001570	O-methyltransferase family protein	6.59	AT4G35160.1
572	HORVU1Hr1G081550	malate dehydrogenase	6.56	AT3G47520.1
573	HORVU2Hr1G118110	Heavy metal transport/detoxification superfamily protein	6.56	AT1G01490.2
574	HORVU3Hr1G085810	Aldose reductase	6.55	AT2G37790.1
575	HORVU0Hr1G002930	unknown function	6.52	AT2G15760.1
576	HORVU2Hr1G044450	Glucan endo-1,3-beta-glucosidase 3	6.51	AT5G55180.2
577	HORVU5Hr1G062290	Protein TIFY 3B	6.50	AT1G74950.1
578	HORVU7Hr1G028840	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	6.48	AT5G54000.2
579	HORVU4Hr1G071020	sugar transporter 9	6.46	AT3G18830.1



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580	HORVU7Hr1G030570	undescribed protein	6.41	AT2G24040.1
581	HORVU4Hr1G083070	undescribed protein	6.40	#N/A
582	HORVU2Hr1G017470	NAC domain protein,	6.38	AT1G69490.1
583	HORVU2Hr1G022080	Cytochrome P450 superfamily protein	6.38	AT2G46950.1
584	HORVU4Hr1G090140	germin-like protein 9	6.38	AT5G39150.1
585	HORVU7Hr1G047070	MATE efflux family protein	6.37	AT5G52450.1
586	HORVU7Hr1G116310	Cytochrome P450 superfamily protein	6.36	AT3G14660.1
587	HORVU4Hr1G067840	GDP-mannose transporter GONST3	6.36	AT1G76340.1
588	HORVU3Hr1G012100	Protein kinase superfamily protein	6.34	AT4G32300.1
589	HORVU2Hr1G036590	sugar transporter 9	6.33	AT3G18830.1
590	HORVU5Hr1G066260	calmodulin like 42	6.32	AT3G29000.1
591	HORVU1Hr1G070580	receptor-like kinase 902	6.32	AT4G18640.1
592	HORVU4Hr1G078210	purine permease 3	6.31	AT1G28220.1
593	HORVU3Hr1G016860	Chymotrypsin inhibitor	6.29	AT2G38870.1
594	HORVU6Hr1G057680	inter-alpha-trypsin inhibitor heavy chain-related	6.28	AT5G60710.1
595	HORVU3Hr1G014270	Phloem-specific lectin	6.27	AT2G02340.1
596	HORVU7Hr1G108460	Leucine-rich repeat receptor-like protein kinase family protein	6.27	AT5G20480.2
597	HORVU7Hr1G039900	Family of unknown function (DUF716)	6.26	AT3G01360.2
598	HORVU2Hr1G045900	glucose-6-phosphate/phosphate translocator 2	6.20	AT1G61800.1
599	HORVU2Hr1G042210	Serine/threonine-protein kinase	6.19	AT2G19130.1
600	HORVU2Hr1G121060	polyamine oxidase 2	6.18	AT1G65840.1
601	HORVU5Hr1G119270	Protein kinase family protein	6.15	AT1G21230.1
602	HORVU4Hr1G084740	sugar transporter 1	6.13	AT1G34580.1
603	HORVU3Hr1G087050	Ankyrin repeat family protein	6.12	AT3G12360.1
604	HORVU2Hr1G044270	receptor kinase 1	6.11	AT4G05200.2
605	HORVU0Hr1G009460	germin-like protein 9	6.10	AT5G39110.1
606	HORVU6Hr1G004770	unknown function	6.07	AT1G21230.1
607	HORVU2Hr1G114100	Leucine-rich repeat receptor-like protein kinase family protein	6.07	AT1G74170.2
608	HORVU1Hr1G091600	Glucose-1-phosphate adenylyltransferase family protein	6.06	AT1G27680.1
609	HORVU4Hr1G072560	Blue copper protein	6.06	AT2G32300.2
610	HORVU1Hr1G020450	1-aminocyclopropane-1-carboxylate oxidase	6.05	AT1G77330.1
611	HORVU5Hr1G110180	phosphate transporter 1;7	6.03	AT3G54700.2
612	HORVU3Hr1G079620	Protein RETICULATA-RELATED 3, chloroplastic	6.02	AT3G08640.1
613	HORVU0Hr1G007620	Leucine-rich receptor-like protein kinase family protein	6.00	AT4G08850.1
614	HORVU7Hr1G019280	sugar transporter 1	5.99	AT5G61520.1
615	HORVU1Hr1G049280	Glutathione S-transferase family protein	5.97	AT1G10370.1

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616	HORVU6Hr1G023280	0	5.95	AT1G17240.1
617	HORVU7Hr1G113350	NADPH HC toxin reductase	5.91	AT4G27250.1
618	HORVU3Hr1G024650	Serine/threonine-protein kinase	5.91	AT2G19130.1
619	HORVU5Hr1G110220	phosphate transporter 1;7	5.90	AT3G54700.2
620	HORVU5Hr1G058020	Major facilitator superfamily protein	5.90	AT5G10190.2
621	HORVU3Hr1G059480	Acidic endochitinase	5.89	AT5G24090.1
622	HORVU6Hr1G074310	undescribed protein	5.89	AT3G57020.2
623	HORVU4Hr1G007180	microsomal glutathione s-transferase, putative	5.87	AT1G65820.1
624	HORVU1Hr1G052250	undescribed protein	5.87	AT3G54710.1
625	HORVU2Hr1G125600	unknown function	5.84	AT4G35920.5
626	HORVU2Hr1G080140	Aldose 1-epimerase	5.84	AT5G15140.1
627	HORVU2Hr1G008140	receptor kinase 3	5.80	AT4G27300.1
628	HORVU2Hr1G009830	Cystic fibrosis transmembrane conductance regulator	5.79	AT2G47800.1
629	HORVU5Hr1G047060	plastid transcriptionally active 6	5.75	AT1G21600.2
630	HORVU6Hr1G089960	undescribed protein	5.73	AT1G47890.1
631	HORVU5Hr1G081860	Chaperone protein ClpB	5.73	AT5G51070.1
632	HORVU3Hr1G077890	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	5.72	AT4G21920.1
633	HORVU5Hr1G107290	Actin cross-linking protein	5.69	AT1G59710.2
634	HORVU4Hr1G003400	Coffea canephora DH200=94 genomic scaffold, scaffold_6	5.68	AT2G01820.1
635	HORVU7Hr1G079460	unknown function	5.67	AT5G53710.2
636	HORVU2Hr1G118060	Heavy metal transport/detoxification superfamily protein	5.67	AT1G01490.2
637	HORVU5Hr1G011540	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	5.67	AT2G36690.2
638	HORVU4Hr1G072310	FAD/NAD(P)-binding oxidoreductase family protein	5.66	AT4G38540.1
639	HORVU1Hr1G080320	aldehyde dehydrogenase 12A1	5.66	AT5G62530.1
640	HORVU1Hr1G074660	Subtilisin-like protease SBT3.6	5.65	AT1G71950.1
641	HORVU6Hr1G031530	Cell cycle control protein 50A	5.61	AT1G54320.1
642	HORVU6Hr1G023530	Protein kinase domain containing protein, expressed	5.59	AT1G21230.1
643	HORVU3Hr1G090220	Protein kinase superfamily protein	5.59	AT2G19130.1
644	HORVU6Hr1G024850	Cytochrome P450 superfamily protein	5.59	AT3G48310.1
645	HORVU5Hr1G063420	glutamate receptor 2.8	5.58	AT2G29120.1
646	HORVU6Hr1G034380	N-terminal protein myristoylation	5.57	AT1G76600.1
647	HORVU6Hr1G034570	receptor kinase 2	5.57	AT2G33580.1
648	HORVU5Hr1G012040	receptor kinase 2	5.56	AT5G65600.1
649	HORVU5Hr1G065620	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	5.56	AT5G20400.1
650	HORVU2Hr1G109590	HXXXD-type acyl-transferase family protein	5.55	AT5G48930.1

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651	HORVU7Hr1G019240	sugar transporter 9	5.55	AT5G61520.2
652	HORVU3Hr1G099630	unknown function	5.55	AT3G20980.1
653	HORVU7Hr1G118560	Blue copper protein	5.54	AT3G17675.1
654	HORVU4Hr1G000850	Calcium-dependent lipid-binding (CaLB domain) family protein	5.54	AT5G23950.2
655	HORVU6Hr1G093180	Electron transfer flavoprotein subunit beta	5.53	AT5G43430.1
656	HORVU2Hr1G027480	Cytochrome P450 superfamily protein	5.53	AT2G46950.1
657	HORVU5Hr1G024160	Adenine nucleotide alpha hydrolases-like superfamily protein	5.51	AT2G47710.1
658	HORVU6Hr1G021320	Lipid A export ATP-binding/permease protein MsbA	5.49	AT2G47000.7
659	HORVU1Hr1G016840	Peroxidase superfamily protein	5.49	AT1G05260.1
660	HORVU2Hr1G044870	receptor kinase 2	5.44	AT4G23180.1
661	HORVU1Hr1G028200	hexokinase 2	5.41	AT4G29130.1
662	HORVU5Hr1G071140	cellulose synthase like E1	5.39	AT1G55850.1
663	HORVU1Hr1G000140	Phospholipid-transporting ATPase 10	5.39	AT1G68710.2
664	HORVU5Hr1G071720	undescribed protein	5.38	AT5G04690.1
665	HORVU7Hr1G091100	Glucan endo-1,3-beta-glucosidase 13	5.38	AT2G05790.1
666	HORVU4Hr1G083650	Protein NRT1/ PTR FAMILY 5.2	5.38	AT5G46050.1
667	HORVU1Hr1G089830	Dehydrogenase/reductase SDR family member 12	5.36	AT1G01800.1
668	HORVU5Hr1G063340	ATP-dependent zinc metalloprotease FtsH 2	5.35	AT5G57480.1
669	HORVU3Hr1G086220	Calcium-dependent lipid-binding (CaLB domain) family protein	5.35	AT3G55470.2
670	HORVU2Hr1G098390	receptor kinase 2	5.35	AT1G56120.3
671	HORVU4Hr1G007340	Homologous-pairing protein 2 homolog	5.33	AT1G13330.1
672	HORVU1Hr1G074330	Fructose-1,6-bisphosphatase class 1	5.32	AT1G43670.1
673	HORVU2Hr1G121440	Cathepsin B-like cysteine proteinase	5.32	AT5G43060.1
674	HORVU3Hr1G007420	calmodulin like 23	5.31	AT5G37770.2
675	HORVU2Hr1G062730	Protein NRT1/ PTR FAMILY 4.5	5.30	AT1G27040.2
676	HORVU7Hr1G024930	Subtilisin-like protease	5.29	AT4G10540.1
677	HORVU4Hr1G084600	unknown function	5.28	AT2G40095.3
678	HORVU3Hr1G079000	Dihydropyrimidinase	5.28	AT5G12200.1
679	HORVU0Hr1G005160	L-allo-threonine aldolase	5.27	AT1G08630.6
680	HORVU1Hr1G088680	Receptor-like protein kinase	5.27	AT3G51550.1
681	HORVU3Hr1G028280	RING/U-box superfamily protein	5.26	AT2G42360.1
682	HORVU1Hr1G066120	Kinesin-like protein	5.25	AT1G03280.3
683	HORVU6Hr1G005400	Epoxide hydrolase 4	5.24	AT3G51000.1
684	HORVU5Hr1G117910	ferredoxin 3	5.22	AT2G27510.1
685	HORVU7Hr1G079630	undescribed protein	5.22	AT2G33600.1
686	HORVU5Hr1G120570	Membrane protein insertase YidC	5.21	AT1G24490.1
687	HORVU4Hr1G078690	Ras-related protein Rab-6A	5.20	AT2G44610.1

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688	HORVU7Hr1G090830	Copine family protein 2	5.16	AT5G14420.4
689	HORVU5Hr1G089780	Molybdenum cofactor sulfurase family protein	5.15	AT1G30910.1
690	HORVU4Hr1G016770	alcohol dehydrogenase 1	5.12	AT1G77120.1
691	HORVU1Hr1G020410	1-aminocyclopropane-1-carboxylate oxidase	5.11	AT1G77330.1
692	HORVU5Hr1G001920	Leucine-rich receptor-like protein kinase family protein	5.10	AT1G09970.1
693	HORVU2Hr1G007760	ABC transporter family protein	5.08	AT5G60740.1
694	HORVU7Hr1G059050	Pyrimidine-specific ribonucleoside hydrolase RihA	5.06	AT2G36310.1
695	HORVU7Hr1G079610	undescribed protein	5.06	#N/A
696	HORVU0Hr1G026470	undescribed protein	5.06	AT4G34215.2
697	HORVU2Hr1G117840	Protein kinase superfamily protein	5.04	AT4G21390.1
698	HORVU1Hr1G080300	WRKY DNA-binding protein 51	5.04	AT5G64810.1
699	HORVU7Hr1G118020	Eukaryotic aspartyl protease family protein	5.03	AT4G35880.1
700	HORVU4Hr1G010030	Protein kinase superfamily protein	5.02	AT1G34300.1
701	HORVU7Hr1G028750	F-box domain containing protein, expressed	5.00	AT3G06240.1
702	HORVU3Hr1G028060	GDSL esterase/lipase	4.99	AT5G45910.1
703	HORVU5Hr1G012120	receptor kinase 2	4.94	AT5G10530.1
704	HORVU5Hr1G064020	Tetraspanin family protein	4.94	AT2G23810.1
705	HORVU7Hr1G037910	shikimate kinase 1	4.93	AT2G21940.5
706	HORVU6Hr1G011120	Glutathione S-transferase family protein	4.92	AT4G19880.1
707	HORVU4Hr1G023390	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	4.92	AT3G48860.2
708	HORVU7Hr1G030480	cinnamoyl coa reductase	4.91	AT1G80820.1
709	HORVU7Hr1G074640	lysine histidine transporter 1	4.88	AT5G40780.1
710	HORVU2Hr1G120260	Chromatin structure-remodeling complex subunit snf21	4.85	AT2G28290.1
711	HORVU5Hr1G096930	Cytochrome P450 superfamily protein	4.84	AT4G37330.1
712	HORVU5Hr1G087880	Auxin efflux carrier family protein	4.84	AT5G65980.1
713	HORVU4Hr1G009340	Protein kinase superfamily protein	4.83	AT2G16250.1
714	HORVU5Hr1G107410	AAA-ATPase 1	4.81	AT3G28510.1
715	HORVU1Hr1G016660	Peroxidase superfamily protein	4.77	AT4G33420.1
716	HORVU7Hr1G113850	WRKY family transcription factor	4.77	AT1G80840.1
717	HORVU0Hr1G009400	germin-like protein 9	4.74	AT5G39110.1
718	HORVU2Hr1G004230	12-oxophytodienoate reductase 2	4.73	AT1G76680.1
719	HORVU2Hr1G064160	sugar transporter 1	4.72	AT1G11260.1
720	HORVU5Hr1G077010	NAC domain containing protein 41	4.72	AT2G33480.2
721	HORVU7Hr1G073460	Tryptophan synthase beta chain 1	4.71	AT4G27070.1
722	HORVU3Hr1G076060	purple acid phosphatase 10	4.71	AT2G16430.2
723	HORVU2Hr1G096510	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	4.71	AT5G20400.1
724	HORVU1Hr1G002890	HXXXD-type acyl-transferase family protein	4.70	AT1G03940.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
725	HORVU1Hr1G049210	Glutathione S-transferase family protein	4.70	AT1G10360.1
726	HORVU2Hr1G123590	Protein kinase family protein	4.67	AT1G21210.1
727	HORVU7Hr1G079600	unknown function	4.66	AT1G17147.1
728	HORVU3Hr1G093550	receptor kinase 2	4.65	AT1G56130.2
729	HORVU3Hr1G077110	receptor kinase 2	4.63	AT4G21390.1
730	HORVU1Hr1G062250	UDP-Glycosyltransferase superfamily protein	4.63	AT3G16520.3
731	HORVU3Hr1G003920	receptor kinase 2	4.63	AT4G00970.1
732	HORVU0Hr1G009470	germin-like protein 2	4.59	AT5G39110.1
733	HORVU1Hr1G007310	Calcium-transporting ATPase 1	4.55	AT1G07670.2
734	HORVU1Hr1G057460	Aldolase-type TIM barrel family protein	4.55	AT5G64250.1
735	HORVU2Hr1G036800	Geranylgeranyl diphosphate synthase	4.53	AT4G36810.1
736	HORVU0Hr1G007680	inositol polyphosphate 5-phosphatase 11	4.53	AT1G47510.1
737	HORVU2Hr1G014890	receptor kinase 2	4.50	AT3G53810.1
738	HORVU0Hr1G012940	Alcohol dehydrogenase	4.49	AT4G37980.2
739	HORVU2Hr1G103890	receptor kinase 2	4.49	AT1G16670.1
740	HORVU3Hr1G049640	calmodulin-binding family protein	4.49	AT4G33050.3
741	HORVU2Hr1G087090	adenine phosphoribosyltransferase 5	4.47	AT1G80050.1
742	HORVU7Hr1G073050	External alternative NAD(P)H-ubiquinone oxidoreductase B3, mitochondrial	4.45	AT4G21490.2
743	HORVU4Hr1G058550	Peptidase M50B-like protein	4.45	AT1G67060.1
744	HORVU3Hr1G088200	WRKY DNA-binding protein 33	4.44	AT2G38470.1
745	HORVU3Hr1G002350	receptor-like protein kinase 4	4.42	AT5G38280.1
746	HORVU2Hr1G116910	diacylglycerol kinase 5	4.41	AT2G20900.3
747	HORVU7Hr1G038160	sphingoid base hydroxylase 2	4.40	AT1G14290.1
748	HORVU7Hr1G022050	undescribed protein	4.40	AT1G10170.4
749	HORVU3Hr1G076750	Secretory carrier-associated membrane protein 2	4.39	AT1G61250.1
750	HORVU1Hr1G019410	HXXXD-type acyl-transferase family protein	4.38	AT5G48930.1
751	HORVU2Hr1G100450	HKT14-1	4.38	AT4G10310.1
752	HORVU1Hr1G074350	actin 7	4.36	AT5G09810.1
753	HORVU7Hr1G104190	undescribed protein	4.36	AT3G47100.1
754	HORVU2Hr1G078510	lipoxygenase 3	4.35	AT1G17420.1
755	HORVU5Hr1G040740	Long-chain-fatty-acid--CoA ligase 1	4.34	AT5G27600.1
756	HORVU2Hr1G107550	Aldehyde dehydrogenase family 9 member A1-B	4.33	AT2G14170.1
757	HORVU1Hr1G045610	membrane steroid binding protein 1	4.33	AT5G52240.1
758	HORVU5Hr1G115230	non-specific phospholipase C1	4.32	AT1G07230.1
759	HORVU2Hr1G085270	Chitinase	4.32	AT3G54420.1
760	HORVU2Hr1G117940	Heavy metal transport/detoxification superfamily protein	4.29	AT1G01490.2
761	HORVU3Hr1G081100	receptor kinase 1	4.28	AT3G08760.3



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762	HORVU1Hr1G049100	Glutathione S-transferase family protein	4.26	AT1G10360.1
763	HORVU3Hr1G087740	TRICHOME BIREFRINGENCE-LIKE 28	4.26	AT3G55990.1
764	HORVU7Hr1G122130	undescribed protein	4.24	AT2G25800.1
765	HORVU5Hr1G014980	N-carbamoyl-L-amino acid hydrolase	4.20	AT5G43600.1
766	HORVU4Hr1G005450	Protein of unknown function, DUF538	4.19	AT5G19860.1
767	HORVU6Hr1G033980	Citrate synthase family protein	4.19	AT3G60100.3
768	HORVU6Hr1G090600	Glutathione S-transferase family protein	4.17	AT1G10370.1
769	HORVU3Hr1G111360	undescribed protein	4.16	AT5G01950.8
770	HORVU2Hr1G078890	unknown function	4.14	AT4G37030.1
771	HORVU6Hr1G028790	WRKY family transcription factor	4.14	AT1G80840.1
772	HORVU3Hr1G108900	LORELEI-LIKE-GPI-ANCHORED PROTEIN 1	4.13	AT5G56170.1
773	HORVU2Hr1G084210	Leucine-rich repeat receptor-like protein kinase family protein	4.13	AT3G28450.1
774	HORVU4Hr1G087340	60 kDa jasmonate-induced protein	4.10	AT2G35330.2
775	HORVU3Hr1G031020	Cytochrome P450 superfamily protein	4.09	AT3G48320.1
776	HORVU0Hr1G001430	WRKY DNA-binding protein 51	4.09	AT5G64810.1
777	HORVU3Hr1G106950	Calcium-binding EF-hand family protein	4.08	AT1G24620.1
778	HORVU6Hr1G084740	Cytochrome c oxidase copper chaperone 2	4.07	AT1G53030.1
779	HORVU3Hr1G002920	Glycosyltransferase	4.06	AT3G18180.1
780	HORVU7Hr1G010250	Peroxisomal membrane protein 11-5	4.03	AT1G01820.1
781	HORVU5Hr1G089620	receptor kinase 2	4.02	AT1G21240.1
782	HORVU1Hr1G038680	60 kDa chaperonin 1	4.01	AT3G23990.1
783	HORVU7Hr1G121950	Retrotransposon protein, putative, unclassified	4.01	AT4G29090.1
784	HORVU1Hr1G072720	unknown protein; Has 30 Blast hits to 30 proteins in 10 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 30; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	4.00	AT5G02090.1
785	HORVU7Hr1G037510	Protein of unknown function, DUF547	4.00	AT4G08550.2
786	HORVU3Hr1G061700	callose synthase 5	3.99	AT4G03550.1
787	HORVU6Hr1G077890	Non-specific lipid transfer protein-like 1	3.99	AT5G64080.2
788	HORVU2Hr1G048220	Transmembrane protein 184A	3.97	AT4G21570.1
789	HORVU5Hr1G068060	Mitochondrial phosphate carrier protein 2, mitochondrial	3.97	AT5G14040.1
790	HORVU1Hr1G086170	undescribed protein	3.95	AT1G53708.1
791	HORVU5Hr1G009930	undescribed protein	3.93	AT5G37660.1
792	HORVU6Hr1G084590	Isopentenyl-diphosphate Delta-isomerase	3.93	AT1G79690.2
793	HORVU7Hr1G008760	soluble N-ethylmaleimide-sensitive factor adaptor protein 33	3.92	AT5G61210.2
794	HORVU5Hr1G096940	Cytochrome P450 superfamily protein	3.92	AT4G37330.1
795	HORVU6Hr1G061450	YELLOW STRIPE like 3	3.92	AT5G53550.6



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796	HORVU7Hr1G108820	unknown function	3.92	AT2G18680.1
797	HORVU6Hr1G018460	unknown function	3.92	AT1G48120.1
798	HORVU7Hr1G050670	lipoxygenase 2	3.92	AT3G45140.1
799	HORVU7Hr1G116880	Protein of unknown function (DUF668)	3.91	AT1G30755.6
800	HORVU1Hr1G073280	Glycosyl hydrolase family protein	3.90	AT3G47000.1
801	HORVU2Hr1G113180	D-3-phosphoglycerate dehydrogenase	3.90	AT4G34200.1
802	HORVU3Hr1G105290	Glucan endo-1,3-beta-glucosidase GI	3.89	AT3G57240.1
803	HORVU5Hr1G023990	unknown function	3.86	AT1G67120.1
804	HORVU0Hr1G017540	glutathione reductase	3.86	AT3G24170.3
805	HORVU2Hr1G117490	Serine/threonine-protein kinase	3.85	AT1G65790.3
806	HORVU4Hr1G072880	phosphoserine aminotransferase	3.85	AT4G35630.1
807	HORVU1Hr1G084720	unknown function	3.81	AT3G20630.1
808	HORVU6Hr1G041840	unknown function	3.81	ATMG00860.1
809	HORVU6Hr1G066930	Acetylornithine deacetylase	3.81	AT4G17830.1
810	HORVU2Hr1G040900	NADPH--cytochrome P450 reductase 2	3.80	AT4G30210.3
811	HORVU6Hr1G093740	Receptor-like protein kinase	3.80	AT1G21230.1
812	HORVU2Hr1G064150	sugar transporter 1	3.80	AT1G11260.1
813	HORVU7Hr1G051070	Aminoacylase-1	3.79	AT4G38220.1
814	HORVU2Hr1G016000	Ion protease 1	3.77	AT5G26860.1
815	HORVU5Hr1G099670	Class E vacuolar protein-sorting machinery protein hse1	3.75	AT4G32760.1
816	HORVU6Hr1G078650	fucosyltransferase 1	3.74	AT2G03220.1
817	HORVU6Hr1G077010	Endoglucanase 7	3.74	AT2G32990.1
818	HORVU1Hr1G039600	Leucine-rich repeat receptor-like protein kinase family protein	3.74	AT4G04220.1
819	HORVU6Hr1G024100	Fatty acid oxidation complex subunit alpha	3.73	AT4G29010.1
820	HORVU7Hr1G099340	receptor kinase 1	3.73	AT4G23280.2
821	HORVU2Hr1G031460	Adipocyte plasma membrane-associated protein	3.72	AT3G51430.2
822	HORVU5Hr1G050940	cinnamoyl coa reductase	3.72	AT1G15950.3
823	HORVU5Hr1G089790	receptor kinase 3	3.72	AT1G21240.1
824	HORVU5Hr1G099820	citrate synthase 3	3.71	AT3G58750.1
825	HORVU1Hr1G053260	U-box domain-containing protein	3.71	AT2G45910.2
826	HORVU4Hr1G054060	Argininosuccinate lyase	3.70	AT5G10920.1
827	HORVU1Hr1G045580	undescribed protein	3.70	AT1G55020.1
828	HORVU4Hr1G076570	lipoxygenase 3	3.69	AT1G72520.1
829	HORVU4Hr1G043530	Phytoalexin deficient 4	3.69	AT3G52430.1
830	HORVU5Hr1G093860	Structural constituent of ribosome protein	3.68	AT4G19390.2
831	HORVU1Hr1G058810	UDP-glucuronic acid decarboxylase 1	3.67	AT3G62830.2
832	HORVU6Hr1G059420	YELLOW STRIPE like 7	3.66	AT1G65730.1
833	HORVU7Hr1G005270	cellulose synthase-like D3	3.65	AT3G03050.1

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834	HORVU3Hr1G024210	ABC transporter C family member 3	3.64	AT3G13080.5
835	HORVU4Hr1G081940	4-coumarate--CoA ligase-like 4	3.63	AT1G20510.1
836	HORVU5Hr1G097940	undescribed protein	3.61	AT2G15960.1
837	HORVU1Hr1G069800	Non-specific lipid-transfer protein	3.61	AT5G01870.1
838	HORVU1Hr1G070640	RING/U-box superfamily protein	3.60	AT3G11110.1
839	HORVU2Hr1G078860	Protein phosphatase 2C family protein	3.59	AT1G47380.1
840	HORVU5Hr1G085310	UDP-Glycosyltransferase superfamily protein	3.59	AT1G07250.1
841	HORVU2Hr1G086380	hydroxycinnamoyl-CoA shikimate/quinic acid hydroxycinnamoyl transferase	3.58	AT5G48930.1
842	HORVU1Hr1G063410	Protein O-linked-mannose beta-1,4-N-acetylglucosaminyltransferase 2	3.58	AT3G18170.1
843	HORVU2Hr1G104450	D-2-hydroxyglutarate dehydrogenase, mitochondrial	3.57	AT4G36400.2
844	HORVU7Hr1G053300	RPM1 interacting protein 4 transcript 2	3.57	AT3G25070.2
845	HORVU3Hr1G087680	Phytol kinase 1, chloroplastic	3.55	AT5G58560.1
846	HORVU4Hr1G061130	receptor kinase 1	3.53	AT3G09010.1
847	HORVU1Hr1G073840	ferredoxin 3	3.53	AT2G27510.1
848	HORVU5Hr1G097500	Zinc finger protein 1	3.53	AT1G27730.1
849	HORVU3Hr1G071890	Protein TIC 22-like, chloroplastic	3.51	AT3G23710.1
850	HORVU2Hr1G017400	NAC domain protein,	3.51	AT5G39610.1
851	HORVU5Hr1G103180	Ferredoxin--NADP reductase	3.51	AT4G05390.1
852	HORVU6Hr1G065210	transcription factor-related	3.50	AT2G27230.2
853	HORVU3Hr1G053380	ABC transporter G family member 37	3.49	AT1G15520.1
854	HORVU2Hr1G015410	Wound-induced protein 1	3.49	AT5G01740.1
855	HORVU1Hr1G073040	Phosphatidylinositol:ceramide inositolphosphotransferase	3.46	AT3G54020.1
856	HORVU2Hr1G039850	MATE efflux family protein	3.46	AT1G15170.2
857	HORVU5Hr1G076250	purple acid phosphatase 27	3.46	AT5G50400.1
858	HORVU2Hr1G013200	LITAF-domain-containing protein	3.45	AT5G13190.1
859	HORVU1Hr1G011430	Pyrimidine-specific ribonucleoside hydrolase RihA	3.44	AT2G36310.1
860	HORVU3Hr1G073220	aspartate aminotransferase 3	3.44	AT5G11520.1
861	HORVU7Hr1G106420	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	3.43	AT2G38880.8
862	HORVU5Hr1G106550	histone H1-3	3.41	AT2G30620.2
863	HORVU1Hr1G020430	1-aminocyclopropane-1-carboxylate oxidase	3.39	AT1G77330.1
864	HORVU3Hr1G070550	Transferrin receptor protein 2	3.39	AT5G19740.1
865	HORVU3Hr1G096050	Transaldolase 1	3.37	AT5G13420.1
866	HORVU7Hr1G017950	Cytochrome P450 superfamily protein	3.36	AT2G45560.1
867	HORVU6Hr1G013750	Protein kinase superfamily protein	3.36	AT2G19130.1
868	HORVU7Hr1G020580	Cadmium tolerant 1	3.34	#N/A
869	HORVU3Hr1G086040	Major facilitator superfamily protein	3.34	AT2G39210.1

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870	HORVU7Hr1G040030	unknown function	3.34	AT1G19020.1
871	HORVU5Hr1G006900	cationic amino acid transporter 2	3.34	AT1G58030.1
872	HORVU2Hr1G015360	Wound-induced protein 1	3.33	AT5G01740.1
873	HORVU4Hr1G027150	Mitochondrial uncoupling protein 1	3.33	AT3G54110.1
874	HORVU4Hr1G064720	Deoxymugineic acid synthase1	3.33	AT1G59960.1
875	HORVU7Hr1G007540	unknown function	3.32	AT1G09070.1
876	HORVU1Hr1G038330	3-ketoacyl-CoA thiolase	3.32	AT2G33150.1
877	HORVU4Hr1G027660	metallothionein 2A	3.31	AT3G09390.2
878	HORVU5Hr1G092960	Ornithine aminotransferase	3.31	AT5G46180.1
879	HORVU5Hr1G115100	GRAM domain-containing protein / ABA-responsive protein-related	3.28	AT5G13200.1
880	HORVU6Hr1G071780	Transmembrane 9 superfamily member 12	3.28	AT4G12650.1
881	HORVU2Hr1G104110	UDP-glucose 4-epimerase 4	3.27	AT1G30620.6
882	HORVU2Hr1G075470	Protein kinase superfamily protein	3.27	AT5G63650.1
883	HORVU3Hr1G007680	receptor-like protein kinase 4	3.26	AT5G38260.1
884	HORVU3Hr1G099620	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	3.26	AT3G20980.1
885	HORVU5Hr1G079690	Acyl-coenzyme A thioesterase 9, mitochondrial	3.26	AT5G48370.2
886	HORVU7Hr1G022970	Proteasome subunit beta type-5-A	3.25	AT1G13060.1
887	HORVU4Hr1G002180	Ankyrin repeat domain-containing protein 50	3.24	AT5G02620.4
888	HORVU6Hr1G090560	Glutathione S-transferase family protein	3.24	AT1G10360.1
889	HORVU2Hr1G114260	Glycerol kinase	3.23	AT1G80460.1
890	HORVU2Hr1G011610	SNARE-interacting protein KEULE	3.22	AT1G12360.1
891	HORVU2Hr1G022620	Disease resistance protein	3.22	AT1G50180.1
892	HORVU3Hr1G085460	SOUL heme-binding family protein	3.22	AT2G37970.1
893	HORVU3Hr1G083560	Uricase	3.22	AT2G26230.1
894	HORVU1Hr1G092300	receptor kinase 2	3.21	AT4G23190.2
895	HORVU5Hr1G118460	Protein kinase superfamily protein	3.21	AT1G34300.1
896	HORVU5Hr1G012890	Epoxide hydrolase 4	3.20	AT3G51000.1
897	HORVU4Hr1G081670	respiratory burst oxidase homologue D	3.17	AT5G47910.1
898	HORVU4Hr1G078130	GRAM domain family protein	3.16	AT1G28200.2
899	HORVU4Hr1G007050	Phytanoyl-CoA dioxygenase domain-containing protein 1	3.16	AT2G01490.2
900	HORVU2Hr1G091270	beta-xylosidase 2	3.15	AT5G10560.1
901	HORVU4Hr1G063890	unknown function	3.15	AT5G53670.1
902	HORVU3Hr1G018650	pyruvate decarboxylase-2	3.15	AT5G01320.1
903	HORVU1Hr1G076870	proline iminopeptidase	3.14	AT2G14260.3
904	HORVU3Hr1G013880	Fatty acid oxidation complex subunit alpha	3.14	AT4G29010.1
905	HORVU6Hr1G006560	1-deoxy-D-xylulose 5-phosphate synthase 3	3.13	AT1G55510.1
906	HORVU3Hr1G096190	Protein kinase family protein	3.13	AT1G21230.1
907	HORVU4Hr1G059120	UDP-glucose 4-epimerase	3.12	AT1G78570.1

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908	HORVU5Hr1G050350	Glyoxylate/hydroxypyruvate reductase A	3.12	AT1G72190.1
909	HORVU6Hr1G066470	Calcium-dependent protein kinase family protein	3.12	AT4G35310.2
910	HORVU3Hr1G090070	undescribed protein	3.11	AT1G20400.1
911	HORVU2Hr1G080070	Aldose 1-epimerase	3.10	AT5G15140.1
912	HORVU1Hr1G084800	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	3.10	AT4G13400.1
913	HORVU6Hr1G081000	allene oxide cyclase 4	3.10	AT3G25780.1
914	HORVU2Hr1G028540	Lipase/lipoxygenase, putative isoform 3	3.10	AT1G55280.1
915	HORVU2Hr1G092820	YELLOW STRIPE like 2	3.09	AT5G24380.1
916	HORVU2Hr1G037750	receptor kinase 3	3.08	AT4G23180.1
917	HORVU1Hr1G002470	receptor-like protein kinase 4	3.06	AT1G70250.1
918	HORVU3Hr1G015150	Sphingosine-1-phosphate lyase	3.06	AT1G27980.1
919	HORVU7Hr1G109810	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein	3.05	AT4G31350.4
920	HORVU2Hr1G065750	WRKY family transcription factor	3.05	AT4G31550.1
921	HORVU4Hr1G084510	protein kinase family protein	3.03	AT5G24010.1
922	HORVU6Hr1G091130	3-ketoacyl-CoA thiolase	3.03	AT2G33150.1
923	HORVU3Hr1G093400	RNA-binding protein 1	3.03	AT3G23830.2
924	HORVU4Hr1G075160	unknown function	-3.00	AT1G14345.1
925	HORVU5Hr1G056390	Galactose mutarotase-like superfamily protein	-3.00	AT5G66530.3
926	HORVU3Hr1G030540	Replication protein A 32 kDa subunit B	-3.00	AT2G24490.2
927	HORVU3Hr1G096650	NAD(P)H dehydrogenase 18	-3.01	AT5G43750.1
928	HORVU4Hr1G072240	unknown function	-3.01	AT2G36895.2
929	HORVU5Hr1G046250	RING/U-box superfamily protein	-3.01	AT5G01980.1
930	HORVU6Hr1G010520	unknown protein; Has 52 Blast hits to 46 proteins in 20 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 45; Viruses - 0; Other Eukaryotes - 7 (source: NCBI BLINK).	-3.02	AT3G50685.1
931	HORVU2Hr1G013870	fatty acid desaturase 8	-3.03	AT5G05580.1
932	HORVU5Hr1G112670	Chalcone--flavonone isomerase	-3.03	AT3G55120.1
933	HORVU0Hr1G031970	Protein DEHYDRATION-INDUCED 19 homolog 5	-3.03	AT3G05700.1
934	HORVU2Hr1G092280	NAD(P)H-quinone oxidoreductase subunit M	-3.03	AT4G37925.1
935	HORVU1Hr1G073170	LSD1 zinc finger family protein	-3.03	AT1G32540.1
936	HORVU7Hr1G106280	auxin response factor 6	-3.03	AT5G37020.1
937	HORVU7Hr1G105250	DUF4408 domain protein	-3.03	AT5G57510.1
938	HORVU0Hr1G004830	glyceraldehyde-3-phosphate dehydrogenase C2	-3.03	AT1G12900.5
939	HORVU0Hr1G032640	RNAase	-3.03	#N/A
940	HORVU7Hr1G120190	Ycf48-like protein	-3.03	AT5G23120.2

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
941	HORVU7Hr1G064100	proton gradient regulation 5	-3.03	AT2G05620.2
942	HORVU3Hr1G047030	Ferredoxin-thioredoxin reductase, catalytic chain	-3.04	AT2G04700.3
943	HORVU3Hr1G062490	30S ribosomal protein S20	-3.04	AT3G15190.1
944	HORVU3Hr1G029560	undescribed protein	-3.05	AT1G61230.1
945	HORVU1Hr1G070190	Nodulin-like / Major Facilitator Superfamily protein	-3.06	AT2G30300.1
946	HORVU4Hr1G090780	Disease resistance-responsive (dirigent-like protein) family protein	-3.07	AT1G22900.1
947	HORVU4Hr1G060970	50S ribosomal protein L4	-3.07	AT1G07320.2
948	HORVU5Hr1G046480	Chalcone--flavonone isomerase	-3.07	AT5G05270.2
949	HORVU2Hr1G101040	calcium-transporting ATPase, putative	-3.07	AT5G57110.3
950	HORVU6Hr1G003160	O-methyltransferase family protein	-3.07	AT4G35160.1
951	HORVU5Hr1G027740	undescribed protein	-3.07	AT5G55060.1
952	HORVU6Hr1G093030	50S ribosomal protein L9	-3.08	AT3G44890.1
953	HORVU7Hr1G041080	SOUL heme-binding family protein	-3.08	AT3G10130.1
954	HORVU7Hr1G058940	RNA-binding protein 1	-3.08	AT4G24770.2
955	HORVU1Hr1G000430	Chalcone--flavonone isomerase 1B-1	-3.09	AT1G53520.1
956	HORVU5Hr1G050120	undescribed protein	-3.09	AT3G53210.2
957	HORVU5Hr1G120250	30S ribosomal protein S6	-3.09	AT1G64510.1
958	HORVU4Hr1G006200	Phosphatidylinositol-4-phosphate 5-kinase family protein	-3.09	AT1G60890.2
959	HORVU1Hr1G028680	Thioredoxin superfamily protein	-3.09	AT4G29670.1
960	HORVU6Hr1G068720	carotenoid cleavage dioxygenase 1	-3.09	AT4G19170.1
961	HORVU3Hr1G088580	Retrotransposon protein, putative, unclassified	-3.09	AT3G24255.3
962	HORVU1Hr1G088270	IMP dehydrogenase/GMP reductase	-3.10	AT5G01930.1
963	HORVU4Hr1G016510	Chaperone protein DnaJ	-3.10	AT4G09350.1
964	HORVU4Hr1G025010	undescribed protein	-3.11	#N/A
965	HORVU6Hr1G049050	Protein kinase superfamily protein	-3.11	AT5G64940.2
966	HORVU7Hr1G068610	undescribed protein	-3.11	AT5G41150.1
967	HORVU2Hr1G091680	Remorin family protein	-3.12	AT5G23750.3
968	HORVU6Hr1G065710	SPX domain-containing membrane protein	-3.12	AT4G11810.3
969	HORVU6Hr1G085170	Photosystem II 10 kDa polypeptide	-3.12	AT1G79040.1
970	HORVU6Hr1G075900	Geranylgeranyl diphosphate reductase	-3.12	AT1G74470.1
971	HORVU7Hr1G038300	Transmembrane amino acid transporter family protein	-3.12	AT3G28960.5
972	HORVU2Hr1G112450	purple acid phosphatase 21	-3.12	AT3G52810.1
973	HORVU3Hr1G007480	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-3.12	AT1G16840.4
974	HORVU2Hr1G115710	unknown protein; LOCATED IN: chloroplast; EXPRESSED IN: 22 plant structures; EXPRESSED DURING: 13	-3.13	AT2G21960.1



S No	Feature ID	Barley Annotation	Fold change	Ara-Port
		growth stages; BEST Arabidopsis thaliana protein match is: unknown protein .		
975	HORVU3Hr1G084660	Phosphoglucan, water dikinase, chloroplastic	-3.14	AT5G01260.3
976	HORVU0Hr1G019860	hypothetical protein chrM:11918-12241 FORWARD	-3.14	ATMG00030.1
977	HORVU4Hr1G074810	D-ribulose-5-phosphate-3-epimerase	-3.14	AT5G61410.2
978	HORVU2Hr1G053620	Senescence-associated protein, putative	-3.15	AT1G27320.1
979	HORVU2Hr1G119760	Pentatricopeptide repeat-containing protein	-3.15	AT1G50270.1
980	HORVU6Hr1G015430	alpha/beta-Hydrolases superfamily protein	-3.15	AT5G17670.1
981	HORVU1Hr1G061830	Beta-propeller domain-containing protein, methanol dehydrogenase	-3.15	AT1G54780.1
982	HORVU5Hr1G100990	Obg-like ATPase 1	-3.15	AT1G56050.1
983	HORVU7Hr1G115040	30S ribosomal protein S17	-3.15	AT1G79850.1
984	HORVU7Hr1G079190	PSRP4	-3.16	AT2G38140.1
985	HORVU7Hr1G086810	GATA transcription factor 23	-3.16	AT5G56860.1
986	HORVU3Hr1G089390	Protein of unknown function (DUF1685)	-3.16	AT2G31560.3
987	HORVU6Hr1G070420	fatty acid desaturase 2	-3.16	AT3G12120.2
988	HORVU3Hr1G010030	Repressor of RNA polymerase III transcription	-3.16	AT5G13240.1
989	HORVU7Hr1G114170	50S ribosomal protein L35	-3.16	AT2G24090.1
990	HORVU6Hr1G033970	glycerol dehydrogenase	-3.16	AT3G21340.2
991	HORVU2Hr1G005570	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	-3.17	AT1G06620.1
992	HORVU5Hr1G001650	Protein of unknown function (DUF1218)	-3.17	AT5G17210.1
993	HORVU4Hr1G024050	NAD(P)-binding Rossmann-fold superfamily protein	-3.18	AT2G39080.1
994	HORVU7Hr1G002210	Ferredoxin--NADP reductase	-3.18	AT1G20020.3
995	HORVU2Hr1G057700	Oxygen-evolving enhancer protein 1, chloroplastic	-3.18	AT3G50820.1
996	HORVU4Hr1G060440	Digalactosyldiacylglycerol synthase 2, chloroplastic	-3.18	AT4G00550.2
997	HORVU5Hr1G112580	rRNA N-glycosidase	-3.18	AT3G59490.3
998	HORVU2Hr1G116160	undescribed protein	-3.18	#N/A
999	HORVU3Hr1G083470	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3.18	AT2G41430.5
1000	HORVU7Hr1G097670	Macrophage migration inhibitory factor homolog	-3.19	AT5G57170.1
1001	HORVU0Hr1G031330	RNAase	-3.20	#N/A
1002	HORVU6Hr1G055960	Bidirectional sugar transporter N3	-3.20	AT4G10850.1
1003	HORVU1Hr1G077020	Magnesium transporter NIPA2	-3.20	AT1G34470.1
1004	HORVU4Hr1G012530	Plant protein of unknown function (DUF863)	-3.21	AT5G67390.3
1005	HORVU7Hr1G060130	Superoxide dismutase [Cu-Zn] 4A	-3.22	AT2G28190.1
1006	HORVU4Hr1G071730	Inositol-3-phosphate synthase	-3.22	AT2G22240.2
1007	HORVU6Hr1G054110	Protein HHL1, chloroplastic	-3.23	AT1G67700.4



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1008	HORVU2Hr1G060880	Oxygen-evolving enhancer protein 2, chloroplastic	-3.23	AT1G06680.1
1009	HORVU1Hr1G050130	Mitochondrial substrate carrier family protein	-3.24	AT5G46800.3
1010	HORVU1Hr1G057680	beta-1,3-glucanase_putative	-3.24	AT4G16260.1
1011	HORVU6Hr1G072200	DOF zinc finger protein 1	-3.24	AT5G60200.1
1012	HORVU5Hr1G065330	cinnamoyl coa reductase 1	-3.24	AT1G15950.3
1013	HORVU5Hr1G114990	GDP-mannose transporter	-3.24	AT2G13650.3
1014	HORVU4Hr1G010430	BEL1-type homeodomain protein	-3.25	AT2G23760.3
1015	HORVU6Hr1G091360	OTU domain-containing protein 5-B	-3.25	AT5G04250.2
1016	HORVU3Hr1G018110	Protein phosphatase PTC7 homolog	-3.25	AT2G30170.1
1017	HORVU5Hr1G080980	5-keto-4-deoxy-D-glucarate aldolase	-3.25	AT4G10750.1
1018	HORVU3Hr1G032490	Triose phosphate/phosphate translocator, chloroplastic	-3.26	AT5G46110.4
1019	HORVU5Hr1G053270	Rhodanese-like domain-containing protein 10	-3.27	AT2G42220.1
1020	HORVU3Hr1G049900	glyoxylate reductase 2	-3.27	AT1G17650.1
1021	HORVU7Hr1G088160	AP-3 complex subunit mu-1	-3.27	AT1G58230.3
1022	HORVU0Hr1G025070	Retrotransposon protein	-3.27	AT2G07706.1
1023	HORVU4Hr1G074990	DOF zinc finger protein 1	-3.27	AT5G39660.3
1024	HORVU6Hr1G018830	50S ribosomal protein L3	-3.28	AT2G43030.1
1025	HORVU1Hr1G013250	undescribed protein	-3.29	AT1G23450.1
1026	HORVU6Hr1G091260	Auxin-responsive protein IAA10	-3.29	AT2G33310.2
1027	HORVU3Hr1G006150	unknown protein; INVOLVED IN: biological_process unknown; LOCATED IN: chloroplast; EXPRESSED IN: 22 plant structures; EXPRESSED DURING: 13 growth stages; Has 74 Blast hits to 74 proteins in 29 species: Archae - 0; Bacteria - 19; Metazoa - 0; Fungi - 0; Plants - 49; Viruses - 0; Other Eukaryotes - 6 (source: NCBI BLINK).	-3.30	AT1G18060.1
1028	HORVU5Hr1G009200	NAD-dependent epimerase/dehydratase	-3.30	AT1G09340.1
1029	HORVU4Hr1G085050	purple acid phosphatase 27	-3.30	AT5G50400.1
1030	HORVU7Hr1G121630	UPF0392 protein	-3.30	AT4G37420.1
1031	HORVU4Hr1G062920	Protein disulfide-isomerase LQY1, chloroplastic	-3.30	AT1G75690.1
1032	HORVU4Hr1G004210	ferredoxin 3	-3.30	AT1G32550.1
1033	HORVU6Hr1G016070	Sodium Bile acid symporter family	-3.31	AT3G25410.1
1034	HORVU4Hr1G089990	Protein WEAK CHLOROPLAST MOVEMENT UNDER BLUE LIGHT 1	-3.32	AT2G26570.2
1035	HORVU4Hr1G004590	Inositol hexakisphosphate and diphosphoinositol-pentakisphosphate kinase	-3.32	AT5G15070.4
1036	HORVU7Hr1G062930	Peptidyl-prolyl cis-trans isomerase, chloroplastic	-3.33	AT3G01480.1
1037	HORVU1Hr1G012110	xylulose kinase-1	-3.33	AT2G21370.1

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1038	HORVU3Hr1G082730	Photosystem II 22 kDa protein, chloroplastic	-3.34	AT1G44575.3
1039	HORVU4Hr1G084830	50S ribosomal protein L11	-3.34	AT1G32990.1
1040	HORVU2Hr1G115080	Retrotransposon protein, putative, unclassified	-3.34	AT4G20520.1
1041	HORVU5Hr1G025960	acyl carrier protein 5	-3.35	AT4G25050.1
1042	HORVU2Hr1G105930	RNA-binding protein 28	-3.35	AT2G35410.1
1043	HORVU6Hr1G078500	fucosyltransferase 1	-3.36	AT2G03220.1
1044	HORVU4Hr1G062890	Nuclear transcription factor Y subunit C-4	-3.36	AT5G63470.2
1045	HORVU6Hr1G090160	unknown function	-3.37	AT5G40810.2
1046	HORVU3Hr1G085270	Fructose-1,6-bisphosphatase class 1	-3.37	AT3G55800.1
1047	HORVU3Hr1G098290	methyl esterase 3	-3.37	AT2G23610.1
1048	HORVU1Hr1G046400	Non-specific lipid-transfer protein 2	-3.38	AT5G38170.1
1049	HORVU0Hr1G010770	undescribed protein	-3.38	AT3G26790.1
1050	HORVU3Hr1G011620	Pentapeptide repeat-containing protein	-3.39	AT2G44920.2
1051	HORVU1Hr1G091850	unknown function	-3.40	AT2G42900.1
1052	HORVU6Hr1G073180	methyltransferase type 11	-3.40	AT3G18000.1
1053	HORVU0Hr1G024890	RNAase	-3.40	#N/A
1054	HORVU2Hr1G062850	unknown function	-3.40	AT4G33625.3
1055	HORVU6Hr1G075280	ATP synthase delta-subunit gene	-3.41	AT4G09650.1
1056	HORVU4Hr1G087350	UPF0187 protein YneE	-3.41	AT3G61320.1
1057	HORVU4Hr1G006730	Plastid-lipid associated protein PAP / fibrillin family protein	-3.42	AT3G26070.1
1058	HORVU5Hr1G111640	50S ribosomal protein L17	-3.42	AT3G54210.1
1059	HORVU7Hr1G055890	50S ribosomal protein 6, chloroplastic	-3.42	AT5G17870.1
1060	HORVU4Hr1G085930	Protein kinase superfamily protein	-3.42	AT3G61080.1
1061	HORVU7Hr1G026100	undescribed protein	-3.42	AT3G54920.1
1062	HORVU3Hr1G083790	unknown function	-3.43	AT2G36145.1
1063	HORVU7Hr1G101810	50S ribosomal protein L24	-3.43	AT5G54600.1
1064	HORVU5Hr1G048240	fatty acid desaturase 8	-3.44	AT5G05580.1
1065	HORVU5Hr1G124160	Chlorophyll a-b binding protein 2, chloroplastic	-3.44	AT2G34420.1
1066	HORVU2Hr1G009850	Thylakoid lumenal 15.0 kDa protein 2, chloroplastic	-3.45	AT5G52970.2
1067	HORVU3Hr1G082280	Glutamine--fructose-6-phosphate aminotransferase [isomerizing]	-3.45	AT2G16570.1
1068	HORVU2Hr1G103130	Aminomethyltransferase	-3.46	AT1G11860.2
1069	HORVU2Hr1G041610	Cytochrome b6-f complex iron-sulfur subunit	-3.47	AT4G03280.1
1070	HORVU3Hr1G093990	Haloalkane dehalogenase 2	-3.47	AT4G12830.1
1071	HORVU7Hr1G037600	sodium/calcium exchanger family protein / calcium-binding EF hand family protein	-3.47	AT1G53210.1
1072	HORVU1Hr1G072180	Riboflavin biosynthesis protein RibBA	-3.47	AT5G59750.1
1073	HORVU5Hr1G022570	Stress responsive alpha-beta barrel domain protein	-3.51	AT2G32500.2

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1074	HORVU6Hr1G004860	3-beta hydroxysteroid dehydrogenase	-3.51	AT3G63140.1
1075	HORVU2Hr1G001600	Pyruvate dehydrogenase E1 component subunit alpha	-3.51	AT1G01090.1
1076	HORVU1Hr1G087570	FASCICLIN-like arabinogalactan 6	-3.51	AT2G20520.1
1077	HORVU7Hr1G122750	BnaA09g56450D protein	-3.51	AT1G16080.1
1078	HORVU7Hr1G046320	Chlorophyll a-b binding protein 1B-21, chloroplastic	-3.51	AT3G54890.1
1079	HORVU6Hr1G009170	NAD(P)-binding Rossmann-fold superfamily protein	-3.51	AT1G72640.1
1080	HORVU5Hr1G058300	trehalose-6-phosphate phosphatase	-3.52	AT5G65140.1
1081	HORVU3Hr1G095700	metacaspase 1	-3.52	AT1G02170.1
1082	HORVU3Hr1G039790	50S ribosomal protein L40	-3.52	AT3G56910.1
1083	HORVU3Hr1G025020	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3.52	AT5G19875.1
1084	HORVU2Hr1G090400	Protein of unknown function (DUF177)	-3.53	AT3G19800.2
1085	HORVU3Hr1G050430	protein kinase family protein	-3.53	AT5G12000.1
1086	HORVU2Hr1G042370	cellulose-synthase like D2	-3.54	AT5G16910.1
1087	HORVU7Hr1G042480	aluminum-activated malate transporter 9	-3.54	AT3G18440.1
1088	HORVU1Hr1G060610	1-deoxy-D-xylulose 5-phosphate synthase 1	-3.54	AT4G15560.1
1089	HORVU5Hr1G118680	Mitochondrial transcription termination factor family protein	-3.55	AT4G09620.2
1090	HORVU7Hr1G000900	plastocyanin 1	-3.56	AT1G76100.1
1091	HORVU7Hr1G039140	Glutathione S-transferase family protein	-3.56	AT3G62760.1
1092	HORVU3Hr1G036600	TRAM, LAG1 and CLN8 (TLC) lipid-sensing domain containing protein	-3.58	AT1G35180.1
1093	HORVU5Hr1G043090	Two-component response regulator ARR8	-3.58	AT2G41310.1
1094	HORVU4Hr1G087610	Transcription factor bHLH35	-3.61	AT5G57150.5
1095	HORVU6Hr1G000090	sulfurtransferase protein 16	-3.61	AT2G17850.1
1096	HORVU1Hr1G051700	Protein CURVATURE THYLAKOID 1B, chloroplastic	-3.62	AT2G46820.2
1097	HORVU0Hr1G001170	unknown function	-3.62	AT3G51510.1
1098	HORVU4Hr1G087230	Ectonucleoside triphosphate diphosphohydrolase 5	-3.63	AT5G18280.1
1099	HORVU7Hr1G077740	ferredoxin 1	-3.64	AT1G60950.1
1100	HORVU2Hr1G113050	sulfate transporter 91	-3.64	AT1G23090.1
1101	HORVU2Hr1G037550	tubulin alpha-4 chain	-3.65	AT5G19780.1
1102	HORVU5Hr1G019000	FAR1-related sequence 5	-3.65	AT4G38180.1
1103	HORVU4Hr1G031320	methionine S-methyltransferase	-3.65	AT5G49810.1
1104	HORVU0Hr1G003270	Oxygen-evolving enhancer protein 3-1, chloroplastic	-3.66	AT4G21280.1
1105	HORVU6Hr1G076040	Photosynthetic NDH subcomplex B 4	-3.66	AT1G18730.5
1106	HORVU2Hr1G070440	ACT domain repeat 4	-3.66	AT1G69040.2
1107	HORVU5Hr1G111330	unknown function	-3.66	AT4G13500.1
1108	HORVU2Hr1G113260	N-terminal nucleophile aminohydrolases (Ntn hydrolases) superfamily protein	-3.66	AT3G16150.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
1109	HORVU6Hr1G033160	chlorophyll A/B binding protein 3	-3.67	AT1G61520.3
1110	HORVU2Hr1G065110	D-inositol 3-phosphate glycosyltransferase	-3.67	AT5G01220.1
1111	HORVU2Hr1G039020	unknown function	-3.67	AT2G29750.1
1112	HORVU1Hr1G013740	Dihydrolipoyl dehydrogenase	-3.67	AT1G48030.5
1113	HORVU4Hr1G067320	SprT-like domain-containing protein Spartan	-3.67	AT3G24340.1
1114	HORVU7Hr1G073860	2-succinylbenzoate--CoA ligase	-3.68	AT1G30520.2
1115	HORVU5Hr1G087250	Chlorophyll a-b binding protein 2, chloroplastic	-3.69	AT2G34420.1
1116	HORVU7Hr1G085980	Salt overly sensitive 1	-3.69	AT2G01980.1
1117	HORVU3Hr1G073740	unknown protein; LOCATED IN: chloroplast; Has 35333 Blast hits to 34131 proteins in 2444 species: Archae - 798; Bacteria - 22429; Metazoa - 974; Fungi - 991; Plants - 531; Viruses - 0; Other Eukaryotes - 9610 (source: NCBI BLink).	-3.70	AT5G55570.1
1118	HORVU1Hr1G064750	EG2771	-3.70	AT5G14910.2
1119	HORVU6Hr1G011990	unknown function	-3.70	AT3G61870.2
1120	HORVU3Hr1G071530	50S ribosomal protein L13	-3.71	AT1G78630.1
1121	HORVU6Hr1G025170	undescribed protein	-3.71	#N/A
1122	HORVU7Hr1G018800	undescribed protein	-3.71	AT5G64440.1
1123	HORVU2Hr1G123750	glutathione peroxidase 6	-3.72	AT4G11600.1
1124	HORVU7Hr1G038770	dehydroascorbate reductase 1	-3.73	AT5G16710.1
1125	HORVU2Hr1G038570	Ribosome-recycling factor	-3.73	AT3G63190.1
1126	HORVU7Hr1G083690	Two-component response regulator-like APRR2	-3.73	AT2G20570.1
1127	HORVU6Hr1G032680	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-3.74	AT4G26555.1
1128	HORVU6Hr1G095380	multidrug MFS transporter	-3.74	AT2G21280.2
1129	HORVU0Hr1G024880	Conserved protein	-3.74	AT2G26790.2
1130	HORVU3Hr1G009210	Photosystem I reaction center subunit XI	-3.74	AT4G12800.2
1131	HORVU2Hr1G070500	Unknow protein	-3.74	AT1G33040.1
1132	HORVU3Hr1G065570	undescribed protein	-3.75	#N/A
1133	HORVU2Hr1G066800	undescribed protein	-3.77	AT5G24160.1
1134	HORVU7Hr1G111190	D-3-phosphoglycerate dehydrogenase	-3.77	AT4G34200.1
1135	HORVU5Hr1G051010	ribulose biphosphate carboxylase small chain 1A	-3.77	AT1G67090.1
1136	HORVU5Hr1G053060	BnaA04g27590D protein	-3.77	AT3G57990.1
1137	HORVU6Hr1G076880	Glycine cleavage system H protein	-3.78	AT1G32470.1
1138	HORVU4Hr1G042560	undescribed protein	-3.78	AT1G32960.1
1139	HORVU5Hr1G050510	kinesin 4	-3.79	AT5G47820.2
1140	HORVU5Hr1G101020	ribose-5-phosphate isomerase 2	-3.79	AT5G44520.2
1141	HORVU6Hr1G063110	undescribed protein	-3.79	AT5G64740.1
1142	HORVU3Hr1G078780	Ribosomal protein L34	-3.79	AT1G29070.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
1143	HORVU3Hr1G105790	Glucan endo-1,3-beta-glucosidase GI	-3.80	AT3G57270.1
1144	HORVU5Hr1G099020	Leucine carboxyl methyltransferase	-3.80	AT5G42760.2
1145	HORVU7Hr1G069410	undescribed protein	-3.81	AT1G15640.2
1146	HORVU0Hr1G024560	Ribulose biphosphate carboxylase large chain	-3.82	ATCG00490.1
1147	HORVU0Hr1G017890	undescribed protein	-3.82	AT5G63630.2
1148	HORVU4Hr1G071070	Dehydrololichyl diphosphate syntase complex subunit NUS1	-3.82	AT1G11755.1
1149	HORVU5Hr1G035300	P-loop containing nucleoside triphosphate hydrolases superfamily protein	-3.82	AT2G46620.1
1150	HORVU1Hr1G054240	expansin B2	-3.83	AT1G65680.1
1151	HORVU3Hr1G087420	DNA-3-methyladenine glycosylase 1	-3.83	AT1G13635.2
1152	HORVU6Hr1G021460	Zinc finger protein CONSTANS-LIKE 7	-3.84	AT5G57180.2
1153	HORVU1Hr1G047710	Plant invertase/pectin methylesterase inhibitor superfamily protein	-3.85	AT5G62360.1
1154	HORVU4Hr1G059950	ROTUNDIFOLIA like 7	-3.85	AT2G39705.1
1155	HORVU5Hr1G044410	Hydroxymethylglutaryl-CoA lyase	-3.87	AT2G26800.1
1156	HORVU1Hr1G045520	Thylakoid lumenal 17.4 kDa protein, chloroplastic	-3.87	AT5G53490.2
1157	HORVU0Hr1G034360	undescribed protein	-3.88	AT3G20460.1
1158	HORVU4Hr1G009980	unknown function	-3.90	AT1G44920.1
1159	HORVU5Hr1G115000	Thylakoid soluble phosphoprotein TSP9 protein	-3.91	AT3G47070.1
1160	HORVU2Hr1G111300	Bifunctional lysine-specific demethylase and histidyl-hydroxylase NO66	-3.92	AT3G11560.5
1161	HORVU1Hr1G035870	undescribed protein	-3.93	AT4G15760.1
1162	HORVU5Hr1G098340	30S ribosomal protein S9	-3.93	AT1G74970.1
1163	HORVU0Hr1G012860	Alcohol dehydrogenase	-3.96	AT4G37980.1
1164	HORVU4Hr1G018070	Auxilin-related protein 2	-3.96	AT1G04160.2
1165	HORVU5Hr1G066280	Chlorophyll a-b binding protein 1B-20, chloroplastic	-3.96	AT3G47470.1
1166	HORVU2Hr1G041280	Chlorophyll a-b binding protein CP29	-3.97	AT3G08940.1
1167	HORVU7Hr1G121210	At5g37260-like protein	-3.98	AT5G37260.1
1168	HORVU3Hr1G094270	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3.99	AT2G35450.1
1169	HORVU7Hr1G115540	Pyrophosphate-energized vacuolar membrane proton pump	-4.00	AT1G15690.1
1170	HORVU3Hr1G113920	undescribed protein	-4.01	AT5G04895.1
1171	HORVU3Hr1G089370	Protein of unknown function (DUF1685)	-4.01	AT1G05870.9
1172	HORVU3Hr1G081180	expansin A1	-4.02	AT1G69530.2
1173	HORVU1Hr1G043820	alpha-galactosidase 2	-4.02	AT5G08370.1
1174	HORVU7Hr1G085350	F-box/kelch-repeat protein	-4.03	AT1G80440.1
1175	HORVU5Hr1G062240	Chlorophyll a-b binding protein 7, chloroplastic	-4.04	AT1G19150.1
1176	HORVU3Hr1G013970	NAD(P)-binding Rossmann-fold superfamily protein	-4.05	AT2G37540.1

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1177	HORVU2Hr1G073760	Peroxiredoxin-2	-4.07	AT5G06290.1
1178	HORVU7Hr1G097250	Peptidyl-prolyl cis-trans isomerase B	-4.07	AT5G35100.3
1179	HORVU2Hr1G062290	ORF58e	-4.07	AT1G17250.1
1180	HORVU5Hr1G096260	UDP-Glycosyltransferase superfamily protein	-4.08	AT3G02100.1
1181	HORVU7Hr1G030800	Pco114914	-4.09	AT2G28630.2
1182	HORVU2Hr1G001500	undescribed protein	-4.10	AT4G14500.2
1183	HORVU4Hr1G048990	undescribed protein	-4.10	AT5G20220.3
1184	HORVU3Hr1G089650	Rhodanese/Cell cycle control phosphatase superfamily protein	-4.10	AT3G59780.1
1185	HORVU1Hr1G067300	phosphoglycerate kinase 1	-4.10	AT3G12780.1
1186	HORVU6Hr1G092750	C2H2-like zinc finger protein	-4.12	AT5G04390.1
1187	HORVU1Hr1G001900	undescribed protein	-4.12	AT1G21640.1
1188	HORVU2Hr1G060480	Photosystem I reaction center subunit psaK, chloroplastic	-4.12	AT1G30380.1
1189	HORVU1Hr1G054190	unknown function	-4.13	AT5G65750.1
1190	HORVU5Hr1G109440	Lactoylglutathione lyase	-4.13	AT1G67280.1
1191	HORVU3Hr1G029260	Peptide-N4-(N-acetyl-beta-glucosaminyl)asparagine amidase A protein	-4.14	AT3G14920.1
1192	HORVU2Hr1G071360	undescribed protein	-4.14	AT2G21880.1
1193	HORVU7Hr1G042160	Protein CURVATURE THYLAKOID 1A, chloroplastic	-4.14	AT4G01150.1
1194	HORVU1Hr1G022840	Peroxisomal membrane protein 2	-4.14	AT1G52870.2
1195	HORVU3Hr1G095330	50S ribosomal protein L27	-4.15	AT5G40950.1
1196	HORVU7Hr1G056240	Peptidyl-prolyl cis-trans isomerase	-4.16	AT2G43560.1
1197	HORVU2Hr1G044790	undescribed protein	-4.17	AT1G52820.1
1198	HORVU2Hr1G080480	30S ribosomal protein 3, chloroplastic	-4.17	AT1G68590.2
1199	HORVU4Hr1G009520	tubulin alpha-4 chain	-4.18	AT4G14960.2
1200	HORVU3Hr1G093310	Transcription factor bHLH62	-4.19	AT3G07340.1
1201	HORVU7Hr1G096140	Thylakoid lumenal 16.5 kDa protein, chloroplastic	-4.20	AT4G02530.1
1202	HORVU5Hr1G059140	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-4.20	AT4G38060.1
1203	HORVU5Hr1G100140	Photosystem I reaction center subunit III	-4.22	AT1G31330.1
1204	HORVU3Hr1G091140	NAD(P)H-quinone oxidoreductase subunit N	-4.22	AT5G58260.1
1205	HORVU1Hr1G045590	Glutamyl-tRNA reductase family protein	-4.22	AT1G58290.1
1206	HORVU2Hr1G102620	unknown function	-4.23	AT5G17165.1
1207	HORVU3Hr1G075870	Photosystem II reaction center W protein, chloroplastic	-4.23	AT2G30570.1
1208	HORVU1Hr1G011520	Glutamyl-tRNA reductase family protein	-4.23	AT1G58290.1
1209	HORVU4Hr1G083230	S-adenosyl-L-methionine-dependent methyltransferases superfamily protein	-4.24	AT5G44600.1
1210	HORVU2Hr1G089030	Plastid transcriptionally active 5, putative isoform 1	-4.25	AT4G13670.1
1211	HORVU4Hr1G090720	Jacalin-related lectin 34	-4.26	AT3G16460.2



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1212	HORVU0Hr1G032630	undescribed protein	-4.26	AT5G56400.1
1213	HORVU6Hr1G010940	undescribed protein	-4.27	AT4G16120.1
1214	HORVU5Hr1G005740	PHYTOENE SYNTHASE	-4.28	AT5G17230.4
1215	HORVU4Hr1G073730	Protein of unknown function (DUF506)	-4.31	AT2G38820.2
1216	HORVU2Hr1G106880	chloroplastic lipocalin	-4.31	AT3G47860.1
1217	HORVU7Hr1G009800	LEA	-4.31	AT1G32560.1
1218	HORVU1Hr1G023160	Flavin-containing monooxygenase family protein	-4.32	AT1G19250.1
1219	HORVU3Hr1G088020	dihydroflavonol 4-reductase-like1	-4.32	AT5G58490.1
1220	HORVU2Hr1G113270	Isoaspartyl peptidase/L-asparaginase	-4.32	AT3G16150.1
1221	HORVU5Hr1G124380	Light-repressed protein A	-4.32	AT5G24490.1
1222	HORVU5Hr1G014300	Auxin-responsive protein IAA30	-4.34	AT3G04730.1
1223	HORVU1Hr1G050830	dihydroflavonol 4-reductase-like1	-4.36	AT2G23910.1
1224	HORVU5Hr1G060250	annexin 5	-4.36	AT1G68090.1
1225	HORVU6Hr1G053730	Protein GLE1	-4.37	AT1G13120.1
1226	HORVU2Hr1G116390	Chalcone synthase 1	-4.37	AT5G13930.1
1227	HORVU5Hr1G098980	HAD-superfamily hydrolase, subfamily IG, 5'-nucleotidase	-4.38	AT1G75210.3
1228	HORVU4Hr1G073650	Heat stress transcription factor A-2d	-4.39	AT3G22830.1
1229	HORVU2Hr1G073370	photosystem I subunit O	-4.40	AT1G08380.1
1230	HORVU7Hr1G117710	O-methyltransferase family protein	-4.40	AT4G35160.1
1231	HORVU7Hr1G006880	undescribed protein	-4.41	AT3G60380.1
1232	HORVU3Hr1G078940	tubulin beta chain 2	-4.41	AT5G12250.1
1233	HORVU0Hr1G021630	Auxin-responsive protein IAA21	-4.43	AT4G29080.1
1234	HORVU1Hr1G075580	oxidative stress 3 .	-4.44	AT5G56550.1
1235	HORVU1Hr1G045080	PPR containing protein, putative	-4.46	AT1G28100.6
1236	HORVU0Hr1G007360	Chlorophyllide a oxygenase, chloroplastic	-4.46	AT1G44446.1
1237	HORVU6Hr1G056000	CONSTANS-like 3	-4.47	AT5G24930.1
1238	HORVU3Hr1G000900	Peptidyl-prolyl cis-trans isomerase B	-4.48	AT1G74070.1
1239	HORVU3Hr1G059330	undescribed protein	-4.48	#N/A
1240	HORVU2Hr1G023560	Magnesium-chelatase subunit H	-4.49	AT5G13630.1
1241	HORVU0Hr1G001490	Photosystem I reaction center subunit VI, chloroplastic	-4.50	AT1G52230.1
1242	HORVU5Hr1G050990	ribulose biphosphate carboxylase small chain 1A	-4.50	AT1G67090.1
1243	HORVU1Hr1G004400	unknown function	-4.51	AT5G02160.1
1244	HORVU7Hr1G069520	RNA polymerase sigma-C factor	-4.54	AT1G64860.1
1245	HORVU1Hr1G076120	Protein of unknown function (DUF506)	-4.56	AT4G32480.1
1246	HORVU2Hr1G085300	haloacid dehalogenase-like hydrolase family protein	-4.56	AT4G39970.1
1247	HORVU5Hr1G032350	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4.57	AT3G55270.1
1248	HORVU1Hr1G005120	outer plastid envelope protein 16-1	-4.57	AT2G28900.1

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1249	HORVU5Hr1G109710	Photosystem I reaction center subunit II	-4.58	AT1G03130.1
1250	HORVU3Hr1G089380	Protein of unknown function (DUF1685)	-4.58	AT1G05870.9
1251	HORVU2Hr1G079630	Protein OBERON 3	-4.59	AT1G14740.1
1252	HORVU4Hr1G076990	undescribed protein	-4.61	AT5G26670.1
1253	HORVU3Hr1G039930	Magnesium-protoporphyrin IX monomethyl ester [oxidative] cyclase 3	-4.61	AT3G56940.1
1254	HORVU3Hr1G094820	thylakoid rhodanese-like	-4.63	AT3G25480.1
1255	HORVU2Hr1G074280	unknown function	-4.63	AT5G09820.2
1256	HORVU1Hr1G073010	unknown function	-4.64	AT3G54000.3
1257	HORVU2Hr1G049560	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-4.64	AT1G20810.2
1258	HORVU6Hr1G049120	Photosystem II reaction center protein M	-4.65	ATCG00220.1
1259	HORVU6Hr1G071520	Eukaryotic aspartyl protease family protein	-4.69	AT5G10770.1
1260	HORVU2Hr1G077650	ferric reduction oxidase 7	-4.70	AT5G49740.3
1261	HORVU2Hr1G036960	Chlorophyll a-b binding protein 7, chloroplastic	-4.70	AT3G61470.1
1262	HORVU2Hr1G121640	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4.71	AT5G26040.1
1263	HORVU2Hr1G095080	Cytochrome P450 superfamily protein	-4.71	AT1G12740.1
1264	HORVU2Hr1G042030	undescribed protein	-4.75	#N/A
1265	HORVU5Hr1G103440	zinc-finger protein 1	-4.76	AT5G48890.2
1266	HORVU4Hr1G013420	BTB/POZ domain-containing protein	-4.77	AT2G14820.2
1267	HORVU3Hr1G025430	undescribed protein	-4.78	AT3G50370.1
1268	HORVU7Hr1G118130	Cytokinin dehydrogenase 11	-4.80	AT5G21482.1
1269	HORVU5Hr1G113900	Photosystem I reaction center subunit IV	-4.81	AT2G20260.1
1270	HORVU3Hr1G059950	undescribed protein	-4.82	AT5G47490.2
1271	HORVU5Hr1G018680	undescribed protein	-4.83	AT5G56220.2
1272	HORVU2Hr1G066020	undescribed protein	-4.83	AT3G55380.2
1273	HORVU4Hr1G049000	undescribed protein	-4.86	AT5G13700.1
1274	HORVU1Hr1G091540	Transcription factor RADIALIS	-4.87	AT4G39250.1
1275	HORVU1Hr1G057640	peptide chain release factor, putative	-4.88	AT3G57190.1
1276	HORVU5Hr1G043200	strictosidine synthase-like 2	-4.90	AT3G57030.1
1277	HORVU7Hr1G052750	Cytochrome b561 and DOMON domain-containing protein	-4.91	AT3G25290.2
1278	HORVU6Hr1G075080	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-4.92	AT4G39710.2
1279	HORVU3Hr1G057090	carbonic anhydrase 2	-4.92	AT5G14740.9
1280	HORVU1Hr1G087320	xyloglucan endotransglucosylase/hydrolase 25	-4.96	AT5G57550.1
1281	HORVU7Hr1G023140	Photosynthetic NDH subunit of subcomplex B 3, chloroplastic	-4.97	AT3G16250.1
1282	HORVU2Hr1G108430	undescribed protein	-4.98	#N/A
1283	HORVU4Hr1G045210	Mitochondrial transcription termination factor family protein	-4.99	AT2G36000.1

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1284	HORVU1Hr1G035720	ribulose biphosphate carboxylase small chain 1A	-5.00	AT1G67090.1
1285	HORVU3Hr1G005500	Transcription factor bHLH35	-5.00	AT5G57150.5
1286	HORVU6Hr1G015120	undescribed protein	-5.01	AT1G78080.1
1287	HORVU2Hr1G040780	Chlorophyll a-b binding protein 13, chloroplastic	-5.02	AT5G54270.1
1288	HORVU4Hr1G002050	2-methyl-6-phytyl-1,4-hydroquinone methyltransferase 2, chloroplastic	-5.04	AT3G63410.1
1289	HORVU3Hr1G083360	Fructose-1,6-bisphosphatase class 1	-5.06	AT1G43670.1
1290	HORVU4Hr1G014080	enzyme binding;tetrapyrrole binding	-5.06	AT3G59400.1
1291	HORVU7Hr1G069590	undescribed protein	-5.09	AT5G49360.1
1292	HORVU3Hr1G021750	Serine incorporator 1	-5.11	AT3G24460.2
1293	HORVU3Hr1G077230	Protein A	-5.12	AT1G79190.2
1294	HORVU7Hr1G092880	undescribed protein	-5.14	AT3G03750.2
1295	HORVU7Hr1G105500	Nuclear transcription factor Y subunit B-2	-5.14	AT4G14540.1
1296	HORVU2Hr1G038580	F-box domain containing protein	-5.17	AT2G13980.1
1297	HORVU4Hr1G011160	Endoglucanase 10	-5.19	AT5G49720.1
1298	HORVU4Hr1G032020	undescribed protein	-5.20	AT5G62630.1
1299	HORVU3Hr1G055260	myb domain protein 66	-5.20	AT4G01060.1
1300	HORVU5Hr1G071920	Photosystem I reaction center subunit V	-5.26	AT1G55670.1
1301	HORVU7Hr1G098660	Fe/S biogenesis protein NfuA	-5.27	AT4G25910.1
1302	HORVU3Hr1G009490	Non-specific lipid-transfer protein 4.2	-5.28	AT5G59310.1
1303	HORVU2Hr1G001320	Protein NRT1/ PTR FAMILY 8.5	-5.30	AT1G62200.1
1304	HORVU5Hr1G028180	LIM domain-containing protein 2	-5.31	AT1G10200.1
1305	HORVU1Hr1G043900	Chloroplast inner envelope protein, putative, expressed	-5.32	AT1G06950.1
1306	HORVU5Hr1G074000	NAD(P)-binding Rossmann-fold superfamily protein	-5.33	AT3G18890.1
1307	HORVU2Hr1G065420	undescribed protein	-5.33	AT4G22390.2
1308	HORVU5Hr1G119230	oligopeptide transporter 4	-5.35	AT5G64410.1
1309	HORVU3Hr1G040880	F-box family protein	-5.37	AT2G32560.1
1310	HORVU5Hr1G095480	unknown function	-5.37	AT4G16380.1
1311	HORVU4Hr1G067020	Caleosin-related family protein	-5.38	AT2G33380.1
1312	HORVU7Hr1G107840	KY49.ctg7180000000017_quiver, whole genome shotgun sequence	-5.39	AT1G14740.1
1313	HORVU6Hr1G055350	undescribed protein	-5.39	AT1G60760.1
1314	HORVU2Hr1G017480	undescribed protein	-5.41	AT4G32430.2
1315	HORVU2Hr1G019820	Photosystem I reaction center subunit N, chloroplastic	-5.41	AT5G64040.1
1316	HORVU5Hr1G124120	gibberellin 20 oxidase 2	-5.41	AT4G25420.1
1317	HORVU7Hr1G112290	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-5.43	AT2G24710.3
1318	HORVU5Hr1G100870	undescribed protein	-5.45	AT5G64640.1
1319	HORVU2Hr1G019270	undescribed protein	-5.46	AT2G06520.1

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1320	HORVU3Hr1G025820	Mitochondrial substrate carrier family protein	-5.48	AT5G19760.1
1321	HORVU5Hr1G001750	undescribed protein	-5.50	AT5G17210.1
1322	HORVU6Hr1G090250	unknown function	-5.53	AT5G37360.1
1323	HORVU2Hr1G079920	Chlorophyll a-b binding protein, chloroplastic	-5.56	AT1G15820.1
1324	HORVU3Hr1G080430	Protein LURP-one-related 8	-5.56	AT2G38640.1
1325	HORVU1Hr1G007630	TRICHOME BIREFRINGENCE-LIKE 11	-5.57	AT5G19160.1
1326	HORVU3Hr1G014790	thylakoid lumenal 17.9 kDa protein, chloroplast	-5.59	AT4G24930.1
1327	HORVU5Hr1G016270	Sulfurtransferase	-5.62	AT1G27320.1
1328	HORVU2Hr1G101730	ascorbate peroxidase 4	-5.63	AT4G09010.1
1329	HORVU3Hr1G109830	undescribed protein	-5.65	AT2G16440.1
1330	HORVU5Hr1G049590	undescribed protein	-5.69	AT1G66210.1
1331	HORVU5Hr1G114230	Bowman-Birk type trypsin inhibitor	-5.70	AT4G21550.3
1332	HORVU5Hr1G102530	Hfr-2-like protein	-5.70	AT5G44010.2
1333	HORVU3Hr1G039670	undescribed protein	-5.70	#N/A
1334	HORVU1Hr1G061970	'putative endo-1,3;1,4-beta-D-glucanase'	-5.73	AT3G23600.1
1335	HORVU5Hr1G109260	Chlorophyll a-b binding protein, chloroplastic	-5.75	AT2G34420.1
1336	HORVU2Hr1G090980	Starch synthase 2, chloroplastic/amyloplastic	-5.79	AT1G32900.1
1337	HORVU0Hr1G028250	Retrotransposon protein	-5.87	AT2G07706.1
1338	HORVU6Hr1G015770	Photosystem II 5 kD protein	-5.88	AT1G51400.1
1339	HORVU2Hr1G113790	undescribed protein	-5.89	AT3G13100.1
1340	HORVU2Hr1G079180	unknown function	-5.89	AT2G14095.1
1341	HORVU3Hr1G052710	myb-like transcription factor family protein	-5.90	AT5G56840.1
1342	HORVU3Hr1G011630	undescribed protein	-5.90	AT2G23380.2
1343	HORVU5Hr1G064800	Cell wall-associated hydrolase	-5.95	AT4G22180.1
1344	HORVU3Hr1G065090	undescribed protein	-6.02	AT1G15140.1
1345	HORVU3Hr1G049730	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-6.04	AT4G14368.1
1346	HORVU5Hr1G094110	undescribed protein	-6.06	AT5G62600.1
1347	HORVU4Hr1G054240	cAMP-regulated phosphoprotein 19-related protein	-6.11	AT4G16146.1
1348	HORVU6Hr1G048120	undescribed protein	-6.12	AT5G26110.3
1349	HORVU3Hr1G087210	respiratory burst oxidase protein F	-6.14	AT5G60010.1
1350	HORVU5Hr1G079600	undescribed protein	-6.16	AT3G57300.2
1351	HORVU5Hr1G082420	Chlorophyll a-b binding protein, chloroplastic	-6.18	AT3G27690.2
1352	HORVU3Hr1G014590	serine/threonine protein phosphatase 2A	-6.19	AT1G64040.1
1353	HORVU1Hr1G056630	UDP-glucose 4-epimerase	-6.20	AT4G33030.1
1354	HORVU4Hr1G079600	undescribed protein	-6.20	AT4G32700.2
1355	HORVU6Hr1G016890	Chlorophyll a-b binding protein, chloroplastic	-6.22	AT2G34420.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
1356	HORVU7Hr1G036780	EXORDIUM like 2	-6.22	AT5G64260.1
1357	HORVU3Hr1G026920	metallothionein 3	-6.26	AT3G15353.1
1358	HORVU4Hr1G090750	Retrotransposon protein, putative, unclassified	-6.30	AT1G55250.3
1359	HORVU7Hr1G081510	DnaJ/Hsp40 cysteine-rich domain superfamily protein	-6.38	AT3G47650.1
1360	HORVU1Hr1G078380	Chlorophyll a-b binding protein, chloroplastic	-6.39	AT2G34420.1
1361	HORVU5Hr1G110610	undescribed protein	-6.45	AT4G39590.1
1362	HORVU2Hr1G070140	Heavy metal transport/detoxification superfamily protein	-6.48	AT5G50740.5
1363	HORVU7Hr1G056700	BAG family molecular chaperone regulator 3	-6.48	AT5G07220.1
1364	HORVU6Hr1G028970	undescribed protein	-6.49	AT1G65870.1
1365	HORVU3Hr1G069280	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-6.53	AT2G42760.1
1366	HORVU5Hr1G102620	Amaranthin-like lectin	-6.54	AT3G23800.2
1367	HORVU4Hr1G087580	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-6.56	AT1G10586.1
1368	HORVU4Hr1G005320	Protein of unknown function, DUF538	-6.57	AT1G55265.1
1369	HORVU5Hr1G053480	Protein FLUORESCENT IN BLUE LIGHT, chloroplastic	-6.58	AT3G14110.2
1370	HORVU6Hr1G035460	undescribed protein	-6.60	AT1G65640.2
1371	HORVU2Hr1G010630	ribulose biphosphate carboxylase small chain 1A	-6.62	AT1G67090.1
1372	HORVU5Hr1G113910	undescribed protein	-6.64	AT1G26090.1
1373	HORVU0Hr1G034230	Retrotransposon protein	-6.75	AT2G07706.1
1374	HORVU2Hr1G121770	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-6.77	AT1G71140.1
1375	HORVU7Hr1G119060	GDSL esterase/lipase	-6.80	AT5G33370.1
1376	HORVU6Hr1G073100	Protein CURVATURE THYLAKOID 1A, chloroplastic	-6.83	AT4G01150.1
1377	HORVU0Hr1G013070	cinnamoyl coa reductase	-6.86	AT1G15950.7
1378	HORVU3Hr1G068200	Heavy metal transport/detoxification superfamily protein	-6.92	AT3G24450.1
1379	HORVU2Hr1G089340	phosphoenolpyruvate carboxylase kinase 1	-6.98	AT1G08650.1
1380	HORVU3Hr1G027220	Polyketide cyclase/dehydrase and lipid transport superfamily protein	-7.04	AT2G25770.2
1381	HORVU3Hr1G110660	NADH dehydrogenase-like complex O	-7.06	AT1G74880.1
1382	HORVU1Hr1G007810	UDP-Glycosyltransferase superfamily protein	-7.06	AT1G22360.1
1383	HORVU5Hr1G064230	Cellulose synthase family protein	-7.07	AT5G17420.1
1384	HORVU3Hr1G024920	undescribed protein	-7.08	AT5G17650.1
1385	HORVU3Hr1G110330	Phospholipase A1-II 6	-7.17	AT1G06800.1
1386	HORVU6Hr1G093940	Peroxidase superfamily protein	-7.17	AT1G77490.1
1387	HORVU2Hr1G010690	ribulose biphosphate carboxylase small chain 1A	-7.20	AT1G67090.1
1388	HORVU5Hr1G113060	actin depolymerizing factor 4	-7.23	AT4G00680.1



S No	Feature ID	Barley Annotation	Fold change	Ara-Port
1389	HORVU3Hr1G085520	laccase 7	-7.25	AT3G09220.1
1390	HORVU5Hr1G109610	unknown function	-7.28	AT5G43150.1
1391	HORVU5Hr1G010960	Glutaredoxin family protein	-7.30	AT2G47870.1
1392	HORVU2Hr1G074730	unknown function	-7.35	AT3G55480.1
1393	HORVU6Hr1G016940	Chlorophyll a-b binding protein, chloroplastic	-7.35	AT2G34420.1
1394	HORVU5Hr1G022750	PsbP domain-containing protein 1, chloroplastic	-7.38	AT4G15510.5
1395	HORVU3Hr1G071770	cellulose synthase family protein	-7.51	AT4G18780.1
1396	HORVU3Hr1G004080	undescribed protein	-7.58	AT2G35110.1
1397	HORVU6Hr1G049260	Ribulose bisphosphate carboxylase large chain	-7.58	ATCG00490.1
1398	HORVU2Hr1G077630	Histone H2B.1	-7.58	AT3G45980.1
1399	HORVU5Hr1G097870	Cytochrome b6-f complex subunit 7	-7.58	AT2G26500.2
1400	HORVU0Hr1G020630	Benzoate O-methyltransferase	-7.58	AT5G04370.3
1401	HORVU4Hr1G069690	undescribed protein	-7.60	AT1G24430.1
1402	HORVU2Hr1G045970	unknown function	-7.61	AT3G21710.2
1403	HORVU2Hr1G000420	HXXXD-type acyl-transferase family protein	-7.62	AT3G62160.1
1404	HORVU1Hr1G039250	cellulose synthase A4	-7.64	AT5G44030.3
1405	HORVU1Hr1G007690	General transcription factor 2-related zinc finger protein	-7.69	AT2G06541.2
1406	HORVU4Hr1G009380	Lariat debranching enzyme	-7.72	AT3G22436.1
1407	HORVU0Hr1G034200	undescribed protein	-7.74	AT5G56400.1
1408	HORVU6Hr1G091650	Chlorophyll a-b binding protein, chloroplastic	-7.84	AT2G34420.1
1409	HORVU1Hr1G088920	Chlorophyll a-b binding protein, chloroplastic	-7.91	AT2G34420.1
1410	HORVU2Hr1G041270	Chlorophyll a-b binding protein 6, chloroplastic	-7.94	AT5G01530.1
1411	HORVU5Hr1G109250	Chlorophyll a-b binding protein, chloroplastic	-8.06	AT1G29930.1
1412	HORVU5Hr1G086710	Flavin-containing monooxygenase family protein	-8.07	AT1G19250.1
1413	HORVU1Hr1G089240	Cytochrome c oxidase subunit 1	-8.09	ATMG01360.1
1414	HORVU6Hr1G051650	Oxygen-evolving enhancer protein 3-1, chloroplastic	-8.10	AT1G14150.1
1415	HORVU7Hr1G065970	undescribed protein	-8.13	AT3G48430.1
1416	HORVU3Hr1G039310	undescribed protein	-8.13	AT1G29720.1
1417	HORVU4Hr1G086020	4-hydroxy-tetrahydrodipicolinate reductase	-8.18	AT5G52100.1
1418	HORVU1Hr1G024890	NAD(P)H dehydrogenase 18	-8.30	AT5G43750.1
1419	HORVU6Hr1G004000	Acid beta-fructofuranosidase	-8.41	AT1G62660.2
1420	HORVU0Hr1G038990	Protein of unknown function (DUF3511)	-8.56	AT4G09890.1
1421	HORVU3Hr1G096910	Beta-glucosidase 3	-8.62	AT3G60140.2
1422	HORVU5Hr1G001180	lipxygenase 2	-8.66	AT3G45140.1
1423	HORVU5Hr1G018970	0	-8.69	AT1G22540.1



S No	Feature ID	Barley Annotation	Fold change	Ara-Port
1424	HORVU5Hr1G019480	Disease resistance-responsive (dirigent-like protein) family protein	-8.71	AT3G58090.1
1425	HORVU1Hr1G075160	Isoflavone reductase-like protein	-8.76	AT1G75290.1
1426	HORVU5Hr1G067530	1-aminocyclopropane-1-carboxylate oxidase 1	-8.79	AT1G05010.1
1427	HORVU1Hr1G089180	Chlorophyll a-b binding protein, chloroplastic	-8.80	AT2G34420.1
1428	HORVU6Hr1G016860	undescribed protein	-8.93	AT5G18890.1
1429	HORVU4Hr1G088080	expansin B2	-9.20	AT1G65680.1
1430	HORVU7Hr1G047690	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-9.32	AT4G20970.1
1431	HORVU3Hr1G089910	Trigger factor	-9.38	AT2G30695.3
1432	HORVU0Hr1G012330	undescribed protein	-9.44	AT5G42390.1
1433	HORVU2Hr1G102110	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	-9.45	AT5G48485.1
1434	HORVU0Hr1G012340	undescribed protein	-9.47	AT2G46130.1
1435	HORVU2Hr1G075170	undescribed protein	-9.51	AT1G67910.2
1436	HORVU2Hr1G102100	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	-9.56	AT5G48485.1
1437	HORVU7Hr1G086120	Leucine-rich repeat receptor-like protein kinase family protein	-9.60	AT3G47570.1
1438	HORVU7Hr1G120660	PHYTOENE SYNTHASE	-9.63	AT5G17230.4
1439	HORVU7Hr1G040380	Chlorophyll a-b binding protein, chloroplastic	-9.69	AT2G34420.1
1440	HORVU2Hr1G073030	Carbonic anhydrase	-9.72	AT3G52720.4
1441	HORVU7Hr1G112130	undescribed protein	-9.74	AT5G28080.2
1442	HORVU6Hr1G016880	Chlorophyll a-b binding protein, chloroplastic	-9.78	AT2G34420.1
1443	HORVU7Hr1G010690	Acid phosphatase 1	-9.78	AT4G29260.1
1444	HORVU6Hr1G050760	undescribed protein	-9.80	AT5G02390.3
1445	HORVU1Hr1G071910	Plant protein 1589 of unknown function	-9.83	AT5G02580.1
1446	HORVU2Hr1G010670	ribulose biphosphate carboxylase small chain 1A	-9.91	AT1G67090.1
1447	HORVU5Hr1G023160	Transmembrane amino acid transporter family protein	-9.94	AT1G47670.1
1448	HORVU5Hr1G093640	Auxin-responsive protein IAA12	-9.99	AT1G04240.1
1449	HORVU4Hr1G018150	sterol C4-methyl oxidase 1-2	-10.06	AT4G22756.1
1450	HORVU7Hr1G058120	Chlorophyll a-b binding protein 1B, chloroplastic	-10.09	AT2G34430.1
1451	HORVU4Hr1G002900	Protein of unknown function (DUF1677)	-10.22	AT3G22540.1
1452	HORVU4Hr1G076050	O-methyltransferase family protein	-10.40	AT4G35160.1
1453	HORVU2Hr1G065450	flowering promoting factor 1	-10.58	AT5G24860.1
1454	HORVU7Hr1G098370	Xyloglucan endotransglucosylase/hydrolase family protein	-10.61	AT5G57560.1
1455	HORVU5Hr1G004700	terpene synthase 21	-10.83	AT5G23960.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
1456	HORVU6Hr1G012270	terpene synthase 14	-10.86	AT1G61680.1
1457	HORVU4Hr1G088160	Eukaryotic aspartyl protease family protein	-10.87	AT2G03200.1
1458	HORVU2Hr1G094280	Protein FATTY ACID EXPORT 4, chloroplastic	-10.96	AT1G33265.1
1459	HORVU4Hr1G018180	sterol C4-methyl oxidase 1-2	-11.03	AT4G22756.1
1460	HORVU0Hr1G022410	undescribed protein	-11.15	AT1G05860.3
1461	HORVU5Hr1G067490	1-aminocyclopropane-1-carboxylate oxidase 1	-11.20	AT1G05010.1
1462	HORVU2Hr1G038040	unknown function	-11.38	AT5G43150.1
1463	HORVU1Hr1G093660	ribonuclease 3	-11.39	AT1G26820.1
1464	HORVU1Hr1G073630	undescribed protein	-11.40	AT2G06541.2
1465	HORVU2Hr1G064730	Protein of unknown function, DUF584	-11.52	AT1G11700.1
1466	HORVU2Hr1G094390	histone H1-3	-11.52	AT2G18050.1
1467	HORVU2Hr1G051050	undescribed protein	-11.54	AT4G24560.1
1468	HORVU2Hr1G063190	undescribed protein	-11.54	AT1G24485.3
1469	HORVU5Hr1G075660	UDP-glucose 4-epimerase	-11.79	AT3G23820.1
1470	HORVU7Hr1G122470	sulfotransferase 4A	-11.93	AT3G45070.3
1471	HORVU7Hr1G040370	Chlorophyll a-b binding protein, chloroplastic	-11.93	AT2G34420.1
1472	HORVU6Hr1G061270	Aldehyde dehydrogenase family 3 member F1	-12.04	AT4G36250.1
1473	HORVU2Hr1G074770	Abscisic stress-ripening protein 3	-12.80	AT2G03140.9
1474	HORVU3Hr1G108550	undescribed protein	-12.83	AT3G43920.5
1475	HORVU4Hr1G088110	Eukaryotic aspartyl protease family protein	-12.93	AT2G03200.1
1476	HORVU2Hr1G051040	undescribed protein	-13.01	AT3G11670.1
1477	HORVU0Hr1G005360	serine carboxypeptidase-like 19	-13.23	AT1G33540.1
1478	HORVU7Hr1G002620	undescribed protein	-13.47	AT1G72540.1
1479	HORVU7Hr1G090410	polyamine oxidase 1	-13.54	AT5G13700.1
1480	HORVU4Hr1G090860	metacaspase 1	-13.76	AT1G02170.1
1481	HORVU3Hr1G001680	TPX2 (targeting protein for Xklp2) protein family	-13.77	AT3G23090.5
1482	HORVU2Hr1G009970	Eukaryotic aspartyl protease family protein	-14.13	AT2G03200.1
1483	HORVU1Hr1G069830	expansin A1	-14.25	AT1G69530.2
1484	HORVU2Hr1G002720	PLANT CADMIUM RESISTANCE 1	-14.43	AT1G14880.1
1485	HORVU5Hr1G063630	Early light-induced protein 1, chloroplastic	-14.72	AT3G22840.1
1486	HORVU1Hr1G057860	cytokinin oxidase/dehydrogenase 1	-14.86	AT2G41510.2
1487	HORVU2Hr1G032710	unknown function	-15.36	AT1G74160.1
1488	HORVU6Hr1G016850	Chlorophyll a-b binding protein, chloroplastic	-15.74	AT2G34420.1
1489	HORVU3Hr1G025300	undescribed protein	-16.16	AT2G42320.4
1490	HORVU1Hr1G083580	undescribed protein	-16.24	AT5G25240.1
1491	HORVU4Hr1G081040	ABC transporter G family member 45	-16.38	AT2G36380.1
1492	HORVU5Hr1G067200	RING/U-box superfamily protein	-16.60	AT3G61460.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
1493	HORVU6Hr1G025050	undescribed protein	-16.79	AT2G20930.1
1494	HORVU3Hr1G094580	undescribed protein	-17.56	AT3G24050.1
1495	HORVU0Hr1G022690	Senescence-associated protein DIN1	-18.04	AT4G35770.1
1496	HORVU4Hr1G080820	Group 3 late embryogenesis abundant protein	-18.32	AT1G52690.2
1497	HORVU6Hr1G012110	terpene synthase 14	-18.35	AT1G61680.1
1498	HORVU1Hr1G088900	Chlorophyll a-b binding protein, chloroplastic	-18.39	AT1G29930.1
1499	HORVU4Hr1G058590	unknown function	-18.45	AT1G80830.2
1500	HORVU3Hr1G073860	chlororespiratory reduction 7	-19.09	AT5G39210.1
1501	HORVU6Hr1G079190	Peroxidase superfamily protein	-19.25	AT5G15180.1
1502	HORVU3Hr1G069650	BURP domain-containing protein	-19.36	AT5G25610.1
1503	HORVU4Hr1G066230	allene oxide synthase	-19.68	AT5G42650.1
1504	HORVU6Hr1G009360	Peroxidase superfamily protein	-19.70	AT5G05340.1
1505	HORVU4Hr1G028720	xyloglucan endotransglucosylase/hydrolase 5	-20.53	AT5G13870.3
1506	HORVU2Hr1G090670	sulfotransferase 4B	-20.80	AT1G13420.1
1507	HORVU5Hr1G082160	O-acyltransferase (WSD1-like) family protein	-23.08	AT5G53390.1
1508	HORVU4Hr1G057000	Low temperature and salt responsive protein family	-23.17	AT2G38905.1
1509	HORVU4Hr1G040110	undescribed protein	-23.53	AT3G52330.1
1510	HORVU7Hr1G036720	germin-like protein 1	-23.80	AT1G72610.1
1511	HORVU5Hr1G077390	Transcription factor bHLH137	-24.17	AT5G50915.4
1512	HORVU1Hr1G089380	Subtilisin-like protease	-24.59	AT4G10550.1
1513	HORVU4Hr1G076000	O-methyltransferase family protein	-25.54	AT4G35160.1
1514	HORVU5Hr1G010950	Glutaredoxin family protein	-25.92	AT5G18600.1
1515	HORVU1Hr1G093570	Ribonuclease T2 family protein	-27.75	AT1G14220.1
1516	HORVU7Hr1G007800	undescribed protein	-30.08	AT1G32560.1
1517	HORVU2Hr1G003470	Cytochrome P450 superfamily protein	-30.14	AT2G22330.2
1518	HORVU3Hr1G027970	TRICHOME BIREFRINGENCE-LIKE 38	-32.28	AT1G29050.1
1519	HORVU6Hr1G005050	flowering promoting factor 1	-33.02	AT5G24860.1
1520	HORVU5Hr1G084230	Aquaporin-like superfamily protein	-37.05	AT2G37170.2
1521	HORVU5Hr1G101880	Protein phosphatase 2C 35	-40.08	AT1G60650.2
1522	HORVU1Hr1G088840	Phospholipase A1-II 7	-41.32	AT4G18550.1
1523	HORVU2Hr1G103160	undescribed protein	-42.01	AT5G39690.1
1524	HORVU1Hr1G016410	undescribed protein	-43.17	AT1G16460.4
1525	HORVU7Hr1G120060	Cathepsin B-like cysteine proteinase 1	-43.50	AT2G34080.1
1526	HORVU7Hr1G119930	Cathepsin B-like cysteine proteinase 1	-43.76	AT2G34080.1
1527	HORVU5Hr1G089230	Fatty acyl-CoA reductase 1	-61.94	AT5G22500.1
1528	HORVU7Hr1G098320	xyloglucan endotransglucosylase/hydrolase 25	-71.19	AT5G57550.1
1529	HORVU7Hr1G098330	xyloglucan endotransglucosylase/hydrolase 25	-97.06	AT5G57550.1

S No	Feature ID	Barley Annotation	Fold change	Ara-Port
1530	HORVU7Hr1G111010	unknown function	-108.99	AT3G06130.1
1531	HORVU7Hr1G098280	xyloglucan endotransglucosylase/hydrolase 25	-133.06	AT4G25810.1
1532	HORVU2Hr1G043930	undescribed protein	-208.98	AT4G12650.1

**Supplementary Table 4.** The gene list along with the transcriptional expression (fold changes) of the Peroxidases super family involved in the spot blotch susceptibility in barley compared with their expression in spot blotch resistance.

S. No.	Feature ID	Barley Annotation	Noninoc_Harr vs Harr72H pi_Fold change	Noninoc_Bwt vs Bwt72H pi_Fold change	Ara. Homology
1	HORVU2Hr1G018510	Peroxidase superfamily protein	8262.48	13.51	AT5G05340.1
2	HORVU2Hr1G044340	Peroxidase superfamily protein	3094.16	21.87	AT5G05340.1
3	HORVU2Hr1G018430	Peroxidase superfamily protein	729.65	15.45	AT5G05340.1
4	HORVU3Hr1G091740	Peroxidase superfamily protein	316.99	NS	AT5G06730.1
5	HORVU2Hr1G018480	Peroxidase superfamily protein	316.07	11.78	AT5G05340.1
6	HORVU3Hr1G091750	Peroxidase superfamily protein	226.99	NS	AT5G06730.1
7	HORVU3Hr1G074960	Peroxidase superfamily protein	126.01	65.55	AT4G11290.1
8	HORVU2Hr1G124960	Peroxidase superfamily protein	115.12	NS	AT1G71695.1
9	HORVU1Hr1G020720	Peroxidase superfamily protein	98.88	38.41	AT5G19890.1
10	HORVU3Hr1G091730	Peroxidase superfamily protein	94.04	NS	AT5G06730.1
11	HORVU4Hr1G065000	Peroxidase superfamily protein	69.60	NS	AT5G06730.1
12	HORVU3Hr1G112040	Peroxidase superfamily protein	55.48	NS	AT1G71695.1
13	HORVU2Hr1G044360	Peroxidase superfamily protein	51.03	19.82	AT5G05340.1
14	HORVU7Hr1G076120	Peroxidase superfamily protein	44.9	54.23	AT4G33420.1
15	HORVU1Hr1G016870	Peroxidase superfamily protein	30.94	NS	AT1G05260.1
16	HORVU1Hr1G016840	Peroxidase superfamily protein	30.09	5.49	AT1G05260.1
17	HORVU4Hr1G022270	Peroxidase superfamily protein	27.80	NS	AT5G05340.1
18	HORVU2Hr1G124930	Peroxidase superfamily protein	24.81	8.74	AT1G71695.1
19	HORVU3Hr1G074940	Peroxidase superfamily protein	23.14	NS	AT4G11290.1
20	HORVU1Hr1G016660	Peroxidase superfamily protein	21.19	4.77	AT4G33420.1
21	HORVU7Hr1G083550	Peroxidase superfamily protein	16.63	7.56	AT5G66390.1
22	HORVU6Hr1G009360	Peroxidase superfamily protein	13.69	-19.70	AT5G05340.1
23	HORVU2Hr1G075970	Peroxidase superfamily protein	13.42	12.79	AT4G08390.3
24	HORVU5Hr1G046900	Peroxidase superfamily protein	11.53	NS	AT5G05340.1
25	HORVU1Hr1G020690	Peroxidase superfamily protein	8.97	NS	AT5G06730.1
26	HORVU5Hr1G097270	Peroxidase superfamily protein	8.65	7.60	AT3G49960.1
27	HORVU2Hr1G018570	Peroxidase superfamily protein	5.78	NS	AT5G05340.1
28	HORVU2Hr1G125110	Peroxidase superfamily protein	4.50	NS	AT1G71695.1
29	HORVU6Hr1G021520	Peroxidase superfamily protein	3.18	NS	AT5G05340.1
30	HORVU0Hr1G004850	Peroxidase superfamily protein	-7.47	NS	AT4G17690.1
31	HORVU6Hr1G009500	Peroxidase superfamily protein	-10.75	NS	AT5G05340.1
32	HORVU7Hr1G098510	Peroxidase superfamily protein	-10.82	NS	AT2G18980.1
33	HORVU2Hr1G002010	Peroxidase superfamily protein	-19.94	NS	AT1G77490.1
34	HORVU2Hr1G063460	Peroxidase superfamily protein	-22.46	NS	AT4G37530.1
35	HORVU6Hr1G093940	Peroxidase superfamily protein	-26.19	-7.17	AT1G77490.1

**Supplementary Table 5.** The list of proteins in the Predicted network of protein-protein interaction of 361 Arabidopsis orthologs for 500 differentially regulated (250 upregulated and 250 downregulated genes in the barley susceptible cultivar Harrington at 72 hpi with *Bipolaris sorokiniana*) along with the Arabidopsis WAK homologs of candidate WAKs in the *Rcs5* locus. The table shows the protein nodes and their identity based on the Arabidopsis protein-protein interaction database known till date.

S No	#node1	node1_id	node2	node2_id
1	EMB3136	AT5G13510	SAG24	AT1G66580
2	EMB3136	AT5G13510	AT4G01310	AT4G01310
3	MTO2	AT4G29840	AKHSDH2	AT4G19710
4	AT4G01310	AT4G01310	SAG24	AT1G66580
5	RPE	AT5G61410	AT3G60750	AT3G60750
6	IAA16	AT3G04730	SHY2	AT1G04240
7	AT4G01310	AT4G01310	emb2184	AT1G75350
8	EMB3136	AT5G13510	emb2184	AT1G75350
9	RBCL	ATCG00490	PSBA	ATCG00020
10	PSAF	AT1G31330	PSAO	AT1G08380
11	HCT	AT5G48930	CCoAOMT1	AT4G34050
12	NDPK2	AT5G63310	AT5G35170	AT5G35170
13	WR3	AT5G50200	NRT2:1	AT1G08090
14	ELI3-1	AT4G37980	ALDH2C4	AT3G24503
15	HCT	AT5G48930	TT4	AT5G13930
16	AKHSDH2	AT4G19710	BCAT3	AT3G49680
17	PSBO2	AT3G50820	PSAF	AT1G31330
18	emb2184	AT1G75350	SAG24	AT1G66580
19	DAP	AT4G33680	AKHSDH2	AT4G19710
20	RBCL	ATCG00490	RPOC1	ATCG00180
21	Lhca5	AT1G45474	PSAO	AT1G08380
22	GR	AT3G54660	GSTU19	AT1G78380
23	EXO70F1	AT5G50380	RAB11c	AT1G09630
24	GR	AT3G54660	ERD9	AT1G10370
25	GR	AT3G54660	GSTU18	AT1G10360
26	HCHIB	AT3G12500	PR4	AT3G04720
27	GR	AT3G54660	GSTU8	AT3G09270
28	RPOC1	ATCG00180	PSBA	ATCG00020
29	GA1	AT4G02780	GA2	AT1G79460
30	AT3G60750	AT3G60750	LOS2	AT2G36530
31	OMT1	AT5G54160	ELI3-1	AT4G37980
32	ATGSTF13	AT3G62760	GR	AT3G54660
33	CPK28	AT5G66210	RBOHD	AT5G47910
34	AO	AT5G14760	AKHSDH2	AT4G19710
35	OMT1	AT5G54160	CCoAOMT1	AT4G34050
36	OMT1	AT5G54160	ALDH2C4	AT3G24503



S No	#node1	node1_id	node2	node2_id
37	AT5G19890	AT5G19890	ELI3-1	AT4G37980
38	TT4	AT5G13930	CCoAOMT1	AT4G34050
39	CYP71B11	AT5G25120	CYP71B24	AT3G26230
40	RPOC1	ATCG00180	NDPK2	AT5G63310
41	AT3G47570	AT3G47570	UKL2	AT3G27190
42	ELI3-1	AT4G37980	AT1G71695	AT1G71695
43	At3g49670	AT3G49670	UKL2	AT3G27190
44	CYP71B35	AT3G26310	CYP71B24	AT3G26230
45	CYP71B34	AT3G26300	CYP71B24	AT3G26230
46	GDI2	AT3G59920	TPR10	AT3G04710
47	CYP71B11	AT5G25120	CYP71B34	AT3G26300
48	CYP71B11	AT5G25120	CYP71B35	AT3G26310
49	OMT1	AT5G54160	PRX52	AT5G05340
50	CYP71B35	AT3G26310	CYP71B34	AT3G26300
51	OMT1	AT5G54160	AT5G06730	AT5G06730
52	OMT1	AT5G54160	AT1G71695	AT1G71695
53	OMT1	AT5G54160	AT2G18140	AT2G18140
54	ELI3-1	AT4G37980	AT2G18140	AT2G18140
55	BT2	AT3G48360	CYP71B24	AT3G26230
56	CYP71B11	AT5G25120	BT2	AT3G48360
57	GAUT4	AT5G47780	AT5G19730	AT5G19730
58	OMT1	AT5G54160	AT4G11290	AT4G11290
59	OMT1	AT5G54160	AT5G19890	AT5G19890
60	BT2	AT3G48360	CYP71B34	AT3G26300
61	BT2	AT3G48360	CYP71B35	AT3G26310
62	AT5G06730	AT5G06730	ELI3-1	AT4G37980
63	ELI3-1	AT4G37980	AT4G11290	AT4G11290
64	PRX52	AT5G05340	ELI3-1	AT4G37980
65	PSBA	ATCG00020	PSAF	AT1G31330
66	CYP38	AT3G01480	emb2184	AT1G75350
67	SERAT1;1	AT5G56760	AKHSDH2	AT4G19710
68	PP2A-4	AT3G58500	At3g49670	AT3G49670
69	PP2A-4	AT3G58500	AT3G47570	AT3G47570
70	AUX1	AT2G38120	SHY2	AT1G04240
71	PSBO2	AT3G50820	CYP38	AT3G01480
72	RPOC1	ATCG00180	SAG24	AT1G66580
73	NDPK2	AT5G63310	AT4G01310	AT4G01310
74	PSBO2	AT3G50820	AT1G51400	AT1G51400
75	ACP4	AT4G25050	AT2G37660	AT2G37660
76	AT1G51400	AT1G51400	PSAF	AT1G31330

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
77	PSBO2	AT3G50820	PSAO	AT1G08380
78	ACP4	AT4G25050	emb2184	AT1G75350
79	APE2	AT5G46110	PSAO	AT1G08380
80	GR	AT3G54660	CAT1	AT1G20630
81	PSBA	ATCG00020	PSBO2	AT3G50820
82	AT1G51400	AT1G51400	PSAO	AT1G08380
83	APE2	AT5G46110	PSBO2	AT3G50820
84	APE2	AT5G46110	PSAF	AT1G31330
85	AT4G01310	AT4G01310	AT2G37660	AT2G37660
86	AT3G60750	AT3G60750	UKL2	AT3G27190
87	AT4G16260	AT4G16260	PR4	AT3G04720
88	EMB1030	AT5G22800	EDD1	AT3G48110
89	PAM68	AT4G19100	CYP38	AT3G01480
90	PGRL1A	AT4G22890	AT1G18060	AT1G18060
91	EMB1030	AT5G22800	AKHSDH2	AT4G19710
92	CERK1	AT3G21630	LYK5	AT2G33580
93	RPE	AT5G61410	UKL2	AT3G27190
94	AT2G37660	AT2G37660	emb2184	AT1G75350
95	At3g49670	AT3G49670	RAB11c	AT1G09630
96	AT3G47570	AT3G47570	RAB11c	AT1G09630
97	TYRDC	AT4G28680	AAS	AT2G20340
98	NRT1:2	AT1G69850	NRT2:1	AT1G08090
99	AT1G51110	AT1G51110	AT1G18060	AT1G18060
100	LPA2	AT5G51545	PAM68	AT4G19100
101	EMB3136	AT5G13510	CYP38	AT3G01480
102	PGRL1A	AT4G22890	PSBO2	AT3G50820
103	AT3G47570	AT3G47570	TPR10	AT3G04710
104	At3g49670	AT3G49670	TPR10	AT3G04710
105	ACP4	AT4G25050	CYP38	AT3G01480
106	AT5G35170	AT5G35170	AT4G01310	AT4G01310
107	APE2	AT5G46110	AT1G51400	AT1G51400
108	NDPK2	AT5G63310	AT2G37660	AT2G37660
109	EMB3136	AT5G13510	AT2G37660	AT2G37660
110	AT5G58490	AT5G58490	UGD3	AT5G15490
111	NDPK2	AT5G63310	EMB3136	AT5G13510
112	AT4G16260	AT4G16260	HCHIB	AT3G12500
113	NDPK2	AT5G63310	AKHSDH2	AT4G19710
114	RPOC1	ATCG00180	AT4G01310	AT4G01310
115	Lhca5	AT1G45474	PSAF	AT1G31330
116	ALN	AT4G04955	AT2G31050	AT2G31050

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
117	OSM34	AT4G11650	HCHIB	AT3G12500
118	EMB3136	AT5G13510	ACP4	AT4G25050
119	AT5G35170	AT5G35170	AT1G51110	AT1G51110
120	DAP	AT4G33680	BCAT3	AT3G49680
121	PnsB2	AT1G64770	Lhca5	AT1G45474
122	GR	AT3G54660	MDAR4	AT3G27820
123	CYP38	AT3G01480	AT2G42220	AT2G42220
124	KEA3	AT4G04850	NHD1	AT3G19490
125	CYP38	AT3G01480	AT2G37660	AT2G37660
126	PGRL1A	AT4G22890	CYP38	AT3G01480
127	PGRL1A	AT4G22890	AT1G51110	AT1G51110
128	AKHSDH2	AT4G19710	EDD1	AT3G48110
129	ACP4	AT4G25050	AT2G42220	AT2G42220
130	RBCL	ATCG00490	UKL2	AT3G27190
131	AT4G01310	AT4G01310	CYP38	AT3G01480
132	RPE	AT5G61410	AT5G48220	AT5G48220
133	UVR8	AT5G63860	TT4	AT5G13930
134	PGRL1A	AT4G22890	Lhca5	AT1G45474
135	KEA3	AT4G04850	ECA3	AT1G10130
136	CYP38	AT3G01480	PSAF	AT1G31330
137	PSBA	ATCG00020	PAM68	AT4G19100
138	AT4G39970	AT4G39970	AT2G33255	AT2G33255
139	AT1G77090	AT1G77090	AT1G18060	AT1G18060
140	PGRL1A	AT4G22890	AT1G51400	AT1G51400
141	PSBO2	AT3G50820	Lhca5	AT1G45474
142	AKHSDH2	AT4G19710	At3g49670	AT3G49670
143	GDI2	AT3G59920	RAB11c	AT1G09630
144	AT5G19850	AT5G19850	GR	AT3G54660
145	AT4G09040	AT4G09040	At3g49670	AT3G49670
146	At3g49670	AT3G49670	AT2G28710	AT2G28710
147	YY1	AT4G06634	AT3G47570	AT3G47570
148	YY1	AT4G06634	At3g49670	AT3G49670
149	PnsB2	AT1G64770	AT1G64680	AT1G64680
150	AT3G47570	AT3G47570	AT2G28710	AT2G28710
151	AT2G42220	AT2G42220	AT1G51110	AT1G51110
152	AT4G28080	AT4G28080	AT3G48200	AT3G48200
153	ACP4	AT4G25050	At1g72610	AT1G72610
154	AT5G35170	AT5G35170	PGRL1A	AT4G22890
155	LPA2	AT5G51545	CYP38	AT3G01480
156	At3g49670	AT3G49670	AT3G47570	AT3G47570

S No	#node1	node1_id	node2	node2_id
157	AT5G35170	AT5G35170	SAG24	AT1G66580
158	CYP38	AT3G01480	AT1G51110	AT1G51110
159	RBCL	ATCG00490	PSAF	AT1G31330
160	AT1G77090	AT1G77090	AT1G64680	AT1G64680
161	emb2746	AT5G63420	SVR1	AT2G39140
162	RPE	AT5G61410	APE2	AT5G46110
163	AT2G39670	AT2G39670	SVR1	AT2G39140
164	AT5G39110	AT5G39110	AT4G33720	AT4G33720
165	RBOHD	AT5G47910	RPM1	AT3G07040
166	ACP4	AT4G25050	PSBO2	AT3G50820
167	AT5G47530	AT5G47530	AT1G61590	AT1G61590
168	NRT1:2	AT1G69850	ABCG40	AT1G15520
169	AT1G77090	AT1G77090	AT1G51110	AT1G51110
170	PGRL1A	AT4G22890	AT1G64680	AT1G64680
171	YLS9	AT2G35980	ABCG40	AT1G15520
172	RPOC1	ATCG00180	EMB3136	AT5G13510
173	AKHSDH2	AT4G19710	AT3G47570	AT3G47570
174	FRS5	AT4G38180	CYP71A25	AT3G48280
175	EMB1030	AT5G22800	UKL2	AT3G27190
176	AT5G35170	AT5G35170	CYP38	AT3G01480
177	AT5G02070	AT5G02070	AKHSDH2	AT4G19710
178	AKHSDH2	AT4G19710	AT1G16260	AT1G16260
179	AKHSDH2	AT4G19710	WAK2	AT1G21270
180	B120	AT4G21390	AKHSDH2	AT4G19710
181	AT5G65600	AT5G65600	AKHSDH2	AT4G19710
182	AT5G51770	AT5G51770	AKHSDH2	AT4G19710
183	AKHSDH2	AT4G19710	AT1G61590	AT1G61590
184	AKHSDH2	AT4G19710	CRK2	AT1G70520
185	AT5G12000	AT5G12000	AKHSDH2	AT4G19710
186	AKHSDH2	AT4G19710	AT2G23450	AT2G23450
187	AKHSDH2	AT4G19710	LYK5	AT2G33580
188	AKHSDH2	AT4G19710	WAK5	AT1G21230
189	AT5G10530	AT5G10530	AKHSDH2	AT4G19710
190	AKHSDH2	AT4G19710	CERK1	AT3G21630
191	AT4G29990	AT4G29990	AKHSDH2	AT4G19710
192	AKHSDH2	AT4G19710	CIPK9	AT1G01140
193	AKHSDH2	AT4G19710	AT1G61420	AT1G61420
194	AKHSDH2	AT4G19710	CCR3	AT3G55950
195	AKHSDH2	AT4G19710	WAK3	AT1G21240
196	PGRL1A	AT4G22890	emb2184	AT1G75350

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
197	Lhca5	AT1G45474	AT1G18060	AT1G18060
198	FAD6	AT4G30950	FATB	AT1G08510
199	HCT	AT5G48930	CYP98A8	AT1G74540
200	CPK28	AT5G66210	LYK5	AT2G33580
201	ALDH2C4	AT3G24503	PKT3	AT2G33150
202	emb2746	AT5G63420	AT2G39670	AT2G39670
203	AT4G09040	AT4G09040	AT3G47570	AT3G47570
204	OSM34	AT4G11650	DOX1	AT3G01420
205	PR4	AT3G04720	PR1	AT2G14610
206	RBCL	ATCG00490	LOS2	AT2G36530
207	RPOC1	ATCG00180	AT5G35170	AT5G35170
208	APE2	AT5G46110	PGRL1A	AT4G22890
209	NDPK2	AT5G63310	AT2G39670	AT2G39670
210	AT2G42220	AT2G42220	AT1G51400	AT1G51400
211	APE2	AT5G46110	AT2G42220	AT2G42220
212	PGRL1A	AT4G22890	AT1G77090	AT1G77090
213	HCHIB	AT3G12500	PR1	AT2G14610
214	PSBO2	AT3G50820	AT1G77090	AT1G77090
215	PSBO2	AT3G50820	AT2G42220	AT2G42220
216	AT4G16260	AT4G16260	OSM34	AT4G11650
217	PnsB2	AT1G64770	AT1G18060	AT1G18060
218	CERK1	AT3G21630	RPM1	AT3G07040
219	OSM34	AT4G11650	AT2G15220	AT2G15220
220	PnsB2	AT1G64770	AT1G51110	AT1G51110
221	UVR8	AT5G63860	EMB2730	AT5G02250
222	CGLD27	AT5G67370	PGRL1A	AT4G22890
223	VSP1	AT5G24780	PR4	AT3G04720
224	HCT	AT5G48930	TYRDC	AT4G28680
225	AT5G48220	AT5G48220	AKHSDH2	AT4G19710
226	AT3G60750	AT3G60750	ALDH2C4	AT3G24503
227	AT4G39970	AT4G39970	CYP38	AT3G01480
228	PR1	AT2G14610	FMO1	AT1G19250
229	TT4	AT5G13930	SHY2	AT1G04240
230	CGLD27	AT5G67370	AT1G77090	AT1G77090
231	GA1	AT4G02780	AUX1	AT2G38120
232	ALDH2C4	AT3G24503	CAT1	AT1G20630
233	MDAR4	AT3G27820	UKL2	AT3G27190
234	AT5G35170	AT5G35170	UKL2	AT3G27190
235	AT3G22600	AT3G22600	YLS9	AT2G35980
236	AT4G28080	AT4G28080	CYP38	AT3G01480

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
237	APE2	AT5G46110	CYP38	AT3G01480
238	At3g49670	AT3G49670	CYP38	AT3G01480
239	CYP71B37	AT3G26330	FD3	AT2G27510
240	AT1G77090	AT1G77090	Lhca5	AT1G45474
241	AT4G09040	AT4G09040	CYP38	AT3G01480
242	CYP38	AT3G01480	Lhca5	AT1G45474
243	AT1G77090	AT1G77090	PnsB2	AT1G64770
244	EMB2730	AT5G02250	LOS2	AT2G36530
245	AT2G42220	AT2G42220	emb2184	AT1G75350
246	RPE	AT5G61410	PGRL1A	AT4G22890
247	CYP38	AT3G01480	At1g72610	AT1G72610
248	AT4G13010	AT4G13010	ALDH2C4	AT3G24503
249	ALDH2C4	AT3G24503	NADK2	AT1G21640
250	NEET	AT5G51720	MDAR4	AT3G27820
251	ACP4	AT4G25050	AT4G01310	AT4G01310
252	RBOHD	AT5G47910	CERK1	AT3G21630
253	BT2	AT3G48360	UKL2	AT3G27190
254	RBCL	ATCG00490	AT4G39970	AT4G39970
255	AT4G10540	AT4G10540	AT3G47570	AT3G47570
256	AT4G10540	AT4G10540	At3g49670	AT3G49670
257	KEA3	AT4G04850	GR	AT3G54660
258	GR	AT3G54660	NADK2	AT1G21640
259	CYP38	AT3G01480	PnsB2	AT1G64770
260	RPE	AT5G61410	CLA1	AT4G15560
261	AT5G48220	AT5G48220	CYP38	AT3G01480
262	AT5G39110	AT5G39110	WAK5	AT1G21230
263	AT5G65600	AT5G65600	ABCG40	AT1G15520
264	APE2	AT5G46110	ACP4	AT4G25050
265	AT2G42220	AT2G42220	AT1G18060	AT1G18060
266	RPE	AT5G61410	emb2184	AT1G75350
267	WRKY75	AT5G13080	YLS9	AT2G35980
268	FD3	AT2G27510	CYP89A6	AT1G64940
269	GR	AT3G54660	LOS2	AT2G36530
270	CNI1	AT5G27420	LYK5	AT2G33580
271	RPE	AT5G61410	AT2G37660	AT2G37660
272	HINT3	AT5G48545	LOS2	AT2G36530
273	ELI3-1	AT4G37980	AT4G13010	AT4G13010
274	AT1G64680	AT1G64680	Lhca5	AT1G45474
275	UKL2	AT3G27190	emb2184	AT1G75350
276	OSM34	AT4G11650	PR4	AT3G04720



S No	#node1	node1_id	node2	node2_id
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278	RPE	AT5G61410	CYP38	AT3G01480
279	emb2746	AT5G63420	EMB1030	AT5G22800
280	NDPK2	AT5G63310	CYP38	AT3G01480
281	DAP	AT4G33680	MTO2	AT4G29840
282	PGRL1A	AT4G22890	PnsB2	AT1G64770
283	GR	AT3G54660	BCAT3	AT3G49680
284	FAD6	AT4G30950	CYP38	AT3G01480
285	NDPK2	AT5G63310	At1g54130	AT1G54130
286	OMT1	AT5G54160	HCT	AT5G48930
287	PP2A-4	AT3G58500	CIPK9	AT1G01140
288	B120	AT4G21390	MYB15	AT3G23250
289	AT3G60750	AT3G60750	GR	AT3G54660
290	AT1G50000	AT1G50000	AT1G45110	AT1G45110
291	DAP	AT4G33680	GulLO2	AT2G46750
292	DAP	AT4G33680	AT4G20820	AT4G20820
293	EMB1030	AT5G22800	EMB3136	AT5G13510
294	DMR6	AT5G24530	CYP71B37	AT3G26330
295	PP2A-4	AT3G58500	WAK2	AT1G21270
296	ALDH2C4	AT3G24503	HB1	AT2G16060
297	ABCB20	AT3G55320	ABCG39	AT1G66950
298	AKHSDH2	AT4G19710	AT1G45110	AT1G45110
299	ACP4	AT4G25050	At1g54130	AT1G54130
300	At3g49670	AT3G49670	AT2G39670	AT2G39670
301	PP2A-4	AT3G58500	CERK1	AT3G21630
302	AT5G48960	AT5G48960	AT4G01310	AT4G01310
303	MYB15	AT3G23250	AT2G42270	AT2G42270
304	AT2G42220	AT2G42220	PSAF	AT1G31330
305	RBOHD	AT5G47910	LAC7	AT3G09220
306	AZI1	AT4G12470	LTPG1	AT1G27950
307	PP2A-4	AT3G58500	WAK5	AT1G21230
308	PP2A-4	AT3G58500	AT2G23450	AT2G23450
309	AT5G02070	AT5G02070	PP2A-4	AT3G58500
310	PP2A-4	AT3G58500	CRK2	AT1G70520
311	AT5G10530	AT5G10530	PP2A-4	AT3G58500
312	PP2A-4	AT3G58500	WAK3	AT1G21240
313	PP2A-4	AT3G58500	AT1G61590	AT1G61590
314	AT5G65600	AT5G65600	PP2A-4	AT3G58500
315	PP2A-4	AT3G58500	LYK5	AT2G33580
316	AT4G29990	AT4G29990	PP2A-4	AT3G58500

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
317	AT4G39970	AT4G39970	AT1G51110	AT1G51110
318	PP2A-4	AT3G58500	AT1G16260	AT1G16260
319	PP2A-4	AT3G58500	CCR3	AT3G55950
320	AT1G78140	AT1G78140	AT1G51110	AT1G51110
321	B120	AT4G21390	PP2A-4	AT3G58500
322	AT5G12000	AT5G12000	PP2A-4	AT3G58500
323	AT5G51770	AT5G51770	PP2A-4	AT3G58500
324	J8	AT1G80920	AMI1	AT1G08980
325	PP2A-4	AT3G58500	AT1G61420	AT1G61420
326	PAM68	AT4G19100	AT1G78915	AT1G78915
327	RBOHD	AT5G47910	CNI1	AT5G27420
328	LPA2	AT5G51545	AT4G01310	AT4G01310
329	APE2	AT5G46110	Lhca5	AT1G45474
330	GR	AT3G54660	AAS	AT2G20340
331	EMB2730	AT5G02250	AKHSDH2	AT4G19710
332	DIT2.1	AT5G64290	NHD1	AT3G19490
333	ELI3-1	AT4G37980	AAS	AT2G20340
334	AT2G42220	AT2G42220	PSAO	AT1G08380
335	LOS2	AT2G36530	SAG24	AT1G66580
336	PGRL1A	AT4G22890	AT1G52870	AT1G52870
337	PGRL1A	AT4G22890	KEA3	AT4G04850
338	EMB3136	AT5G13510	FAD6	AT4G30950
339	AKHSDH2	AT4G19710	GR	AT3G54660
340	RPE	AT5G61410	AT2G33255	AT2G33255
341	CPK28	AT5G66210	AT3G47570	AT3G47570
342	PKT3	AT2G33150	CAT1	AT1G20630
343	AT5G35170	AT5G35170	At1g54130	AT1G54130
344	AT4G01310	AT4G01310	AT2G42220	AT2G42220
345	CYP94D2	AT3G56630	XPL1	AT3G18000
346	RPE	AT5G61410	PSBO2	AT3G50820
347	RBCL	ATCG00490	AT2G33255	AT2G33255
348	DIT2.1	AT5G64290	APE2	AT5G46110
349	CGLD27	AT5G67370	BTS	AT3G18290
350	AT1G51110	AT1G51110	Lhca5	AT1G45474
351	TYRDC	AT4G28680	GR	AT3G54660
352	FD3	AT2G27510	CYP79F2	AT1G16400
353	AT4G20820	AT4G20820	AT2G33255	AT2G33255
354	AT4G20820	AT4G20820	ALDH2C4	AT3G24503
355	ALDH2C4	AT3G24503	GulLO2	AT2G46750
356	GulLO2	AT2G46750	AT2G33255	AT2G33255

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
357	NDPK2	AT5G63310	DAP	AT4G33680
358	AT5G58490	AT5G58490	CYP71B34	AT3G26300
359	NAPRT1	AT4G36940	DJ1B	AT1G53280
360	TYRDC	AT4G28680	BCAT3	AT3G49680
361	DAP	AT4G33680	AT4G26860	AT4G26860
362	BCAT3	AT3G49680	AAS	AT2G20340
363	RPE	AT5G61410	AMI1	AT1G08980
364	LOS2	AT2G36530	AT1G61420	AT1G61420
365	NDPK2	AT5G63310	AT2G47870	AT2G47870
366	TYRDC	AT4G28680	AT4G13010	AT4G13010
367	AT2G42220	AT2G42220	AT2G37660	AT2G37660
368	AT3G47570	AT3G47570	CYP38	AT3G01480
369	UKL2	AT3G27190	CDS1	AT1G62430
370	AT4G13010	AT4G13010	AAS	AT2G20340
371	AT4G16260	AT4G16260	AT2G15220	AT2G15220
372	AT4G39970	AT4G39970	ALDH2C4	AT3G24503
373	At3g49670	AT3G49670	AT2G42270	AT2G42270
374	AT3G47570	AT3G47570	AT2G42270	AT2G42270
375	AKHSDH2	AT4G19710	AT3G60750	AT3G60750
376	FAD6	AT4G30950	ACP4	AT4G25050
377	AO	AT5G14760	DAP	AT4G33680
378	RPE	AT5G61410	WAK2	AT1G21270
379	LPA2	AT5G51545	EMB3136	AT5G13510
380	EDD1	AT3G48110	AT1G50000	AT1G50000
381	CYP76C4	AT2G45550	UGT85A3	AT1G22380
382	UGT76B1	AT3G11340	ILA	AT1G64790
383	CLA1	AT4G15560	NADK2	AT1G21640
384	KEA3	AT4G04850	AT1G64680	AT1G64680
385	PDX2	AT5G60540	BCAT3	AT3G49680
386	BCAT3	AT3G49680	MDAR4	AT3G27820
387	RBOHD	AT5G47910	GR	AT3G54660
388	NAPRT1	AT4G36940	UKL2	AT3G27190
389	AT4G26860	AT4G26860	NADK2	AT1G21640
390	AT5G48220	AT5G48220	PnsB2	AT1G64770
391	FD3	AT2G27510	CYP98A8	AT1G74540
392	CYP71B11	AT5G25120	FD3	AT2G27510
393	AKHSDH2	AT4G19710	LOS2	AT2G36530
394	CYP71A25	AT3G48280	FD3	AT2G27510
395	CYP71B34	AT3G26300	FD3	AT2G27510
396	CYP94D2	AT3G56630	FD3	AT2G27510

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
397	CYP71B10	AT5G57260	FD3	AT2G27510
398	WRKY75	AT5G13080	NAC042	AT2G43000
399	CYP71B24	AT3G26230	FD3	AT2G27510
400	FD3	AT2G27510	CYP711A1	AT2G26170
401	CYP71B35	AT3G26310	FD3	AT2G27510
402	CYP76C4	AT2G45550	FD3	AT2G27510
403	HCHIB	AT3G12500	RPM1	AT3G07040
404	CCoAOMT1	AT4G34050	UKL2	AT3G27190
405	LAC7	AT3G09220	DOX1	AT3G01420
406	VIT1	AT2G01770	ECA3	AT1G10130
407	PAM68	AT4G19100	AT1G77090	AT1G77090
408	At1g72610	AT1G72610	PSAF	AT1G31330
409	AT3G60750	AT3G60750	CAT1	AT1G20630
410	RPE	AT5G61410	GR	AT3G54660
411	AT5G35170	AT5G35170	ECA3	AT1G10130
412	UKL2	AT3G27190	LOS2	AT2G36530
413	CYP38	AT3G01480	AT1G77090	AT1G77090
414	EMB3136	AT5G13510	PSBO2	AT3G50820
415	PAM68	AT4G19100	PSBO2	AT3G50820
416	KEA3	AT4G04850	AT1G77090	AT1G77090
417	ACP4	AT4G25050	PGRL1A	AT4G22890
418	RPE	AT5G61410	AT5G58490	AT5G58490
419	AT5G58490	AT5G58490	EDD1	AT3G48110
420	GR	AT3G54660	AT2G47870	AT2G47870
421	HINT3	AT5G48545	GSTU19	AT1G78380
422	WRKY75	AT5G13080	UGT76B1	AT3G11340
423	TPR10	AT3G04710	CAT1	AT1G20630
424	NDPK2	AT5G63310	UKL2	AT3G27190
425	RPE	AT5G61410	AT2G39670	AT2G39670
426	TT4	AT5G13930	AUX1	AT2G38120
427	AT4G09040	AT4G09040	AT2G42270	AT2G42270
428	CNI1	AT5G27420	B120	AT4G21390
429	AT5G58490	AT5G58490	CYP79F2	AT1G16400
430	AT5G58490	AT5G58490	CYP71A25	AT3G48280
431	AT5G58490	AT5G58490	CYP71B10	AT5G57260
432	AT5G58490	AT5G58490	CYP71B24	AT3G26230
433	AT5G58490	AT5G58490	CYP98A8	AT1G74540
434	AT5G58490	AT5G58490	CYP71B35	AT3G26310
435	AT5G58490	AT5G58490	CYP71B11	AT5G25120
436	AT5G58490	AT5G58490	CYP711A1	AT2G26170

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
437	AT5G58490	AT5G58490	CYP94D2	AT3G56630
438	AT5G65600	AT5G65600	B120	AT4G21390
439	AT5G58490	AT5G58490	CYP76C4	AT2G45550
440	AT5G58490	AT5G58490	CYP71B37	AT3G26330
441	AT5G58490	AT5G58490	CYP89A6	AT1G64940
442	RPE	AT5G61410	AT1G16260	AT1G16260
443	EDD1	AT3G48110	AT1G78915	AT1G78915
444	emb1417	AT4G21190	emb2184	AT1G75350
445	AKHSDH2	AT4G19710	CAT1	AT1G20630
446	CLA1	AT4G15560	AT3G60750	AT3G60750
447	HCHIB	AT3G12500	AT2G15220	AT2G15220
448	AT5G35170	AT5G35170	GR	AT3G54660
449	At3g49670	AT3G49670	CYP71A25	AT3G48280
450	CYP38	AT3G01480	AT1G18060	AT1G18060
451	NDPK2	AT5G63310	AT1G61420	AT1G61420
452	IAA16	AT3G04730	AUX1	AT2G38120
453	AT4G34480	AT4G34480	UGT85A3	AT1G22380
454	RR12	AT2G25180	SHY2	AT1G04240
455	EMB3136	AT5G13510	PGRL1A	AT4G22890
456	CLA1	AT4G15560	AT1G51400	AT1G51400
457	TYRDC	AT4G28680	ABCB20	AT3G55320
458	CPK28	AT5G66210	MYB15	AT3G23250
459	AT2G42220	AT2G42220	At1g72610	AT1G72610
460	emb2746	AT5G63420	AT4G17740	AT4G17740
461	emb2184	AT1G75350	PSAF	AT1G31330
462	RPE	AT5G61410	CERK1	AT3G21630
463	PSBO2	AT3G50820	AT1G51110	AT1G51110
464	AKHSDH2	AT4G19710	UKL2	AT3G27190
465	AT4G39970	AT4G39970	UKL2	AT3G27190
466	HINT3	AT5G48545	APTX	AT5G01310
467	CB5-E	AT5G53560	AT4G24330	AT4G24330
468	PGRL1A	AT4G22890	AT2G42220	AT2G42220
469	NADK2	AT1G21640	AT1G18060	AT1G18060
470	NAC042	AT2G43000	YLS9	AT2G35980
471	AT1G61420	AT1G61420	DJ1B	AT1G53280
472	CGLD27	AT5G67370	CYP38	AT3G01480
473	KEA3	AT4G04850	AT3G47570	AT3G47570
474	AKHSDH2	AT4G19710	AT1G50000	AT1G50000
475	KEA3	AT4G04850	At3g49670	AT3G49670
476	LAP1	AT2G24200	AT1G19450	AT1G19450

S No	#node1	node1_id	node2	node2_id
477	LOS2	AT2G36530	RR12	AT2G25180
478	AT3G47570	AT3G47570	AT2G39670	AT2G39670
479	RBOHD	AT5G47910	CAT1	AT1G20630
480	CYP71B34	AT3G26300	WAK5	AT1G21230
481	ABCB20	AT3G55320	ABCG40	AT1G15520
482	NDPK2	AT5G63310	LAP1	AT2G24200
483	FAD6	AT4G30950	HB1	AT2G16060
484	PGRL1A	AT4G22890	GSTU18	AT1G10360
485	EMB1030	AT5G22800	CDS1	AT1G62430
486	AT5G35170	AT5G35170	AKHSDH2	AT4G19710
487	AKHSDH2	AT4G19710	NADK2	AT1G21640
488	RPE	AT5G61410	AT1G51110	AT1G51110
489	MTO2	AT4G29840	LOS2	AT2G36530
490	AKHSDH2	AT4G19710	ALDH2C4	AT3G24503
491	AT5G48220	AT5G48220	EDD1	AT3G48110
492	RPE	AT5G61410	CIPK9	AT1G01140
493	RPE	AT5G61410	AT1G61590	AT1G61590
494	RPE	AT5G61410	LYK5	AT2G33580
495	RPE	AT5G61410	B120	AT4G21390
496	RPE	AT5G61410	At3g49670	AT3G49670
497	RPE	AT5G61410	AT1G61420	AT1G61420
498	RPE	AT5G61410	AT2G23450	AT2G23450
499	RPE	AT5G61410	AT3G47570	AT3G47570
500	RPE	AT5G61410	CCR3	AT3G55950
501	RPE	AT5G61410	AT4G29990	AT4G29990
502	RPE	AT5G61410	AT5G10530	AT5G10530
503	RPE	AT5G61410	CRK2	AT1G70520
504	RPE	AT5G61410	WAK3	AT1G21240
505	WRKY75	AT5G13080	MYB15	AT3G23250
506	RPE	AT5G61410	AT5G12000	AT5G12000
507	RPE	AT5G61410	WAK5	AT1G21230
508	RPE	AT5G61410	AT5G02070	AT5G02070
509	RPE	AT5G61410	AT5G51770	AT5G51770
510	AT5G65600	AT5G65600	RPE	AT5G61410
511	HSF3	AT5G16820	AT2G15130	AT2G15130
512	At3g49670	AT3G49670	ECA3	AT1G10130
513	VSP1	AT5G24780	HCHIB	AT3G12500
514	CYP38	AT3G01480	AT1G64680	AT1G64680
515	AT3G47570	AT3G47570	ECA3	AT1G10130
516	WAK3	AT1G21240	NRT2:1	AT1G08090



<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
517	AT3G60750	AT3G60750	DJ1B	AT1G53280
518	AT3G27180	AT3G27180	At1g54130	AT1G54130
519	AT5G35170	AT5G35170	AT3G60750	AT3G60750
520	emb2746	AT5G63420	AT3G27180	AT3G27180
521	AT3G47570	AT3G47570	NRT2:1	AT1G08090
522	At3g49670	AT3G49670	NRT2:1	AT1G08090
523	PDLP7	AT5G37660	LYK5	AT2G33580
524	HAK5	AT4G13420	KEA3	AT4G04850
525	TT4	AT5G13930	PCR2	AT1G14870
526	WR3	AT5G50200	EP3	AT3G54420
527	AT4G09040	AT4G09040	AT4G01310	AT4G01310
528	AKHSDH2	AT4G19710	At1g54130	AT1G54130
529	RBOHD	AT5G47910	LYK5	AT2G33580
530	CYP71B11	AT5G25120	AT3G47570	AT3G47570
531	AT3G47570	AT3G47570	CYP89A6	AT1G64940
532	AT3G47570	AT3G47570	CYP98A8	AT1G74540
533	AT3G47570	AT3G47570	CYP76C4	AT2G45550
534	EMB2730	AT5G02250	AT4G17740	AT4G17740
535	At3g49670	AT3G49670	CYP711A1	AT2G26170
536	EDD1	AT3G48110	SVR1	AT2G39140
537	At3g49670	AT3G49670	CYP71B35	AT3G26310
538	CYP94D2	AT3G56630	AT3G47570	AT3G47570
539	At3g49670	AT3G49670	CYP71B37	AT3G26330
540	CYP71B10	AT5G57260	At3g49670	AT3G49670
541	CYP71B10	AT5G57260	AT3G47570	AT3G47570
542	CYP94D2	AT3G56630	At3g49670	AT3G49670
543	B120	AT4G21390	ABCG40	AT1G15520
544	CYP71A25	AT3G48280	AT3G47570	AT3G47570
545	At3g49670	AT3G49670	CYP76C4	AT2G45550
546	CYP71B11	AT5G25120	At3g49670	AT3G49670
547	AT3G47570	AT3G47570	CYP79F2	AT1G16400
548	At3g49670	AT3G49670	CYP98A8	AT1G74540
549	AT3G47570	AT3G47570	CYP711A1	AT2G26170
550	At3g49670	AT3G49670	CYP71B24	AT3G26230
551	AT3G47570	AT3G47570	CYP71B34	AT3G26300
552	At3g49670	AT3G49670	CYP71B34	AT3G26300
553	AT3G47570	AT3G47570	CYP71B24	AT3G26230
554	AT3G47570	AT3G47570	CYP71B35	AT3G26310
555	AT3G47570	AT3G47570	CYP71B37	AT3G26330
556	At3g49670	AT3G49670	CYP79F2	AT1G16400

S No	#node1	node1_id	node2	node2_id
557	At3g49670	AT3G49670	CYP89A6	AT1G64940
558	RPE	AT5G61410	Lhca5	AT1G45474
559	AT5G39530	AT5G39530	PAM68	AT4G19100
560	PAM68	AT4G19100	AT4G09040	AT4G09040
561	UVR8	AT5G63860	AT1G16260	AT1G16260
562	AUX1	AT2G38120	GH3.1	AT2G14960
563	AT3G27180	AT3G27180	AMI1	AT1G08980
564	AT5G35170	AT5G35170	EDD1	AT3G48110
565	EMB1030	AT5G22800	CCoAOMT1	AT4G34050
566	ACP4	AT4G25050	BCAT3	AT3G49680
567	HINT3	AT5G48545	J8	AT1G80920
568	AKHSDH2	AT4G19710	emb2184	AT1G75350
569	AT5G65600	AT5G65600	AT3G23550	AT3G23550
570	CYP71B11	AT5G25120	AT1G66330	AT1G66330
571	AT1G61420	AT1G61420	HMGB2	AT1G20693
572	RPE	AT5G61410	FAD6	AT4G30950
573	TT4	AT5G13930	MYB15	AT3G23250
574	CKA1	AT5G67380	TPR10	AT3G04710
575	J8	AT1G80920	AT1G50000	AT1G50000
576	SVR1	AT2G39140	NADK2	AT1G21640
577	PSBO2	AT3G50820	emb2184	AT1G75350
578	AT5G12000	AT5G12000	AT2G39670	AT2G39670
579	AT5G51770	AT5G51770	AT2G39670	AT2G39670
580	CLA1	AT4G15560	AT3G27180	AT3G27180
581	AT2G39670	AT2G39670	LYK5	AT2G33580
582	AT2G39670	AT2G39670	AT1G61420	AT1G61420
583	AT2G39670	AT2G39670	CRK2	AT1G70520
584	AT5G65600	AT5G65600	AT2G39670	AT2G39670
585	AT1G47480	AT1G47480	FMO1	AT1G19250
586	AT2G39670	AT2G39670	WAK2	AT1G21270
587	CCR3	AT3G55950	AT2G39670	AT2G39670
588	AT4G29990	AT4G29990	AT2G39670	AT2G39670
589	CERK1	AT3G21630	AT2G39670	AT2G39670
590	AT2G39670	AT2G39670	WAK5	AT1G21230
591	AT2G39670	AT2G39670	AT2G23450	AT2G23450
592	AT2G39670	AT2G39670	AT1G16260	AT1G16260
593	AT5G02070	AT5G02070	AT2G39670	AT2G39670
594	AT2G39670	AT2G39670	AT1G61590	AT1G61590
595	AT2G39670	AT2G39670	WAK3	AT1G21240
596	RBOHD	AT5G47910	PR1	AT2G14610

S No	#node1	node1_id	node2	node2_id
597	B120	AT4G21390	AT2G39670	AT2G39670
598	AT5G10530	AT5G10530	AT2G39670	AT2G39670
599	AT2G39670	AT2G39670	CIPK9	AT1G01140
600	AT5G12000	AT5G12000	TPR10	AT3G04710
601	AT5G02070	AT5G02070	TPR10	AT3G04710
602	AT5G51770	AT5G51770	TPR10	AT3G04710
603	TPR10	AT3G04710	AT1G61590	AT1G61590
604	TPR10	AT3G04710	AT2G23450	AT2G23450
605	CB5-E	AT5G53560	NEET	AT5G51720
606	EMB1030	AT5G22800	PSAO	AT1G08380
607	CCR3	AT3G55950	TPR10	AT3G04710
608	AT3G48200	AT3G48200	PnsB2	AT1G64770
609	EMB3136	AT5G13510	At1g72610	AT1G72610
610	UKL2	AT3G27190	ALDH2C4	AT3G24503
611	APE2	AT5G46110	AT5G35170	AT5G35170
612	YY1	AT4G06634	TPR10	AT3G04710
613	TPR10	AT3G04710	AT2G28710	AT2G28710
614	At3g49670	AT3G49670	J8	AT1G80920
615	AT5G10530	AT5G10530	ABCG40	AT1G15520
616	AT3G47570	AT3G47570	J8	AT1G80920
617	PAM68	AT4G19100	AT2G42220	AT2G42220
618	AT5G35170	AT5G35170	PSBO2	AT3G50820
619	At3g49670	AT3G49670	LOS2	AT2G36530
620	AT3G47570	AT3G47570	LOS2	AT2G36530
621	LYK5	AT2G33580	NRT2:1	AT1G08090
622	AT1G61420	AT1G61420	NRT2:1	AT1G08090
623	CCR3	AT3G55950	NRT2:1	AT1G08090
624	NRT2:1	AT1G08090	CIPK9	AT1G01140
625	AT5G12000	AT5G12000	NRT2:1	AT1G08090
626	AT1G16260	AT1G16260	NRT2:1	AT1G08090
627	AT4G29990	AT4G29990	NRT2:1	AT1G08090
628	AT2G23450	AT2G23450	NRT2:1	AT1G08090
629	WAK2	AT1G21270	NRT2:1	AT1G08090
630	CRK2	AT1G70520	NRT2:1	AT1G08090
631	CNI1	AT5G27420	MYB15	AT3G23250
632	AT5G02070	AT5G02070	NRT2:1	AT1G08090
633	AT5G10530	AT5G10530	NRT2:1	AT1G08090
634	WAK5	AT1G21230	NRT2:1	AT1G08090
635	AT5G51770	AT5G51770	NRT2:1	AT1G08090
636	AT5G65600	AT5G65600	NRT2:1	AT1G08090

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
637	CLA1	AT4G15560	GA2	AT1G79460
638	AT1G61590	AT1G61590	NRT2:1	AT1G08090
639	B120	AT4G21390	NRT2:1	AT1G08090
640	AT5G19850	AT5G19850	AT1G66330	AT1G66330
641	CERK1	AT3G21630	NRT2:1	AT1G08090
642	ATGSTF13	AT3G62760	SAG24	AT1G66580
643	AT4G20820	AT4G20820	DJ1B	AT1G53280
644	CCoAOMT1	AT4G34050	CYP98A8	AT1G74540
645	ERD4	AT1G30360	AT1G15130	AT1G15130
646	NAPRT1	AT4G36940	AKHSDH2	AT4G19710
647	GulLO2	AT2G46750	DJ1B	AT1G53280
648	emb2184	AT1G75350	AT1G45110	AT1G45110
649	At1g54130	AT1G54130	AT1G50000	AT1G50000
650	AT4G17740	AT4G17740	DJ1B	AT1G53280
651	AT2G39670	AT2G39670	CDS1	AT1G62430
652	emb2746	AT5G63420	CCoAOMT1	AT4G34050
653	AT4G39970	AT4G39970	ISA3	AT4G09020
654	NDPK2	AT5G63310	AT1G78140	AT1G78140
655	BCAT3	AT3G49680	EDD1	AT3G48110
656	SERAT1;1	AT5G56760	ADC2	AT4G34710
657	HINT3	AT5G48545	EMB1030	AT5G22800
658	HINT3	AT5G48545	AT1G50000	AT1G50000
659	AT3G60750	AT3G60750	AT1G50000	AT1G50000
660	AT1G45110	AT1G45110	FATB	AT1G08510
661	RPE	AT5G61410	PnsB2	AT1G64770
662	AT5G48220	AT5G48220	AT2G04360	AT2G04360
663	TPR10	AT3G04710	RAB11c	AT1G09630
664	AT4G17740	AT4G17740	AT1G50000	AT1G50000
665	AT3G27180	AT3G27180	AT2G39670	AT2G39670
666	NDPK2	AT5G63310	emb2184	AT1G75350
667	EMB1030	AT5G22800	CYP38	AT3G01480
668	AT5G48220	AT5G48220	AT1G77090	AT1G77090
669	KEA3	AT4G04850	AT3G48200	AT3G48200
670	PSBO2	AT3G50820	PnsB2	AT1G64770
671	RPM1	AT3G07040	FMO1	AT1G19250
672	NDPK2	AT5G63310	SHY2	AT1G04240
673	AKHSDH2	AT4G19710	KEA3	AT4G04850
674	PSBO2	AT3G50820	AT1G18060	AT1G18060
675	KEA3	AT4G04850	ALDH2C4	AT3G24503
676	DAP	AT4G33680	AT2G38900	AT2G38900

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
677	PIP1;4	AT4G00430	UKL2	AT3G27190
678	NEET	AT5G51720	AT4G34480	AT4G34480
679	RBCL	ATCG00490	TT4	AT5G13930
680	AT5G48220	AT5G48220	MTO2	AT4G29840
681	EMB3136	AT5G13510	AT4G28080	AT4G28080
682	BG1	AT3G57270	BG3	AT3G57240
683	GA1	AT4G02780	SHY2	AT1G04240
684	AUX1	AT2G38120	GA2	AT1G79460
685	FAD6	AT4G30950	AT4G01310	AT4G01310
686	CB5-E	AT5G53560	CAT1	AT1G20630
687	AUX1	AT2G38120	RR12	AT2G25180
688	MTO2	AT4G29840	EDD1	AT3G48110
689	CLA1	AT4G15560	KEA3	AT4G04850
690	AT3G23550	AT3G23550	ABCG40	AT1G15520
691	ALN	AT4G04955	AMI1	AT1G08980
692	RPE	AT5G61410	AT5G35170	AT5G35170
693	AT4G39970	AT4G39970	AT3G51350	AT3G51350
694	AT4G09040	AT4G09040	SVR1	AT2G39140
695	AT5G06130	AT5G06130	CYP38	AT3G01480
696	AT3G48200	AT3G48200	AT1G77090	AT1G77090
697	emb2184	AT1G75350	AT1G51400	AT1G51400
698	ABCB20	AT3G55320	At3g49670	AT3G49670
699	RPE	AT5G61410	AT1G64680	AT1G64680
700	RBOHD	AT5G47910	HB1	AT2G16060
701	ABCB20	AT3G55320	AT3G47570	AT3G47570
702	TT4	AT5G13930	CLA1	AT4G15560
703	RPM1	AT3G07040	PR1	AT2G14610
704	GSTU8	AT3G09270	NAC042	AT2G43000
705	AT4G09040	AT4G09040	AT2G37660	AT2G37660
706	AT4G28080	AT4G28080	GR	AT3G54660
707	BG3	AT3G57240	EP3	AT3G54420
708	MRE11	AT5G54260	APTX	AT5G01310
709	GSTU8	AT3G09270	GSTU19	AT1G78380
710	WRKY75	AT5G13080	AT3G22600	AT3G22600
711	RPM1	AT3G07040	PR4	AT3G04720
712	AT4G26860	AT4G26860	AT1G18060	AT1G18060
713	ACP4	AT4G25050	Lhca5	AT1G45474
714	FAD6	AT4G30950	emb2184	AT1G75350
715	AT3G25727	AT3G25727	AT2G13980	AT2G13980
716	AT5G35170	AT5G35170	LOS2	AT2G36530

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
717	MYB15	AT3G23250	GH3.1	AT2G14960
718	AT5G10770	AT5G10770	PRX52	AT5G05340
719	AT5G38570	AT5G38570	AT3G25727	AT3G25727
720	BG3	AT3G57240	PR1	AT2G14610
721	AT4G11290	AT4G11290	AT3G22600	AT3G22600
722	BG3	AT3G57240	AT2G38900	AT2G38900
723	CYP38	AT3G01480	AT1G78915	AT1G78915
724	AT5G42500	AT5G42500	AT3G22600	AT3G22600
725	AT3G22600	AT3G22600	AT1G61590	AT1G61590
726	AT5G48220	AT5G48220	AT3G45050	AT3G45050
727	LOS2	AT2G36530	CAT1	AT1G20630
728	AT5G42500	AT5G42500	AT1G61590	AT1G61590
729	AT5G38570	AT5G38570	AT2G13980	AT2G13980
730	FAD6	AT4G30950	AT2G42220	AT2G42220
731	YY1	AT4G06634	AT1G15130	AT1G15130
732	AT4G33720	AT4G33720	WAK5	AT1G21230
733	AT3G06390	AT3G06390	AT1G61590	AT1G61590
734	GR	AT3G54660	UKL2	AT3G27190
735	PSBO2	AT3G50820	AT1G64680	AT1G64680
736	EMB3136	AT5G13510	AT2G42220	AT2G42220
737	PDX2	AT5G60540	NAPRT1	AT4G36940
738	AT3G47570	AT3G47570	RPM1	AT3G07040
739	AT5G19850	AT5G19850	ACP4	AT4G25050
740	ACP4	AT4G25050	XPL1	AT3G18000
741	NHL25	AT5G36970	ABCG40	AT1G15520
742	ACP4	AT4G25050	EDD1	AT3G48110
743	AT5G19850	AT5G19850	KEA3	AT4G04850
744	CNI1	AT5G27420	PCR2	AT1G14870
745	AT4G01310	AT4G01310	AT2G39670	AT2G39670
746	AT4G39970	AT4G39970	AT1G77090	AT1G77090
747	EDD1	AT3G48110	AT2G04360	AT2G04360
748	APE2	AT5G46110	AT1G18060	AT1G18060
749	EDD1	AT3G48110	AT2G39670	AT2G39670
750	At3g49670	AT3G49670	HMGB2	AT1G20693
751	AT3G47570	AT3G47570	HMGB2	AT1G20693
752	EMB1030	AT5G22800	AT1G78915	AT1G78915
753	ALN	AT4G04955	AT2G03200	AT2G03200
754	BCAT3	AT3G49680	CYP79F2	AT1G16400
755	TT4	AT5G13930	HCHIB	AT3G12500
756	ACP4	AT4G25050	CDS1	AT1G62430



<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
757	RBOHD	AT5G47910	YLS9	AT2G35980
758	AT5G48220	AT5G48220	EMB3136	AT5G13510
759	NHL25	AT5G36970	B120	AT4G21390
760	WR3	AT5G50200	NRT1:2	AT1G69850
761	FAD6	AT4G30950	AT2G04360	AT2G04360
762	AT1G78140	AT1G78140	FMO1	AT1G19250
763	AT2G42220	AT2G42220	AT1G77090	AT1G77090
764	PSBA	ATCG00020	AT1G77090	AT1G77090
765	EMB2730	AT5G02250	PP2A-4	AT3G58500
766	NDPK2	AT5G63310	CDS1	AT1G62430
767	PAM68	AT4G19100	PSAF	AT1G31330
768	AT5G58490	AT5G58490	AKHSDH2	AT4G19710
769	AKHSDH2	AT4G19710	J8	AT1G80920
770	PLAT2	AT2G22170	AT1G18060	AT1G18060
771	PSBO2	AT3G50820	GSTU18	AT1G10360
772	ATGSTF13	AT3G62760	AT2G47870	AT2G47870
773	AT1G51400	AT1G51400	GSTU18	AT1G10360
774	BG1	AT3G57270	AT2G38900	AT2G38900
775	AT5G65600	AT5G65600	NHL25	AT5G36970
776	PYL2	AT2G26040	ABCG40	AT1G15520
777	YY1	AT4G06634	BBX15	AT1G25440
778	GATA9	AT4G32890	AT2G28710	AT2G28710
779	AT2G28710	AT2G28710	BBX15	AT1G25440
780	RPOC1	ATCG00180	AKHSDH2	AT4G19710
781	RPOC1	ATCG00180	EMB1030	AT5G22800
782	GATA9	AT4G32890	YY1	AT4G06634
783	AT3G22600	AT3G22600	AT3G06390	AT3G06390
784	AT2G36290	AT2G36290	MLP165	AT1G35260
785	SVP	AT2G22540	BBX15	AT1G25440
786	OMT1	AT5G54160	TT4	AT5G13930
787	CGLD27	AT5G67370	PSBO2	AT3G50820
788	PGRL1A	AT4G22890	AT2G37660	AT2G37660
789	AT4G11290	AT4G11290	AT1G61590	AT1G61590
790	CYP71B10	AT5G57260	AT3G19240	AT3G19240
791	AT4G16260	AT4G16260	AT2G28710	AT2G28710
792	AT3G48200	AT3G48200	AT1G64680	AT1G64680
793	AT4G09040	AT4G09040	AMI1	AT1G08980
794	CYP38	AT3G01480	AT1G51400	AT1G51400
795	AT4G01310	AT4G01310	LOS2	AT2G36530
796	UKL2	AT3G27190	At1g54130	AT1G54130

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
797	EMB1030	AT5G22800	AT4G28080	AT4G28080
798	RPE	AT5G61410	AT1G77090	AT1G77090
799	AT5G39160	AT5G39160	PAP22	AT3G52820
800	NDPK2	AT5G63310	TT4	AT5G13930
801	AKHSDH2	AT4G19710	FD3	AT2G27510
802	FAD6	AT4G30950	AT4G28080	AT4G28080
803	AT4G28080	AT4G28080	PnsB2	AT1G64770
804	AT5G26330	AT5G26330	ALN	AT4G04955
805	AT4G26860	AT4G26860	AT1G52870	AT1G52870
806	AT1G78915	AT1G78915	AT1G51110	AT1G51110
807	MYB15	AT3G23250	CYP38	AT3G01480
808	AT2G28710	AT2G28710	AT1G15130	AT1G15130
809	EMB3136	AT5G13510	UKL2	AT3G27190
810	ACP4	AT4G25050	UKL2	AT3G27190
811	GR	AT3G54660	CYP38	AT3G01480
812	AT5G08390	AT5G08390	ECA3	AT1G10130
813	CERK1	AT3G21630	YLS9	AT2G35980
814	PAM68	AT4G19100	AT4G01310	AT4G01310
815	ACP4	AT4G25050	PSAF	AT1G31330
816	FAD6	AT4G30950	CLA1	AT4G15560
817	UKL2	AT3G27190	J8	AT1G80920
818	NHL25	AT5G36970	AT3G23550	AT3G23550
819	AT2G39670	AT2G39670	AT1G45110	AT1G45110
820	AT5G35170	AT5G35170	EMB3136	AT5G13510
821	AT5G48220	AT5G48220	ELI3-1	AT4G37980
822	CYP71A25	AT3G48280	AT1G19450	AT1G19450
823	AT5G35170	AT5G35170	AT1G77090	AT1G77090
824	ALN	AT4G04955	UKL2	AT3G27190
825	AKHSDH2	AT4G19710	RR12	AT2G25180
826	emb2184	AT1G75350	PSAO	AT1G08380
827	LPA2	AT5G51545	SVR1	AT2G39140
828	AUX1	AT2G38120	CYP711A1	AT2G26170
829	RPOC1	ATCG00180	UKL2	AT3G27190
830	UKL2	AT3G27190	AT3G23550	AT3G23550
831	AT5G19850	AT5G19850	AKHSDH2	AT4G19710
832	CGLD27	AT5G67370	AT5G39530	AT5G39530
833	AT5G48220	AT5G48220	AT2G39670	AT2G39670
834	AT4G13010	AT4G13010	KEA3	AT4G04850
835	TT4	AT5G13930	PR4	AT3G04720
836	DIT2.1	AT5G64290	AT3G60750	AT3G60750

S No	#node1	node1_id	node2	node2_id
837	AT2G47870	AT2G47870	CAT1	AT1G20630
838	AT5G19890	AT5G19890	WAK5	AT1G21230
839	CGLD27	AT5G67370	AT5G19850	AT5G19850
840	AT5G48220	AT5G48220	AT1G51110	AT1G51110
841	AT2G39670	AT2G39670	AT2G04360	AT2G04360
842	AT5G58490	AT5G58490	SVR1	AT2G39140
843	PP2A-4	AT3G58500	UKL2	AT3G27190
844	DMR6	AT5G24530	PCR2	AT1G14870
845	RPE	AT5G61410	LOS2	AT2G36530
846	HINT3	AT5G48545	ERD9	AT1G10370
847	HINT3	AT5G48545	GSTU8	AT3G09270
848	HINT3	AT5G48545	GSTU18	AT1G10360
849	AT1G78915	AT1G78915	AT1G77090	AT1G77090
850	RPOC1	ATCG00180	LOS2	AT2G36530
851	NAPRT1	AT4G36940	LOS2	AT2G36530
852	PSBO2	AT3G50820	AT2G37660	AT2G37660
853	AT5G48220	AT5G48220	EMB1030	AT5G22800
854	ACP4	AT4G25050	AT3G60750	AT3G60750
855	RPM1	AT3G07040	YLS9	AT2G35980
856	AT5G58490	AT5G58490	At3g49670	AT3G49670
857	AT5G58490	AT5G58490	AT3G47570	AT3G47570
858	AT4G17740	AT4G17740	CYP38	AT3G01480
859	YY1	AT4G06634	ECA3	AT1G10130
860	AT4G28080	AT4G28080	AT4G01310	AT4G01310
861	AT3G60750	AT3G60750	PKT3	AT2G33150
862	FRS5	AT4G38180	bZIP16	AT2G35530
863	BTS	AT3G18290	VIT1	AT2G01770
864	AT4G01310	AT4G01310	AT1G18060	AT1G18060
865	PSBO2	AT3G50820	At1g72610	AT1G72610
866	BG1	AT3G57270	UGT85A3	AT1G22380
867	AT3G48200	AT3G48200	CYP38	AT3G01480
868	HAM3	AT4G00150	BG1	AT3G57270
869	LAC7	AT3G09220	AT1G01490	AT1G01490
870	AT4G09040	AT4G09040	AT2G39670	AT2G39670
871	HAM3	AT4G00150	BG3	AT3G57240
872	AT4G16260	AT4G16260	HAM3	AT4G00150
873	CGLD27	AT5G67370	FD3	AT2G27510
874	AKHSDH2	AT4G19710	LAP1	AT2G24200
875	KEA3	AT4G04850	GulLO2	AT2G46750
876	NEET	AT5G51720	UGT85A3	AT1G22380

<b>S No</b>	<b>#node1</b>	<b>node1_id</b>	<b>node2</b>	<b>node2_id</b>
877	AT4G20820	AT4G20820	KEA3	AT4G04850
878	At3g49670	AT3G49670	CAT1	AT1G20630
879	LPA2	AT5G51545	emb2184	AT1G75350
880	AT3G47570	AT3G47570	CAT1	AT1G20630
881	CGLD27	AT5G67370	PAM68	AT4G19100
882	YLS9	AT2G35980	PCR2	AT1G14870
883	CYP71A25	AT3G48280	ALDH2C4	AT3G24503
884	AT4G28080	AT4G28080	AT3G60750	AT3G60750
885	KEA3	AT4G04850	AT1G16260	AT1G16260
886	AT4G26860	AT4G26860	CYP38	AT3G01480
887	AT4G09040	AT4G09040	AT1G78915	AT1G78915
888	NDPK2	AT5G63310	AT5G48220	AT5G48220
889	EMB1030	AT5G22800	EMB2730	AT5G02250
890	INO80	AT3G57300	BT2	AT3G48360
891	AT4G10540	AT4G10540	CYP76C4	AT2G45550
892	FMO1	AT1G19250	ABCG40	AT1G15520
893	ALDH2C4	AT3G24503	LOS2	AT2G36530

**Supplementary Table 6.** The list of annotated high confidence candidate genes in the delimited *Nec3* region, along with the exome capture probe presence/absence data based on the newly released whole genome assembly of barley cultivar Morex.

S.No.	Feature ID	Probe Array	Chr6H	Start	End	Annotation
1	HORVU6Hr1G017340.7	Yes	chr6H	40874379	40881671	BRCT domain-containing protein
2	HORVU6Hr1G017390.2	Yes	chr6H	41136974	41139753	4-phosphopantetheine adenylyltransferase
3	HORVU6Hr1G017460.1	No	chr6H	41291239	41292084	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein
4	HORVU6Hr1G017480.3	Yes	chr6H	41293366	41298409	Transmembrane protein 53
5	HORVU6Hr1G017500.1	Yes	chr6H	41299028	41302263	Proteasome subunit alpha type-1
6	HORVU6Hr1G017530.1	Yes	chr6H	41456742	41460727	Ethylene-responsive transcription factor 1
7	HORVU6Hr1G017570.5	Yes	chr6H	41706365	41712011	Sec14p-like phosphatidylinositol transfer family protein
8	HORVU6Hr1G017580.1	No	chr6H	41712313	41716451	Sec14p-like phosphatidylinositol transfer family protein
9	HORVU6Hr1G017590.1	Yes	chr6H	41763797	41768997	Protoheme IX farnesyltransferase
10	HORVU6Hr1G017620.1	Yes	chr6H	41917497	41920546	F-box/LRR-repeat protein 14
11	HORVU6Hr1G017680.3	Yes	chr6H	42344400	42350009	E3 ubiquitin-protein ligase MARCH8
12	HORVU6Hr1G017720.2	Yes	chr6H	42541374	42573198	pentatricopeptide repeat 336
13	HORVU6Hr1G017740.2	Yes	chr6H	42584362	42588593	Cyclin family protein
14	HORVU6Hr1G017770.1	No	chr6H	42661964	42662416	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein
15	HORVU6Hr1G017790.1	No	chr6H	42729129	42729926	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein
16	HORVU6Hr1G017820.5	No	chr6H	43083708	43099256	mitogen-activated protein kinase 16
17	HORVU6Hr1G017850.2	Yes	chr6H	43318387	43321786	CASP-like protein 4A2
18	HORVU6Hr1G017860.16	Yes	chr6H	43357541	43359425	L-aspartate oxidase
19	HORVU6Hr1G017870.5	Yes	chr6H	43362852	43365458	pentatricopeptide repeat 336
20	HORVU6Hr1G017900.14	Yes	chr6H	43584782	43594304	Synaptotagmin-5
21	HORVU6Hr1G017910.1	Yes	chr6H	43641782	43644699	Heat stress transcription factor A-5
22	HORVU6Hr1G017920.3	Yes	chr6H	43736734	43739685	chloride channel B
23	HORVU6Hr1G017930.1	Yes	chr6H	43776800	43778504	pentatricopeptide repeat 336
24	HORVU6Hr1G017960.1	Yes	chr6H	43926918	43928264	ribonuclease 2
25	HORVU6Hr1G017970.1	Yes	chr6H	43928474	43928672	vacuolar ATP synthase catalytic subunit-related / V-

S.No.	Feature ID	Probe Array	Chr6H	Start	End	Annotation
						ATPase-related / vacuolar proton pump-related
26	HORVU6Hr1G017980.1	Yes	chr6H	44023472	44030138	Ankyrin repeat family protein
27	HORVU6Hr1G018010.1	Yes	chr6H	44125695	44131200	NAD(P)H-quinone oxidoreductase subunit 3, chloroplastic
28	HORVU6Hr1G018020.1	No	chr6H	44139586	44140334	NAD(P)H-quinone oxidoreductase subunit 3, chloroplastic
29	HORVU6Hr1G018040.1	Yes	chr6H	44202929	44203776	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein
30	HORVU6Hr1G018050.33	Yes	chr6H	44243473	44248567	Esterase/lipase/thioesterase family protein
31	HORVU6Hr1G018060.2	Yes	chr6H	44278358	44282936	Protein kinase superfamily protein
32	HORVU6Hr1G018070.12	Yes	chr6H	44281886	44296135	Zinc transporter 2
33	HORVU6Hr1G018080.1	Yes	chr6H	44448881	44449975	geranylgeranyl pyrophosphate synthase 4
34	HORVU6Hr1G018120.1	Yes	chr6H	44590335	44590973	geranylgeranyl pyrophosphate synthase 1
35	HORVU6Hr1G018150.2	Yes	chr6H	44783157	44786871	BURP domain-containing protein 4
36	HORVU6Hr1G018160.1	Yes	chr6H	45201262	45204098	Subtilisin-like protease
37	HORVU6Hr1G018170.1	No	chr6H	45239545	45240317	Blue copper protein
38	HORVU6Hr1G018190.1	Yes	chr6H	45278659	45279159	thioredoxin 2
39	HORVU6Hr1G018230.1	Yes	chr6H	45430459	45432005	Nascent polypeptide-associated complex subunit beta
40	HORVU6Hr1G018240.1	Yes	chr6H	45475888	45477346	Leucine-rich repeat receptor-like protein kinase family protein
41	HORVU6Hr1G018250.1	Yes	chr6H	45512724	45514254	Chloroplast-targeted copper chaperone protein
42	HORVU6Hr1G018260.1	No	chr6H	45516401	45518153	Ankyrin repeat family protein
43	HORVU6Hr1G018280.1	Yes	chr6H	45740054	45742230	Signal recognition particle protein
44	HORVU6Hr1G018290.1	Yes	chr6H	45787671	45788231	S-adenosyl-L-methionine-dependent methyltransferases superfamily protein
45	HORVU6Hr1G018330.2	Yes	chr6H	46298810	46306137	DNA polymerase V family
46	HORVU6Hr1G018370.1	Yes	chr6H	46437812	46441437	calnexin 1
47	HORVU6Hr1G018380.1	Yes	chr6H	46462194	46463052	SPA1-related 3
48	HORVU6Hr1G018420.3	Yes	chr6H	46538761	46542315	calnexin 1
49	HORVU6Hr1G018450.2	No	chr6H	46873771	46874004	LRR receptor-like serine/threonine-protein kinase EFR
50	HORVU6Hr1G018480.1	Yes	chr6H	47259651	47263375	unknown function



S.No.	Feature ID	Probe Array	Chr6H	Start	End	Annotation
51	HORVU6Hr1G018500.10	Yes	chr6H	47266293	47273978	5'-AMP-activated protein kinase-related
52	HORVU6Hr1G018510.2	Yes	chr6H	47270248	47271704	Plant regulator RWP-RK family protein
53	HORVU6Hr1G018520.4	Yes	chr6H	47359919	47366647	Prolyl endopeptidase
54	HORVU6Hr1G018540.5	Yes	chr6H	47375015	47387296	Aspartyl/glutamyl-tRNA(Asn/Gln) amidotransferase subunit B
55	HORVU6Hr1G018550.1	Yes	chr6H	47378225	47378449	CHD3-type chromatin-remodeling factor PICKLE
56	HORVU6Hr1G018600.4	Yes	chr6H	47513065	47519115	kinesin-like protein 1
57	HORVU6Hr1G018610.2	Yes	chr6H	47627053	47629896	Protein FLUORESCENT IN BLUE LIGHT, chloroplastic
58	HORVU6Hr1G018620.1	Yes	chr6H	47633368	47634068	undescribed protein
59	HORVU6Hr1G018630.1	Yes	chr6H	47655509	47656050	Ribosomal protein S10p/S20e family protein
60	HORVU6Hr1G018640.1	Yes	chr6H	47752580	47753880	Ubiquinone/menaquinone biosynthesis C-methyltransferase UbiE
61	HORVU6Hr1G018670.1	Yes	chr6H	47976779	47978829	Proline-rich protein, putative, expressed
62	HORVU6Hr1G018680.1	Yes	chr6H	48035470	48036561	STRUBBELIG-receptor family 3
63	HORVU6Hr1G018690.1	Yes	chr6H	48036789	48039313	receptor kinase 2
64	HORVU6Hr1G018700.1	Yes	chr6H	48039322	48039729	STRUBBELIG-receptor family 3
65	HORVU6Hr1G018710.5	Yes	chr6H	48054131	48058926	unknown function
66	HORVU6Hr1G018750.1	Yes	chr6H	48214205	48215576	GDSL esterase/lipase
67	HORVU6Hr1G018790.3	Yes	chr6H	48641621	48654549	Transducin family protein / WD-40 repeat family protein
68	HORVU6Hr1G018800.1	Yes	chr6H	48706939	48707995	Mitochondrial substrate carrier family protein
69	HORVU6Hr1G018810.1	Yes	chr6H	48709146	48710618	unknown function
70	HORVU6Hr1G018820.1	Yes	chr6H	48757527	48757670	auxin response factor 4
71	HORVU6Hr1G018830.4	Yes	chr6H	48979458	48981156	50S ribosomal protein L3
72	HORVU6Hr1G018840.1	Yes	chr6H	49303679	49308298	cellulose synthase-like A3
73	HORVU6Hr1G018890.7	Yes	chr6H	49429035	49433338	Ectonucleoside triphosphate diphosphohydrolase 1
74	HORVU6Hr1G018920.1	Yes	chr6H	49541658	49544373	Disease resistance protein
75	HORVU6Hr1G018930.2	Yes	chr6H	49565374	49566639	Major facilitator superfamily protein
76	HORVU6Hr1G018950.4	Yes	chr6H	49608115	49613585	kinesin-like protein 1
77	HORVU6Hr1G018960.9	Yes	chr6H	49777507	49791396	Disease resistance protein
78	HORVU6Hr1G019020.1	Yes	chr6H	49795628	49796568	Benzyl alcohol O-benzoyltransferase
79	HORVU6Hr1G019030.2	Yes	chr6H	49798233	49799084	FAR1-related sequence 11
80	HORVU6Hr1G019040.1	Yes	chr6H	49800619	49801123	Protein FAR1-RELATED SEQUENCE 3

S.No.	Feature ID	Probe Array	Chr6H	Start	End	Annotation
81	HORVU6Hr1G019080.19	Yes	chr6H	50166658	50175299	ABC transporter G family member 36
82	HORVU6Hr1G019120.1	No	chr6H	50344714	50345001	Chromosome 3B, genomic scaffold, cultivar Chinese Spring
83	HORVU6Hr1G019130.1	Yes	chr6H	50346680	50352239	Splicing factor 3B subunit 3
84	HORVU6Hr1G019180.3	Yes	chr6H	50783135	50784144	SPX domain gene 4
85	HORVU6Hr1G019190.5	Yes	chr6H	50789010	50801649	Histone acetyltransferase HAC12
86	HORVU6Hr1G019200.1	Yes	chr6H	50811823	50812695	replication protein A 1A
87	HORVU6Hr1G019210.1	No	chr6H	50932935	50934490	Flavin-containing monooxygenase family protein
88	HORVU6Hr1G019230.14	Yes	chr6H	50947952	50950041	Ribosomal RNA small subunit methyltransferase H
89	HORVU6Hr1G019280.2	Yes	chr6H	51404112	51411530	Tetratricopeptide repeat (TPR)-like superfamily protein
90	HORVU6Hr1G019290.2	Yes	chr6H	51812611	51815951	Leucine-rich repeat receptor-like protein kinase family protein
91	HORVU6Hr1G019300.1	Yes	chr6H	51816998	51827137	Delta-aminolevulinic acid dehydratase
92	HORVU6Hr1G019320.1	Yes	chr6H	52051618	52053510	pentatricopeptide repeat 336
93	HORVU6Hr1G019340.1	Yes	chr6H	52377310	52379991	Rhamnogalacturonate lyase family protein
94	HORVU6Hr1G019370.1	Yes	chr6H	52492680	52495462	Rhamnogalacturonate lyase family protein
95	HORVU6Hr1G019380.2	Yes	chr6H	52562967	52565477	NAC domain protein,
96	HORVU6Hr1G019440.1	Yes	chr6H	52698028	52698502	Heat shock 70 kDa protein 16
97	HORVU6Hr1G019450.2	Yes	chr6H	52762445	52769405	Leucine-rich repeat receptor-like protein kinase family protein
98	HORVU6Hr1G019460.1	Yes	chr6H	52800776	52804304	myb-like transcription factor family protein
99	HORVU6Hr1G019470.7	Yes	chr6H	52806381	52809024	Vacuolar cation/proton exchanger 2
100	HORVU6Hr1G019480.2	Yes	chr6H	52810166	52813247	Nucleolar protein 8
101	HORVU6Hr1G019490.1	Yes	chr6H	52817317	52817703	Mitochondrial ribosomal protein L37
102	HORVU6Hr1G019510.4	Yes	chr6H	53102879	53106956	calmodulin-binding family protein
103	HORVU6Hr1G019520.1	Yes	chr6H	53164601	53166875	chaperone binding;ATPase activators
104	HORVU6Hr1G019540.3	Yes	chr6H	53168100	53174174	Protein arginine N-methyltransferase 5
105	HORVU6Hr1G019610.1	Yes	chr6H	53476207	53477149	Disease resistance-responsive (dirigent-like protein) family protein
106	HORVU6Hr1G019650.5	Yes	chr6H	53647985	53650638	myb-like transcription factor family protein
107	HORVU6Hr1G019670.1	Yes	chr6H	53877533	53883213	Glucan endo-1,3-beta-glucosidase 6

S.No.	Feature ID	Probe Array	Chr6H	Start	End	Annotation
108	HORVU6Hr1G019700.2	Yes	chr6H	53909817	53916886	Squamosa promoter-binding-like protein 3
109	HORVU6Hr1G019760.1	No	chr6H	54155745	54156786	Terpene cyclase/mutase family member
110	HORVU6Hr1G019770.1	Yes	chr6H	54335839	54335961	D111/G-patch domain-containing protein
111	HORVU6Hr1G019780.2	Yes	chr6H	54341558	54343721	Carbohydrate-binding X8 domain superfamily protein
112	HORVU6Hr1G019800.1	Yes	chr6H	54480462	54481781	F-box family protein with a domain of unknown function (DUF295)
113	HORVU6Hr1G019820.1	Yes	chr6H	54531381	54532039	F-box-like
114	HORVU6Hr1G019840.3	Yes	chr6H	54574570	54586198	Terpene cyclase/mutase family member
115	HORVU6Hr1G019870.1	Yes	chr6H	54653128	54654740	F-box-like
116	HORVU6Hr1G019900.9	Yes	chr6H	54803756	54811838	Protein phosphatase 2C family protein
117	HORVU6Hr1G019910.4	Yes	chr6H	55067331	55069255	Protein kinase superfamily protein
118	HORVU6Hr1G019930.1	Yes	chr6H	55137978	55142780	Protein kinase superfamily protein
119	HORVU6Hr1G019940.2	Yes	chr6H	55219742	55242380	Terpene cyclase/mutase family member
120	HORVU6Hr1G019950.1	Yes	chr6H	55305548	55306117	Molybdopterin synthase catalytic subunit
121	HORVU6Hr1G019960.1	Yes	chr6H	55308999	55309284	Mediator of RNA polymerase II transcription subunit 8
122	HORVU6Hr1G020000.1	Yes	chr6H	55396530	55396724	Cell division cycle 5-like protein
123	HORVU6Hr1G020020.1	Yes	chr6H	55418153	55449956	Terpene cyclase/mutase family member
124	HORVU6Hr1G020040.1	Yes	chr6H	55436049	55436321	Mediator of RNA polymerase II transcription subunit 8
125	HORVU6Hr1G020060.1	No	chr6H	55595155	55600555	Fatty acid desaturase 4, chloroplastic
126	HORVU6Hr1G020050.20	Yes	chr6H	55595460	55599613	CRS2-associated factor 2, mitochondrial
127	HORVU6Hr1G020090.2	Yes	chr6H	55717611	55720848	Gamma-tubulin complex component 3
128	HORVU6Hr1G020110.1	No	chr6H	55774062	55775555	Ubiquinol oxidase
129	HORVU6Hr1G020120.9	Yes	chr6H	55787031	55795040	Subtilisin-like protease
130	HORVU6Hr1G020140.6	Yes	chr6H	55809566	55810188	ubiquitin 11
131	HORVU6Hr1G020160.2	Yes	chr6H	55938706	55940127	D-aminoacyl-tRNA deacylase
132	HORVU6Hr1G020210.2	Yes	chr6H	55997620	56000034	receptor kinase 3
133	HORVU6Hr1G020220.1	Yes	chr6H	56115879	56117762	Chromosome 3B, genomic scaffold, cultivar Chinese Spring
134	HORVU6Hr1G020300.1	Yes	chr6H	56932138	56934526	Eukaryotic translation initiation factor 5

<b>S.No.</b>	<b>Feature ID</b>	<b>Probe Array</b>	<b>Chr6H</b>	<b>Start</b>	<b>End</b>	<b>Annotation</b>
135	HORVU6Hr1G020310.3	Yes	chr6H	56937112	56939591	2,3-bisphosphoglycerate-dependent phosphoglycerate mutase
136	HORVU6Hr1G020320.5	Yes	chr6H	56978094	56979965	AIG2-like protein
137	HORVU6Hr1G020330.4	Yes	chr6H	56979359	56987659	auxin response factor 19
138	HORVU6Hr1G020380.1	Yes	chr6H	57291641	57300710	Galactokinase
139	HORVU6Hr1G020400.1	Yes	chr6H	57483469	57492342	CAAX amino terminal protease family protein
140	HORVU6Hr1G020420.1	Yes	chr6H	57820194	57839311	Nuclear pore complex protein NUP160

**Supplementary Table 7.** The differentially expressed genes in the barley cultivar *nec3-g1* at 72 hpi with *Bipolaris sorokiniana* isolate ND85F. The transcripts were normalized with the non-inoculated DEGs in *nec3-g1* (n=3).

S.No.	Feature ID	Barley Annotation	Fold changes
1	HORVU3Hr1G006440	Xylanase inhibitor	531
2	HORVU7Hr1G121260	Flavin-containing monooxygenase family protein	525
3	HORVU2Hr1G114390	L-tyrosine decarboxylase	510
4	HORVU2Hr1G114450	L-tyrosine decarboxylase	505
5	HORVU7Hr1G002740	laccase 7	503
6	HORVU3Hr1G097860	Laccase-19	447
7	HORVU4Hr1G066240	Non-symbiotic hemoglobin	437
8	HORVU1Hr1G008360	laccase 7	435
9	HORVU1Hr1G010120	L-tyrosine decarboxylase	432
10	HORVU2Hr1G114440	L-tyrosine decarboxylase	425
11	HORVU5Hr1G005230	0	424
12	HORVU4Hr1G071300	LL-diaminopimelate aminotransferase	424
13	HORVU1Hr1G089520	O-methyltransferase family protein	405
14	HORVU3Hr1G011850	Cytochrome P450 superfamily protein	404
15	HORVU6Hr1G053710	High-affinity nitrate transporter 3.1	400
16	HORVU7Hr1G010840	L-tyrosine decarboxylase	398
17	HORVU6Hr1G001850	undescribed protein	381
18	HORVU3Hr1G105560	Glucan endo-1,3-beta-glucosidase GI	375
19	HORVU3Hr1G095730	Glutathione S-transferase family protein	367
20	HORVU2Hr1G034670	Auxin-responsive GH3 family protein	356
21	HORVU5Hr1G052150	Indole-3-glycerol phosphate synthase	355
22	HORVU7Hr1G085450	Double-strand break repair protein MRE11	349
23	HORVU0Hr1G005300	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	347
24	HORVU3Hr1G077790	Polyphenol oxidase, chloroplastic	343
25	HORVU7Hr1G121290	flavin-dependent monooxygenase 1	339
26	HORVU5Hr1G067760	Kiwellin	332
27	HORVU1Hr1G049190	Glutathione S-transferase family protein	319
28	HORVU5Hr1G106010	Cysteine-rich secretory protein 3	318
29	HORVU5Hr1G055950	Cysteine-rich venom protein	312
30	HORVU1Hr1G019410	HXXXD-type acyl-transferase family protein	312
31	HORVU7Hr1G084920	Chitinase 1	312
32	HORVU6Hr1G013690	undescribed protein	310
33	HORVU5Hr1G056040	Cysteine-rich venom protein	309
34	HORVU1Hr1G092680	FAD-binding Berberine family protein	306
35	HORVU2Hr1G027480	Cytochrome P450 superfamily protein	303
36	HORVU4Hr1G079620	Cytochrome P450 superfamily protein	303
37	HORVU1Hr1G052430	Chitinase family protein	302
38	HORVU3Hr1G032370	Isoflavone reductase-like protein	300
39	HORVU6Hr1G005720	high affinity nitrate transporter 2.6	292

S.No.	Feature ID	Barley Annotation	Fold changes
40	HORVU7Hr1G008830	Glutathione S-transferase family protein	286
41	HORVU2Hr1G028670	Chymotrypsin inhibitor	285
42	HORVU3Hr1G100190	Jasmonate O-methyltransferase	281
43	HORVU3Hr1G105420	Glucan endo-1,3-beta-glucosidase GI	276
44	HORVU1Hr1G089700	O-methyltransferase 1	274
45	HORVU2Hr1G004550	Cytochrome P450 superfamily protein	274
46	HORVU6Hr1G066420	HXXXD-type acyl-transferase family protein	264
47	HORVU7Hr1G010850	L-tyrosine decarboxylase	264
48	HORVU2Hr1G122570	early nodulin-like protein 12	262
49	HORVU4Hr1G071370	Membrane protein	262
50	HORVU3Hr1G105290	Glucan endo-1,3-beta-glucosidase GI	261
51	HORVU4Hr1G002640	Pathogenesis-related thaumatin superfamily protein	255
52	HORVU7Hr1G009310	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	252
53	HORVU4Hr1G076420	NAD(P)H dehydrogenase (quinone)	247
54	HORVU7Hr1G033530	Cysteine-rich venom protein	246
55	HORVU2Hr1G122580	Blue copper protein	243
56	HORVU1Hr1G049280	Glutathione S-transferase family protein	242
57	HORVU7Hr1G019380	Cytochrome P450 superfamily protein	242
58	HORVU4Hr1G074780	Protein of unknown function (DUF1997)	241
59	HORVU5Hr1G096850	Cytochrome P450 superfamily protein	238
60	HORVU2Hr1G018510	Peroxidase superfamily protein	231
61	HORVU2Hr1G004540	KS protein	226
62	HORVU3Hr1G113120	Wound-induced protein	225
63	HORVU2Hr1G001780	WRKY DNA-binding protein 75	221
64	HORVU2Hr1G101150	xyloglucan endotransglucosylase/hydrolase 13	219
65	HORVU1Hr1G089590	undescribed protein	217
66	HORVU3Hr1G071470	ABC transporter G family member 32	216
67	HORVU2Hr1G124300	Glutathione S-transferase family protein	215
68	HORVU1Hr1G081410	Chaperone protein DnaJ	214
69	HORVU3Hr1G111620	undescribed protein	214
70	HORVU2Hr1G119500	Late embryogenesis abundant (LEA) hydroxyproline-rich glycoprotein family	212
71	HORVU3Hr1G105630	Glucan endo-1,3-beta-glucosidase GI	207
72	HORVU6Hr1G021870	Homeobox-leucine zipper protein family	205
73	HORVU5Hr1G072520	FAD-binding Berberine family protein	204
74	HORVU7Hr1G011940	undescribed protein	202
75	HORVU3Hr1G002900	receptor kinase 2	202
76	HORVU5Hr1G083340	purple acid phosphatase 15	200
77	HORVU3Hr1G094340	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	198
78	HORVU3Hr1G096860	Potassium transporter family protein	198
79	HORVU2Hr1G102710	Protein NRT1/ PTR FAMILY 8.3	198
80	HORVU5Hr1G014060	calmodulin-like 11	194



S.No.	Feature ID	Barley Annotation	Fold changes
81	HORVU7Hr1G056250	undescribed protein	194
82	HORVU7Hr1G075760	L-gulonolactone oxidase 2	193
83	HORVU7Hr1G091860	L-tyrosine decarboxylase	192
84	HORVU2Hr1G124320	Glutathione S-transferase family protein	191
85	HORVU2Hr1G007570	S-adenosylmethionine-dependent methyltransferase	190
86	HORVU5Hr1G099460	NAC domain protein,	185
87	HORVU3Hr1G006450	Xylanase inhibitor	182
88	HORVU7Hr1G017640	Enolase	182
89	HORVU2Hr1G067700	undescribed protein	182
90	HORVU3Hr1G004050	myb domain protein 62	178
91	HORVU3Hr1G077950	Subtilisin-like protease	178
92	HORVU2Hr1G004600	Cytochrome P450 superfamily protein	177
93	HORVU5Hr1G080090	serine carboxypeptidase-like 17	176
94	HORVU2Hr1G112060	undescribed protein	176
95	HORVU7Hr1G046180	undescribed protein	175
96	HORVU7Hr1G114660	Indole-3-glycerol phosphate synthase	173
97	HORVU6Hr1G038470	unknown function	170
98	HORVU3Hr1G074960	Peroxidase superfamily protein	166
99	HORVU3Hr1G001950	undescribed protein	166
100	HORVU2Hr1G004640	Cytochrome P450 superfamily protein	164
101	HORVU1Hr1G065660	undescribed protein	164
102	HORVU4Hr1G005440	germin-like protein 4	163
103	HORVU4Hr1G002650	Pathogenesis-related thaumatin superfamily protein	161
104	HORVU6Hr1G077960	UDP-Glycosyltransferase superfamily protein	160
105	HORVU2Hr1G079580	unknown function	159
106	HORVU2Hr1G071570	Potassium transporter family protein	159
107	HORVU0Hr1G023570	HXXXD-type acyl-transferase family protein	159
108	HORVU1Hr1G005510	Protein kinase family protein	159
109	HORVU6Hr1G094790	receptor-like protein kinase 1	158
110	HORVU2Hr1G102720	Protein NRT1/ PTR FAMILY 8.3	157
111	HORVU3Hr1G105600	Glucan endo-1,3-beta-glucosidase GI	156
112	HORVU7Hr1G092510	ABC transporter G family member 44	155
113	HORVU3Hr1G023230	UDP-Glycosyltransferase superfamily protein	155
114	HORVU1Hr1G090930	unknown function	154
115	HORVU6Hr1G077940	unknown function	152
116	HORVU7Hr1G122120	Thaumatococcus-like pathogenesis-related protein 1	151
117	HORVU1Hr1G063740	NAC domain protein,	150
118	HORVU7Hr1G046130	undescribed protein	149
119	HORVU3Hr1G094250	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	149
120	HORVU0Hr1G011720	Major pollen allergen Bet v 1-B	147
121	HORVU3Hr1G105480	0	146
122	HORVU2Hr1G098710	undescribed protein	142

S.No.	Feature ID	Barley Annotation	Fold changes
123	HORVU3Hr1G109350	receptor kinase 1	141
124	HORVU0Hr1G008830	MLO-like protein 1	141
125	HORVU2Hr1G122270	Glutathione S-transferase family protein	140
126	HORVU5Hr1G023720	Pathogenesis-related protein STH-2	140
127	HORVU2Hr1G103180	L-lactate dehydrogenase	139
128	HORVU6Hr1G011860	unknown function	139
129	HORVU3Hr1G099530	UDP-Glycosyltransferase superfamily protein	138
130	HORVU7Hr1G010110	undescribed protein	138
131	HORVU4Hr1G067450	sugar transporter protein 7	137
132	HORVU3Hr1G080100	NAC domain containing protein 102	137
133	HORVU6Hr1G074690	receptor-like protein kinase 4	137
134	HORVU4Hr1G077300	Bowman-Birk type trypsin inhibitor	136
135	HORVU2Hr1G082700	NAD(P)-linked oxidoreductase superfamily protein	131
136	HORVU2Hr1G044340	Peroxidase superfamily protein	131
137	HORVU2Hr1G004620	Copalyl diphosphate synthase 2	130
138	HORVU1Hr1G071380	unknown function	130
139	HORVU0Hr1G005180	Caleosin-related family protein	126
140	HORVU1Hr1G080680	Cytochrome P450 superfamily protein	126
141	HORVU4Hr1G053150	Plant protein of unknown function (DUF247)	125
142	HORVU4Hr1G010740	undescribed protein	124
143	HORVU2Hr1G004530	Cytochrome P450 superfamily protein	124
144	HORVU0Hr1G005160	L-allo-threonine aldolase	124
145	HORVU7Hr1G101240	Indole-3-glycerol phosphate lyase, chloroplastic	123
146	HORVU5Hr1G124650	ABC transporter G family member 48	123
147	HORVU3Hr1G110580	undescribed protein	122
148	HORVU3Hr1G109170	calmodulin like 37	122
149	HORVU3Hr1G099760	L-gulonolactone oxidase 2	120
150	HORVU5Hr1G099470	NAC domain protein,	120
151	HORVU4Hr1G056890	LOB domain-containing protein 1	120
152	HORVU6Hr1G088400	Leucine-rich receptor-like protein kinase family protein	120
153	HORVU1Hr1G049070	Glutathione S-transferase family protein	120
154	HORVU6Hr1G070740	undescribed protein	119
155	HORVU7Hr1G122130	undescribed protein	118
156	HORVU3Hr1G117480	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	118
157	HORVU3Hr1G111600	Pathogenesis-related protein	117
158	HORVU3Hr1G020140	WRKY DNA-binding protein 50	117
159	HORVU3Hr1G099550	Eukaryotic aspartyl protease family protein	117
160	HORVU1Hr1G065650	undescribed protein	116
161	HORVU5Hr1G066460	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	115
162	HORVU5Hr1G099390	NAC domain containing protein 42	115
163	HORVU5Hr1G075540	Oxidoreductase, zinc-binding dehydrogenase family protein	115

S.No.	Feature ID	Barley Annotation	Fold changes
164	HORVU3Hr1G094370	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	114
165	HORVU3Hr1G059480	Acidic endochitinase	113
166	HORVU7Hr1G081700	lipid phosphate phosphatase 3	113
167	HORVU3Hr1G011820	Cytochrome P450 superfamily protein	113
168	HORVU2Hr1G044640	receptor kinase 1	113
169	HORVU1Hr1G019380	HXXXD-type acyl-transferase family protein	113
170	HORVU5Hr1G000940	receptor kinase 2	111
171	HORVU5Hr1G115870	PLANT CADMIUM RESISTANCE 2	111
172	HORVU5Hr1G056420	Flavin-containing monooxygenase family protein	111
173	HORVU3Hr1G065320	ABC transporter B family member 4	110
174	HORVU0Hr1G007340	Progesterone 5 beta reductase	110
175	HORVU2Hr1G067710	undescribed protein	110
176	HORVU7Hr1G107360	SAUR-like auxin-responsive protein family	110
177	HORVU6Hr1G077930	UDP-Glycosyltransferase superfamily protein	110
178	HORVU6Hr1G033060	alpha/beta-Hydrolases superfamily protein	109
179	HORVU2Hr1G076320	undescribed protein	109
180	HORVU3Hr1G109430	receptor kinase 2	109
181	HORVU3Hr1G098620	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	108
182	HORVU3Hr1G089900	undescribed protein	107
183	HORVU3Hr1G077880	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	107
184	HORVU2Hr1G045340	isocitrate lyase	106
185	HORVU2Hr1G039670	Disease resistance protein (TIR-NBS class)	105
186	HORVU1Hr1G089530	sugar transporter protein 7	104
187	HORVU2Hr1G085280	Chitinase	104
188	HORVU3Hr1G113620	Wound-induced protein	104
189	HORVU4Hr1G020230	rRNA N-glycosidase	104
190	HORVU2Hr1G088660	Caleosin-related family protein	104
191	HORVU3Hr1G104940	Leucine-rich repeat receptor-like protein kinase family protein	103
192	HORVU1Hr1G092650	UDP-Glycosyltransferase superfamily protein	103
193	HORVU7Hr1G011950	undescribed protein	102
194	HORVU6Hr1G061420	Cytochrome b5	102
195	HORVU2Hr1G084130	malate synthase	102
196	HORVU7Hr1G091880	undescribed protein	102
197	HORVU7Hr1G008140	receptor-like protein kinase 4	102
198	HORVU1Hr1G062380	CASP-like protein 1	101
199	HORVU2Hr1G122620	Blue copper protein	100
200	HORVU3Hr1G056100	Cytochrome P450 superfamily protein	100
201	HORVU7Hr1G011930	undescribed protein	99
202	HORVU4Hr1G077780	HXXXD-type acyl-transferase family protein	99
203	HORVU7Hr1G010120	unknown function	99
204	HORVU1Hr1G090860	unknown function	99
205	HORVU2Hr1G121170	Cytochrome P450 superfamily protein	99

S.No.	Feature ID	Barley Annotation	Fold changes
206	HORVU6Hr1G089460	dihydroflavonol 4-reductase-like1	97
207	HORVU5Hr1G009840	RAB GDP dissociation inhibitor 2	97
208	HORVU2Hr1G071270	Ethylene-responsive transcription factor 1	96
209	HORVU5Hr1G115750	PLANT CADMIUM RESISTANCE 2	95
210	HORVU1Hr1G065670	undescribed protein	95
211	HORVU6Hr1G014600	Bowman-Birk type trypsin inhibitor	95
212	HORVU3Hr1G098340	methyl esterase 1	95
213	HORVU1Hr1G062030	Chitinase family protein	94
214	HORVU3Hr1G112040	Peroxidase superfamily protein	94
215	HORVU2Hr1G112120	Anthranilate N-benzoyltransferase protein 1	94
216	HORVU5Hr1G077920	beta glucosidase 11	93
217	HORVU1Hr1G022430	Leucine aminopeptidase 1	93
218	HORVU2Hr1G101920	Ubiquinol oxidase	93
219	HORVU1Hr1G001220	receptor kinase 3	93
220	HORVU5Hr1G023730	Pathogenesis-related protein STH-21	93
221	HORVU2Hr1G070880	Protein TIFY 9	92
222	HORVU0Hr1G019300	Glutathione S-transferase family protein	92
223	HORVU6Hr1G055000	Chalcone synthase 1	92
224	HORVU2Hr1G012980	Cytochrome P450 superfamily protein	92
225	HORVU4Hr1G084810	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	91
226	HORVU7Hr1G012240	undescribed protein	90
227	HORVU1Hr1G043920	Plant basic secretory protein (BSP) family protein	90
228	HORVU4Hr1G085820	UDP-galactose transporter 2	90
229	HORVU3Hr1G068700	Ribose-phosphate pyrophosphokinase 4	89
230	HORVU3Hr1G086840	C2H2-like zinc finger protein	89
231	HORVU1Hr1G049400	undescribed protein	89
232	HORVU7Hr1G035190	RNA ligase/cyclic nucleotide phosphodiesterase family protein	88
233	HORVU2Hr1G012140	Leucine-rich repeat receptor-like protein kinase family protein	87
234	HORVU0Hr1G005420	Ubiquinol oxidase	86
235	HORVU1Hr1G043910	Plant basic secretory protein (BSP) family protein	86
236	HORVU3Hr1G014140	NAC domain protein,	86
237	HORVU5Hr1G124810	receptor kinase 1	84
238	HORVU4Hr1G064070	U-box domain-containing protein 21	84
239	HORVU5Hr1G109190	germin-like protein 4	84
240	HORVU3Hr1G018610	receptor kinase 2	84
241	HORVU7Hr1G033870	zinc-finger protein 3	84
242	HORVU3Hr1G028620	Cytochrome P450 61	83
243	HORVU3Hr1G090170	tropinone reductase	83
244	HORVU6Hr1G013710	Plant basic secretory protein (BSP) family protein	83
245	HORVU5Hr1G034830	WRKY family transcription factor	82
246	HORVU5Hr1G123550	receptor kinase 2	82
247	HORVU5Hr1G066720	Family of unknown function (DUF716)	81

S.No.	Feature ID	Barley Annotation	Fold changes
248	HORVU7Hr1G107670	Two-component response regulator ORR21	81
249	HORVU5Hr1G062290	Protein TIFY 3B	81
250	HORVU6Hr1G088440	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	81
251	HORVU2Hr1G094230	1-aminocyclopropane-1-carboxylate synthase 11	80
252	HORVU3Hr1G093100	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	80
253	HORVU4Hr1G005540	germin-like protein 4	80
254	HORVU6Hr1G020540	Cytochrome P450 superfamily protein	80
255	HORVU2Hr1G124960	Peroxidase superfamily protein	79
256	HORVU1Hr1G015090	tyrosine aminotransferase 3	79
257	HORVU0Hr1G016310	Endochitinase A	79
258	HORVU3Hr1G018690	receptor kinase 2	79
259	HORVU2Hr1G083570	Cytochrome P450 superfamily protein	78
260	HORVU5Hr1G057800	L-ascorbate oxidase	78
261	HORVU3Hr1G085890	ABC transporter C family member 3	78
262	HORVU1Hr1G086900	calmodulin like 43	78
263	HORVU3Hr1G003980	Bowman-Birk type trypsin inhibitor	78
264	HORVU3Hr1G018740	sugar transporter 1	78
265	HORVU4Hr1G061120	Anthranilate synthase component 1	78
266	HORVU6Hr1G062380	Ethylene-responsive transcription factor 1	77
267	HORVU2Hr1G104240	germin-like protein 2	77
268	HORVU3Hr1G001840	undescribed protein	77
269	HORVU4Hr1G054980	Dehydrogenase/reductase SDR family member 4	77
270	HORVU3Hr1G072810	gibberellin 2-oxidase	76
271	HORVU4Hr1G003450	undescribed protein	76
272	HORVU1Hr1G093480	tryptophan synthase alpha chain	76
273	HORVU2Hr1G109440	Cytochrome P450 superfamily protein	76
274	HORVU6Hr1G079700	nitrate reductase 1	75
275	HORVU3Hr1G087020	alpha/beta-Hydrolases superfamily protein	75
276	HORVU6Hr1G083050	lysine-ketoglutarate reductase/saccharopine dehydrogenase bifunctional enzyme	75
277	HORVU1Hr1G009130	unknown function	74
278	HORVU3Hr1G111550	undescribed protein	74
279	HORVU2Hr1G028660	Chymotrypsin inhibitor	74
280	HORVU3Hr1G112050	undescribed protein	74
281	HORVU2Hr1G033610	dihydroflavonol 4-reductase	74
282	HORVU3Hr1G104990	undescribed protein	74
283	HORVU5Hr1G087730	13S globulin seed storage protein 2	74
284	HORVU5Hr1G000910	Serine/threonine-protein kinase	73
285	HORVU1Hr1G049230	Glutathione S-transferase family protein	73
286	HORVU5Hr1G057740	unknown function	72
287	HORVU6Hr1G070130	undescribed protein	72
288	HORVU4Hr1G081430	NAC domain containing protein 36	72

S.No.	Feature ID	Barley Annotation	Fold changes
289	HORVU2Hr1G112580	endonuclease 4	72
290	HORVU2Hr1G082740	Voltage-gated potassium channel subunit beta-2	72
291	HORVU2Hr1G090170	UDP-Glycosyltransferase superfamily protein	72
292	HORVU3Hr1G087690	ammonium transporter 2	71
293	HORVU7Hr1G121950	Retrotransposon protein, putative, unclassified	71
294	HORVU5Hr1G024400	Calmodulin-binding protein	71
295	HORVU3Hr1G067510	WRKY DNA-binding protein 50	70
296	HORVU4Hr1G068530	unknown protein; Has 65 Blast hits to 65 proteins in 11 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 65; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	70
297	HORVU5Hr1G118750	Zinc finger protein 668	70
298	HORVU5Hr1G106020	Cysteine-rich venom protein	69
299	HORVU1Hr1G072690	Aldose reductase A	69
300	HORVU7Hr1G107330	SAUR-like auxin-responsive protein family	69
301	HORVU0Hr1G008950	Branched-chain-amino-acid aminotransferase 6	69
302	HORVU2Hr1G091190	sugar transporter 9	69
303	HORVU6Hr1G023210	Leucine-rich repeat receptor-like protein kinase family protein	68
304	HORVU4Hr1G087840	Protein of unknown function (DUF1218)	68
305	HORVU0Hr1G000840	undescribed protein	68
306	HORVU2Hr1G003230	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	68
307	HORVU1Hr1G085240	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein	68
308	HORVU7Hr1G108490	Leucine-rich receptor-like protein kinase family protein	68
309	HORVU7Hr1G089530	RING/U-box superfamily protein	67
310	HORVU3Hr1G064680	Protein transport protein Sec61 subunit alpha	67
311	HORVU2Hr1G017440	unknown function	67
312	HORVU1Hr1G090820	unknown function	67
313	HORVU6Hr1G067740	Protein NRT1/ PTR FAMILY 8.3	67
314	HORVU1Hr1G002590	receptor-like protein kinase 4	67
315	HORVU7Hr1G019400	receptor kinase 1	66
316	HORVU6Hr1G088140	Auxin-responsive protein IAA9	66
317	HORVU7Hr1G113850	WRKY family transcription factor	66
318	HORVU7Hr1G116650	Glutathione S-transferase family protein	66
319	HORVU1Hr1G004560	Protein TAR1	66
320	HORVU5Hr1G087880	Auxin efflux carrier family protein	66
321	HORVU7Hr1G040850	unknown function	66
322	HORVU7Hr1G073050	External alternative NAD(P)H-ubiquinone oxidoreductase B3, mitochondrial	66
323	HORVU2Hr1G004480	Cytochrome P450 superfamily protein	66
324	HORVU4Hr1G084330	Inter-alpha-trypsin inhibitor heavy chain H4	65
325	HORVU1Hr1G049270	Glutathione S-transferase family protein	65
326	HORVU4Hr1G074740	Major facilitator superfamily domain-containing protein 12	65
327	HORVU2Hr1G028330	EF hand family protein	65
328	HORVU5Hr1G009940	undescribed protein	65



S.No.	Feature ID	Barley Annotation	Fold changes
329	HORVU6Hr1G069710	receptor kinase 2	65
330	HORVU3Hr1G075040	L-tyrosine decarboxylase	64
331	HORVU2Hr1G109640	Cytochrome P450 superfamily protein	64
332	HORVU6Hr1G073510	Potassium transporter family protein	64
333	HORVU3Hr1G065390	Lipid A export ATP-binding/permease protein MsbA	64
334	HORVU1Hr1G088550	undescribed protein	64
335	HORVU7Hr1G086250	undescribed protein	63
336	HORVU2Hr1G013170	2-oxoglutarate dehydrogenase, E1 component	63
337	HORVU6Hr1G073990	early nodulin-like protein 19	63
338	HORVU5Hr1G041660	protein kinase family protein	62
339	HORVU2Hr1G036590	sugar transporter 9	62
340	HORVU5Hr1G045850	Glutathione S-transferase family protein	62
341	HORVU1Hr1G081300	Heat stress transcription factor A-4d	62
342	HORVU3Hr1G024660	Acetyl esterase	62
343	HORVU3Hr1G002000	germin-like protein 9	62
344	HORVU3Hr1G051830	Protein kinase superfamily protein	62
345	HORVU7Hr1G072960	Phospholipase A1-II 4	61
346	HORVU2Hr1G004610	Cytochrome P450 superfamily protein	61
347	HORVU2Hr1G003210	Cytochrome P450 superfamily protein	61
348	HORVU1Hr1G091960	undescribed protein	61
349	HORVU5Hr1G115310	Mannan endo-1,4-beta-mannosidase 4	61
350	HORVU3Hr1G091740	Peroxidase superfamily protein	61
351	HORVU7Hr1G019390	receptor kinase 2	60
352	HORVU3Hr1G028020	GDSL esterase/lipase	60
353	HORVU4Hr1G056500	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	59
354	HORVU2Hr1G111780	receptor-like protein kinase 4	59
355	HORVU1Hr1G058520	beta glucosidase 11	59
356	HORVU0Hr1G016280	undescribed protein	59
357	HORVU5Hr1G114700	UDP-Glycosyltransferase superfamily protein	59
358	HORVU7Hr1G043540	Cytochrome P450 superfamily protein	58
359	HORVU1Hr1G089310	B12D protein	58
360	HORVU6Hr1G089560	U-box domain-containing protein	58
361	HORVU7Hr1G101310	Calcium-dependent lipid-binding (CaLB domain) family protein	58
362	HORVU7Hr1G021260	WRKY DNA-binding protein 61	58
363	HORVU5Hr1G087090	Leucine-rich receptor-like protein kinase family protein	58
364	HORVU5Hr1G061810	Protein kinase superfamily protein	58
365	HORVU4Hr1G081590	receptor-like protein kinase 4	58
366	HORVU4Hr1G014670	Calcineurin-like metallo-phosphoesterase superfamily protein	57
367	HORVU7Hr1G080190	ADP-ribosylation factor 3	57
368	HORVU6Hr1G074370	undescribed protein	57
369	HORVU4Hr1G063660	UDP-Glycosyltransferase superfamily protein	57
370	HORVU1Hr1G090730	3-ketoacyl-CoA synthase 11	56

S.No.	Feature ID	Barley Annotation	Fold changes
371	HORVU6Hr1G067980	Protein NRT1/ PTR FAMILY 8.3	56
372	HORVU1Hr1G074310	receptor kinase 1	56
373	HORVU2Hr1G013760	MLO-like protein 1	56
374	HORVU3Hr1G035680	flowering promoting factor 1	56
375	HORVU2Hr1G002750	receptor kinase 2	56
376	HORVU5Hr1G079680	UDP-glycosyltransferase 74 F1	55
377	HORVU5Hr1G061930	Cytochrome P450 superfamily protein	55
378	HORVU5Hr1G095130	Beta-glucosidase C	55
379	HORVU2Hr1G044270	receptor kinase 1	54
380	HORVU2Hr1G099290	Polygalacturonase QRT3	54
381	HORVU4Hr1G067840	GDP-mannose transporter GONST3	54
382	HORVU6Hr1G077120	U-box domain-containing protein 21	54
383	HORVU7Hr1G042300	Basic blue protein	54
384	HORVU2Hr1G096380	Branched-chain-amino-acid aminotransferase 6	54
385	HORVU3Hr1G033740	WRKY family transcription factor	53
386	HORVU7Hr1G114790	Laccase	53
387	HORVU4Hr1G078370	undescribed protein	53
388	HORVU2Hr1G044360	Peroxidase superfamily protein	52
389	HORVU1Hr1G069800	Non-specific lipid-transfer protein	52
390	HORVU3Hr1G084210	ferredoxin 3	52
391	HORVU4Hr1G051450	Phospholipid-transporting ATPase 1	52
392	HORVU5Hr1G122510	Leucine-rich receptor-like protein kinase family protein	52
393	HORVU4Hr1G009190	Sec14p-like phosphatidylinositol transfer family protein	52
394	HORVU3Hr1G096280	Sec14p-like phosphatidylinositol transfer family protein	52
395	HORVU5Hr1G060620	Centromere protein V	52
396	HORVU2Hr1G113180	D-3-phosphoglycerate dehydrogenase	51
397	HORVU5Hr1G081860	Chaperone protein ClpB	51
398	HORVU3Hr1G105190	Glucan endo-1,3-beta-glucosidase GI	51
399	HORVU7Hr1G116310	Cytochrome P450 superfamily protein	51
400	HORVU3Hr1G024820	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	51
401	HORVU4Hr1G078320	undescribed protein	51
402	HORVU1Hr1G041720	Nucleotide/sugar transporter family protein	51
403	HORVU3Hr1G026330	Subtilisin-like protease	51
404	HORVU6Hr1G034380	N-terminal protein myristoylation	51
405	HORVU2Hr1G067340	exocyst subunit exo70 family protein H6	51
406	HORVU3Hr1G026270	Subtilisin-like protease	51
407	HORVU3Hr1G006130	GDSL esterase/lipase	51
408	HORVU2Hr1G077220	12-oxophytodienoate reductase 2	50
409	HORVU4Hr1G077170	flavin-dependent monooxygenase 1	50
410	HORVU3Hr1G096360	HXXXD-type acyl-transferase family protein	50
411	HORVU3Hr1G077130	receptor kinase 2	50
412	HORVU7Hr1G024350	Long-chain-fatty-acid--CoA ligase 1	50

S.No.	Feature ID	Barley Annotation	Fold changes
413	HORVU5Hr1G062090	Aldehyde dehydrogenase family 7 member A1	50
414	HORVU7Hr1G009760	undescribed protein	49
415	HORVU2Hr1G126150	1-deoxy-D-xylulose 5-phosphate synthase 1	49
416	HORVU2Hr1G080890	Anthranilate synthase	49
417	HORVU1Hr1G049290	unknown function	49
418	HORVU3Hr1G021500	Transposable element protein, putative	49
419	HORVU4Hr1G018100	undescribed protein	49
420	HORVU6Hr1G067920	Protein NRT1/ PTR FAMILY 8.1	49
421	HORVU2Hr1G118080	Heavy metal transport/detoxification superfamily protein	49
422	HORVU7Hr1G082180	undescribed protein	49
423	HORVU6Hr1G094480	Flavin-containing monooxygenase family protein	49
424	HORVU4Hr1G011760	UDP-Glycosyltransferase superfamily protein	49
425	HORVU3Hr1G002910	0	49
426	HORVU3Hr1G083680	Harpin induced gene 1 homolog	49
427	HORVU7Hr1G074640	lysine histidine transporter 1	49
428	HORVU1Hr1G065630	undescribed protein	49
429	HORVU3Hr1G072210	undescribed protein	48
430	HORVU2Hr1G016720	Protein kinase superfamily protein	48
431	HORVU6Hr1G053700	undescribed protein	48
432	HORVU5Hr1G078630	respiratory burst oxidase homologue D	48
433	HORVU4Hr1G043960	Eukaryotic aspartyl protease family protein	48
434	HORVU3Hr1G050810	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	48
435	HORVU3Hr1G002860	F-box and associated interaction domains-containing protein	48
436	HORVU6Hr1G074310	undescribed protein	48
437	HORVU4Hr1G009230	receptor kinase 2	48
438	HORVU1Hr1G019770	Protein kinase superfamily protein	47
439	HORVU3Hr1G117470	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	47
440	HORVU0Hr1G021480	Arabidopsis thaliana protein of unknown function (DUF821)	47
441	HORVU4Hr1G072480	Blue copper protein	46
442	HORVU3Hr1G053350	ABC transporter G family member 36	46
443	HORVU3Hr1G056060	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	46
444	HORVU2Hr1G082370	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	46
445	HORVU1Hr1G080300	WRKY DNA-binding protein 51	46
446	HORVU4Hr1G074080	undescribed protein	46
447	HORVU4Hr1G078210	purine permease 3	46
448	HORVU5Hr1G094700	Disease resistance-responsive (dirigent-like protein) family protein	46
449	HORVU1Hr1G051580	PLAC8 family protein	46
450	HORVU3Hr1G091780	undescribed protein	46
451	HORVU2Hr1G122290	unknown function	46
452	HORVU3Hr1G111360	undescribed protein	46
453	HORVU1Hr1G038780	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	45

S.No.	Feature ID	Barley Annotation	Fold changes
454	HORVU1Hr1G084720	unknown function	45
455	HORVU5Hr1G103770	alpha/beta-Hydrolases superfamily protein	45
456	HORVU2Hr1G028720	Chymotrypsin inhibitor	45
457	HORVU4Hr1G000810	undescribed protein	45
458	HORVU1Hr1G010210	Bidirectional sugar transporter N3	45
459	HORVU0Hr1G006150	receptor kinase 1	45
460	HORVU2Hr1G122610	Blue copper protein	45
461	HORVU4Hr1G083820	GDSL esterase/lipase	45
462	HORVU2Hr1G110230	Protein kinase superfamily protein	45
463	HORVU2Hr1G117620	undescribed protein	44
464	HORVU2Hr1G004720	UDP-Glycosyltransferase superfamily protein	44
465	HORVU3Hr1G078840	UDP-Glycosyltransferase superfamily protein	44
466	HORVU7Hr1G024930	Subtilisin-like protease	44
467	HORVU7Hr1G034230	Major pollen allergen Bet v 1-D/H	44
468	HORVU7Hr1G025930	undescribed protein	44
469	HORVU5Hr1G083320	Defensin	44
470	HORVU7Hr1G079160	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	44
471	HORVU5Hr1G006330	Glutathione S-transferase family protein	44
472	HORVU2Hr1G083020	Cytochrome P450 superfamily protein	44
473	HORVU5Hr1G023690	Pathogenesis-related protein STH-21	44
474	HORVU3Hr1G070700	Leucine-rich receptor-like protein kinase family protein	43
475	HORVU5Hr1G010120	Protein WIR1A	43
476	HORVU5Hr1G111240	receptor kinase 1	43
477	HORVU1Hr1G076550	unknown function	43
478	HORVU4Hr1G086660	Cyclin-dependent protein kinase inhibitor SMR1	43
479	HORVU1Hr1G044000	Plant basic secretory protein (BSP) family protein	43
480	HORVU3Hr1G013380	Leucine-rich repeat protein kinase family protein	43
481	HORVU4Hr1G071360	Cytochrome b561 and DOMON domain-containing protein	42
482	HORVU3Hr1G022780	Protein kinase family protein	42
483	HORVU2Hr1G112040	undescribed protein	42
484	HORVU7Hr1G040860	undescribed protein	42
485	HORVU7Hr1G107640	0	42
486	HORVU4Hr1G038810	undescribed protein	42
487	HORVU5Hr1G008270	Cation/H(+) antiporter 19	42
488	HORVU7Hr1G106760	unknown function	42
489	HORVU1Hr1G061140	Pyrophosphate-energized proton pump 1	42
490	HORVU7Hr1G086340	undescribed protein	41
491	HORVU6Hr1G044140	receptor-like protein kinase 4	41
492	HORVU5Hr1G009930	undescribed protein	41
493	HORVU3Hr1G006140	GDSL esterase/lipase	41
494	HORVU3Hr1G006760	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	41
495	HORVU7Hr1G077970	PLC-like phosphodiesterases superfamily protein	41

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
496	HORVU0Hr1G021610	F-box protein PP2-B7	41
497	HORVU4Hr1G065800	Inactive poly [ADP-ribose] polymerase RCD1	41
498	HORVU4Hr1G072360	3-hydroxybenzoate 6-hydroxylase 1	41
499	HORVU2Hr1G100360	SAUR-like auxin-responsive protein family	41
500	HORVU3Hr1G027910	Cathepsin B-like cysteine proteinase 2	41
501	HORVU4Hr1G055280	Protein of unknown function (DUF1262)	41
502	HORVU3Hr1G069320	WRKY DNA-binding protein 65	41
503	HORVU2Hr1G113120	Protein kinase superfamily protein	40
504	HORVU2Hr1G113080	Protein kinase family protein	40
505	HORVU7Hr1G036070	12-oxophytodienoate reductase 2	40
506	HORVU2Hr1G093040	undescribed protein	40
507	HORVU5Hr1G010130	undescribed protein	40
508	HORVU1Hr1G009250	receptor kinase 2	40
509	HORVU3Hr1G105400	Glucan endo-1,3-beta-glucosidase GV	40
510	HORVU3Hr1G028110	undescribed protein	40
511	HORVU5Hr1G094710	Disease resistance-responsive (dirigent-like protein) family protein	40
512	HORVU7Hr1G074660	Transmembrane amino acid transporter family protein	40
513	HORVU7Hr1G019240	sugar transporter 9	40
514	HORVU1Hr1G063390	AAA-ATPase 1	40
515	HORVU6Hr1G084270	undescribed protein	40
516	HORVU7Hr1G113290	unknown function	39
517	HORVU7Hr1G092800	Tryptophan synthase beta chain 2	39
518	HORVU2Hr1G085370	Protein of unknown function, DUF642	39
519	HORVU1Hr1G057880	Eukaryotic peptide chain release factor subunit 1-2	39
520	HORVU7Hr1G118770	Disease resistance-responsive (dirigent-like protein) family protein	39
521	HORVU5Hr1G111040	UDP-Glycosyltransferase superfamily protein	39
522	HORVU4Hr1G004000	Major facilitator superfamily protein	39
523	HORVU6Hr1G069940	Domain of unknown function (DUF23)	39
524	HORVU2Hr1G064160	sugar transporter 1	39
525	HORVU7Hr1G051420	receptor kinase 2	39
526	HORVU1Hr1G090460	undescribed protein	39
527	HORVU7Hr1G089160	FAD-binding Berberine family protein	39
528	HORVU2Hr1G093020	undescribed protein	39
529	HORVU6Hr1G034480	unknown function	38
530	HORVU6Hr1G070440	undescribed protein	38
531	HORVU7Hr1G110570	Protein of unknown function (DUF679)	38
532	HORVU1Hr1G021140	Glutathione S-transferase family protein	38
533	HORVU4Hr1G054770	COBRA-like protein 7	38
534	HORVU2Hr1G117500	undescribed protein	38
535	HORVU0Hr1G010640	Late embryogenesis abundant (LEA) hydroxyproline-rich glycoprotein family	38
536	HORVU4Hr1G076840	Protein TIFY 3A	38
537	HORVU2Hr1G122300	Leucine-rich repeat receptor-like protein kinase family protein	38

S.No.	Feature ID	Barley Annotation	Fold changes
538	HORVU7Hr1G040790	U-box domain-containing protein 21	38
539	HORVU4Hr1G007190	Basic blue protein	37
540	HORVU1Hr1G049100	Glutathione S-transferase family protein	37
541	HORVU7Hr1G030570	undescribed protein	37
542	HORVU3Hr1G002870	undescribed protein	37
543	HORVU5Hr1G063430	glutamate receptor 2.8	37
544	HORVU2Hr1G098980	Protein kinase superfamily protein	37
545	HORVU1Hr1G004980	Glycosyltransferase family 61 protein	37
546	HORVU5Hr1G115900	PLANT CADMIUM RESISTANCE 2	37
547	HORVU2Hr1G076470	U-box domain-containing protein	37
548	HORVU7Hr1G019280	sugar transporter 1	37
549	HORVU2Hr1G099640	VACUOLAR SORTING RECEPTOR 5	37
550	HORVU5Hr1G112880	zinc-finger protein 1	37
551	HORVU2Hr1G028430	ribonuclease 1	37
552	HORVU7Hr1G073340	early nodulin-like protein 15	37
553	HORVU4Hr1G081440	NAC domain containing protein 36	37
554	HORVU6Hr1G081000	allene oxide cyclase 4	36
555	HORVU3Hr1G086680	zinc-finger protein 3	36
556	HORVU3Hr1G083720	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	36
557	HORVU2Hr1G034370	receptor-like protein kinase 2	36
558	HORVU1Hr1G081550	malate dehydrogenase	36
559	HORVU7Hr1G014840	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	36
560	HORVU7Hr1G011230	undescribed protein	36
561	HORVU7Hr1G107630	Homeodomain-like superfamily protein	36
562	HORVU4Hr1G051290	NAC domain protein,	35
563	HORVU5Hr1G061820	Protein kinase superfamily protein	35
564	HORVU5Hr1G104580	UDP-Glycosyltransferase superfamily protein	35
565	HORVU3Hr1G087050	Ankyrin repeat family protein	35
566	HORVU5Hr1G097310	Coffea canephora DH200=94 genomic scaffold, scaffold_6	35
567	HORVU1Hr1G090110	WRKY family transcription factor	35
568	HORVU2Hr1G017370	NAC domain containing protein 100	35
569	HORVU7Hr1G013170	Flavin-containing monooxygenase family protein	35
570	HORVU1Hr1G092130	WRKY DNA-binding protein 23	35
571	HORVU5Hr1G106850	ABC transporter G family member 48	35
572	HORVU4Hr1G022270	Peroxidase superfamily protein	35
573	HORVU5Hr1G112610	rRNA N-glycosidase	35
574	HORVU2Hr1G008220	G-type lectin S-receptor-like serine/threonine-protein kinase	35
575	HORVU5Hr1G089840	receptor kinase 3	35
576	HORVU5Hr1G108670	Beta-1,3-galactosyltransferase 15	34
577	HORVU2Hr1G124930	Peroxidase superfamily protein	34
578	HORVU3Hr1G065630	Protein kinase superfamily protein	34
579	HORVU1Hr1G067550	calcium-transporting ATPase, putative	34



S.No.	Feature ID	Barley Annotation	Fold changes
580	HORVU2Hr1G118230	Heavy metal transport/detoxification superfamily protein	34
581	HORVU7Hr1G038370	Beta-1,3-galactosyltransferase 15	34
582	HORVU2Hr1G098700	undescribed protein	34
583	HORVU6Hr1G062960	Acetylglutamate kinase	34
584	HORVU2Hr1G092440	undescribed protein	34
585	HORVU3Hr1G057180	unknown function	34
586	HORVU2Hr1G074200	undescribed protein	34
587	HORVU4Hr1G064790	glutamate decarboxylase	34
588	HORVU6Hr1G067910	Protein NRT1/ PTR FAMILY 8.3	33
589	HORVU7Hr1G038570	Leucine-rich repeat receptor-like protein kinase family protein	33
590	HORVU4Hr1G076820	ZIM motif family protein	33
591	HORVU4Hr1G053130	calmodulin 3	33
592	HORVU3Hr1G112060	undescribed protein	33
593	HORVU7Hr1G079610	undescribed protein	33
594	HORVU5Hr1G012040	receptor kinase 2	33
595	HORVU0Hr1G012930	undescribed protein	33
596	HORVU7Hr1G101740	Calcium-binding EF-hand family protein	33
597	HORVU7Hr1G108460	Leucine-rich repeat receptor-like protein kinase family protein	33
598	HORVU3Hr1G057730	unknown protein; Has 19 Blast hits to 19 proteins in 6 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 19; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	33
599	HORVU7Hr1G031650	sugar transporter 4	33
600	HORVU3Hr1G074150	Retrotransposon protein, putative, unclassified	33
601	HORVU1Hr1G015210	Leucine-rich repeat receptor-like protein kinase family protein	33
602	HORVU5Hr1G119640	undescribed protein	33
603	HORVU6Hr1G001840	ubiquitin-protein ligase 4	33
604	HORVU2Hr1G041900	undescribed protein	32
605	HORVU4Hr1G001040	Leucine-rich repeat receptor-like protein kinase family protein	32
606	HORVU7Hr1G108150	Protein kinase superfamily protein	32
607	HORVU5Hr1G104800	Acyl-CoA N-acyltransferases (NAT) superfamily protein	32
608	HORVU4Hr1G010720	undescribed protein	32
609	HORVU1Hr1G063380	alpha/beta-Hydrolases superfamily protein	32
610	HORVU7Hr1G083550	Peroxidase superfamily protein	32
611	HORVU1Hr1G070250	WRKY DNA-binding protein 33	32
612	HORVU2Hr1G085270	Chitinase	32
613	HORVU6Hr1G031640	unknown function	32
614	HORVU3Hr1G079620	Protein RETICULATA-RELATED 3, chloroplastic	32
615	HORVU0Hr1G022070	Protein kinase superfamily protein	32
616	HORVU1Hr1G083740	N-terminal protein myristoylation	32
617	HORVU1Hr1G009490	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	32
618	HORVU2Hr1G123480	CCR4-NOT transcription complex subunit 8	32
619	HORVU3Hr1G018980	basic helix-loop-helix (bHLH) DNA-binding family protein	32

S.No.	Feature ID	Barley Annotation	Fold changes
620	HORVU2Hr1G076490	unknown function	32
621	HORVU5Hr1G047920	Two-component response regulator ORR21	32
622	HORVU2Hr1G100090	Solute carrier family 22 member 6-A	32
623	HORVU5Hr1G063270	GRAS family transcription factor	32
624	HORVU4Hr1G071020	sugar transporter 9	32
625	HORVU5Hr1G070400	ABC transporter G family member 11	32
626	HORVU1Hr1G016820	Peroxidase superfamily protein	32
627	HORVU7Hr1G038330	amino acid permease 1	31
628	HORVU5Hr1G045640	NAC domain protein,	31
629	HORVU7Hr1G027930	Raffinose synthase family protein	31
630	HORVU6Hr1G077160	undescribed protein	31
631	HORVU2Hr1G098770	undescribed protein	31
632	HORVU2Hr1G117800	Protein kinase superfamily protein	31
633	HORVU2Hr1G089020	Disease resistance protein	31
634	HORVU4Hr1G062440	Phosphoenolpyruvate carboxykinase [ATP]	31
635	HORVU0Hr1G039970	Leucine-rich receptor-like protein kinase family protein	31
636	HORVU4Hr1G003400	Coffea canephora DH200=94 genomic scaffold, scaffold_6	31
637	HORVU1Hr1G016660	Peroxidase superfamily protein	31
638	HORVU7Hr1G084610	3-ketoacyl-CoA synthase 11	31
639	HORVU4Hr1G078300	undescribed protein	31
640	HORVU3Hr1G109230	calmodulin-like 38	31
641	HORVU4Hr1G017240	unknown protein; Has 25 Blast hits to 25 proteins in 9 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 25; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	31
642	HORVU2Hr1G112170	Male sterility protein	31
643	HORVU2Hr1G107300	undescribed protein	31
644	HORVU7Hr1G037910	shikimate kinase 1	31
645	HORVU1Hr1G075620	ABC transporter ATP-binding protein NatA	30
646	HORVU2Hr1G044890	receptor kinase 3	30
647	HORVU3Hr1G015780	RING/U-box superfamily protein	30
648	HORVU7Hr1G076120	Peroxidase superfamily protein	30
649	HORVU3Hr1G063840	alpha/beta-Hydrolases superfamily protein	30
650	HORVU6Hr1G070450	Protein NRT1/ PTR FAMILY 7.3	30
651	HORVU1Hr1G080160	cyclin-dependent kinase B2;2	30
652	HORVU3Hr1G007290	Calmodulin-binding protein	30
653	HORVU3Hr1G007590	Protein kinase superfamily protein	30
654	HORVU2Hr1G066200	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein	30
655	HORVU1Hr1G085720	undescribed protein	30
656	HORVU6Hr1G022590	RING/U-box superfamily protein	29
657	HORVU4Hr1G032670	undescribed protein	29
658	HORVU1Hr1G017700	Hydrophobic protein LTI6B	29
659	HORVU4Hr1G083210	Anthranilate phosphoribosyltransferase	29

S.No.	Feature ID	Barley Annotation	Fold changes
660	HORVU7Hr1G114700	unknown function	29
661	HORVU3Hr1G083500	U-box domain-containing protein 25	29
662	HORVU7Hr1G000260	Acid beta-fructofuranosidase	29
663	HORVU2Hr1G032780	methyl esterase 13	29
664	HORVU5Hr1G081950	purple acid phosphatase 29	29
665	HORVU6Hr1G081330	Protein kinase superfamily protein	29
666	HORVU3Hr1G108100	carotenoid cleavage dioxygenase 1	29
667	HORVU3Hr1G091750	Peroxidase superfamily protein	29
668	HORVU2Hr1G034680	Auxin-responsive GH3 family protein	29
669	HORVU2Hr1G121340	E3 ubiquitin-protein ligase RNF14	29
670	HORVU2Hr1G018480	Peroxidase superfamily protein	29
671	HORVU7Hr1G086260	undescribed protein	29
672	HORVU7Hr1G071790	Factor of DNA methylation 1	29
673	HORVU7Hr1G049580	Protein kinase family protein	29
674	HORVU7Hr1G030500	cinnamoyl coa reductase 1	29
675	HORVU3Hr1G023780	HXXXD-type acyl-transferase family protein	29
676	HORVU3Hr1G006620	Cysteine-rich receptor-like protein kinase 25	28
677	HORVU7Hr1G108660	undescribed protein	28
678	HORVU5Hr1G069980	RING/U-box superfamily protein	28
679	HORVU1Hr1G077420	Inositol-tetrakisphosphate 1-kinase 4	28
680	HORVU7Hr1G032190	undescribed protein	28
681	HORVU4Hr1G066200	Non-symbiotic hemoglobin	28
682	HORVU6Hr1G070760	undescribed protein	28
683	HORVU5Hr1G118590	ammonium transporter 2	28
684	HORVU3Hr1G025810	serine/threonine protein kinase 1	28
685	HORVU1Hr1G002900	unknown function	28
686	HORVU2Hr1G018430	Peroxidase superfamily protein	28
687	HORVU2Hr1G019180	UDP-glucuronic acid decarboxylase 1	28
688	HORVU2Hr1G109590	HXXXD-type acyl-transferase family protein	28
689	HORVU7Hr1G040720	Endoglucanase 16	28
690	HORVU1Hr1G088300	WRKY DNA-binding protein 71	28
691	HORVU1Hr1G090870	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	28
692	HORVU7Hr1G027810	Calcium-binding EF-hand family protein	28
693	HORVU5Hr1G066260	calmodulin like 42	28
694	HORVU7Hr1G091800	germin-like protein 2	28
695	HORVU6Hr1G057680	inter-alpha-trypsin inhibitor heavy chain-related	27
696	HORVU4Hr1G025180	Cytochrome P450 superfamily protein	27
697	HORVU2Hr1G081510	unknown function	27
698	HORVU2Hr1G120660	receptor kinase 2	27
699	HORVU5Hr1G071140	cellulose synthase like E1	27
700	HORVU7Hr1G040740	Cysteine-rich venom protein	27
701	HORVU7Hr1G084140	Serine/threonine-protein kinase	27

S.No.	Feature ID	Barley Annotation	Fold changes
702	HORVU4Hr1G072880	phosphoserine aminotransferase	27
703	HORVU5Hr1G046730	undescribed protein	27
704	HORVU5Hr1G028230	undescribed protein	27
705	HORVU5Hr1G077120	Esterase/lipase/thioesterase family protein	27
706	HORVU5Hr1G063340	ATP-dependent zinc metalloprotease FtsH 2	27
707	HORVU3Hr1G112030	Abscisic stress-ripening protein 2	27
708	HORVU7Hr1G079600	unknown function	27
709	HORVU4Hr1G050140	unknown function	27
710	HORVU0Hr1G002930	unknown function	27
711	HORVU3Hr1G015700	Pyrimidine-specific ribonucleoside hydrolase RihA	27
712	HORVU6Hr1G092020	Leucine-rich repeat receptor-like protein kinase family protein	27
713	HORVU6Hr1G000480	receptor kinase 2	27
714	HORVU6Hr1G075590	Kelch repeat-containing protein	27
715	HORVU1Hr1G075640	ABC transporter ATP-binding protein NatA	27
716	HORVU5Hr1G123540	receptor kinase 1	27
717	HORVU5Hr1G059900	zinc finger (AN1-like) family protein	27
718	HORVU2Hr1G071280	Gag-pol polyprotein	27
719	HORVU4Hr1G072560	Blue copper protein	27
720	HORVU3Hr1G020210	WRKY DNA-binding protein 72	27
721	HORVU2Hr1G093660	Ethylene-responsive transcription factor 1B	27
722	HORVU7Hr1G024360	Non-specific lipid-transfer protein	26
723	HORVU4Hr1G027900	GRAS family transcription factor	26
724	HORVU4Hr1G056470	fatty acid desaturase 8	26
725	HORVU1Hr1G025530	Lactoylglutathione lyase / glyoxalase I family protein	26
726	HORVU7Hr1G086330	undescribed protein	26
727	HORVU7Hr1G075710	N-(5'-phosphoribosyl)anthranilate isomerase	26
728	HORVU2Hr1G123770	2-succinylbenzoate--CoA ligase	26
729	HORVU3Hr1G007780	receptor-like protein kinase 4	26
730	HORVU4Hr1G001250	Caffeic acid 3-O-methyltransferase	26
731	HORVU4Hr1G003530	undescribed protein	26
732	HORVU3Hr1G112610	Glutathione S-transferase family protein	26
733	HORVU3Hr1G056640	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	26
734	HORVU7Hr1G002370	Glutathione S-transferase family protein	26
735	HORVU1Hr1G028900	calmodulin-binding family protein	26
736	HORVU2Hr1G108290	Solute carrier family 22 member 15-like	26
737	HORVU2Hr1G082480	C2 and GRAM domain-containing protein	25
738	HORVU2Hr1G063690	MATE efflux family protein	25
739	HORVU6Hr1G069980	receptor kinase 2	25
740	HORVU2Hr1G094330	GDSL esterase/lipase	25
741	HORVU1Hr1G037150	Protein kinase superfamily protein	25
742	HORVU3Hr1G002890	undescribed protein	25
743	HORVU4Hr1G089030	Protein of unknown function, DUF584	25

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
744	HORVU7Hr1G106160	Protein NRT1/ PTR FAMILY 5.1	25
745	HORVU2Hr1G044450	Glucan endo-1,3-beta-glucosidase 3	25
746	HORVU6Hr1G058580	myb domain protein 15	25
747	HORVU6Hr1G076520	unknown function	25
748	HORVU0Hr1G007680	inositol polyphosphate 5-phosphatase 11	25
749	HORVU3Hr1G018530	NADPH:quinone oxidoreductase	25
750	HORVU7Hr1G031360	glutamate receptor 3.3	25
751	HORVU5Hr1G022690	myb domain protein 112	25
752	HORVU2Hr1G101160	xyloglucan endotransglucosylase/hydrolase 16	25
753	HORVU6Hr1G011120	Glutathione S-transferase family protein	25
754	HORVU5Hr1G061580	Secretory carrier-associated membrane protein 4	25
755	HORVU6Hr1G004770	unknown function	24
756	HORVU2Hr1G083010	undescribed protein	24
757	HORVU7Hr1G073460	Tryptophan synthase beta chain 1	24
758	HORVU3Hr1G109180	Calcium-binding protein CML38	24
759	HORVU2Hr1G111760	receptor-like protein kinase 4	24
760	HORVU2Hr1G120420	undescribed protein	24
761	HORVU5Hr1G102900	Cysteine-rich receptor-like protein kinase 25	24
762	HORVU1Hr1G027700	WRKY DNA-binding protein 50	24
763	HORVU5Hr1G099130	undescribed protein	24
764	HORVU3Hr1G024650	Serine/threonine-protein kinase	24
765	HORVU7Hr1G107370	SAUR-like auxin-responsive protein family	24
766	HORVU7Hr1G079460	unknown function	24
767	HORVU2Hr1G044940	Eukaryotic aspartyl protease family protein	24
768	HORVU3Hr1G066450	IAA-amino acid hydrolase ILR1-like 2	24
769	HORVU7Hr1G040140	Acyl-[acyl-carrier-protein] 6-desaturase	24
770	HORVU4Hr1G017390	Eukaryotic aspartyl protease family protein	24
771	HORVU4Hr1G055270	Protein of unknown function, DUF538	24
772	HORVU7Hr1G003630	receptor kinase 2	24
773	HORVU7Hr1G077710	phosphatidylinositol-4-phosphate 5-kinase family protein	24
774	HORVU4Hr1G057270	undescribed protein	24
775	HORVU1Hr1G001950	12-oxophytodienoate reductase 2	23
776	HORVU2Hr1G030190	receptor kinase 2	23
777	HORVU5Hr1G043460	calmodulin like 23	23
778	HORVU1Hr1G016840	Peroxidase superfamily protein	23
779	HORVU3Hr1G028260	RING/U-box superfamily protein	23
780	HORVU6Hr1G005950	Histone H2B.2	23
781	HORVU7Hr1G040690	GUN7	23
782	HORVU6Hr1G061470	Protein kinase superfamily protein	23
783	HORVU5Hr1G082310	Protein kinase superfamily protein	23
784	HORVU3Hr1G100350	Xylanase inhibitor	23
785	HORVU2Hr1G075970	Peroxidase superfamily protein	23

S.No.	Feature ID	Barley Annotation	Fold changes
786	HORVU6Hr1G034570	receptor kinase 2	23
787	HORVU5Hr1G001920	Leucine-rich receptor-like protein kinase family protein	23
788	HORVU7Hr1G007520	Leucine-rich repeat receptor-like protein kinase family protein	23
789	HORVU7Hr1G050670	lipoxygenase 2	23
790	HORVU6Hr1G060500	membrane steroid binding protein 1	23
791	HORVU6Hr1G036590	undescribed protein	23
792	HORVU6Hr1G089590	U-box domain-containing protein	23
793	HORVU2Hr1G006140	undescribed protein	23
794	HORVU3Hr1G108630	unknown function	23
795	HORVU0Hr1G019690	Tuliposide A-converting enzyme 1, chloroplastic	23
796	HORVU2Hr1G010560	Thioredoxin superfamily protein	23
797	HORVU2Hr1G080140	Aldose 1-epimerase	23
798	HORVU2Hr1G040130	Internal alternative NAD(P)H-ubiquinone oxidoreductase A1, mitochondrial	23
799	HORVU3Hr1G077030	diacylglycerol kinase 5	22
800	HORVU2Hr1G125250	receptor kinase 2	22
801	HORVU5Hr1G008050	nine-cis-epoxycarotenoid dioxygenase 3	22
802	HORVU5Hr1G060650	myb domain protein 20	22
803	HORVU4Hr1G029150	Protein kinase domain containing protein	22
804	HORVU6Hr1G031530	Cell cycle control protein 50A	22
805	HORVU7Hr1G113350	NADPH HC toxin reductase	22
806	HORVU4Hr1G052320	unknown function	22
807	HORVU3Hr1G003920	receptor kinase 2	22
808	HORVU7Hr1G030480	cinnamoyl coa reductase	22
809	<b>HORVU6Hr1G018070</b>	<b>Zinc transporter 2</b>	22
810	HORVU3Hr1G086230	Calcium-dependent lipid-binding (CaLB domain) family protein	22
811	HORVU2Hr1G101980	Ubiquinol oxidase	22
812	HORVU7Hr1G036380	RING/U-box superfamily protein	22
813	HORVU7Hr1G083270	WRKY DNA-binding protein 70	22
814	HORVU7Hr1G028370	Pheophorbide a oxygenase, chloroplastic	22
815	HORVU3Hr1G096570	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	22
816	HORVU5Hr1G087240	receptor kinase 3	22
817	HORVU3Hr1G108360	Orotidine 5'-phosphate decarboxylase	22
818	HORVU4Hr1G007180	microsomal glutathione s-transferase, putative	22
819	HORVU7Hr1G088260	Inositol oxygenase 1	21
820	HORVU5Hr1G112210	Transmembrane amino acid transporter family protein	21
821	HORVU3Hr1G087480	ATP-dependent Clp protease adapter protein ClpS	21
822	HORVU3Hr1G097300	Cytochrome P450 superfamily protein	21
823	HORVU2Hr1G120410	undescribed protein	21
824	HORVU6Hr1G093180	Electron transfer flavoprotein subunit beta	21
825	HORVU3Hr1G062430	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	21
826	HORVU2Hr1G064150	sugar transporter 1	21
827	HORVU6Hr1G012640	Chymotrypsin inhibitor	21



S.No.	Feature ID	Barley Annotation	Fold changes
828	HORVU3Hr1G065620	Protein kinase superfamily protein	21
829	HORVU3Hr1G011870	Cytochrome P450 superfamily protein	21
830	HORVU7Hr1G096870	SAUR-like auxin-responsive protein family	21
831	HORVU1Hr1G019500	sucrose-phosphatase 1	21
832	HORVU2Hr1G045210	undescribed protein	21
833	HORVU3Hr1G112080	undescribed protein	21
834	HORVU1Hr1G057460	Aldolase-type TIM barrel family protein	21
835	HORVU1Hr1G052250	undescribed protein	21
836	HORVU2Hr1G100450	HKT14-1	21
837	HORVU3Hr1G004260	0	21
838	HORVU6Hr1G005900	alpha/beta-Hydrolases superfamily protein	21
839	HORVU3Hr1G083820	NAC domain protein,	21
840	HORVU6Hr1G068990	Adenine nucleotide alpha hydrolases-like superfamily protein	21
841	HORVU5Hr1G057320	LAG1 longevity assurance homolog 3	21
842	HORVU0Hr1G039620	Receptor-like protein kinase	21
843	HORVU5Hr1G018240	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	21
844	HORVU7Hr1G087170	sulfotransferase 4B	21
845	HORVU2Hr1G081640	Heavy metal transport/detoxification superfamily protein	21
846	HORVU3Hr1G092250	E3 ubiquitin-protein ligase RGLG2	21
847	HORVU3Hr1G014270	Phloem-specific lectin	21
848	HORVU0Hr1G012940	Alcohol dehydrogenase	21
849	HORVU6Hr1G011850	unknown function	21
850	HORVU2Hr1G024160	chaperone protein dnaJ-related	21
851	HORVU5Hr1G098030	undescribed protein	21
852	HORVU4Hr1G063590	Chaperone protein DnaJ	20
853	HORVU5Hr1G012120	receptor kinase 2	20
854	HORVU1Hr1G088580	Cysteine-rich receptor-like protein kinase 25	20
855	HORVU3Hr1G074730	Transmembrane protein 56	20
856	HORVU1Hr1G026200	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	20
857	HORVU7Hr1G034350	Chalcone-flavonone isomerase family protein	20
858	HORVU7Hr1G051430	receptor kinase 2	20
859	HORVU5Hr1G084740	phospholipase D delta	20
860	HORVU3Hr1G024210	ABC transporter C family member 3	20
861	HORVU5Hr1G062300	undescribed protein	20
862	HORVU6Hr1G066250	Tetratricopeptide repeat (TPR)-like superfamily protein	20
863	HORVU2Hr1G118060	Heavy metal transport/detoxification superfamily protein	20
864	HORVU6Hr1G021320	Lipid A export ATP-binding/permease protein MsbA	20
865	HORVU3Hr1G023400	UDP-Glycosyltransferase superfamily protein	20
866	HORVU5Hr1G106640	rRNA N-glycosidase	20
867	HORVU1Hr1G020410	1-aminocyclopropane-1-carboxylate oxidase	20
868	HORVU0Hr1G009460	germin-like protein 9	20
869	HORVU3Hr1G007420	calmodulin like 23	20

S.No.	Feature ID	Barley Annotation	Fold changes
870	HORVU2Hr1G085260	Protein NRT1/ PTR FAMILY 4.3	20
871	HORVU2Hr1G036210	Protein kinase superfamily protein	20
872	HORVU2Hr1G038340	undescribed protein	20
873	HORVU1Hr1G073820	Glucan endo-1,3-beta-glucosidase 14	20
874	HORVU0Hr1G009410	germin-like protein 2	20
875	HORVU4Hr1G084340	Inter-alpha-trypsin inhibitor heavy chain H1	20
876	HORVU2Hr1G037930	undescribed protein	20
877	HORVU3Hr1G117910	PLAC8 family protein	20
878	HORVU6Hr1G071190	Eukaryotic aspartyl protease family protein	20
879	HORVU5Hr1G068060	Mitochondrial phosphate carrier protein 2, mitochondrial	20
880	HORVU5Hr1G010880	germin-like protein 2	20
881	HORVU2Hr1G042520	Protein kinase superfamily protein	20
882	HORVU3Hr1G086220	Calcium-dependent lipid-binding (CaLB domain) family protein	20
883	HORVU2Hr1G042540	unknown function	20
884	HORVU7Hr1G080950	WRKY DNA-binding protein 27	20
885	HORVU4Hr1G062330	unknown function	20
886	HORVU6Hr1G027640	SAUR25-auxin-responsive SAUR family member	20
887	HORVU2Hr1G044870	receptor kinase 2	19
888	HORVU1Hr1G021150	Glutathione S-transferase family protein	19
889	HORVU5Hr1G066250	Vacuolar-processing enzyme	19
890	HORVU7Hr1G106600	patatin-like protein 6	19
891	HORVU1Hr1G054290	Subtilisin-like protease SBT3.17	19
892	HORVU2Hr1G045900	glucose-6-phosphate/phosphate translocator 2	19
893	HORVU7Hr1G099340	receptor kinase 1	19
894	HORVU2Hr1G117940	Heavy metal transport/detoxification superfamily protein	19
895	HORVU5Hr1G065620	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	19
896	HORVU3Hr1G073780	Alpha-1,4-glucan-protein synthase [UDP-forming]	19
897	HORVU1Hr1G070580	receptor-like kinase 902	19
898	HORVU7Hr1G093680	expansin A4	19
899	HORVU5Hr1G061950	Cytochrome P450 superfamily protein	19
900	HORVU3Hr1G085810	Aldose reductase	19
901	HORVU4Hr1G027740	Glucan endo-1,3-beta-glucosidase	19
902	HORVU6Hr1G089960	undescribed protein	19
903	HORVU2Hr1G026830	tolB protein-related	19
904	HORVU1Hr1G061380	Eukaryotic aspartyl protease family protein	19
905	HORVU4Hr1G071330	Cytochrome b561 and DOMON domain-containing protein	18
906	HORVU2Hr1G076060	Amino-acid permease 2	18
907	HORVU3Hr1G077110	receptor kinase 2	18
908	HORVU4Hr1G078690	Ras-related protein Rab-6A	18
909	HORVU6Hr1G035040	Lipid A export ATP-binding/permease protein MsbA	18
910	HORVU4Hr1G081670	respiratory burst oxidase homologue D	18
911	HORVU2Hr1G084210	Leucine-rich repeat receptor-like protein kinase family protein	18

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
912	HORVU4Hr1G021040	exocyst subunit exo70 family protein A2	18
913	HORVU1Hr1G000140	Phospholipid-transporting ATPase 10	18
914	HORVU2Hr1G114590	Synaptotagmin-5	18
915	HORVU0Hr1G002390	unknown function	18
916	HORVU7Hr1G075130	unknown function	18
917	HORVU2Hr1G009720	undescribed protein	18
918	HORVU5Hr1G119270	Protein kinase family protein	18
919	HORVU1Hr1G020720	Peroxidase superfamily protein	18
920	HORVU6Hr1G008640	catalase 1	18
921	HORVU2Hr1G006100	receptor kinase 2	18
922	HORVU3Hr1G082590	Abhydrolase domain-containing protein 1	18
923	HORVU5Hr1G081500	Protein STAY-GREEN, chloroplastic	18
924	HORVU7Hr1G122110	0	18
925	HORVU5Hr1G055060	IAA-amino acid hydrolase ILR1-like 9	18
926	HORVU5Hr1G122410	undescribed protein	17
927	HORVU1Hr1G023640	Gag protease polyprotein	17
928	HORVU6Hr1G057270	Subtilisin-like protease SBT3.6	17
929	HORVU2Hr1G091410	unknown function	17
930	HORVU3Hr1G090220	Protein kinase superfamily protein	17
931	HORVU5Hr1G068320	Heat stress transcription factor B-1	17
932	HORVU2Hr1G108380	Organic cation/carnitine transporter 4	17
933	HORVU2Hr1G042210	Serine/threonine-protein kinase	17
934	HORVU2Hr1G121060	polyamine oxidase 2	17
935	HORVU4Hr1G057260	undescribed protein	17
936	HORVU7Hr1G117870	Carbonic anhydrase	17
937	HORVU5Hr1G117910	ferredoxin 3	17
938	HORVU4Hr1G043990	unknown function	17
939	HORVU7Hr1G110840	Nodulin-like / Major Facilitator Superfamily protein	17
940	HORVU3Hr1G051820	Protein kinase superfamily protein	17
941	HORVU6Hr1G034360	N-terminal protein myristoylation	17
942	HORVU4Hr1G063690	Pathogenesis-related thaumatin superfamily protein	17
943	HORVU7Hr1G085420	undescribed protein	17
944	HORVU5Hr1G098090	allene oxide synthase	17
945	HORVU7Hr1G048570	Glycosyltransferase family 61 protein	17
946	HORVU7Hr1G024660	undescribed protein	17
947	HORVU0Hr1G030830	WRKY family transcription factor	17
948	HORVU3Hr1G028280	RING/U-box superfamily protein	17
949	HORVU2Hr1G120460	unknown function	16
950	HORVU5Hr1G095580	Cathepsin B-like cysteine proteinase	16
951	HORVU5Hr1G046900	Peroxidase superfamily protein	16
952	HORVU4Hr1G078230	MATE efflux family protein	16
953	HORVU1Hr1G017580	Proofreading thioesterase EntH	16

S.No.	Feature ID	Barley Annotation	Fold changes
954	HORVU3Hr1G016860	Chymotrypsin inhibitor	16
955	HORVU4Hr1G090140	germin-like protein 9	16
956	HORVU2Hr1G008140	receptor kinase 3	16
957	HORVU0Hr1G022290	receptor kinase 2	16
958	HORVU2Hr1G042550	receptor kinase 1	16
959	HORVU4Hr1G069380	Protein phosphatase 2C family protein	16
960	HORVU3Hr1G018430	Leucine-rich repeat receptor-like protein kinase family protein	16
961	HORVU4Hr1G023390	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	16
962	HORVU5Hr1G114440	unknown function	16
963	HORVU7Hr1G009680	Leucine-rich receptor-like protein kinase family protein	16
964	HORVU4Hr1G066310	Wall-associated receptor kinase-like 14	16
965	HORVU7Hr1G090830	Copine family protein 2	16
966	HORVU2Hr1G044910	receptor kinase 2	16
967	HORVU4Hr1G084930	TVP38/TMEM64 family membrane protein slr0305	16
968	HORVU3Hr1G080190	glycerol-3-phosphate acyltransferase 3	16
969	HORVU7Hr1G113080	PATATIN-like protein 5	16
970	HORVU0Hr1G007620	Leucine-rich receptor-like protein kinase family protein	16
971	HORVU5Hr1G067800	Signal peptidase I	16
972	HORVU2Hr1G116910	diacylglycerol kinase 5	16
973	HORVU1Hr1G049260	Glutathione S-transferase family protein	16
974	HORVU5Hr1G110220	phosphate transporter 1;7	15
975	HORVU3Hr1G063430	MATE efflux family protein	15
976	HORVU6Hr1G090780	Protein kinase superfamily protein	15
977	HORVU0Hr1G015930	Ergosterol biosynthetic protein 28	15
978	HORVU7Hr1G091250	alpha-amylase-like	15
979	HORVU7Hr1G104350	early nodulin-like protein 9	15
980	HORVU1Hr1G028200	hexokinase 2	15
981	HORVU1Hr1G058810	UDP-glucuronic acid decarboxylase 1	15
982	HORVU4Hr1G017260	unknown protein; Has 25 Blast hits to 25 proteins in 9 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 25; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	15
983	HORVU7Hr1G101790	Calcium-binding EF-hand family protein	15
984	HORVU1Hr1G039720	Protein NRT1/ PTR FAMILY 5.2	15
985	HORVU2Hr1G089310	myb domain protein 15	15
986	HORVU5Hr1G062410	Hypersensitive-induced response protein 1	15
987	HORVU5Hr1G067750	Beta-1,3-galactosyltransferase 7	15
988	HORVU2Hr1G063620	ERD (early-responsive to dehydration stress) family protein	15
989	HORVU1Hr1G080320	aldehyde dehydrogenase 12A1	15
990	HORVU5Hr1G097500	Zinc finger protein 1	15
991	HORVU0Hr1G009400	germin-like protein 9	15
992	HORVU3Hr1G030100	Protein kinase superfamily protein	15
993	HORVU6Hr1G077010	Endoglucanase 7	15

S.No.	Feature ID	Barley Annotation	Fold changes
994	HORVU2Hr1G029430	WRKY family transcription factor	15
995	HORVU7Hr1G108820	unknown function	15
996	HORVU5Hr1G064020	Tetraspanin family protein	15
997	HORVU3Hr1G093550	receptor kinase 2	15
998	HORVU1Hr1G070220	alanine:glyoxylate aminotransferase 3	15
999	HORVU3Hr1G086240	Calcium-dependent lipid-binding (CaLB domain) family protein	14
1000	HORVU3Hr1G077580	Peroxidase superfamily protein	14
1001	HORVU1Hr1G005290	ENTH/ANTH/VHS superfamily protein	14
1002	HORVU1Hr1G092300	receptor kinase 2	14
1003	HORVU6Hr1G044270	undescribed protein	14
1004	HORVU2Hr1G079510	unknown function	14
1005	HORVU1Hr1G066900	undescribed protein	14
1006	HORVU6Hr1G088960	Cytochrome P450 superfamily protein	14
1007	HORVU1Hr1G062940	peroxisomal adenine nucleotide carrier 1	14
1008	HORVU2Hr1G024000	undescribed protein	14
1009	HORVU2Hr1G117490	Serine/threonine-protein kinase	14
1010	HORVU2Hr1G026840	tolB protein-related	14
1011	HORVU1Hr1G086160	undescribed protein	14
1012	HORVU5Hr1G002340	unknown function	14
1013	HORVU4Hr1G069370	undescribed protein	14
1014	HORVU3Hr1G113100	Beta-fructofuranosidase, insoluble isoenzyme 4	14
1015	HORVU5Hr1G034300	undescribed protein	14
1016	HORVU7Hr1G039900	Family of unknown function (DUF716)	14
1017	HORVU2Hr1G045200	Glutathione S-transferase family protein	14
1018	HORVU0Hr1G026470	undescribed protein	14
1019	HORVU3Hr1G085780	Aldose reductase	14
1020	HORVU1Hr1G074350	actin 7	14
1021	HORVU5Hr1G096210	UDP-Glycosyltransferase superfamily protein	14
1022	HORVU7Hr1G118560	Blue copper protein	14
1023	HORVU2Hr1G028780	Chymotrypsin inhibitor	14
1024	HORVU2Hr1G109330	WRKY family transcription factor	14
1025	HORVU3Hr1G066280	unknown function	14
1026	HORVU5Hr1G120570	Membrane protein insertase YidC	14
1027	HORVU1Hr1G020450	1-aminocyclopropane-1-carboxylate oxidase	14
1028	HORVU2Hr1G097150	Sugar phosphate exchanger 2	14
1029	HORVU3Hr1G076750	Secretory carrier-associated membrane protein 2	14
1030	HORVU6Hr1G017890	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	14
1031	HORVU4Hr1G000850	Calcium-dependent lipid-binding (CaLB domain) family protein	14
1032	HORVU6Hr1G088880	Protein kinase family protein	14
1033	HORVU6Hr1G018460	unknown function	14
1034	HORVU3Hr1G077890	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	14
1035	HORVU3Hr1G064130	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	14

S.No.	Feature ID	Barley Annotation	Fold changes
1036	HORVU5Hr1G066360	sulfate transporter 1;2	14
1037	HORVU5Hr1G097270	Peroxidase superfamily protein	14
1038	HORVU2Hr1G017950	B12D protein	14
1039	HORVU6Hr1G022680	Late embryogenesis abundant (LEA) hydroxyproline-rich glycoprotein family	14
1040	HORVU6Hr1G060140	Ethylene-responsive transcription factor 1A	14
1041	HORVU2Hr1G009830	Cystic fibrosis transmembrane conductance regulator	14
1042	HORVU3Hr1G087740	TRICHOME BIREFRINGENCE-LIKE 28	14
1043	HORVU5Hr1G107290	Actin cross-linking protein	14
1044	HORVU4Hr1G084600	unknown function	13
1045	HORVU5Hr1G001430	Ocs element-binding factor 1	13
1046	HORVU6Hr1G044250	undescribed protein	13
1047	HORVU3Hr1G091120	amino acid permease 3	13
1048	HORVU7Hr1G029370	undescribed protein	13
1049	HORVU2Hr1G006480	Disease resistance protein	13
1050	HORVU1Hr1G053260	U-box domain-containing protein	13
1051	HORVU7Hr1G050680	lipoxygenase 2	13
1052	HORVU4Hr1G058550	Peptidase M50B-like protein	13
1053	HORVU4Hr1G010650	Endoplasmic oxidoreductin-1	13
1054	HORVU1Hr1G086170	undescribed protein	13
1055	HORVU6Hr1G070710	unknown function	13
1056	HORVU6Hr1G010050	Protein kinase superfamily protein	13
1057	HORVU7Hr1G033430	Chaperone DnaJ domain protein	13
1058	HORVU1Hr1G020430	1-aminocyclopropane-1-carboxylate oxidase	13
1059	HORVU3Hr1G064320	Glutathione S-transferase family protein	13
1060	HORVU7Hr1G047080	MATE efflux family protein	13
1061	HORVU5Hr1G104620	Type IV inositol polyphosphate 5-phosphatase 7	13
1062	HORVU7Hr1G002820	alpha dioxygenase	13
1063	HORVU5Hr1G076250	purple acid phosphatase 27	13
1064	HORVU2Hr1G123390	unknown function	13
1065	HORVU5Hr1G115720	Epoxide hydrolase 3	13
1066	HORVU6Hr1G089510	germin-like protein 5	13
1067	HORVU1Hr1G074660	Subtilisin-like protease SBT3.6	13
1068	HORVU2Hr1G001940	undescribed protein	13
1069	HORVU1Hr1G072250	Chitinase 2	13
1070	HORVU0Hr1G009470	germin-like protein 2	13
1071	HORVU2Hr1G102130	Hypoxia-responsive family protein	13
1072	HORVU5Hr1G093090	cationic amino acid transporter 5	13
1073	HORVU3Hr1G049640	calmodulin-binding family protein	13
1074	HORVU4Hr1G009210	Sec14p-like phosphatidylinositol transfer family protein	13
1075	HORVU4Hr1G010030	Protein kinase superfamily protein	13
1076	HORVU2Hr1G061670	undescribed protein	13
1077	HORVU2Hr1G007760	ABC transporter family protein	13



S.No.	Feature ID	Barley Annotation	Fold changes
1078	HORVU1Hr1G045580	undescribed protein	12
1079	HORVU7Hr1G053300	RPM1 interacting protein 4 transcript 2	12
1080	HORVU2Hr1G006000	Galactosylgalactosylxylosylprotein 3-beta-glucuronosyltransferase 1	12
1081	HORVU4Hr1G007340	Homologous-pairing protein 2 homolog	12
1082	HORVU5Hr1G058020	Major facilitator superfamily protein	12
1083	HORVU0Hr1G001430	WRKY DNA-binding protein 51	12
1084	HORVU7Hr1G113300	undescribed protein	12
1085	HORVU7Hr1G015160	unknown function	12
1086	HORVU4Hr1G081940	4-coumarate--CoA ligase-like 4	12
1087	HORVU2Hr1G037750	receptor kinase 3	12
1088	HORVU2Hr1G077990	F-box protein SKIP19	12
1089	HORVU1Hr1G011430	Pyrimidine-specific ribonucleoside hydrolase RihA	12
1090	HORVU6Hr1G000130	Rhodanese-like domain-containing protein 17	12
1091	HORVU7Hr1G079630	undescribed protein	12
1092	HORVU5Hr1G115780	Epoxide hydrolase 3	12
1093	HORVU2Hr1G078890	unknown function	12
1094	HORVU7Hr1G118020	Eukaryotic aspartyl protease family protein	12
1095	HORVU7Hr1G037510	Protein of unknown function, DUF547	12
1096	HORVU1Hr1G072720	unknown protein; Has 30 Blast hits to 30 proteins in 10 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 30; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLINK).	12
1097	HORVU7Hr1G059050	Pyrimidine-specific ribonucleoside hydrolase RihA	12
1098	HORVU5Hr1G041590	Leucine-rich repeat protein kinase family protein	12
1099	HORVU5Hr1G096370	UDP-glucose 6-dehydrogenase family protein	12
1100	HORVU3Hr1G022640	alpha/beta-Hydrolases superfamily protein	12
1101	HORVU2Hr1G117840	Protein kinase superfamily protein	12
1102	HORVU7Hr1G101590	Cytochrome P450 superfamily protein	12
1103	HORVU3Hr1G090070	undescribed protein	12
1104	HORVU6Hr1G066920	Acetylornithine deacetylase	12
1105	HORVU4Hr1G054870	Major pollen allergen Bet v 1-F/I	12
1106	HORVU3Hr1G085970	Protein of unknown function (DUF668)	12
1107	HORVU2Hr1G032330	sulfotransferase 17	12
1108	HORVU2Hr1G081270	unknown function	12
1109	HORVU7Hr1G046110	undescribed protein	12
1110	HORVU2Hr1G123590	Protein kinase family protein	12
1111	HORVU3Hr1G028060	GDSL esterase/lipase	12
1112	HORVU5Hr1G093860	Structural constituent of ribosome protein	12
1113	HORVU5Hr1G017260	Transducin/WD40 repeat-like superfamily protein	12
1114	HORVU1Hr1G073150	O-fucosyltransferase family protein	12
1115	HORVU0Hr1G002720	4-coumarate:CoA ligase 1	12
1116	HORVU3Hr1G067160	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	12
1117	HORVU3Hr1G053380	ABC transporter G family member 37	12

S.No.	Feature ID	Barley Annotation	Fold changes
1118	HORVU1Hr1G049210	Glutathione S-transferase family protein	12
1119	HORVU5Hr1G058170	unknown function	11
1120	HORVU1Hr1G089830	Dehydrogenase/reductase SDR family member 12	11
1121	HORVU7Hr1G116880	Protein of unknown function (DUF668)	11
1122	HORVU6Hr1G084080	MATE efflux family protein	11
1123	HORVU3Hr1G012100	Protein kinase superfamily protein	11
1124	HORVU5Hr1G089620	receptor kinase 2	11
1125	HORVU3Hr1G001790	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	11
1126	HORVU5Hr1G072730	undescribed protein	11
1127	HORVU7Hr1G028840	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	11
1128	HORVU3Hr1G083560	Uricase	11
1129	HORVU7Hr1G041570	alpha/beta-Hydrolases superfamily protein	11
1130	HORVU3Hr1G061080	Glutaredoxin family protein	11
1131	HORVU7Hr1G042120	Protein NRT1/ PTR FAMILY 3.1	11
1132	HORVU2Hr1G086380	hydroxycinnamoyl-CoA shikimate/quinic acid hydroxycinnamoyl transferase	11
1133	HORVU3Hr1G058170	ADP,ATP carrier protein 1	11
1134	HORVU2Hr1G104110	UDP-glucose 4-epimerase 4	11
1135	HORVU3Hr1G097210	thiamin pyrophosphokinase 2	11
1136	HORVU2Hr1G014900	receptor kinase 2	11
1137	HORVU2Hr1G114190	UDP-Glycosyltransferase superfamily protein	11
1138	HORVU0Hr1G002920	peptidases	11
1139	HORVU1Hr1G045220	Calcium uniporter protein 2, mitochondrial	11
1140	HORVU1Hr1G002600	receptor-like protein kinase 4	11
1141	HORVU3Hr1G088200	WRKY DNA-binding protein 33	11
1142	HORVU4Hr1G059170	NAD(P)H dehydrogenase (quinone)	11
1143	HORVU2Hr1G089270	MYB-related transcription factor	11
1144	HORVU5Hr1G098640	receptor kinase 2	11
1145	HORVU4Hr1G077680	HXXXD-type acyl-transferase family protein	11
1146	HORVU7Hr1G057650	RING/U-box superfamily protein	11
1147	HORVU4Hr1G085750	Hydroxymethylglutaryl-CoA synthase	11
1148	HORVU4Hr1G072310	FAD/NAD(P)-binding oxidoreductase family protein	11
1149	HORVU2Hr1G029460	WRKY family transcription factor	11
1150	HORVU5Hr1G103620	Syntaxin-121	11
1151	HORVU2Hr1G078510	lipoxygenase 3	11
1152	HORVU5Hr1G011540	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	11
1153	HORVU7Hr1G048430	Glycosyltransferase	11
1154	HORVU1Hr1G073210	phosphate transporter 4;2	11
1155	HORVU4Hr1G088720	Palmitoyl-protein thioesterase 1	11
1156	HORVU6Hr1G067360	C2 domain-containing protein / GRAM domain-containing protein	11
1157	HORVU4Hr1G028780	myb domain protein 112	11
1158	HORVU2Hr1G105190	Malectin/receptor-like protein kinase family protein	11

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
1159	HORVU1Hr1G002890	HXXXD-type acyl-transferase family protein	11
1160	HORVU5Hr1G120810	pirin	11
1161	HORVU1Hr1G083700	Galactosyltransferase family protein	11
1162	HORVU5Hr1G089790	receptor kinase 3	11
1163	HORVU3Hr1G047690	Protein of unknown function (DUF3511)	11
1164	HORVU4Hr1G048020	Serine/threonine-protein kinase	11
1165	HORVU4Hr1G007610	glutamine synthetase 1.3	11
1166	HORVU1Hr1G026520	HXXXD-type acyl-transferase family protein	11
1167	HORVU4Hr1G011430	pfkB-like carbohydrate kinase family protein	11
1168	HORVU6Hr1G024850	Cytochrome P450 superfamily protein	11
1169	HORVU1Hr1G002470	receptor-like protein kinase 4	10
1170	HORVU7Hr1G078530	Protein kinase superfamily protein	10
1171	HORVU4Hr1G074770	unknown function	10
1172	HORVU2Hr1G080430	Transmembrane amino acid transporter family protein	10
1173	HORVU5Hr1G023990	unknown function	10
1174	HORVU2Hr1G109950	undescribed protein	10
1175	HORVU2Hr1G000050	NADPH-dependent codeinone reductase 1-5	10
1176	HORVU7Hr1G116780	Eukaryotic aspartyl protease family protein	10
1177	HORVU0Hr1G015180	AT-hook motif nuclear-localized protein 1	10
1178	HORVU2Hr1G062730	Protein NRT1/ PTR FAMILY 4.5	10
1179	HORVU6Hr1G082880	Ethylene-responsive transcription factor 1	10
1180	HORVU5Hr1G072740	undescribed protein	10
1181	HORVU3Hr1G097770	Heavy metal transport/detoxification superfamily protein	10
1182	HORVU5Hr1G023530	Calmodulin-binding protein	10
1183	HORVU4Hr1G076520	Protein kinase superfamily protein	10
1184	HORVU1Hr1G054390	lipoxygenase 1	10
1185	HORVU2Hr1G014890	receptor kinase 2	10
1186	HORVU6Hr1G034130	Brefeldin A-inhibited guanine nucleotide-exchange protein 1	10
1187	HORVU1Hr1G025890	Boron transporter 4	10
1188	HORVU2Hr1G090280	YELLOW STRIPE like 7	10
1189	HORVU5Hr1G040740	Long-chain-fatty-acid--CoA ligase 1	10
1190	HORVU5Hr1G084700	unknown function	10
1191	HORVU2Hr1G028540	Lipase/lipoxygenase, putative isoform 3	10
1192	HORVU6Hr1G087220	Alcohol dehydrogenase	10
1193	HORVU3Hr1G086040	Major facilitator superfamily protein	10
1194	HORVU5Hr1G052760	Heavy metal transport/detoxification superfamily protein	10
1195	HORVU2Hr1G123250	undescribed protein	10
1196	HORVU0Hr1G031170	GDSL esterase/lipase	10
1197	HORVU1Hr1G054100	Hexosyltransferase	10
1198	HORVU2Hr1G080000	undescribed protein	10
1199	HORVU1Hr1G051200	ERD (early-responsive to dehydration stress) family protein	10
1200	HORVU5Hr1G110180	phosphate transporter 1;7	10

S.No.	Feature ID	Barley Annotation	Fold changes
1201	HORVU5Hr1G100150	Calmodulin-binding protein	10
1202	HORVU2Hr1G065000	Encodes a protein involved in salt tolerance, names SIS (Salt Induced Serine rich).	10
1203	HORVU7Hr1G010250	Peroxisomal membrane protein 11-5	10
1204	HORVU4Hr1G059120	UDP-glucose 4-epimerase	10
1205	HORVU1Hr1G037270	Chitinase 2	10
1206	HORVU7Hr1G025000	ABC transporter C family member 10	10
1207	HORVU6Hr1G023530	Protein kinase domain containing protein, expressed	10
1208	HORVU6Hr1G008880	Heat shock 70 kDa protein C	10
1209	HORVU2Hr1G121070	Adenylate kinase	10
1210	HORVU5Hr1G063480	glutamate receptor 2.8	10
1211	HORVU5Hr1G016400	Peroxisomal membrane 22 kDa (Mpv17/PMP22) family protein	10
1212	HORVU2Hr1G041880	unknown function	10
1213	HORVU3Hr1G096050	Transaldolase 1	10
1214	HORVU4Hr1G084740	sugar transporter 1	10
1215	HORVU2Hr1G123030	Calcium-dependent lipid-binding (CaLB domain) family protein	10
1216	HORVU3Hr1G031020	Cytochrome P450 superfamily protein	10
1217	HORVU5Hr1G019820	ATP-dependent zinc metalloprotease FtsH 2	10
1218	HORVU2Hr1G039850	MATE efflux family protein	10
1219	HORVU5Hr1G081310	UDP-Glycosyltransferase superfamily protein	10
1220	HORVU7Hr1G090950	adenylate kinase 1	10
1221	HORVU4Hr1G086300	Beta-fructofuranosidase, insoluble isoenzyme 1	10
1222	HORVU5Hr1G024160	Adenine nucleotide alpha hydrolases-like superfamily protein	10
1223	HORVU2Hr1G017470	NAC domain protein,	10
1224	HORVU1Hr1G069990	U-box domain-containing protein 16	10
1225	HORVU7Hr1G034290	Protein kinase superfamily protein	10
1226	HORVU3Hr1G034020	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	10
1227	HORVU7Hr1G104190	undescribed protein	10
1228	HORVU5Hr1G096930	Cytochrome P450 superfamily protein	10
1229	HORVU7Hr1G054020	exocyst subunit exo70 family protein F1	10
1230	HORVU5Hr1G074270	Chaperone protein dnaJ 10	10
1231	HORVU6Hr1G023280	0	10
1232	HORVU4Hr1G002710	Acyl-CoA N-acyltransferases (NAT) superfamily protein	10
1233	HORVU2Hr1G044520	receptor kinase 1	10
1234	HORVU0Hr1G017540	glutathione reductase	10
1235	HORVU3Hr1G106950	Calcium-binding EF-hand family protein	10
1236	HORVU5Hr1G072780	tonoplast dicarboxylate transporter	10
1237	HORVU3Hr1G020230	HXXXD-type acyl-transferase family protein	10
1238	HORVU1Hr1G093950	receptor-like protein kinase 1	10
1239	HORVU1Hr1G063410	Protein O-linked-mannose beta-1,4-N-acetylglucosaminyltransferase 2	9
1240	HORVU3Hr1G001060	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	9
1241	HORVU4Hr1G084290	ABC transporter C family member 13	9

S.No.	Feature ID	Barley Annotation	Fold changes
1242	HORVU2Hr1G097160	undescribed protein	9
1243	HORVU5Hr1G079690	Acyl-coenzyme A thioesterase 9, mitochondrial	9
1244	HORVU5Hr1G047730	ferritin 4	9
1245	HORVU3Hr1G105870	Amino-acid permease BAT1 homolog	9
1246	HORVU1Hr1G053070	metallo-beta-lactamase family protein	9
1247	HORVU3Hr1G081100	receptor kinase 1	9
1248	HORVU3Hr1G002920	Glycosyltransferase	9
1249	HORVU7Hr1G040030	unknown function	9
1250	HORVU6Hr1G093300	receptor kinase 1	9
1251	HORVU7Hr1G005270	cellulose synthase-like D3	9
1252	HORVU3Hr1G096620	8-amino-7-oxononanoate synthase	9
1253	HORVU2Hr1G104450	D-2-hydroxyglutarate dehydrogenase, mitochondrial	9
1254	HORVU2Hr1G103890	receptor kinase 2	9
1255	HORVU0Hr1G000250	transducin family protein / WD-40 repeat family protein	9
1256	HORVU1Hr1G023510	GDSL esterase/lipase	9
1257	HORVU1Hr1G013820	isovaleryl-CoA-dehydrogenase	9
1258	HORVU3Hr1G050380	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	9
1259	HORVU7Hr1G035030	Pantothenate kinase 1	9
1260	HORVU2Hr1G004230	12-oxophytodienoate reductase 2	9
1261	HORVU7Hr1G012560	arginine decarboxylase 2	9
1262	HORVU3Hr1G053090	Amino-acid permease BAT1 homolog	9
1263	HORVU6Hr1G038250	undescribed protein	9
1264	HORVU5Hr1G114960	Pyruvate dehydrogenase E1 component subunit beta	9
1265	HORVU2Hr1G029800	undescribed protein	9
1266	HORVU7Hr1G038160	sphingoid base hydroxylase 2	9
1267	HORVU4Hr1G009340	Protein kinase superfamily protein	9
1268	HORVU3Hr1G022260	HXXXD-type acyl-transferase family protein	9
1269	HORVU3Hr1G013880	Fatty acid oxidation complex subunit alpha	9
1270	HORVU3Hr1G090920	NAC domain protein,	9
1271	HORVU2Hr1G044440	glucan endo-1,3-beta-glucosidase-like protein 3	9
1272	HORVU5Hr1G047150	UDP-Glycosyltransferase superfamily protein	9
1273	HORVU4Hr1G056210	Protein phosphatase 2C family protein	9
1274	HORVU1Hr1G045690	Benzyl alcohol O-benzoyltransferase	9
1275	HORVU7Hr1G018600	Acid phosphatase 1	9
1276	HORVU6Hr1G066980	Eukaryotic aspartyl protease family protein	9
1277	HORVU1Hr1G007310	Calcium-transporting ATPase 1	9
1278	HORVU0Hr1G039910	Protein kinase superfamily protein	9
1279	HORVU1Hr1G071670	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	9
1280	HORVU7Hr1G022050	undescribed protein	9
1281	HORVU1Hr1G053440	Proline dehydrogenase 2, mitochondrial	9
1282	HORVU6Hr1G079950	undescribed protein	9

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
1283	HORVU6Hr1G071780	Transmembrane 9 superfamily member 12	9
1284	HORVU1Hr1G002460	receptor-like protein kinase 4	9
1285	HORVU4Hr1G068960	glucan endo-1,3-beta-glucosidase-like protein 3	9
1286	HORVU4Hr1G061130	receptor kinase 1	9
1287	HORVU4Hr1G066270	allene oxide synthase	9
1288	HORVU2Hr1G046550	Protein of unknown function, DUF584	9
1289	HORVU3Hr1G070240	Clathrin interactor EPSIN 1	9
1290	HORVU7Hr1G008760	soluble N-ethylmaleimide-sensitive factor adaptor protein 33	9
1291	HORVU4Hr1G012750	Adenine/guanine permease AZG2	9
1292	HORVU3Hr1G091400	Hexosyltransferase	9
1293	HORVU7Hr1G006590	Leucine-rich repeat receptor-like protein kinase family protein	9
1294	HORVU3Hr1G073850	exocyst subunit exo70 family protein E1	9
1295	HORVU1Hr1G038330	3-ketoacyl-CoA thiolase	9
1296	HORVU2Hr1G096510	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	9
1297	HORVU0Hr1G002170	undescribed protein	9
1298	HORVU6Hr1G036950	3-ketoacyl-CoA synthase 11	9
1299	HORVU3Hr1G071520	MACPF domain-containing protein	9
1300	HORVU6Hr1G074440	annexin 7	9
1301	HORVU3Hr1G018390	Leucine-rich repeat receptor-like protein kinase family protein	9
1302	HORVU2Hr1G089300	undescribed protein	9
1303	HORVU6Hr1G005400	Epoxide hydrolase 4	9
1304	HORVU1Hr1G091600	Glucose-1-phosphate adenylyltransferase family protein	9
1305	HORVU5Hr1G120800	pirin	9
1306	HORVU4Hr1G082790	Calcium-dependent protein kinase family protein	8
1307	HORVU7Hr1G030310	Formin Homology 14	8
1308	HORVU4Hr1G064010	Protein kinase superfamily protein	8
1309	HORVU6Hr1G009150	Cysteine-rich receptor-like protein kinase 10	8
1310	HORVU2Hr1G100460	Leucine-rich repeat receptor-like protein kinase family protein	8
1311	HORVU5Hr1G099820	citrate synthase 3	8
1312	HORVU7Hr1G088630	ABC transporter G family member 42	8
1313	HORVU2Hr1G088110	inter-alpha-trypsin inhibitor heavy chain-related	8
1314	HORVU5Hr1G084100	protein kinase family protein	8
1315	HORVU6Hr1G088980	receptor kinase 3	8
1316	HORVU1Hr1G070640	RING/U-box superfamily protein	8
1317	HORVU6Hr1G025350	receptor kinase 2	8
1318	HORVU1Hr1G073040	Phosphatidylinositol:ceramide inositolphosphotransferase	8
1319	HORVU2Hr1G099890	Ethylene-responsive transcription factor 4	8
1320	HORVU5Hr1G097940	undescribed protein	8
1321	HORVU2Hr1G012440	Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex	8
1322	HORVU7Hr1G106450	receptor kinase 2	8
1323	HORVU5Hr1G084860	Cysteine-rich receptor-like protein kinase 10	8



S.No.	Feature ID	Barley Annotation	Fold changes
1324	HORVU1Hr1G067870	Cysteine proteinase inhibitor	8
1325	HORVU2Hr1G072210	Arogenate dehydratase/prephenate dehydratase 6, chloroplastic	8
1326	HORVU7Hr1G050660	lipoxygenase 2	8
1327	HORVU5Hr1G073970	3-hydroxy-3-methylglutaryl-coenzyme A reductase	8
1328	HORVU2Hr1G038760	zinc finger (AN1-like) family protein	8
1329	HORVU2Hr1G044650	receptor kinase 1	8
1330	HORVU7Hr1G008840	SNAP25 homologous protein SNAP33	8
1331	HORVU6Hr1G078650	fucosyltransferase 1	8
1332	HORVU4Hr1G043910	Protein disulfide-isomerase	8
1333	HORVU7Hr1G029420	Sugar phosphate exchanger 2	8
1334	HORVU2Hr1G121440	Cathepsin B-like cysteine proteinase	8
1335	HORVU6Hr1G022380	Apoptosis-inducing factor homolog A	8
1336	HORVU3Hr1G070550	Transferrin receptor protein 2	8
1337	HORVU2Hr1G118950	receptor kinase 1	8
1338	HORVU1Hr1G069100	Protein kinase superfamily protein	8
1339	HORVU2Hr1G096960	glutathione peroxidase 6	8
1340	HORVU2Hr1G075470	Protein kinase superfamily protein	8
1341	HORVU3Hr1G055620	Protein kinase family protein	8
1342	HORVU6Hr1G028790	WRKY family transcription factor	8
1343	HORVU5Hr1G092960	Ornithine aminotransferase	8
1344	HORVU3Hr1G066880	receptor kinase 2	8
1345	HORVU6Hr1G066470	Calcium-dependent protein kinase family protein	8
1346	HORVU7Hr1G013710	3-phosphoshikimate 1-carboxyvinyltransferase 2	8
1347	HORVU1Hr1G084800	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	8
1348	HORVU4Hr1G057100	Nucleotide-sugar transporter family protein	8
1349	HORVU6Hr1G085870	Transmembrane 9 superfamily member 11	8
1350	HORVU7Hr1G086170	Protein NRT1/ PTR FAMILY 4.6	8
1351	HORVU4Hr1G022170	unknown function	8
1352	HORVU5Hr1G047060	plastid transcriptionally active 6	8
1353	HORVU5Hr1G078950	Mitochondrial dicarboxylate carrier	8
1354	HORVU3Hr1G095820	cyclin-dependent kinase C;1	8
1355	HORVU6Hr1G033980	Citrate synthase family protein	8
1356	HORVU7Hr1G109200	receptor kinase 2	8
1357	HORVU7Hr1G000510	homogentisate 1,2-dioxygenase	8
1358	HORVU1Hr1G070730	ammonium transporter 2	8
1359	HORVU2Hr1G078860	Protein phosphatase 2C family protein	8
1360	HORVU5Hr1G061640	undescribed protein	8
1361	HORVU5Hr1G048810	Coffea canephora DH200=94 genomic scaffold, scaffold_93	8
1362	HORVU7Hr1G045420	Protein FATTY ACID EXPORT 1, chloroplastic	8
1363	HORVU3Hr1G062940	O-acyltransferase (WSD1-like) family protein	8
1364	HORVU3Hr1G092680	Aldehyde dehydrogenase family 2 member C4	8
1365	HORVU5Hr1G072770	undescribed protein	8

S.No.	Feature ID	Barley Annotation	Fold changes
1366	HORVU2Hr1G017460	NAC domain protein,	8
1367	HORVU7Hr1G108570	Glutathione S-transferase family protein	8
1368	HORVU5Hr1G085020	receptor kinase 1	8
1369	HORVU6Hr1G063480	cysteine synthase D1	8
1370	HORVU4Hr1G087340	60 kDa jasmonate-induced protein	8
1371	HORVU6Hr1G041840	unknown function	8
1372	HORVU2Hr1G038830	Ferredoxin--NADP reductase	8
1373	HORVU3Hr1G001740	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	8
1374	HORVU7Hr1G039880	phosphoglucosamine mutase-related	8
1375	HORVU6Hr1G058840	phenylalanine ammonia-lyase 2	8
1376	HORVU3Hr1G003110	Glycosyltransferase	8
1377	HORVU0Hr1G010080	Bidirectional sugar transporter N3	8
1378	HORVU3Hr1G092470	Plant protein of unknown function (DUF868)	8
1379	HORVU7Hr1G006650	Transposon Ty1-H Gag-Pol polyprotein	8
1380	HORVU6Hr1G067380	myb domain protein 63	8
1381	HORVU2Hr1G031310	Protein TIFY 3B	8
1382	HORVU6Hr1G006560	1-deoxy-D-xylulose 5-phosphate synthase 3	8
1383	HORVU4Hr1G002180	Ankyrin repeat domain-containing protein 50	8
1384	HORVU2Hr1G118110	Heavy metal transport/detoxification superfamily protein	8
1385	HORVU2Hr1G017400	NAC domain protein,	7
1386	HORVU7Hr1G029460	undescribed protein	7
1387	HORVU2Hr1G079170	RING/U-box superfamily protein	7
1388	HORVU3Hr1G078100	Fatty acid oxidation complex subunit alpha	7
1389	HORVU6Hr1G025340	receptor kinase 2	7
1390	HORVU2Hr1G107550	Aldehyde dehydrogenase family 9 member A1-B	7
1391	HORVU0Hr1G012920	receptor-like kinase 1	7
1392	HORVU6Hr1G052930	Transposon protein, putative, CACTA, En/Spm sub-class	7
1393	HORVU7Hr1G047070	MATE efflux family protein	7
1394	HORVU3Hr1G006300	undescribed protein	7
1395	HORVU2Hr1G114100	Leucine-rich repeat receptor-like protein kinase family protein	7
1396	HORVU5Hr1G121570	Nucleotide-diphospho-sugar transferase family protein	7
1397	HORVU7Hr1G008050	Receptor-like protein kinase	7
1398	HORVU7Hr1G083370	Alpha/beta hydrolase	7
1399	HORVU6Hr1G066930	Acetylornithine deacetylase	7
1400	HORVU7Hr1G033520	receptor-like protein kinase 1	7
1401	HORVU1Hr1G028030	NAD-dependent malic enzyme 1	7
1402	HORVU2Hr1G027470	Cytochrome P450 superfamily protein	7
1403	HORVU5Hr1G084900	Glucan endo-1,3-beta-glucosidase 13	7
1404	HORVU7Hr1G000970	HXXXD-type acyl-transferase family protein	7
1405	HORVU2Hr1G022080	Cytochrome P450 superfamily protein	7
1406	HORVU3Hr1G006290	Alanine--tRNA ligase	7
1407	HORVU4Hr1G062740	8-amino-7-oxononanoate synthase	7

S.No.	Feature ID	Barley Annotation	Fold changes
1408	HORVU2Hr1G036780	Nucleotide-sugar transporter family protein	7
1409	HORVU3Hr1G080830	Cytochrome P450 superfamily protein	7
1410	HORVU5Hr1G027570	guanylate kinase	7
1411	HORVU4Hr1G023740	receptor-like protein kinase 1	7
1412	HORVU3Hr1G080770	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	7
1413	HORVU6Hr1G058670	Hexosyltransferase	7
1414	HORVU2Hr1G120150	2-succinylbenzoate--CoA ligase	7
1415	HORVU2Hr1G118050	undescribed protein	7
1416	HORVU4Hr1G052010	WRKY DNA-binding protein 46	7
1417	HORVU1Hr1G074840	unknown function	7
1418	HORVU5Hr1G088920	NADPH--cytochrome P450 reductase 2	7
1419	HORVU3Hr1G002080	receptor-like protein kinase 4	7
1420	HORVU7Hr1G111130	4-coumarate:CoA ligase 2	7
1421	HORVU6Hr1G024100	Fatty acid oxidation complex subunit alpha	7
1422	HORVU5Hr1G014980	N-carbamoyl-L-amino acid hydrolase	7
1423	HORVU1Hr1G051010	undescribed protein	7
1424	HORVU1Hr1G001660	receptor-like protein kinase 4	7
1425	HORVU2Hr1G003910	Protein kinase superfamily protein	7
1426	HORVU5Hr1G063420	glutamate receptor 2.8	7
1427	HORVU3Hr1G061700	callose synthase 5	7
1428	HORVU3Hr1G108900	LORELEI-LIKE-GPI-ANCHORED PROTEIN 1	7
1429	HORVU1Hr1G014370	undescribed protein	7
1430	HORVU3Hr1G071240	Protein kinase superfamily protein	7
1431	HORVU4Hr1G076750	methyl esterase 1	7
1432	HORVU5Hr1G081840	purple acid phosphatase 29	7
1433	HORVU2Hr1G098330	Ethylene-responsive transcription factor 1	7
1434	HORVU2Hr1G068630	unknown function	7
1435	HORVU7Hr1G012530	arginine decarboxylase 2	7
1436	HORVU3Hr1G074940	Peroxidase superfamily protein	7
1437	HORVU7Hr1G107430	RING/U-box superfamily protein	7
1438	HORVU5Hr1G061140	Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex	7
1439	HORVU1Hr1G045610	membrane steroid binding protein 1	7
1440	HORVU3Hr1G024500	Glutathione S-transferase family protein	7
1441	HORVU1Hr1G062330	Protein WEAK CHLOROPLAST MOVEMENT UNDER BLUE LIGHT 1	7
1442	HORVU6Hr1G078260	unknown function	7
1443	HORVU5Hr1G096940	Cytochrome P450 superfamily protein	7
1444	HORVU2Hr1G094640	unknown function	7
1445	HORVU5Hr1G055850	sugar transporter 14	7
1446	HORVU3Hr1G066810	Cytokinin riboside 5'-monophosphate phosphoribohydrolase LOG8	7
1447	HORVU7Hr1G078670	Cleavage and polyadenylation specificity factor subunit 5	7
1448	HORVU7Hr1G051070	Aminoacylase-1	7

S.No.	Feature ID	Barley Annotation	Fold changes
1449	HORVU1Hr1G024240	Acyl-CoA dehydrogenase	7
1450	HORVU1Hr1G079070	Farnesyl pyrophosphate synthase	7
1451	HORVU0Hr1G038350	Histidine protein methyltransferase 1 homolog	7
1452	HORVU2Hr1G005320	arginase	7
1453	HORVU1Hr1G066090	GDSL esterase/lipase	7
1454	HORVU4Hr1G078470	alcohol dehydrogenase 1	7
1455	HORVU5Hr1G019110	Amino acid permease family protein	7
1456	HORVU6Hr1G050720	Ectonucleoside triphosphate diphosphohydrolase 5	7
1457	HORVU2Hr1G068140	MATE efflux family protein	7
1458	HORVU1Hr1G039600	Leucine-rich repeat receptor-like protein kinase family protein	7
1459	HORVU6Hr1G013750	Protein kinase superfamily protein	7
1460	HORVU3Hr1G073220	aspartate aminotransferase 3	7
1461	HORVU3Hr1G064110	Receptor-like protein kinase-like	7
1462	HORVU4Hr1G080110	Protein kinase superfamily protein	7
1463	HORVU2Hr1G092880	YELLOW STRIPE like 2	7
1464	HORVU6Hr1G062260	Fatty acid oxidation complex subunit alpha	7
1465	HORVU7Hr1G052560	calcium-transporting ATPase, putative	7
1466	HORVU6Hr1G018420	calnexin 1	7
1467	HORVU2Hr1G017350	NAC domain containing protein 100	7
1468	HORVU1Hr1G071620	Nuclear transcription factor Y subunit B	7
1469	HORVU1Hr1G065820	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	7
1470	HORVU4Hr1G083650	Protein NRT1/ PTR FAMILY 5.2	7
1471	HORVU4Hr1G076570	lipoxygenase 3	7
1472	HORVU1Hr1G073840	ferredoxin 3	7
1473	HORVU0Hr1G021860	Eukaryotic aspartyl protease family protein	7
1474	HORVU4Hr1G054060	Argininosuccinate lyase	7
1475	HORVU3Hr1G040350	Coatomer, beta subunit	7
1476	HORVU4Hr1G064720	Deoxymugineic acid synthase I	6
1477	HORVU1Hr1G088680	Receptor-like protein kinase	6
1478	HORVU4Hr1G008700	glutamate decarboxylase	6
1479	HORVU5Hr1G056370	Domain of unknown function (DUF220)	6
1480	HORVU0Hr1G000050	receptor-like protein kinase 4	6
1481	HORVU6Hr1G030590	calcium-transporting ATPase, putative	6
1482	HORVU6Hr1G059420	YELLOW STRIPE like 7	6
1483	HORVU2Hr1G089490	Protein of unknown function (DUF3317)	6
1484	HORVU4Hr1G017430	NAC domain protein,	6
1485	HORVU5Hr1G073310	BnaCnng49070D protein	6
1486	HORVU5Hr1G080500	BAG family molecular chaperone regulator 3	6
1487	HORVU2Hr1G009580	ABC transporter C family member 14	6
1488	HORVU3Hr1G077990	undescribed protein	6
1489	HORVU6Hr1G089780	glutathione reductase	6
1490	HORVU3Hr1G099630	unknown function	6

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
1491	HORVU3Hr1G068430	Disease resistance protein RGA2	6
1492	HORVU3Hr1G019440	Pollen-specific protein SF21	6
1493	HORVU3Hr1G117440	23 kDa jasmonate-induced protein	6
1494	HORVU2Hr1G062330	undescribed protein	6
1495	HORVU3Hr1G076480	Insulin-degrading enzyme	6
1496	HORVU2Hr1G080020	receptor-like protein kinase 1	6
1497	HORVU5Hr1G054060	ferrochelatase 1	6
1498	HORVU2Hr1G039710	Protein phosphatase 2C family protein	6
1499	HORVU4Hr1G027150	Mitochondrial uncoupling protein 1	6
1500	HORVU0Hr1G015530	receptor kinase 2	6
1501	HORVU1Hr1G022790	Heparan-alpha-glucosaminide N-acetyltransferase	6
1502	HORVU7Hr1G047700	formate dehydrogenase	6
1503	HORVU6Hr1G093740	Receptor-like protein kinase	6
1504	HORVU2Hr1G114260	Glycerol kinase	6
1505	HORVU3Hr1G037630	Phenazine biosynthesis PhzC/PhzF protein	6
1506	HORVU3Hr1G096760	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	6
1507	HORVU2Hr1G125600	unknown function	6
1508	HORVU5Hr1G106550	histone H1-3	6
1509	HORVU3Hr1G071320	VQ motif-containing protein	6
1510	HORVU7Hr1G106420	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	6
1511	HORVU3Hr1G067590	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	6
1512	HORVU2Hr1G044510	Cysteine-rich receptor-like protein kinase 15	6
1513	HORVU4Hr1G007050	Phytanoyl-CoA dioxygenase domain-containing protein 1	6
1514	HORVU1Hr1G053770	trehalose-6-phosphate phosphatase	6
1515	HORVU1Hr1G081240	Protein of unknown function, DUF584	6
1516	HORVU5Hr1G080060	1-acylglycerol-3-phosphate O-acyltransferase	6
1517	HORVU5Hr1G005180	Pathogenesis-related thaumatin superfamily protein	6
1518	HORVU5Hr1G089780	Molybdenum cofactor sulfurase family protein	6
1519	HORVU5Hr1G056670	Leucine-rich repeat transmembrane protein kinase	6
1520	HORVU5Hr1G073990	proton pump interactor 1	6
1521	HORVU7Hr1G039890	matrix metalloproteinase	6
1522	HORVU7Hr1G049140	Amino-acid acetyltransferase	6
1523	HORVU4Hr1G083070	undescribed protein	6
1524	HORVU6Hr1G077890	Non-specific lipid transfer protein-like 1	6
1525	HORVU1Hr1G092710	calcium-dependent protein kinase 6	6
1526	HORVU5Hr1G055350	phosphoenolpyruvate carboxylase 1	6
1527	HORVU0Hr1G009740	fatty acid hydroxylase 1	6
1528	HORVU3Hr1G079000	Dihydropyrimidinase	6
1529	HORVU3Hr1G030650	Late embryogenesis abundant protein	6
1530	HORVU6Hr1G091130	3-ketoacyl-CoA thiolase	6
1531	HORVU6Hr1G037610	zinc finger (Ran-binding) family protein	6
1532	HORVU5Hr1G056930	ABC transporter ATP-binding protein NatA	6

S.No.	Feature ID	Barley Annotation	Fold changes
1533	HORVU3Hr1G048610	Protein transport protein Sec61 subunit beta	6
1534	HORVU6Hr1G084510	Pheophorbide a oxygenase, chloroplastic	6
1535	HORVU5Hr1G072480	Protein kinase family protein	6
1536	HORVU5Hr1G042740	UDP-Glycosyltransferase superfamily protein	6
1537	HORVU5Hr1G044780	Glutamine--fructose-6-phosphate aminotransferase [isomerizing] 2	6
1538	HORVU5Hr1G050940	cinnamoyl coa reductase	6
1539	HORVU6Hr1G084590	Isopentenyl-diphosphate Delta-isomerase	6
1540	HORVU7Hr1G110630	Disease resistance protein	6
1541	HORVU5Hr1G056280	ABC transporter G family member 53	6
1542	HORVU5Hr1G028460	Plant calmodulin-binding protein-related	6
1543	HORVU1Hr1G062250	UDP-Glycosyltransferase superfamily protein	6
1544	HORVU1Hr1G075670	Receptor-like protein kinase 5	6
1545	HORVU4Hr1G057200	mitogen-activated protein kinase 3	6
1546	HORVU2Hr1G075460	undescribed protein	6
1547	HORVU2Hr1G044680	receptor kinase 1	6
1548	HORVU2Hr1G003860	receptor kinase 1	6
1549	HORVU2Hr1G078960	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	6
1550	HORVU2Hr1G032360	undescribed protein	6
1551	HORVU4Hr1G000650	P-loop NTPase domain-containing protein LPA1 homolog	6
1552	HORVU7Hr1G058730	Peptidyl-prolyl cis-trans isomerase 9	6
1553	HORVU3Hr1G061000	Ras-related protein Rab-25	6
1554	HORVU4Hr1G089910	Peptidoglycan-binding LysM domain-containing protein	6
1555	HORVU1Hr1G084980	O-acyltransferase (WSD1-like) family protein	6
1556	HORVU4Hr1G081100	Glutathione S-transferase family protein	6
1557	HORVU7Hr1G114880	Disease resistance protein	6
1558	HORVU6Hr1G062410	Coffea canephora DH200=94 genomic scaffold, scaffold_38	6
1559	HORVU6Hr1G067430	oligopeptide transporter 4	6
1560	HORVU1Hr1G055210	metacaspase 1	6
1561	HORVU3Hr1G117370	Glutathione S-transferase family protein	6
1562	HORVU4Hr1G053180	enoyl-CoA hydratase/isomerase A	6
1563	HORVU6Hr1G083680	glutamate receptor 2.8	6
1564	HORVU4Hr1G043530	Phytoalexin deficient 4	6
1565	HORVU3Hr1G006200	NADH-cytochrome b5 reductase 1	6
1566	HORVU1Hr1G051440	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	6
1567	HORVU5Hr1G050240	Cyclase family protein	6
1568	HORVU2Hr1G035990	undescribed protein	6
1569	HORVU6Hr1G001420	Protein kinase family protein	6
1570	HORVU5Hr1G103180	Ferredoxin--NADP reductase	6
1571	HORVU6Hr1G070600	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	6
1572	HORVU1Hr1G039370	Leucine-rich receptor-like protein kinase family protein	6
1573	HORVU4Hr1G067490	Myosin-related, putative	6



S.No.	Feature ID	Barley Annotation	Fold changes
1574	HORVU7Hr1G042800	Potassium transporter family protein	6
1575	HORVU5Hr1G060070	unknown function	6
1576	HORVU7Hr1G073550	Nucleotide/sugar transporter family protein	6
1577	HORVU4Hr1G084510	protein kinase family protein	6
1578	HORVU4Hr1G016770	alcohol dehydrogenase 1	6
1579	HORVU2Hr1G041590	equilibrative nucleoside transporter 6	6
1580	HORVU3Hr1G081380	U-box domain-containing protein 4	6
1581	HORVU5Hr1G036790	O-fucosyltransferase family protein	6
1582	HORVU2Hr1G091320	Calcium-dependent lipid-binding (CaLB domain) family protein	6
1583	HORVU4Hr1G078440	unknown function	6
1584	HORVU3Hr1G055870	Neutral ceramidase	6
1585	HORVU4Hr1G054500	Protein of unknown function (DUF3511)	6
1586	HORVU3Hr1G055830	P-loop containing nucleoside triphosphate hydrolases superfamily protein	6
1587	HORVU5Hr1G016790	EXS (ERD1/XPR1/SYG1) family protein	6
1588	HORVU6Hr1G002530	receptor kinase 2	6
1589	HORVU6Hr1G074200	Dihydroorotate dehydrogenase (quinone)	6
1590	HORVU4Hr1G005920	lipoxygenase 1	6
1591	HORVU1Hr1G067910	Nucleotide-sugar transporter family protein	6
1592	HORVU2Hr1G076970	Pentatricopeptide repeat-containing protein	6
1593	HORVU7Hr1G099320	receptor kinase 2	6
1594	HORVU7Hr1G040110	Glutathione gamma-glutamylcysteinyltransferase 1	6
1595	HORVU1Hr1G092290	receptor kinase 1	6
1596	HORVU3Hr1G053460	Protein YIPF	6
1597	HORVU5Hr1G095940	Mitochondrial substrate carrier family protein	6
1598	HORVU1Hr1G062900	Argininosuccinate synthase	5
1599	HORVU6Hr1G018370	calnexin 1	5
1600	HORVU5Hr1G055140	unknown function	5
1601	HORVU3Hr1G006640	receptor kinase 2	5
1602	HORVU1Hr1G032830	Auxenochlorella protothecoides strain 0710 contig1325, whole genome shotgun sequence	5
1603	HORVU4Hr1G052330	transcription factor-related	5
1604	HORVU4Hr1G005450	Protein of unknown function, DUF538	5
1605	HORVU7Hr1G093260	dihydroflavonol 4-reductase-like1	5
1606	HORVU3Hr1G066420	Regulator of Vps4 activity in the MVB pathway protein	5
1607	HORVU7Hr1G085180	UDP-galactose transporter 3	5
1608	HORVU5Hr1G052090	3-ketoacyl-CoA thiolase	5
1609	HORVU7Hr1G106230	Exonuclease 3'-5' domain-containing protein 2	5
1610	HORVU1Hr1G024870	Glycerophosphodiester phosphodiesterase 1	5
1611	HORVU6Hr1G035420	cinnamyl alcohol dehydrogenase 5	5
1612	HORVU2Hr1G123350	exocyst subunit exo70 family protein A2	5
1613	HORVU5Hr1G006280	Leucine-rich repeat receptor-like protein kinase family protein	5
1614	HORVU3Hr1G018650	pyruvate decarboxylase-2	5

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
1615	HORVU3Hr1G098400	methyl esterase 1	5
1616	HORVU5Hr1G045580	mini zinc finger 2	5
1617	HORVU7Hr1G042000	unknown function	5
1618	HORVU1Hr1G063940	CYTOCHROME C-1	5
1619	HORVU4Hr1G011590	WRKY DNA-binding protein 74	5
1620	HORVU2Hr1G014150	Protein phosphatase 2C family protein	5
1621	HORVU3Hr1G058440	GDSL esterase/lipase	5
1622	HORVU7Hr1G007540	unknown function	5
1623	HORVU1Hr1G049900	Leucine-rich repeat family protein	5
1624	HORVU3Hr1G097230	Oxalyl-CoA decarboxylase	5
1625	HORVU2Hr1G018570	Peroxidase superfamily protein	5
1626	HORVU2Hr1G121990	calreticulin 1b	5
1627	HORVU4Hr1G006750	Oxysterol-binding protein-related protein 1C	5
1628	HORVU3Hr1G052470	Pentatricopeptide repeat-containing protein	5
1629	HORVU7Hr1G022970	Proteasome subunit beta type-5-A	5
1630	HORVU1Hr1G044960	CBS domain-containing protein CBSX5	5
1631	HORVU3Hr1G027700	Class I glutamine amidotransferase-like superfamily protein	5
1632	HORVU4Hr1G086270	alpha/beta-Hydrolases superfamily protein	5
1633	HORVU5Hr1G055170	undescribed protein	5
1634	HORVU1Hr1G094830	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	5
1635	HORVU6Hr1G066640	SBP (S-ribonuclease binding protein) family protein	5
1636	HORVU5Hr1G007680	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	5
1637	HORVU1Hr1G015560	Acetylornithine aminotransferase	5
1638	HORVU2Hr1G048220	Transmembrane protein 184A	5
1639	HORVU5Hr1G111850	Alpha-ketoglutarate-dependent dioxygenase AlkB homolog	5
1640	HORVU3Hr1G108970	LORELEI-LIKE-GPI-ANCHORED PROTEIN 1	5
1641	HORVU7Hr1G048470	Glycosyltransferase family 61 protein	5
1642	HORVU2Hr1G081790	amino acid permease 2	5
1643	HORVU6Hr1G014700	calcium-dependent protein kinase 28	5
1644	HORVU6Hr1G075400	Exocyst complex component SEC6	5
1645	HORVU7Hr1G049080	Caffeoyl-CoA O-methyltransferase 2	5
1646	HORVU4Hr1G025090	Protein transport protein Sec61 subunit beta	5
1647	HORVU3Hr1G097950	Glutathione S-transferase family protein	5
1648	HORVU3Hr1G113020	Nuclear transport factor 2 (NTF2) family protein	5
1649	HORVU5Hr1G066930	Superoxide dismutase [Cu-Zn] 4A	5
1650	HORVU2Hr1G036800	Geranylgeranyl diphosphate synthase	5
1651	HORVU2Hr1G031460	Adipocyte plasma membrane-associated protein	5
1652	HORVU5Hr1G081040	Ypt/Rab-GAP domain of gyp1p superfamily protein	5
1653	HORVU5Hr1G109420	Sphingosine-1-phosphate phosphatase 1	5
1654	HORVU7Hr1G009730	undescribed protein	5
1655	HORVU1Hr1G062820	Leucine-rich repeat receptor-like protein kinase family protein	5

S.No.	Feature ID	Barley Annotation	Fold changes
1656	HORVU6Hr1G028820	Thiamine-phosphate synthase	5
1657	HORVU1Hr1G074330	Fructose-1,6-bisphosphatase class 1	5
1658	HORVU5Hr1G113240	Protein phosphatase 2C 35	5
1659	HORVU1Hr1G043710	Protein of unknown function (DUF789)	5
1660	HORVU3Hr1G071500	MACPF domain-containing protein	5
1661	HORVU4Hr1G076970	Cyanate hydratase	5
1662	HORVU1Hr1G014500	undescribed protein	5
1663	HORVU3Hr1G007680	receptor-like protein kinase 4	5
1664	HORVU0Hr1G019700	alpha/beta-Hydrolases superfamily protein	5
1665	HORVU7Hr1G091500	novel plant snare 11	5
1666	HORVU7Hr1G024980	ABC transporter C family member 10	5
1667	HORVU1Hr1G082900	lipid phosphate phosphatase 2	5
1668	HORVU2Hr1G065940	Type 1 phosphatases regulator YPI1	5
1669	HORVU1Hr1G017120	Protein kinase superfamily protein	5
1670	HORVU5Hr1G006900	cationic amino acid transporter 2	5
1671	HORVU2Hr1G028340	unknown function	5
1672	HORVU1Hr1G042030	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	5
1673	HORVU6Hr1G009420	undescribed protein	5
1674	HORVU4Hr1G080640	Aconitate hydratase 1	5
1675	HORVU6Hr1G058740	cryptochrome 2	5
1676	HORVU2Hr1G018720	acyl-CoA dehydrogenase-related	5
1677	HORVU2Hr1G029870	Phospho-2-dehydro-3-deoxyheptonate aldolase 2, chloroplastic	5
1678	HORVU5Hr1G046850	Methyltransferase-related protein	5
1679	HORVU1Hr1G012680	UDP-Glycosyltransferase superfamily protein	5
1680	HORVU1Hr1G074110	histone deacetylase 8	5
1681	HORVU7Hr1G084830	Acyl-ACP thioesterase	5
1682	HORVU2Hr1G065750	WRKY family transcription factor	5
1683	HORVU4Hr1G009620	GDP-mannose transporter	5
1684	HORVU4Hr1G018440	protein tyrosine phosphatase 1	5
1685	HORVU0Hr1G006070	receptor-like protein kinase 4	5
1686	HORVU7Hr1G108890	Copper-transporting ATPase 1	5
1687	HORVU1Hr1G093890	Pathogen-related protein	5
1688	HORVU1Hr1G091170	calmodulin 8	5
1689	HORVU4Hr1G083200	unknown function	5
1690	HORVU1Hr1G056600	Protein kinase superfamily protein	5
1691	HORVU4Hr1G027660	metallothionein 2A	5
1692	HORVU0Hr1G008740	Chorismate synthase	5
1693	HORVU1Hr1G025670	Auxin-responsive protein IAA15	5
1694	HORVU4Hr1G007360	Accelerated cell death 11	5
1695	HORVU2Hr1G089320	Hexosyltransferase	5
1696	HORVU2Hr1G020270	xylose isomerase family protein	5
1697	HORVU2Hr1G019250	Hypoxia-responsive family protein	5

S.No.	Feature ID	Barley Annotation	Fold changes
1698	HORVU4Hr1G023660	Calcium uniporter protein 5, mitochondrial	5
1699	HORVU3Hr1G073910	exocyst subunit exo70 family protein E1	5
1700	HORVU1Hr1G047030	Cytochrome P450 superfamily protein	5
1701	HORVU1Hr1G059130	Protein phosphatase 2C family protein	5
1702	HORVU3Hr1G096190	Protein kinase family protein	5
1703	HORVU2Hr1G086900	Ergosterol biosynthetic protein 28	5
1704	HORVU4Hr1G072520	high-affinity nickel-transport family protein	5
1705	HORVU5Hr1G013510	hydroxysteroid dehydrogenase 1	5
1706	HORVU5Hr1G050350	Glyoxylate/hydroxypyruvate reductase A	5
1707	HORVU3Hr1G052980	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	5
1708	HORVU4Hr1G079330	Pheophorbide a oxygenase, chloroplastic	5
1709	HORVU3Hr1G075460	undescribed protein	5
1710	HORVU3Hr1G003840	BnaA07g10090D protein	5
1711	HORVU6Hr1G084740	Cytochrome c oxidase copper chaperone 2	5
1712	HORVU1Hr1G021760	BTB-POZ and MATH domain 2	5
1713	HORVU3Hr1G090410	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	5
1714	HORVU7Hr1G109810	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein	5
1715	HORVU2Hr1G099410	Ribosome maturation protein SBDS	5
1716	HORVU7Hr1G046970	diacylglycerol acyltransferase family	5
1717	HORVU3Hr1G085460	SOUL heme-binding family protein	5
1718	HORVU5Hr1G052730	Heavy metal transport/detoxification superfamily protein	5
1719	HORVU2Hr1G083940	glucose-6-phosphate dehydrogenase 6	5
1720	HORVU5Hr1G061710	RELA/SPOT homolog 3	5
1721	HORVU1Hr1G071150	Mitochondrial import inner membrane translocase subunit tim50	5
1722	HORVU7Hr1G035340	3-phosphoserine phosphatase	5
1723	HORVU2Hr1G040900	NADPH--cytochrome P450 reductase 2	5
1724	HORVU2Hr1G011610	SNARE-interacting protein KEULE	5
1725	HORVU3Hr1G081880	Galactose-binding protein	5
1726	HORVU1Hr1G076870	proline iminopeptidase	5
1727	HORVU7Hr1G098010	Leucine-rich repeat receptor-like protein kinase family protein	5
1728	HORVU2Hr1G066950	Prolyl 4-hydroxylase subunit alpha-1	5
1729	HORVU7Hr1G063300	Magnesium transporter NIPA2	5
1730	HORVU4Hr1G061850	Protein of unknown function, DUF593	5
1731	HORVU2Hr1G111600	Adenine nucleotide alpha hydrolases-like superfamily protein	5
1732	HORVU4Hr1G000620	ATP binding cassette subfamily B1	5
1733	HORVU4Hr1G056610	protein kinase family protein	5
1734	HORVU6Hr1G062830	Ceramide kinase	5
1735	HORVU6Hr1G068620	Protein kinase superfamily protein	5
1736	HORVU2Hr1G036280	GRAS family transcription factor	5
1737	HORVU1Hr1G075110	Inorganic pyrophosphatase	5
1738	HORVU3Hr1G099620	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	5

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
1739	HORVU3Hr1G065000	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein	5
1740	HORVU4Hr1G006740	Transmembrane protein 41B	5
1741	HORVU7Hr1G024670	GDSL esterase/lipase	5
1742	HORVU5Hr1G040220	unknown function	5
1743	HORVU2Hr1G041430	Protein kinase superfamily protein	5
1744	HORVU2Hr1G036570	sugar transporter 1	4
1745	HORVU5Hr1G114500	60 kDa jasmonate-induced protein	4
1746	HORVU6Hr1G069400	formate dehydrogenase	4
1747	HORVU7Hr1G085480	undescribed protein	4
1748	HORVU4Hr1G014760	receptor-like protein kinase 1	4
1749	HORVU4Hr1G090130	germin-like protein 2	4
1750	HORVU3Hr1G085630	Phosphatidylinositol:ceramide inositolphosphotransferase	4
1751	HORVU3Hr1G017420	receptor kinase 3	4
1752	HORVU7Hr1G038440	cellulose synthase-like A3	4
1753	HORVU1Hr1G070390	exocyst subunit exo70 family protein B1	4
1754	HORVU7Hr1G036000	Dipeptidyl peptidase family member 6	4
1755	HORVU5Hr1G012890	Epoxide hydrolase 4	4
1756	HORVU6Hr1G073030	Potassium transporter family protein	4
1757	HORVU6Hr1G068690	Cytochrome P450 superfamily protein	4
1758	HORVU4Hr1G058340	Cytochrome P450 superfamily protein	4
1759	HORVU2Hr1G015410	Wound-induced protein 1	4
1760	HORVU2Hr1G087030	Protein kinase superfamily protein	4
1761	HORVU1Hr1G036920	Heavy metal transport/detoxification superfamily protein	4
1762	HORVU7Hr1G032420	Transcription factor bHLH82	4
1763	HORVU4Hr1G019410	alkaline/neutral invertase	4
1764	HORVU2Hr1G021110	Superoxide dismutase [Cu-Zn] 2	4
1765	HORVU1Hr1G094070	Cytoplasmic membrane protein	4
1766	HORVU7Hr1G033360	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	4
1767	HORVU4Hr1G009040	Histone H2B.1	4
1768	HORVU5Hr1G118460	Protein kinase superfamily protein	4
1769	HORVU5Hr1G056130	WRKY family transcription factor	4
1770	HORVU7Hr1G037180	Ethylene-responsive transcription factor 1A	4
1771	HORVU7Hr1G117000	Chaperone protein htpG family protein	4
1772	HORVU1Hr1G065470	Octicosapeptide/Phox/Bem1p family protein	4
1773	HORVU7Hr1G098100	Protein of unknown function (DUF1336)	4
1774	HORVU2Hr1G013200	LITAF-domain-containing protein	4
1775	HORVU2Hr1G020680	Protein kinase superfamily protein	4
1776	HORVU5Hr1G026120	Syntaxin-132	4
1777	HORVU1Hr1G048530	alpha/beta-Hydrolases superfamily protein	4
1778	HORVU2Hr1G117870	Protein kinase superfamily protein	4
1779	HORVU3Hr1G083190	Peroxidase 2	4

S.No.	Feature ID	Barley Annotation	Fold changes
1780	HORVU6Hr1G019510	calmodulin-binding family protein	4
1781	HORVU7Hr1G093580	BZIP transcription factor 60	4
1782	HORVU5Hr1G088680	Transmembrane 9 superfamily member 9	4
1783	HORVU5Hr1G115230	non-specific phospholipase C1	4
1784	HORVU5Hr1G078180	Protein kinase superfamily protein	4
1785	HORVU1Hr1G064860	Isopentenyl-diphosphate Delta-isomerase I	4
1786	HORVU7Hr1G086010	Transmembrane protein, putative	4
1787	HORVU1Hr1G044020	myosin XI B	4
1788	HORVU5Hr1G081010	6-phosphogluconolactonase 2	4
1789	HORVU4Hr1G060990	Mitochondrial substrate carrier family protein	4
1790	HORVU2Hr1G023260	Glycosyltransferase family 61 protein	4
1791	HORVU1Hr1G079890	embryo defective 2752	4
1792	HORVU0Hr1G004790	Unplaced genomic scaffold supercont1.2, whole genome shotgun sequence	4
1793	HORVU7Hr1G121700	catalase 2	4
1794	HORVU0Hr1G001460	Protein of unknown function (DUF616)	4
1795	HORVU2Hr1G015360	Wound-induced protein 1	4
1796	HORVU4Hr1G000910	Peptidyl-prolyl cis-trans isomerase	4
1797	HORVU0Hr1G038620	ATP-dependent DNA helicase 2 subunit KU80	4
1798	HORVU7Hr1G021890	3-methylcrotonyl-CoA carboxylase	4
1799	HORVU4Hr1G026340	Transporter, putative, expressed	4
1800	HORVU2Hr1G098390	receptor kinase 2	4
1801	HORVU7Hr1G012700	Lung seven transmembrane receptor family protein	4
1802	HORVU6Hr1G083720	Transmembrane amino acid transporter family protein	4
1803	HORVU5Hr1G116870	Galactokinase	4
1804	HORVU2Hr1G025580	C2 domain-containing protein	4
1805	HORVU2Hr1G120590	Protein lunapark	4
1806	HORVU6Hr1G002580	Ubiquitin-like superfamily protein	4
1807	HORVU3Hr1G070270	Amino-acid acetyltransferase	4
1808	HORVU2Hr1G100620	Protein kinase superfamily protein	4
1809	HORVU5Hr1G103750	unknown function	4
1810	HORVU0Hr1G006630	Exocyst complex component 6	4
1811	HORVU0Hr1G016450	Transducin/WD40 repeat-like superfamily protein	4
1812	HORVU4Hr1G010830	Mitochondrial substrate carrier family protein	4
1813	HORVU6Hr1G062220	Phospholipase A1-II 4	4
1814	HORVU2Hr1G092820	YELLOW STRIPE like 2	4
1815	HORVU2Hr1G005990	Nucleotide-diphospho-sugar transferase family protein	4
1816	HORVU6Hr1G009090	Leucine-rich repeat receptor-like protein kinase family protein	4
1817	HORVU2Hr1G074130	U-box domain-containing protein	4
1818	HORVU2Hr1G022620	Disease resistance protein	4
1819	HORVU6Hr1G056230	hydroxycinnamoyl-CoA shikimate/quinic acid hydroxycinnamoyl transferase	4
1820	HORVU1Hr1G062080	Endo-1,3;1,4-beta-D-glucanase	4



S.No.	Feature ID	Barley Annotation	Fold changes
1821	HORVU7Hr1G006160	6-phosphogluconate dehydrogenase, decarboxylating 1	4
1822	HORVU2Hr1G112320	Sec14p-like phosphatidylinositol transfer family protein	4
1823	HORVU7Hr1G048690	BTB/POZ domain-containing protein	4
1824	HORVU3Hr1G033920	Isocitrate dehydrogenase [NADP]	4
1825	HORVU1Hr1G046990	electron-transfer flavoprotein:ubiquinone oxidoreductase	4
1826	HORVU5Hr1G085520	Peroxisomal multifunctional enzyme type 2	4
1827	HORVU4Hr1G005360	Protein of unknown function (DUF1336)	4
1828	HORVU4Hr1G078130	GRAM domain family protein	4
1829	HORVU7Hr1G101230	transducin family protein / WD-40 repeat family protein	4
1830	HORVU5Hr1G051960	Pathogenesis-related thaumatin superfamily protein	4
1831	HORVU7Hr1G088210	ABC transporter C family member 8	4
1832	HORVU3Hr1G048530	undescribed protein	4
1833	HORVU6Hr1G088370	GATA transcription factor 9	4
1834	HORVU4Hr1G078820	60 kDa chaperonin 1	4
1835	HORVU2Hr1G003750	Protein kinase superfamily protein	4
1836	HORVU2Hr1G012230	Protein S-acyltransferase 8	4
1837	HORVU6Hr1G090810	Acetyl-coenzyme A synthetase	4
1838	HORVU5Hr1G099670	Class E vacuolar protein-sorting machinery protein hse1	4
1839	HORVU6Hr1G041920	Metallopeptidase M24 family protein isoform 1	4
1840	HORVU7Hr1G021970	undescribed protein	4
1841	HORVU2Hr1G106020	PLATZ transcription factor family protein	4
1842	HORVU7Hr1G095020	Protein FAM63A	4
1843	HORVU5Hr1G058070	Major facilitator superfamily protein	4
1844	HORVU7Hr1G077990	Tubby-like F-box protein 12	4
1845	HORVU5Hr1G098220	CASP-like protein 16	4
1846	HORVU3Hr1G088860	alpha/beta-Hydrolases superfamily protein	4
1847	HORVU5Hr1G056470	Ras-related protein Rab-25	4
1848	HORVU6Hr1G067840	ADP-ribosylation factor 1	4
1849	HORVU0Hr1G006800	GDSL esterase/lipase	4
1850	HORVU5Hr1G020900	GRAS family transcription factor	4
1851	HORVU3Hr1G115940	Protein of unknown function (DUF506)	4
1852	HORVU6Hr1G076820	Hexosyltransferase	4
1853	HORVU5Hr1G111870	DCD (Development and Cell Death) domain protein	4
1854	HORVU4Hr1G014630	F-box/LRR-repeat protein 12	4
1855	HORVU4Hr1G008300	Protein of unknown function (DUF760)	4
1856	HORVU7Hr1G051150	AT-hook protein 1	4
1857	HORVU5Hr1G050870	Protein kinase family protein	4
1858	HORVU2Hr1G002700	LIM domain-containing protein	4
1859	HORVU1Hr1G064480	RAB GDP dissociation inhibitor 2	4
1860	HORVU3Hr1G096550	glutamine cyclotransferase	4
1861	HORVU3Hr1G034980	alpha/beta-Hydrolases superfamily protein	4
1862	HORVU1Hr1G052350	Protein kinase superfamily protein	4

S.No.	Feature ID	Barley Annotation	Fold changes
1863	HORVU2Hr1G075670	Pentatricopeptide repeat-containing protein	4
1864	HORVU5Hr1G078500	Exostosin family protein	4
1865	HORVU1Hr1G057530	Signal peptidase I	4
1866	HORVU2Hr1G031500	strictosidine synthase-like 3	4
1867	HORVU4Hr1G069320	Divalent metal cation transporter MntH	4
1868	HORVU1Hr1G048970	phospholipase D P2	4
1869	HORVU3Hr1G106850	undescribed protein	4
1870	HORVU1Hr1G019570	Fibronectin type III domain-containing protein	4
1871	HORVU2Hr1G027760	Mitochondrial substrate carrier family protein	4
1872	HORVU7Hr1G109950	Diphthamide biosynthesis protein 3	4
1873	HORVU4Hr1G068710	Leucine-rich repeat family protein	4
1874	HORVU4Hr1G054580	PHD and RING finger domain-containing protein 1	4
1875	HORVU5Hr1G066100	undescribed protein	4
1876	HORVU7Hr1G089290	aspartate aminotransferase 1	4
1877	HORVU3Hr1G065490	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	4
1878	HORVU0Hr1G023140	amino acid transporter 1	4
1879	HORVU6Hr1G072910	Eukaryotic aspartyl protease family protein	4
1880	HORVU1Hr1G017050	Glutathione S-transferase family protein	4
1881	HORVU1Hr1G048280	Pectinesterase 31	4
1882	HORVU3Hr1G071750	WRKY DNA-binding protein 65	4
1883	HORVU2Hr1G059620	Phosphatidylglycerol/phosphatidylinositol transfer protein	4
1884	HORVU4Hr1G062940	Calcium-binding EF-hand family protein	4
1885	HORVU6Hr1G035370	UDP-Glycosyltransferase superfamily protein	4
1886	HORVU5Hr1G061530	Aspartyl aminopeptidase	4
1887	HORVU3Hr1G096210	Exostosin family protein	4
1888	HORVU0Hr1G016780	Cytochrome P450 superfamily protein	4
1889	HORVU5Hr1G012900	Propionyl-CoA carboxylase alpha chain, mitochondrial	4
1890	HORVU2Hr1G022350	UDP-N-acetylglucosamine--dolichyl-phosphate N-acetylglucosaminophosphotransferase	4
1891	HORVU3Hr1G030980	Chaperone protein DnaK	4
1892	HORVU7Hr1G111600	Protein transport protein Sec61 subunit gamma	4
1893	HORVU2Hr1G094690	SPX domain-containing membrane protein	4
1894	HORVU5Hr1G105480	alpha/beta-Hydrolases superfamily protein	4
1895	HORVU2Hr1G006250	Dihydrolipoyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex	4
1896	HORVU7Hr1G048970	caffeoyl-CoA 3-O-methyltransferase	4
1897	HORVU1Hr1G009030	unknown function	4
1898	HORVU3Hr1G048560	IAA-amino acid hydrolase ILR1-like 1	4
1899	HORVU2Hr1G022250	transducin family protein / WD-40 repeat family protein	4
1900	HORVU1Hr1G083330	Quinolone resistance protein NorA	4
1901	HORVU4Hr1G052210	calmodulin 5	4
1902	HORVU4Hr1G038960	Alpha-1,4-glucan-protein synthase [UDP-forming]	4
1903	HORVU4Hr1G009270	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	4

S.No.	Feature ID	Barley Annotation	Fold changes
1904	HORVU3Hr1G015150	Sphingosine-1-phosphate lyase	4
1905	HORVU4Hr1G075310	Kelch repeat protein F3	4
1906	HORVU2Hr1G120260	Chromatin structure-remodeling complex subunit snf21	4
1907	HORVU1Hr1G048000	Tetratricopeptide repeat (TPR)-like superfamily protein	4
1908	HORVU4Hr1G021270	UDP-glucose 6-dehydrogenase family protein	4
1909	HORVU6Hr1G003470	aspartate aminotransferase 1	4
1910	HORVU6Hr1G074030	glutamine synthetase 1;4	4
1911	HORVU4Hr1G060260	Protein of unknown function (DUF668)	4
1912	HORVU5Hr1G115100	GRAM domain-containing protein / ABA-responsive protein-related	4
1913	HORVU5Hr1G115710	Fumarylacetoacetate hydrolase domain-containing protein 1	4
1914	HORVU3Hr1G017020	receptor kinase 3	4
1915	HORVU6Hr1G070120	Thioredoxin reductase 2	4
1916	HORVU3Hr1G054640	NAD(P)-linked oxidoreductase superfamily protein	4
1917	HORVU7Hr1G119910	Transmembrane protein 53-B	4
1918	HORVU4Hr1G015770	receptor kinase 2	4
1919	HORVU4Hr1G025820	long-chain acyl-CoA synthetase 7	4
1920	HORVU1Hr1G079150	phospholipase D P2	4
1921	HORVU0Hr1G009390	germin-like protein 2	4
1922	HORVU1Hr1G024710	60S ribosomal protein L10-2	4
1923	HORVU6Hr1G068980	Transcription factor bHLH63	4
1924	HORVU0Hr1G001270	calmodulin 7	4
1925	HORVU2Hr1G101100	WRKY DNA-binding protein 11	4
1926	HORVU5Hr1G117470	Pectin lyase-like superfamily protein	4
1927	HORVU5Hr1G007550	Ubiquitin carboxyl-terminal hydrolase 8	4
1928	HORVU7Hr1G095810	mitogen-activated protein kinase 16	4
1929	HORVU4Hr1G008580	Protein NRT1/ PTR FAMILY 8.3	4
1930	HORVU5Hr1G125130	60 kDa chaperonin 2	4
1931	HORVU1Hr1G072110	Coatomer subunit zeta-1	4
1932	HORVU7Hr1G033390	Stromal cell-derived factor 2-like protein	4
1933	HORVU7Hr1G095220	unknown function	4
1934	HORVU4Hr1G072630	Protein MID1-COMPLEMENTING ACTIVITY 1	4
1935	HORVU4Hr1G088490	Cell number regulator 6	4
1936	HORVU1Hr1G065570	Transcription factor	4
1937	HORVU6Hr1G077610	RING/U-box superfamily protein	4
1938	HORVU7Hr1G007610	Ozone-responsive stress related protein	4
1939	HORVU5Hr1G098780	kinesin 4	4
1940	HORVU5Hr1G048010	Clathrin, heavy chain	4
1941	HORVU1Hr1G070360	PRA1 (Prenylated rab acceptor) family protein	4
1942	HORVU5Hr1G080860	UDP-glucose 4-epimerase 3	4
1943	HORVU0Hr1G019500	HXXXD-type acyl-transferase family protein	4
1944	HORVU4Hr1G082840	Glutathione-regulated potassium-efflux system protein	4
1945	HORVU3Hr1G014290	3-beta-hydroxysteroid-Delta(8),Delta(7)-isomerase	4

S.No.	Feature ID	Barley Annotation	Fold changes
1946	HORVU5Hr1G048030	TRICHOME BIREFRINGENCE-LIKE 28	4
1947	HORVU1Hr1G017460	Lipid A export ATP-binding/permease protein MsbA	4
1948	HORVU6Hr1G080000	SAUR-like auxin-responsive protein family	4
1949	HORVU2Hr1G017780	Ubiquinol-cytochrome c reductase complex 6.7 kDa protein	4
1950	HORVU3Hr1G087680	Phytol kinase 1, chloroplastic	4
1951	HORVU7Hr1G035430	nodulin MtN21 /EamA-like transporter family protein	4
1952	HORVU1Hr1G015770	receptor kinase 2	4
1953	HORVU3Hr1G069000	NADH:ubiquinone oxidoreductase intermediate-associated protein 30	4
1954	HORVU2Hr1G091270	beta-xylosidase 2	4
1955	HORVU3Hr1G096850	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	4
1956	HORVU3Hr1G035900	CinA-like protein	4
1957	HORVU5Hr1G120850	Long-chain-fatty-acid--CoA ligase 1	4
1958	HORVU5Hr1G077010	NAC domain containing protein 41	4
1959	HORVU1Hr1G061430	B-cell receptor-associated 31-like	4
1960	HORVU3Hr1G110870	Copine family protein 2	4
1961	HORVU7Hr1G116400	Calcium-dependent lipid-binding (CaLB domain) family protein	4
1962	HORVU3Hr1G035180	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	4
1963	HORVU6Hr1G051560	3,4-dihydroxy-2-butanone 4-phosphate synthase	4
1964	HORVU2Hr1G066920	Voltage-gated potassium channel subunit beta-3	4
1965	HORVU3Hr1G016020	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	4
1966	HORVU0Hr1G013850	Succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial	4
1967	HORVU6Hr1G084960	Leucine aminopeptidase 1	4
1968	HORVU5Hr1G028030	sugar transporter 9	3
1969	HORVU3Hr1G089260	Protein kinase superfamily protein	3
1970	HORVU7Hr1G001070	Acid beta-fructofuranosidase	3
1971	HORVU7Hr1G074460	Actin-related protein 3	3
1972	HORVU3Hr1G033350	Optic atrophy 3 protein (OPA3)	3
1973	HORVU3Hr1G087110	Lung seven transmembrane receptor family protein	3
1974	HORVU5Hr1G103890	aldehyde oxidase 1	3
1975	HORVU7Hr1G095960	oxophytodienoate-reductase 3	3
1976	HORVU1Hr1G091460	sugar transporter 9	3
1977	HORVU6Hr1G055030	CMP-sialic acid transporter 5	3
1978	HORVU7Hr1G041920	phosphatidylinositol-4-phosphate 5-kinase family protein	3
1979	HORVU5Hr1G117970	Acyl-CoA-binding domain-containing protein 4	3
1980	HORVU4Hr1G005100	Tudor domain-containing protein 1	3
1981	HORVU7Hr1G056420	methionine aminopeptidase 2B	3
1982	HORVU3Hr1G106250	HAT family dimerisation domain containing protein	3
1983	HORVU4Hr1G048700	Zinc finger protein CONSTANS-LIKE 13	3
1984	HORVU2Hr1G027430	Low temperature and salt responsive protein family	3
1985	HORVU0Hr1G006650	0	3
1986	HORVU6Hr1G017390	4-phosphopantetheine adenylyltransferase	3

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
1987	HORVU4Hr1G081370	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	3
1988	HORVU5Hr1G051890	undescribed protein	3
1989	HORVU6Hr1G061450	YELLOW STRIPE like 3	3
1990	HORVU2Hr1G072830	alpha/beta-Hydrolases superfamily protein	3
1991	HORVU5Hr1G123590	ADP-ribosylation factor GTPase-activating protein 2	3
1992	HORVU5Hr1G085710	Aquaporin-like superfamily protein	3
1993	HORVU4Hr1G064710	Transmembrane 9 superfamily member 3	3
1994	HORVU3Hr1G098160	Calcium-dependent lipid-binding (CaLB domain) family protein	3
1995	HORVU4Hr1G075360	alanine:glyoxylate aminotransferase 2	3
1996	HORVU5Hr1G059200	Potassium transporter family protein	3
1997	HORVU2Hr1G109370	Adenosylhomocysteinase	3
1998	HORVU1Hr1G070270	PLAC8 family protein	3
1999	HORVU4Hr1G011850	Dihydrolipoyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex	3
2000	HORVU0Hr1G027290	1-acyl-sn-glycerol-3-phosphate acyltransferase 2	3
2001	HORVU1Hr1G040560	UDP-glucose:glycoprotein glucosyltransferase	3
2002	HORVU5Hr1G120600	ER lumen protein retaining receptor family protein	3
2003	HORVU3Hr1G075710	Dymeclin	3
2004	HORVU5Hr1G067110	Ribosomal L5P family protein	3
2005	HORVU1Hr1G077430	Protein kinase family protein	3
2006	HORVU7Hr1G026300	Glutamyl-tRNA reductase family protein	3
2007	HORVU6Hr1G090010	F-box protein PP2-B1	3
2008	HORVU4Hr1G064440	Type IV inositol polyphosphate 5-phosphatase 9	3
2009	HORVU1Hr1G080890	Mitochondrial ATP synthase subunit G protein	3
2010	HORVU2Hr1G112420	Vacuolar cation/proton exchanger 3	3
2011	HORVU5Hr1G071720	undescribed protein	3
2012	HORVU2Hr1G087090	adenine phosphoribosyltransferase 5	3
2013	HORVU7Hr1G028710	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	3
2014	HORVU7Hr1G065590	cytochrome B561-1	3
2015	HORVU2Hr1G126100	Protein NRT1/ PTR FAMILY 5.10	3
2016	HORVU7Hr1G048810	Transmembrane 9 superfamily member 12	3
2017	HORVU5Hr1G009740	Sec1/munc18-like (SM) proteins superfamily	3
2018	HORVU2Hr1G091370	tRNA-dihydrouridine synthase B	3
2019	HORVU1Hr1G074590	aspartate aminotransferase	3
2020	HORVU3Hr1G013390	Serine/threonine-protein kinase	3
2021	HORVU2Hr1G126950	EamA-like transporter family protein	3
2022	HORVU5Hr1G085310	UDP-Glycosyltransferase superfamily protein	3
2023	HORVU3Hr1G071890	Protein TIC 22-like, chloroplastic	3
2024	HORVU5Hr1G048890	Carbamoyl-phosphate synthase small chain	3
2025	HORVU3Hr1G068600	NAD-dependent malic enzyme 1	3
2026	HORVU1Hr1G088050	undescribed protein	3
2027	HORVU5Hr1G071270	F-box and associated interaction domains-containing protein	3

S.No.	Feature ID	Barley Annotation	Fold changes
2028	HORVU7Hr1G009940	RING/U-box superfamily protein	3
2029	HORVU6Hr1G088570	Clathrin interactor EPSIN 2	3
2030	HORVU4Hr1G022950	vacuolar sorting receptor homolog 1	3
2031	HORVU6Hr1G083770	equilibrative nucleoside transporter 6	3
2032	HORVU2Hr1G112380	Protein FATTY ACID EXPORT 2, chloroplastic	3
2033	HORVU1Hr1G085880	Ninja-family protein	3
2034	HORVU3Hr1G074640	regulatory protein (NPR1)	3
2035	HORVU5Hr1G054180	Phosphoenolpyruvate/phosphate translocator 1, chloroplastic	3
2036	HORVU5Hr1G117760	Electron transfer flavoprotein subunit alpha	3
2037	HORVU4Hr1G003100	aminopeptidase M1	3
2038	HORVU4Hr1G068990	unknown function	3
2039	HORVU6Hr1G021780	Disease resistance protein	3
2040	HORVU7Hr1G027480	Protein kinase superfamily protein	3
2041	HORVU3Hr1G079870	91A protein	3
2042	HORVU6Hr1G070290	unknown function	3
2043	HORVU3Hr1G048690	unknown function	3
2044	HORVU2Hr1G098450	receptor kinase 2	3
2045	HORVU6Hr1G070750	E3 ubiquitin-protein ligase makorin	3
2046	HORVU3Hr1G093400	RNA-binding protein 1	3
2047	HORVU1Hr1G034880	EXPRESSED IN: 23 plant structures; EXPRESSED DURING: 14 growth stages;	3
2048	HORVU1Hr1G038680	60 kDa chaperonin 1	3
2049	HORVU3Hr1G064390	Alpha/beta fold hydrolase	3
2050	HORVU6Hr1G055250	Isochorismatase hydrolase family protein	3
2051	HORVU3Hr1G036380	NAC domain protein,	3
2052	HORVU2Hr1G054080	Coenzyme Q-binding protein COQ10 homolog, mitochondrial	3
2053	HORVU7Hr1G036340	undescribed protein	3
2054	HORVU1Hr1G072780	Gamma-glutamyl phosphate reductase	3
2055	HORVU3Hr1G049610	Carbamoyl-phosphate synthase large chain	3
2056	HORVU6Hr1G035880	receptor kinase 2	3
2057	HORVU3Hr1G087000	UDP-glucuronic acid decarboxylase 1	3
2058	HORVU4Hr1G064230	hydroxyproline-rich glycoprotein family protein	3
2059	HORVU1Hr1G022810	Protein disulfide isomerase-like 2-1	3
2060	HORVU6Hr1G073910	intracellular protein transport	3
2061	HORVU5Hr1G001090	BEL1-like homeodomain 6	3
2062	HORVU3Hr1G072410	Nucleic acid-binding, OB-fold-like protein	3
2063	HORVU1Hr1G069650	unknown function	3
2064	HORVU4Hr1G064080	B-cell receptor-associated 31-like	3
2065	HORVU3Hr1G080040	RING/U-box superfamily protein	3
2066	HORVU3Hr1G022770	aspartate aminotransferase	3
2067	HORVU3Hr1G105300	Glucan endo-1,3-beta-glucosidase GV	3
2068	HORVU5Hr1G094420	BEACH domain-containing protein A2	3
2069	HORVU7Hr1G018190	GDP-D-mannose 4,6-dehydratase 1	3



S.No.	Feature ID	Barley Annotation	Fold changes
2070	HORVU5Hr1G118010	RNA-binding protein 1	3
2071	HORVU4Hr1G004460	Protein NRT1/ PTR FAMILY 2.9	3
2072	HORVU2Hr1G043860	histone H2A 2	3
2073	HORVU3Hr1G089290	Late embryogenesis abundant protein Lea5-A	3
2074	HORVU4Hr1G077970	Vacuolar protein-sorting-associated protein 37 homolog 2	3
2075	HORVU2Hr1G097080	Beige/BEACH domain ;WD domain, G-beta repeat protein	3
2076	HORVU3Hr1G028860	cationic amino acid transporter 5	3
2077	HORVU2Hr1G030820	alanine aminotransferase 2	3
2078	HORVU4Hr1G009140	pfkB-like carbohydrate kinase family protein	3
2079	HORVU7Hr1G110990	homogentisate phytyltransferase 1	3
2080	HORVU6Hr1G075760	sphingoid base hydroxylase 1	3
2081	HORVU6Hr1G019520	chaperone binding;ATPase activators	3
2082	HORVU2Hr1G078290	Microsomal signal peptidase 25 kDa subunit (SPC25)	3
2083	HORVU4Hr1G035380	glutathione peroxidase 4	3
2084	HORVU4Hr1G046380	Tetratricopeptide repeat (TPR)-like superfamily protein	3
2085	HORVU5Hr1G124800	Serine/threonine-protein kinase	3
2086	HORVU0Hr1G016050	MACPF domain-containing protein	3
2087	HORVU5Hr1G118510	Serine/threonine-protein kinase	3
2088	HORVU4Hr1G064000	Stress inducible protein coi6.1	3
2089	HORVU3Hr1G105100	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	3
2090	HORVU6Hr1G080770	Peroxisomal multifunctional enzyme type 2	3
2091	HORVU3Hr1G108720	NADPH:quinone oxidoreductase	3
2092	HORVU2Hr1G107250	Leucine-rich receptor-like protein kinase family protein	3
2093	HORVU7Hr1G058670	undescribed protein	3
2094	HORVU5Hr1G026780	Auxin-binding protein 4	3
2095	HORVU3Hr1G078650	Nucleotide-sugar transporter family protein	3
2096	HORVU3Hr1G073750	Mitochondrial import inner membrane translocase subunit TIM50	3
2097	HORVU2Hr1G040020	Brefeldin A-inhibited guanine nucleotide-exchange protein 5	3
2098	HORVU5Hr1G037990	Leucine-rich repeat receptor-like protein kinase family protein	3
2099	HORVU5Hr1G052030	C2 domain-containing protein 5	3
2100	HORVU3Hr1G087400	V-type proton ATPase subunit a1	3
2101	HORVU6Hr1G027360	mercaptopyruvate sulfurtransferase 1	3
2102	HORVU2Hr1G031910	Stress responsive alpha-beta barrel domain protein	3
2103	HORVU7Hr1G113460	Chaperone protein DnaJ	3
2104	HORVU3Hr1G077800	unknown function	3
2105	HORVU7Hr1G091360	Protein kinase superfamily protein	3
2106	HORVU2Hr1G118100	Heavy metal transport/detoxification superfamily protein	3
2107	HORVU2Hr1G065080	proline transporter 1	3
2108	HORVU3Hr1G077000	Adenine nucleotide alpha hydrolases-like superfamily protein	3
2109	HORVU4Hr1G038090	ADP-ribosylation factor C1	3
2110	HORVU3Hr1G117810	Zinc finger CCCH domain-containing protein 33	3
2111	HORVU4Hr1G058210	Calcium-transporting ATPase	3

S.No.	Feature ID	Barley Annotation	Fold changes
2112	HORVU6Hr1G020720	purple acid phosphatase 18	3
2113	HORVU4Hr1G002130	Dehydrogenase/reductase SDR family member 11	3
2114	HORVU0Hr1G009170	undescribed protein	3
2115	HORVU4Hr1G082730	Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1A	3
2116	HORVU3Hr1G067040	V-type ATP synthase beta chain	3
2117	HORVU4Hr1G072010	cell division cycle 48	3
2118	HORVU2Hr1G016000	lon protease 1	3
2119	HORVU5Hr1G110900	calcium-dependent protein kinase 19	3
2120	HORVU7Hr1G017190	Hypersensitive-induced response protein 4	3
2121	HORVU5Hr1G062970	ABI3-interacting protein 2-1 protein	3
2122	HORVU5Hr1G021270	U-box domain-containing protein 13	3
2123	HORVU2Hr1G024150	chaperone protein dnaJ-related	3
2124	HORVU1Hr1G024390	Zinc transporter 6	3
2125	HORVU3Hr1G111740	Ubiquitin-fold modifier 1	3
2126	HORVU2Hr1G098880	Succinylornithine transaminase/acetylornithine aminotransferase	3
2127	HORVU4Hr1G017450	Aldehyde dehydrogenase family 3 member H1	3
2128	HORVU3Hr1G066850	Mitochondrial substrate carrier family protein	3
2129	HORVU4Hr1G000930	HXXXD-type acyl-transferase family protein	3
2130	HORVU3Hr1G021810	UDP-Glycosyltransferase superfamily protein	3
2131	HORVU3Hr1G025590	Cell number regulator 8	3
2132	HORVU3Hr1G088540	fructose-bisphosphate aldolase 2	3
2133	HORVU5Hr1G122150	dihydroflavonol 4-reductase-like1	3
2134	HORVU6Hr1G071740	LORELEI-LIKE-GPI ANCHORED PROTEIN 2	3
2135	HORVU7Hr1G115480	Endoplasmic reticulum lectin 1	3
2136	HORVU2Hr1G077080	chloride channel C	3
2137	HORVU5Hr1G014350	Pyridoxal kinase	3
2138	HORVU3Hr1G067530	Ras-related protein Rab-7A	3
2139	HORVU2Hr1G048070	Protein phosphatase 2C family protein	3
2140	HORVU6Hr1G088160	Quinone oxidoreductase	3
2141	HORVU5Hr1G033310	AP-2 complex subunit sigma	3
2142	HORVU7Hr1G038650	Protein kinase superfamily protein	3
2143	HORVU7Hr1G066750	Transmembrane 9 superfamily member 2	3
2144	HORVU3Hr1G045480	dehydroquinase dehydratase, putative / shikimate dehydrogenase, putative	3
2145	HORVU7Hr1G118010	12-oxophytodienoate reductase 1	3
2146	HORVU3Hr1G002570	receptor-like protein kinase 4	3
2147	HORVU4Hr1G083190	DUF21 domain-containing protein	3
2148	HORVU2Hr1G085160	inositol transporter 1	3
2149	HORVU7Hr1G087150	basic helix-loop-helix (bHLH) DNA-binding family protein	3
2150	HORVU5Hr1G084070	3-dehydroquinase synthase, putative	3
2151	HORVU1Hr1G095400	Pleckstrin homology (PH) domain-containing protein	-3
2152	HORVU6Hr1G011760	0	-3

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
2153	HORVU3Hr1G065770	Bidirectional sugar transporter N3	-3
2154	HORVU2Hr1G089940	Aquaporin-like superfamily protein	-3
2155	HORVU6Hr1G059910	ATP-dependent RNA helicase Dead	-3
2156	HORVU1Hr1G090740	unknown function	-3
2157	HORVU5Hr1G039430	S-adenosyl-L-methionine-dependent methyltransferase	-3
2158	HORVU1Hr1G086930	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-3
2159	HORVU4Hr1G057020	Low temperature and salt responsive protein family	-3
2160	HORVU5Hr1G092170	Tetratricopeptide repeat (TPR)-like superfamily protein	-3
2161	HORVU4Hr1G076330	Copper-transporting ATPase 2	-3
2162	HORVU1Hr1G041990	RING/FYVE/PHD zinc finger superfamily protein	-3
2163	HORVU3Hr1G073630	Tetratricopeptide repeat (TPR)-like superfamily protein	-3
2164	HORVU3Hr1G112930	Disease resistance protein	-3
2165	HORVU7Hr1G087980	Pollen-specific protein SF21	-3
2166	HORVU3Hr1G065720	undescribed protein	-3
2167	HORVU0Hr1G020590	undescribed protein	-3
2168	HORVU5Hr1G088100	Zinc finger protein 316	-3
2169	HORVU3Hr1G050080	Protein of unknown function (DUF1230)	-3
2170	HORVU5Hr1G055270	GDP-mannose transporter	-3
2171	HORVU1Hr1G038850	Riboflavin kinase	-3
2172	HORVU2Hr1G107990	Thioredoxin superfamily protein	-3
2173	HORVU1Hr1G061210	Mitochondrial transcription termination factor family protein	-3
2174	HORVU6Hr1G032270	Pentatricopeptide repeat-containing protein	-3
2175	HORVU1Hr1G060170	pentatricopeptide (PPR) repeat-containing protein	-3
2176	HORVU2Hr1G099850	methionine aminopeptidase 1B	-3
2177	HORVU2Hr1G060550	undescribed protein	-3
2178	HORVU6Hr1G078730	undescribed protein	-3
2179	HORVU3Hr1G069730	UDP-Glycosyltransferase superfamily protein	-3
2180	HORVU3Hr1G027580	ABC transporter family protein	-3
2181	HORVU2Hr1G116680	Histidine--tRNA ligase	-3
2182	HORVU6Hr1G072320	Acetolactate synthase	-3
2183	HORVU3Hr1G113740	receptor kinase 3	-3
2184	HORVU7Hr1G026770	F-box protein	-3
2185	HORVU4Hr1G023260	BTB/POZ domain-containing protein	-3
2186	HORVU1Hr1G077760	Protein LURP-one-related 12	-3
2187	HORVU1Hr1G018960	Protein of unknown function (DUF3537)	-3
2188	HORVU7Hr1G026740	F-box protein	-3
2189	HORVU5Hr1G035220	undescribed protein	-3
2190	HORVU7Hr1G097950	unknown function	-3
2191	HORVU2Hr1G061190	amino acid permease 6	-3
2192	HORVU1Hr1G006860	Glucose-6-phosphate isomerase	-3
2193	HORVU2Hr1G114340	Dehydrogenase/reductase SDR family member 4	-3
2194	HORVU5Hr1G119080	0	-3

S.No.	Feature ID	Barley Annotation	Fold changes
2195	HORVU5Hr1G065890	alpha/beta-Hydrolases superfamily protein	-3
2196	HORVU4Hr1G009990	Peptidase M50 family protein	-3
2197	HORVU7Hr1G056630	RHOMBROID-like protein 3	-3
2198	HORVU2Hr1G040750	0	-3
2199	HORVU2Hr1G095990	Hedgehog receptor, putative isoform 1	-3
2200	HORVU2Hr1G074960	cellulose synthase-like B4	-3
2201	HORVU7Hr1G021100	NADH pyrophosphatase	-3
2202	HORVU3Hr1G029670	Auxin-responsive GH3 family protein	-3
2203	HORVU6Hr1G074970	Ethylene-responsive transcription factor 1	-3
2204	HORVU3Hr1G049330	unknown function	-3
2205	HORVU2Hr1G109850	IQ-domain 32	-3
2206	HORVU5Hr1G012510	Protein kinase superfamily protein	-3
2207	HORVU1Hr1G018500	GCN5-related N-acetyltransferase-like	-3
2208	HORVU3Hr1G062740	Protein of unknown function (DUF1639)	-3
2209	HORVU2Hr1G005110	E2F transcription factor 1	-3
2210	HORVU2Hr1G017290	DOF zinc finger protein 1	-3
2211	HORVU5Hr1G062310	10 kDa chaperonin	-3
2212	HORVU6Hr1G089600	Sugar transporter SWEET	-3
2213	HORVU4Hr1G057410	Prostamide/prostaglandin F synthase	-3
2214	HORVU5Hr1G096390	Alpha-glucan phosphorylase 1	-3
2215	HORVU6Hr1G075420	shikimate kinase 1	-3
2216	HORVU0Hr1G012260	undescribed protein	-3
2217	HORVU5Hr1G015050	FAD/NAD(P)-binding oxidoreductase family protein	-3
2218	HORVU7Hr1G118350	undescribed protein	-3
2219	HORVU1Hr1G025390	Phosphoenolpyruvate/phosphate translocator 3, chloroplastic	-3
2220	HORVU5Hr1G071940	UDP-Glycosyltransferase superfamily protein	-3
2221	HORVU2Hr1G025160	Cytochrome P450 superfamily protein	-3
2222	HORVU7Hr1G089850	Plant protein of unknown function (DUF247)	-3
2223	HORVU7Hr1G063030	Ribonuclease E	-3
2224	HORVU7Hr1G094870	Eukaryotic aspartyl protease family protein	-3
2225	HORVU3Hr1G048660	Hypoxia-responsive family protein	-3
2226	HORVU7Hr1G059130	Thioredoxin family protein	-3
2227	HORVU3Hr1G107320	cofactor assembly of complex C	-3
2228	HORVU4Hr1G075200	Sucrose transport protein	-3
2229	HORVU2Hr1G078840	Mitochondrial uncoupling protein 3	-3
2230	HORVU4Hr1G073400	sulfate transporter 3;1	-3
2231	HORVU7Hr1G109800	Cryptochrome DASH	-3
2232	HORVU7Hr1G057280	Cytochrome P450 superfamily protein	-3
2233	HORVU7Hr1G056790	TraB family protein	-3
2234	HORVU7Hr1G058580	Cytochrome P450 superfamily protein	-3
2235	HORVU2Hr1G124800	Thioredoxin superfamily protein	-3
2236	HORVU6Hr1G031650	Cytochrome P450 superfamily protein	-3

S.No.	Feature ID	Barley Annotation	Fold changes
2237	HORVU4Hr1G082880	ESTs AU029294(E30104)	-3
2238	HORVU1Hr1G084560	tropinone reductase	-3
2239	HORVU5Hr1G051230	CONSTANS-like 2	-3
2240	HORVU6Hr1G064470	Mechanosensitive ion channel family protein	-3
2241	HORVU2Hr1G047020	undescribed protein	-3
2242	HORVU3Hr1G056370	zinc finger homeodomain 1	-3
2243	HORVU2Hr1G008090	Transmembrane amino acid transporter family protein	-3
2244	HORVU5Hr1G007980	Glutathione-regulated potassium-efflux system protein	-3
2245	HORVU5Hr1G054000	Chlorophyll a-b binding protein C, chloroplastic	-3
2246	HORVU5Hr1G080160	Sodium/bile acid cotransporter	-3
2247	HORVU2Hr1G038940	Photosystem II 10 kDa polypeptide, chloroplastic	-3
2248	HORVU1Hr1G078410	Protein kinase superfamily protein	-3
2249	HORVU7Hr1G100230	Heavy metal transport/detoxification superfamily protein	-3
2250	HORVU5Hr1G074200	serine/threonine protein phosphatase 2A	-3
2251	HORVU7Hr1G050520	undescribed protein	-3
2252	HORVU2Hr1G081880	DNA-directed RNA polymerase V subunit 1	-3
2253	HORVU1Hr1G050640	Plastid lipid-associated protein 3, chloroplastic	-3
2254	HORVU2Hr1G072500	1,4-alpha-glucan branching enzyme GlgB	-3
2255	HORVU0Hr1G001440	hexokinase 1	-3
2256	HORVU7Hr1G117020	Basic-leucine zipper (bZIP) transcription factor family protein	-3
2257	HORVU3Hr1G097010	beta glucosidase 11	-3
2258	HORVU4Hr1G063150	ATP-dependent Clp protease ATP-binding subunit ClpA homolog	-3
2259	HORVU6Hr1G056210	Retrotransposon protein, putative, unclassified	-3
2260	HORVU6Hr1G032770	Subtilisin-like protease	-3
2261	HORVU4Hr1G070070	Sigma factor SigB regulation protein RsbQ	-3
2262	HORVU3Hr1G105880	acetyl-CoA carboxylase 1	-3
2263	HORVU1Hr1G056610	UDP-glucose 4-epimerase	-3
2264	HORVU0Hr1G002730	BnaC03g05420D protein	-3
2265	HORVU0Hr1G035910	unknown function	-3
2266	HORVU3Hr1G013690	Membrane protein insertase YidC	-3
2267	HORVU5Hr1G121250	Aspartokinase 1, chloroplastic	-3
2268	HORVU4Hr1G003800	BEL1-like homeodomain 6	-3
2269	HORVU7Hr1G089830	Stress regulated protein	-3
2270	HORVU2Hr1G123490	Transcription initiation factor TFIID subunit 2	-3
2271	HORVU7Hr1G033450	unknown protein; Has 35333 Blast hits to 34131 proteins in 2444 species: Archae - 798; Bacteria - 22429; Metazoa - 974; Fungi - 991; Plants - 531; Viruses - 0; Other Eukaryotes - 9610 (source: NCBI BLINK).	-3
2272	HORVU2Hr1G005150	Glyoxylate/hydroxypyruvate reductase B	-3
2273	HORVU5Hr1G117690	Translocase of chloroplast 159, chloroplastic	-3
2274	HORVU2Hr1G015720	Hexosyltransferase	-3
2275	HORVU6Hr1G003020	Chalcone synthase	-3
2276	HORVU7Hr1G114110	undescribed protein	-3

S.No.	Feature ID	Barley Annotation	Fold changes
2277	HORVU1Hr1G061020	unknown function	-3
2278	HORVU5Hr1G121420	Mitochondrial substrate carrier family protein	-3
2279	HORVU2Hr1G049240	Asparagine--tRNA ligase	-3
2280	HORVU1Hr1G022660	Chlororespiratory reduction31	-3
2281	HORVU1Hr1G085570	ubiquitin-conjugating enzyme 23	-3
2282	HORVU0Hr1G021760	cytochrome P450, family 706, subfamily A, polypeptide 7	-3
2283	HORVU1Hr1G073760	Solute carrier family 35 member F2	-3
2284	HORVU6Hr1G081670	tyrosine aminotransferase 3	-3
2285	HORVU7Hr1G050540	DNA binding protein	-3
2286	HORVU7Hr1G079720	GDSL esterase/lipase	-3
2287	HORVU2Hr1G127590	CBL-interacting serine/threonine-protein kinase 23	-3
2288	HORVU0Hr1G003890	Phosphoadenosine phosphosulfate reductase	-3
2289	HORVU0Hr1G018000	Extended synaptotagmin-1	-3
2290	HORVU4Hr1G050630	eukaryotic translation initiation factor 2 beta subunit	-3
2291	HORVU4Hr1G028910	beta glucosidase 42	-3
2292	HORVU5Hr1G088330	Cysteine--tRNA ligase	-3
2293	HORVU4Hr1G013380	LOB domain-containing protein 37	-3
2294	HORVU4Hr1G069480	BTB/POZ domain-containing protein	-3
2295	HORVU2Hr1G038770	Chaperonin-like RbcX protein	-3
2296	HORVU7Hr1G035870	Chaperonin-like RbcX protein	-3
2297	HORVU3Hr1G031090	unknown function	-3
2298	HORVU5Hr1G018840	unknown protein; LOCATED IN: chloroplast; EXPRESSED IN: 24 plant structures; EXPRESSED DURING: 15 growth stages; BEST Arabidopsis thaliana protein match is: unknown protein .	-3
2299	HORVU4Hr1G084890	Endoribonuclease Dicer homolog 1	-3
2300	HORVU2Hr1G013400	pseudo-response regulator 7	-3
2301	HORVU7Hr1G116000	Disease resistance protein	-3
2302	HORVU4Hr1G081310	serine acetyltransferase 3;2	-3
2303	HORVU2Hr1G032170	Acidic leucine-rich nuclear phosphoprotein 32-related protein 1	-3
2304	HORVU2Hr1G095070	S-adenosyl-L-methionine-dependent methyltransferases superfamily protein	-3
2305	HORVU3Hr1G023370	Glucose-1-phosphate adenylyltransferase family protein	-3
2306	HORVU6Hr1G029160	Protein phosphatase 2C family protein	-3
2307	HORVU3Hr1G013840	Metallothioneine type2	-3
2308	HORVU6Hr1G016240	Transcription factor HBP-1a	-3
2309	HORVU6Hr1G028020	Peptidyl-prolyl cis-trans isomerase	-3
2310	HORVU5Hr1G109470	Pheophorbide a oxygenase, chloroplastic	-3
2311	HORVU2Hr1G113260	N-terminal nucleophile aminohydrolases (Ntn hydrolases) superfamily protein	-3
2312	HORVU1Hr1G021390	Disease resistance protein	-3
2313	HORVU4Hr1G081770	Vitamin K epoxide reductase homolog	-3
2314	HORVU7Hr1G006910	3-ketoacyl-CoA synthase 5	-3
2315	HORVU3Hr1G084970	Tetratricopeptide repeat (TPR)-like superfamily protein	-3
2316	HORVU4Hr1G049320	potassium transporter 2	-3



<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
2317	HORVU3Hr1G059390	GDP-D-mannose 3',5'-epimerase	-3
2318	HORVU2Hr1G051520	undescribed protein	-3
2319	HORVU3Hr1G107290	UPF0001 protein YBL036C	-3
2320	HORVU4Hr1G069130	Methionine--tRNA ligase	-3
2321	HORVU6Hr1G068640	syntaxin, putative	-3
2322	HORVU1Hr1G086980	3-deoxy-manno-octulosonate cytidyltransferase	-3
2323	HORVU4Hr1G043650	Rubredoxin-like superfamily protein	-3
2324	HORVU3Hr1G001960	Tetratricopeptide repeat (TPR)-like superfamily protein	-3
2325	HORVU7Hr1G068400	undescribed protein	-3
2326	HORVU4Hr1G011420	Pentatricopeptide repeat-containing protein	-3
2327	HORVU4Hr1G006090	unknown function	-3
2328	HORVU3Hr1G067730	undescribed protein	-3
2329	HORVU4Hr1G079440	exocyst subunit exo70 family protein F1	-3
2330	HORVU6Hr1G090380	Haloacid dehalogenase-like hydrolase (HAD) superfamily protein	-3
2331	HORVU3Hr1G072540	callose synthase 5	-3
2332	HORVU7Hr1G091780	unknown function	-3
2333	HORVU5Hr1G009460	Pentatricopeptide repeat (PPR) superfamily protein	-3
2334	HORVU2Hr1G003890	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	-3
2335	HORVU5Hr1G103380	Mitochondrial transcription termination factor family protein	-3
2336	HORVU2Hr1G105010	Protein of unknown function (DUF581)	-3
2337	HORVU4Hr1G038160	ATP-dependent Clp protease proteolytic subunit	-3
2338	HORVU3Hr1G085380	alpha-glucan phosphorylase 2	-3
2339	HORVU6Hr1G001480	Transmembrane amino acid transporter family protein	-3
2340	HORVU2Hr1G017450	unknown function	-3
2341	HORVU5Hr1G063940	undescribed protein	-4
2342	HORVU7Hr1G105870	undescribed protein	-4
2343	HORVU0Hr1G040350	Plant/F20D21-34 protein	-4
2344	HORVU1Hr1G078110	SAM-dependent methyltransferase	-4
2345	HORVU4Hr1G071250	sulfate transporter 1;3	-4
2346	HORVU5Hr1G044190	Plastid transcriptionally active 5 isoform 1	-4
2347	HORVU5Hr1G026140	Phenylalanine--tRNA ligase alpha subunit	-4
2348	HORVU4Hr1G061170	Tetratricopeptide repeat (TPR)-like superfamily protein	-4
2349	HORVU1Hr1G058330	unknown function	-4
2350	HORVU3Hr1G097560	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4
2351	HORVU7Hr1G092940	Potassium transporter family protein	-4
2352	HORVU3Hr1G079890	cysteine synthase 26	-4
2353	HORVU3Hr1G073040	Phosphatidate cytidyltransferase family protein	-4
2354	HORVU3Hr1G090760	Alpha/beta hydrolase domain-containing protein 11	-4
2355	HORVU1Hr1G047580	undescribed protein	-4
2356	HORVU3Hr1G021970	Transcription initiation factor IIA subunit 2	-4
2357	HORVU6Hr1G051070	Mitochondrial transcription termination factor family protein	-4
2358	HORVU3Hr1G069520	GTP-binding protein	-4

S.No.	Feature ID	Barley Annotation	Fold changes
2359	HORVU6Hr1G028050	Porphobilinogen deaminase	-4
2360	HORVU1Hr1G063010	S-adenosyl-L-methionine-dependent methyltransferases superfamily protein	-4
2361	HORVU4Hr1G004160	Exostosin-2	-4
2362	HORVU6Hr1G025880	unknown function	-4
2363	HORVU2Hr1G043310	Peptide chain release factor 2	-4
2364	HORVU5Hr1G024250	nucleoside diphosphate kinase 2	-4
2365	HORVU5Hr1G062370	Choline/ethanolamine kinase	-4
2366	HORVU1Hr1G001590	Glucose-1-phosphate adenylyltransferase family protein	-4
2367	HORVU6Hr1G089540	Sugar transporter SWEET	-4
2368	HORVU6Hr1G047770	chaperone protein dnaJ-related	-4
2369	HORVU2Hr1G100470	Plastid-lipid associated protein PAP / fibrillin family protein	-4
2370	HORVU4Hr1G013310	unknown protein; LOCATED IN: chloroplast; EXPRESSED IN: 24 plant structures; EXPRESSED DURING: 15 growth stages; BEST Arabidopsis thaliana protein match is: unknown protein .	-4
2371	HORVU1Hr1G086870	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4
2372	HORVU7Hr1G080520	unknown function	-4
2373	HORVU3Hr1G051650	unknown function	-4
2374	HORVU5Hr1G118480	cyclase/dehydrase family protein	-4
2375	HORVU5Hr1G114670	undescribed protein	-4
2376	HORVU3Hr1G023960	Acyl-protein thioesterase 1 homolog 1	-4
2377	HORVU7Hr1G091570	Endoglucanase 18	-4
2378	HORVU5Hr1G097020	Aspartate-semialdehyde dehydrogenase	-4
2379	HORVU2Hr1G076180	Regulator of chromosome condensation (RCC1) family protein	-4
2380	HORVU5Hr1G044830	Replication protein A 70 kDa DNA-binding subunit B	-4
2381	HORVU4Hr1G066870	Cytochrome P450 superfamily protein	-4
2382	HORVU1Hr1G081980	Calcium homeostasis regulator CHoR1	-4
2383	HORVU7Hr1G083480	3'-5' exoribonuclease 1	-4
2384	HORVU5Hr1G008980	receptor kinase 3	-4
2385	HORVU2Hr1G066430	Retrotransposon protein, putative, unclassified	-4
2386	HORVU5Hr1G016730	Protein kinase superfamily protein	-4
2387	HORVU1Hr1G090990	Protein CHUP1, chloroplastic	-4
2388	HORVU2Hr1G006910	Cytochrome P450 superfamily protein	-4
2389	HORVU7Hr1G050340	Thylakoid lumenal 19 kDa protein, chloroplastic	-4
2390	HORVU5Hr1G060220	sugar transporter 2	-4
2391	HORVU0Hr1G003780	undescribed protein	-4
2392	HORVU3Hr1G041160	Protein translocase subunit SecA	-4
2393	HORVU7Hr1G011830	haloacid dehalogenase	-4
2394	HORVU0Hr1G039090	Harpin binding protein 1, putative, expressed	-4
2395	HORVU2Hr1G071860	NAD(P)-binding Rossmann-fold superfamily protein	-4
2396	HORVU3Hr1G057020	Dual-specificity RNA methyltransferase RlmN	-4
2397	HORVU2Hr1G028990	Zinc-binding dehydrogenase family protein	-4
2398	HORVU2Hr1G043920	beta-amylase 5	-4

S.No.	Feature ID	Barley Annotation	Fold changes
2399	HORVU5Hr1G061730	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-4
2400	HORVU1Hr1G023690	GTP pyrophosphokinase	-4
2401	HORVU7Hr1G088160	AP-3 complex subunit mu-1	-4
2402	HORVU6Hr1G080750	sulfite reductase	-4
2403	HORVU2Hr1G059430	undescribed protein	-4
2404	HORVU2Hr1G060630	Cadmium-induced protein AS8	-4
2405	HORVU4Hr1G073930	glutathione reductase	-4
2406	HORVU5Hr1G124750	Cytokinin riboside 5'-monophosphate phosphoribohydrolase	-4
2407	HORVU2Hr1G056820	Pentatricopeptide repeat-containing protein	-4
2408	HORVU4Hr1G060790	unknown function	-4
2409	HORVU6Hr1G029370	Glyoxylate/succinic semialdehyde reductase 1	-4
2410	HORVU2Hr1G087010	Calcium uptake protein 1, mitochondrial	-4
2411	HORVU4Hr1G065840	Inositol-tetrakisphosphate 1-kinase 2	-4
2412	HORVU3Hr1G069470	Mitochondrial import receptor subunit TOM7-1	-4
2413	HORVU5Hr1G012600	Protein kinase superfamily protein	-4
2414	HORVU3Hr1G117590	23 kDa jasmonate-induced protein	-4
2415	HORVU6Hr1G050160	GTP binding Elongation factor Tu family protein	-4
2416	HORVU5Hr1G064540	unknown function	-4
2417	HORVU3Hr1G000230	Protein EXECUTER 2, chloroplastic	-4
2418	HORVU3Hr1G048950	Protein phosphatase 2C 57	-4
2419	HORVU5Hr1G118720	Mitochondrial transcription termination factor family protein	-4
2420	HORVU5Hr1G068990	alpha/beta-Hydrolases superfamily protein	-4
2421	HORVU6Hr1G064910	Argonaute family protein	-4
2422	HORVU2Hr1G119180	ETO1-like 1	-4
2423	HORVU7Hr1G048330	Alpha-glucan water dikinase 2	-4
2424	HORVU7Hr1G034120	Protein of unknown function (DUF1677)	-4
2425	HORVU2Hr1G071330	Glycine--tRNA ligase	-4
2426	HORVU0Hr1G018690	Disease resistance protein RPM1	-4
2427	HORVU5Hr1G012660	unknown function	-4
2428	HORVU5Hr1G114020	Facilitated glucose transporter protein 1	-4
2429	HORVU7Hr1G093330	Glucose-1-phosphate adenylyltransferase family protein	-4
2430	HORVU4Hr1G074980	HNH endonuclease	-4
2431	HORVU2Hr1G012710	amine oxidase 1	-4
2432	HORVU1Hr1G079490	undescribed protein	-4
2433	HORVU5Hr1G068520	EF hand family protein	-4
2434	HORVU2Hr1G113270	Isoaspartyl peptidase/L-asparaginase	-4
2435	HORVU6Hr1G081370	Isoleucine--tRNA ligase	-4
2436	HORVU1Hr1G060980	unknown function	-4
2437	HORVU2Hr1G037020	alpha/beta-Hydrolases superfamily protein	-4
2438	HORVU3Hr1G031460	Auxin-responsive protein IAA17	-4
2439	HORVU3Hr1G111930	thioredoxin Y2	-4
2440	HORVU7Hr1G094830	Lysine-specific demethylase 3B	-4

S.No.	Feature ID	Barley Annotation	Fold changes
2441	HORVU4Hr1G004120	Magnesium transporter MRS2-B	-4
2442	HORVU4Hr1G078410	Homeobox-leucine zipper protein family	-4
2443	HORVU3Hr1G066240	chloride channel E	-4
2444	HORVU5Hr1G123240	Pentatricopeptide repeat-containing protein	-4
2445	HORVU5Hr1G083140	Transposon protein, putative, Mutator sub-class	-4
2446	HORVU2Hr1G072860	undescribed protein	-4
2447	HORVU1Hr1G076710	Cytochrome P450 superfamily protein	-4
2448	HORVU3Hr1G015050	Enolase-phosphatase E1	-4
2449	HORVU2Hr1G031990	PHD finger protein ALFIN-LIKE 9	-4
2450	HORVU7Hr1G117320	Signal peptidase I	-4
2451	HORVU4Hr1G050240	undescribed protein	-4
2452	HORVU3Hr1G094050	Acyl-[acyl-carrier-protein] 6-desaturase	-4
2453	HORVU1Hr1G053080	Cytochrome P450 superfamily protein	-4
2454	HORVU1Hr1G081370	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-4
2455	HORVU1Hr1G051150	Antiholin-like protein LrgB	-4
2456	HORVU6Hr1G067390	Protein kinase superfamily protein	-4
2457	HORVU6Hr1G069190	monodehydroascorbate reductase 4	-4
2458	HORVU1Hr1G030540	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-4
2459	HORVU3Hr1G079260	Ribonuclease 3	-4
2460	HORVU7Hr1G072670	NAC domain containing protein 1	-4
2461	HORVU4Hr1G024360	Pentatricopeptide repeat-containing protein	-4
2462	HORVU5Hr1G026640	ankyrin repeat family protein	-4
2463	HORVU6Hr1G044590	Transcription factor jumonji domain-containing protein, putative isoform 9	-4
2464	HORVU3Hr1G023220	chloride channel C	-4
2465	HORVU4Hr1G076160	Acyl-CoA N-acyltransferases (NAT) superfamily protein	-4
2466	HORVU3Hr1G116790	Aquaporin-like superfamily protein	-4
2467	HORVU1Hr1G026650	Leucine-rich repeat receptor-like protein kinase family protein	-4
2468	HORVU1Hr1G042060	Xaa-Pro aminopeptidase 1	-4
2469	HORVU4Hr1G029400	undescribed protein	-4
2470	HORVU1Hr1G025340	Protein ApaG	-4
2471	HORVU2Hr1G113880	AP2-like ethylene-responsive transcription factor	-4
2472	HORVU5Hr1G048240	fatty acid desaturase 8	-4
2473	HORVU4Hr1G017030	GDP-L-galactose phosphorylase 2	-4
2474	HORVU1Hr1G067750	undescribed protein	-4
2475	HORVU5Hr1G020110	Protein of unknown function (DUF1336)	-4
2476	HORVU2Hr1G101370	RING/U-box superfamily protein	-4
2477	HORVU7Hr1G115990	Disease resistance protein	-4
2478	HORVU2Hr1G104920	glutamate receptor 3.3	-4
2479	HORVU7Hr1G025730	Ribosomal protein L11 methyltransferase	-4
2480	HORVU1Hr1G080840	Acid phosphatase/vanadium-dependent haloperoxidase-related protein	-4
2481	HORVU1Hr1G015490	carotenoid isomerase	-4

S.No.	Feature ID	Barley Annotation	Fold changes
2482	HORVU0Hr1G016860	DNA-binding protein SMUBP-2	-4
2483	HORVU7Hr1G008070	Phosphoglucan, water dikinase, chloroplastic	-4
2484	HORVU1Hr1G023220	undescribed protein	-4
2485	HORVU2Hr1G094340	TatD related DNase	-4
2486	HORVU2Hr1G048950	profilin 5	-4
2487	HORVU2Hr1G081140	Chloroplastic group IIA intron splicing facilitator CRS1, chloroplastic	-4
2488	HORVU3Hr1G057240	Glutaredoxin family protein	-4
2489	HORVU3Hr1G021910	tetratricopeptide repeat (TPR)-containing protein	-4
2490	HORVU7Hr1G060130	Superoxide dismutase [Cu-Zn] 4A	-4
2491	HORVU2Hr1G116060	DNA polymerase I	-4
2492	HORVU4Hr1G057360	hydrolase family protein / HAD-superfamily protein	-4
2493	HORVU0Hr1G035820	serine acetyltransferase 1;1	-4
2494	HORVU2Hr1G126540	translocon at the outer membrane of chloroplasts 64-V	-4
2495	HORVU6Hr1G049950	cryptochrome 1	-4
2496	HORVU3Hr1G024470	Embryo-specific protein 3, (ATS3)	-4
2497	HORVU2Hr1G094190	Nuclear transport factor 2 (NTF2) family protein	-4
2498	HORVU3Hr1G030580	Replication protein A 32 kDa subunit B	-4
2499	HORVU1Hr1G092860	Mitochondrial substrate carrier family protein	-4
2500	HORVU7Hr1G021180	Single-stranded DNA-binding protein WHY1, chloroplastic	-4
2501	HORVU3Hr1G000120	Subtilisin-like protease	-4
2502	HORVU6Hr1G068910	alpha/beta hydrolase	-4
2503	HORVU2Hr1G085000	B-box zinc finger family protein	-4
2504	HORVU1Hr1G042650	Protein EXECUTER 1, chloroplastic	-4
2505	HORVU7Hr1G006490	60 kDa chaperonin 1	-4
2506	HORVU6Hr1G014500	Lil3 protein, putative	-4
2507	HORVU4Hr1G028730	undescribed protein	-4
2508	HORVU1Hr1G075120	Carboxymethylenebutenolidase homolog	-4
2509	HORVU2Hr1G115960	lipoxygenase 1	-4
2510	HORVU6Hr1G050440	senescence-associated family protein	-4
2511	HORVU7Hr1G095550	arogenate dehydrogenase	-4
2512	HORVU5Hr1G039690	undescribed protein	-4
2513	HORVU4Hr1G082040	catalase 2	-4
2514	HORVU5Hr1G014290	Auxin-responsive protein IAA31	-4
2515	HORVU5Hr1G117650	Flap endonuclease 1-B	-4
2516	HORVU5Hr1G073050	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-4
2517	HORVU2Hr1G091860	DNA helicase INO80	-4
2518	HORVU4Hr1G087580	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4
2519	HORVU5Hr1G093400	kinase interacting (KIP1-like) family protein	-4
2520	HORVU5Hr1G066490	NADH dehydrogenase-like complex L	-4
2521	HORVU6Hr1G061870	cyclin p4;3	-4
2522	HORVU3Hr1G096780	Kelch repeat-containing protein	-4
2523	HORVU1Hr1G032670	Pentatricopeptide repeat (PPR) superfamily protein	-4

S.No.	Feature ID	Barley Annotation	Fold changes
2524	HORVU5Hr1G076100	ACT domain-containing protein	-4
2525	HORVU4Hr1G054440	undescribed protein	-4
2526	HORVU2Hr1G087940	unknown function	-4
2527	HORVU4Hr1G029510	tRNA-2-methylthio-N(6)-dimethylallyl-adenosine synthase	-4
2528	HORVU2Hr1G105240	purine permease 11	-4
2529	HORVU4Hr1G042970	Proteasome subunit alpha type-7-A	-4
2530	HORVU2Hr1G020120	cation calcium exchanger 4	-4
2531	HORVU5Hr1G124210	PGR5-LIKE A	-4
2532	HORVU2Hr1G041190	undescribed protein	-4
2533	HORVU3Hr1G092830	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4
2534	HORVU2Hr1G091680	Remorin family protein	-4
2535	HORVU6Hr1G025180	undescribed protein	-4
2536	HORVU3Hr1G055780	Protein ABIL1	-4
2537	HORVU3Hr1G114340	Pentatricopeptide repeat-containing protein	-4
2538	HORVU6Hr1G092430	Divalent ion symporter	-4
2539	HORVU3Hr1G060730	unknown function	-4
2540	HORVU2Hr1G028160	Protein of unknown function (DUF1997)	-4
2541	HORVU3Hr1G028780	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4
2542	HORVU6Hr1G033690	unknown protein; LOCATED IN: chloroplast; EXPRESSED IN: 22 plant structures; EXPRESSED DURING: 13 growth stages; BEST Arabidopsis thaliana protein match is: unknown protein .	-4
2543	HORVU4Hr1G056550	Rhodanese-like domain-containing protein 10	-4
2544	HORVU2Hr1G111840	Glutathione S-transferase family protein	-4
2545	HORVU6Hr1G025110	Elongation factor 4	-4
2546	HORVU1Hr1G070290	proline-rich family protein	-4
2547	HORVU5Hr1G073950	dihydroflavonol 4-reductase-like1	-4
2548	HORVU3Hr1G002710	nodulin MtN21 /EamA-like transporter family protein	-4
2549	HORVU7Hr1G017670	ATP-dependent Clp protease proteolytic subunit 2	-4
2550	HORVU7Hr1G074890	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit 1, mitochondrial	-4
2551	HORVU2Hr1G127130	unknown function	-4
2552	HORVU3Hr1G021660	MAR binding filament-like protein 1	-4
2553	HORVU1Hr1G079410	Protein of unknown function (DUF1639)	-4
2554	HORVU3Hr1G081270	Plant protein of unknown function (DUF641)	-4
2555	HORVU2Hr1G072020	Chaperone protein ClpB	-4
2556	HORVU3Hr1G087450	unknown function	-4
2557	HORVU3Hr1G108530	FAD-dependent oxidoreductase	-4
2558	HORVU2Hr1G085910	Zinc finger protein CONSTANS-LIKE 4	-4
2559	HORVU1Hr1G031270	DNA ligase IV	-4
2560	HORVU1Hr1G048720	Protein COFACTOR ASSEMBLY OF COMPLEX C SUBUNIT B CCB2, chloroplastic	-4
2561	HORVU2Hr1G066470	undescribed protein	-4
2562	HORVU1Hr1G091230	Protein kinase superfamily protein	-4
2563	HORVU3Hr1G040870	unknown function	-4



S.No.	Feature ID	Barley Annotation	Fold changes
2564	HORVU2Hr1G047450	methionine aminopeptidase 1B	-4
2565	HORVU4Hr1G009520	tubulin alpha-4 chain	-4
2566	HORVU3Hr1G062700	Polyketide cyclase/dehydrase and lipid transport superfamily protein	-4
2567	HORVU2Hr1G041620	undescribed protein	-4
2568	HORVU2Hr1G111440	Ribulose biphosphate carboxylase/oxygenase activase, chloroplastic	-4
2569	HORVU3Hr1G010380	Protein root UVB sensitive 5	-4
2570	HORVU5Hr1G082990	1-phosphatidylinositol phosphodiesterase	-4
2571	HORVU6Hr1G095270	MATE efflux family protein	-4
2572	HORVU5Hr1G083160	Transposon protein, putative, Mutator sub-class	-4
2573	HORVU4Hr1G023300	Protein of unknown function (DUF1191)	-4
2574	HORVU6Hr1G054650	Mitochondrial transcription termination factor family protein	-4
2575	HORVU4Hr1G032020	undescribed protein	-4
2576	HORVU3Hr1G070360	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-4
2577	HORVU3Hr1G078830	unknown function	-4
2578	HORVU5Hr1G028670	undescribed protein	-4
2579	HORVU2Hr1G072870	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-4
2580	HORVU3Hr1G090860	Pentatricopeptide repeat-containing protein	-4
2581	HORVU6Hr1G056060	undescribed protein	-4
2582	HORVU6Hr1G010070	Disease resistance protein	-4
2583	HORVU1Hr1G052780	pollen development	-4
2584	HORVU5Hr1G122820	Ankyrin repeat domain-containing protein 2A	-4
2585	HORVU6Hr1G048210	undescribed protein	-4
2586	HORVU5Hr1G103790	BnaC04g25990D protein	-4
2587	HORVU7Hr1G098510	Peroxidase superfamily protein	-4
2588	HORVU1Hr1G075210	Tetratricopeptide repeat (TPR)-like superfamily protein	-4
2589	HORVU5Hr1G119100	BTB/POZ domain-containing protein	-4
2590	HORVU4Hr1G072240	unknown function	-4
2591	HORVU1Hr1G094480	ATP-dependent Clp protease proteolytic subunit 2	-4
2592	HORVU4Hr1G039870	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-4
2593	HORVU2Hr1G035130	undescribed protein	-4
2594	HORVU6Hr1G047760	chaperone protein dnaJ-related	-4
2595	HORVU2Hr1G022540	undescribed protein	-4
2596	HORVU4Hr1G070720	Auxilin-related protein 2	-4
2597	HORVU1Hr1G046400	Non-specific lipid-transfer protein 2	-4
2598	HORVU3Hr1G005830	ABC transporter G family member 7	-4
2599	HORVU3Hr1G086970	Metal tolerance protein 5	-4
2600	HORVU1Hr1G010820	Ribonuclease II/R family protein	-4
2601	HORVU0Hr1G031850	myb-like transcription factor family protein	-4
2602	HORVU3Hr1G032200	ABL interactor-like protein 2	-4
2603	HORVU3Hr1G030540	Replication protein A 32 kDa subunit B	-4

S.No.	Feature ID	Barley Annotation	Fold changes
2604	HORVU3Hr1G074210	UvrB/uvrC motif-containing protein isoform 1	-4
2605	HORVU0Hr1G009910	Pyruvate dehydrogenase E1 component subunit beta	-4
2606	HORVU1Hr1G093180	RNA polymerase sigma-B factor	-4
2607	HORVU4Hr1G076930	unknown function	-4
2608	HORVU6Hr1G025160	undescribed protein	-4
2609	HORVU1Hr1G065950	unknown protein; INVOLVED IN: biological_process unknown; LOCATED IN: chloroplast; EXPRESSED IN: 22 plant structures; EXPRESSED DURING: 13 growth stages; Has 30201 Blast hits to 17322 proteins in 780 species: Archae - 12; Bacteria - 1396; Metazoa - 17338; Fungi - 3422; Plants - 5037; Viruses - 0; Other Eukaryotes - 2996 (source: NCBI BLink).	-4
2610	HORVU2Hr1G113740	undescribed protein	-4
2611	HORVU7Hr1G091580	unknown function	-4
2612	HORVU7Hr1G114960	Demethylmenaquinone methyltransferase	-4
2613	HORVU5Hr1G009890	Pentatricopeptide repeat (PPR) superfamily protein	-4
2614	HORVU3Hr1G055940	Kinesin-related protein 6	-4
2615	HORVU6Hr1G068150	Ubiquinol oxidase	-4
2616	HORVU6Hr1G055640	Lysine-specific demethylase 3B	-4
2617	HORVU1Hr1G000710	Peptidyl-prolyl cis-trans isomerase B	-4
2618	HORVU3Hr1G005770	ABC transporter G family member 7	-4
2619	HORVU4Hr1G053530	PsbB mRNA maturation factor Mbb1, chloroplastic	-4
2620	HORVU3Hr1G087500	IQ-domain 3	-4
2621	HORVU0Hr1G004760	0	-4
2622	HORVU0Hr1G016560	unknown function	-4
2623	HORVU3Hr1G093510	Zinc finger CCCH domain-containing protein 12	-4
2624	HORVU2Hr1G043770	Pentatricopeptide repeat (PPR) superfamily protein	-4
2625	HORVU3Hr1G074840	O-acyltransferase (WSD1-like) family protein	-4
2626	HORVU4Hr1G048300	undescribed protein	-4
2627	HORVU2Hr1G025390	Acetyl esterase	-4
2628	HORVU4Hr1G022830	RING/U-box superfamily protein	-4
2629	HORVU7Hr1G089910	SPX domain gene 2	-4
2630	HORVU7Hr1G084750	Transcription factor jumonji domain-containing protein, putative isoform 3	-4
2631	HORVU0Hr1G032630	undescribed protein	-4
2632	HORVU5Hr1G053750	Ycf20-like protein	-4
2633	HORVU5Hr1G039850	actin 7	-4
2634	HORVU7Hr1G022830	AP-3 complex subunit mu-1	-4
2635	HORVU5Hr1G033660	Valine--tRNA ligase	-4
2636	HORVU2Hr1G021920	Zinc metalloprotease Rip1	-4
2637	HORVU3Hr1G044550	serine/threonine protein phosphatase 2A	-4
2638	HORVU4Hr1G023580	Zeaxanthin epoxidase, chloroplastic	-4
2639	HORVU3Hr1G054040	undescribed protein	-4
2640	HORVU3Hr1G054770	ATP-dependent zinc metalloprotease FtsH	-4
2641	HORVU3Hr1G009360	Non-specific lipid-transfer protein 4.1	-4

S.No.	Feature ID	Barley Annotation	Fold changes
2642	HORVU2Hr1G045630	unknown protein; Has 1807 Blast hits to 1807 proteins in 277 species: Archae - 0; Bacteria - 0; Metazoa - 736; Fungi - 347; Plants - 385; Viruses - 0; Other Eukaryotes - 339 (source: NCBI BLink).	-4
2643	HORVU6Hr1G035560	unknown protein; Has 83 Blast hits to 82 proteins in 37 species: Archae - 0; Bacteria - 51; Metazoa - 0; Fungi - 0; Plants - 30; Viruses - 0; Other Eukaryotes - 2 (source: NCBI BLink).	-4
2644	HORVU7Hr1G100790	Remorin family protein	-4
2645	HORVU3Hr1G114250	unknown function	-4
2646	HORVU3Hr1G050430	protein kinase family protein	-4
2647	HORVU4Hr1G022930	elongation factor P (EF-P) family protein	-4
2648	HORVU0Hr1G008530	undescribed protein	-4
2649	HORVU3Hr1G029750	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-4
2650	HORVU5Hr1G023960	TRICHOME BIREFRINGENCE-LIKE 16	-4
2651	HORVU0Hr1G034610	ATP synthase subunit c, chloroplastic	-4
2652	HORVU7Hr1G029770	FAD-dependent oxidoreductase family protein	-4
2653	HORVU6Hr1G088200	Protein kinase superfamily protein	-4
2654	HORVU5Hr1G086970	unknown function	-4
2655	HORVU4Hr1G058970	ATP synthase subunit b'	-4
2656	HORVU3Hr1G083830	29 kDa ribonucleoprotein B, chloroplastic	-4
2657	HORVU6Hr1G008590	30S ribosomal protein S1	-5
2658	HORVU1Hr1G013760	undescribed protein	-5
2659	HORVU4Hr1G046480	ATP-dependent Clp protease proteolytic subunit 2	-5
2660	HORVU4Hr1G024950	Double Clp-N motif-containing P-loop nucleoside triphosphate hydrolases superfamily protein	-5
2661	HORVU5Hr1G043550	Saccharopine dehydrogenase	-5
2662	HORVU1Hr1G057360	unknown function	-5
2663	HORVU1Hr1G054020	Protein NRT1/ PTR FAMILY 6.3	-5
2664	HORVU5Hr1G060250	annexin 5	-5
2665	HORVU0Hr1G012190	DNA-binding protein SMUBP-2	-5
2666	HORVU3Hr1G046900	UDP-N-acetylglucosamine--N-acetylmuramyl-(pentapeptide) pyrophosphoryl-undecaprenol N-acetylglucosamine transferase	-5
2667	HORVU5Hr1G119790	carotene isomerase	-5
2668	HORVU2Hr1G068980	GTPase RsgA	-5
2669	HORVU3Hr1G068050	undescribed protein	-5
2670	HORVU1Hr1G083550	CRS1 / YhbY (CRM) domain-containing protein	-5
2671	HORVU4Hr1G063420	3-ketoacyl-CoA synthase 1	-5
2672	HORVU7Hr1G058030	3-beta hydroxysteroid dehydrogenase	-5
2673	HORVU3Hr1G110160	Signal recognition particle receptor FtsY	-5
2674	HORVU0Hr1G019710	alpha/beta-Hydrolases superfamily protein	-5
2675	HORVU7Hr1G036090	kinesin 4	-5
2676	HORVU5Hr1G102240	Transcription factor PIF5	-5
2677	HORVU6Hr1G011060	unknown function	-5
2678	HORVU4Hr1G062460	FAR1-related sequence 5	-5
2679	HORVU0Hr1G008770	FAR1-related sequence 6	-5

S.No.	Feature ID	Barley Annotation	Fold changes
2680	HORVU0Hr1G034360	undescribed protein	-5
2681	HORVU6Hr1G009350	Acylamino-acid-releasing enzyme	-5
2682	HORVU7Hr1G113210	Mog1/PsbP/DUF1795-like photosystem II reaction center PsbP family protein	-5
2683	HORVU1Hr1G004650	purple acid phosphatase 22	-5
2684	HORVU5Hr1G049220	Cysteine proteinases superfamily protein	-5
2685	HORVU6Hr1G057750	undescribed protein	-5
2686	HORVU7Hr1G109280	Fructose-1,6-bisphosphatase class 1	-5
2687	HORVU6Hr1G019350	unknown protein; Has 30201 Blast hits to 17322 proteins in 780 species: Archae - 12; Bacteria - 1396; Metazoa - 17338; Fungi - 3422; Plants - 5037; Viruses - 0; Other Eukaryotes - 2996 (source: NCBI BLink).	-5
2688	HORVU0Hr1G014150	Glucose-1-phosphate adenylyltransferase family protein	-5
2689	HORVU6Hr1G060720	cytochrome B561-1	-5
2690	HORVU5Hr1G095540	Outward rectifying potassium channel protein	-5
2691	HORVU4Hr1G027180	proline transporter 1	-5
2692	HORVU3Hr1G068840	WD-40 repeat family protein	-5
2693	HORVU6Hr1G041020	50S ribosomal protein L21	-5
2694	HORVU7Hr1G009890	Single-stranded nucleic acid binding R3H protein	-5
2695	HORVU5Hr1G100550	undescribed protein	-5
2696	HORVU3Hr1G029860	hAT transposon superfamily	-5
2697	HORVU5Hr1G042560	undescribed protein	-5
2698	HORVU6Hr1G034990	receptor kinase 2	-5
2699	HORVU2Hr1G039960	Receptor-like protein kinase 5	-5
2700	HORVU1Hr1G040110	Cyclin-dependent kinase inhibitor family protein	-5
2701	HORVU4Hr1G059150	Cysteine-rich receptor-like protein kinase 25	-5
2702	HORVU3Hr1G107070	Phycocerythrobilin:ferredoxin oxidoreductase	-5
2703	HORVU5Hr1G009430	undescribed protein	-5
2704	HORVU1Hr1G031230	ferrochelatase 2	-5
2705	HORVU5Hr1G018220	Two-component response regulator ARR18	-5
2706	HORVU6Hr1G001690	RING/U-box superfamily protein	-5
2707	HORVU7Hr1G060530	Translation initiation factor IF-2	-5
2708	HORVU1Hr1G041290	undescribed protein	-5
2709	HORVU3Hr1G087940	Thioredoxin superfamily protein	-5
2710	HORVU7Hr1G013600	Transketolase	-5
2711	HORVU1Hr1G064290	Alpha beta-hydrolase-like protein	-5
2712	HORVU5Hr1G014300	Auxin-responsive protein IAA30	-5
2713	HORVU7Hr1G050530	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-5
2714	HORVU2Hr1G075110	PLC-like phosphodiesterases superfamily protein	-5
2715	HORVU1Hr1G091060	fucosyltransferase 1	-5
2716	HORVU3Hr1G041440	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	-5
2717	HORVU5Hr1G072980	serine carboxypeptidase-like 18	-5
2718	HORVU3Hr1G084590	Isoprenyl transferase	-5

S.No.	Feature ID	Barley Annotation	Fold changes
2719	HORVU2Hr1G083110	undescribed protein	-5
2720	HORVU0Hr1G023360	Early light-induced protein 1, chloroplastic	-5
2721	HORVU1Hr1G004430	NAD(P)-binding Rossmann-fold superfamily protein	-5
2722	HORVU3Hr1G035230	FHA domain-containing protein	-5
2723	HORVU7Hr1G025390	Glycogen synthase	-5
2724	HORVU1Hr1G050130	Mitochondrial substrate carrier family protein	-5
2725	HORVU5Hr1G082630	triosephosphate isomerase	-5
2726	HORVU5Hr1G118680	Mitochondrial transcription termination factor family protein	-5
2727	HORVU2Hr1G011960	DnaJ/Hsp40 cysteine-rich domain superfamily protein	-5
2728	HORVU6Hr1G060810	Pentapeptide repeat-containing protein	-5
2729	HORVU2Hr1G060730	unknown function	-5
2730	HORVU7Hr1G054530	Lipid transfer protein-like	-5
2731	HORVU6Hr1G091360	OTU domain-containing protein 5-B	-5
2732	HORVU0Hr1G018970	myb-like transcription factor family protein	-5
2733	HORVU6Hr1G080760	Protein DCL, chloroplastic	-5
2734	HORVU6Hr1G055960	Bidirectional sugar transporter N3	-5
2735	HORVU3Hr1G115540	Telomere-binding protein 1	-5
2736	HORVU3Hr1G083470	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-5
2737	HORVU1Hr1G047710	Plant invertase/pectin methylesterase inhibitor superfamily protein	-5
2738	HORVU7Hr1G073370	Protein of unknown function (DUF604)	-5
2739	HORVU5Hr1G077910	beta glucosidase 11	-5
2740	HORVU2Hr1G021700	4-alpha-glucanotransferase	-5
2741	HORVU0Hr1G016250	RNA binding	-5
2742	HORVU3Hr1G088580	Retrotransposon protein, putative, unclassified	-5
2743	HORVU1Hr1G056510	50S ribosomal protein L1	-5
2744	HORVU1Hr1G070740	UDP-glucose pyrophosphorylase 3	-5
2745	HORVU1Hr1G068320	myb-like transcription factor family protein	-5
2746	HORVU6Hr1G066780	50S ribosomal protein L18	-5
2747	HORVU3Hr1G038610	ATP-dependent Clp protease proteolytic subunit 2	-5
2748	HORVU7Hr1G091490	Ras-related protein Rab-25	-5
2749	HORVU3Hr1G115840	Dual-specificity RNA methyltransferase RlmN	-5
2750	HORVU6Hr1G009360	Peroxidase superfamily protein	-5
2751	HORVU3Hr1G029560	undescribed protein	-5
2752	HORVU5Hr1G013400	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-5
2753	HORVU1Hr1G064870	tubulin beta chain 2	-5
2754	HORVU6Hr1G009480	Low PSII Accumulation 3	-5
2755	HORVU2Hr1G017490	Zinc finger CCCH domain-containing protein 53	-5
2756	HORVU6Hr1G069390	histidinol phosphate aminotransferase 1	-5
2757	HORVU2Hr1G100660	Ubiquitin-specific protease family C19-related protein	-5
2758	HORVU2Hr1G105830	Tetratricopeptide repeat (TPR)-like superfamily protein	-5
2759	HORVU5Hr1G075430	Transcription factor bHLH49	-5
2760	HORVU1Hr1G084520	Photosynthetic NDH subunit of subcomplex B 3, chloroplastic	-5

S.No.	Feature ID	Barley Annotation	Fold changes
2761	HORVU1Hr1G047820	Aldo-keto reductase family 4 member C9	-5
2762	HORVU5Hr1G097730	maternal effect embryo arrest 14	-5
2763	HORVU5Hr1G013840	L-galactose dehydrogenase	-5
2764	HORVU5Hr1G112340	dihydroflavonol 4-reductase-like1	-5
2765	HORVU6Hr1G073590	APO protein 2, chloroplastic	-5
2766	HORVU4Hr1G064580	microtubule-associated protein 65-7	-5
2767	HORVU7Hr1G107050	toprim domain-containing protein	-5
2768	HORVU6Hr1G094410	unknown function	-5
2769	HORVU5Hr1G053980	embryo defective 1381	-5
2770	HORVU1Hr1G077020	Magnesium transporter NIPA2	-5
2771	HORVU5Hr1G124920	DUF1499 family protein	-5
2772	HORVU7Hr1G021290	Domain of unknown function (DUF1995)	-5
2773	HORVU2Hr1G017300	thioredoxin F2	-5
2774	HORVU1Hr1G044200	serine carboxypeptidase-like 51	-5
2775	HORVU4Hr1G017950	SWI/SNF complex subunit SWI3C	-5
2776	HORVU6Hr1G086940	Bifunctional nuclease	-5
2777	HORVU7Hr1G080990	Sec-independent protein translocase protein TatA	-5
2778	HORVU5Hr1G046520	Non-specific lipid-transfer protein 3	-5
2779	HORVU4Hr1G056060	APRATAXIN-like	-5
2780	HORVU5Hr1G123880	myb domain protein 30	-5
2781	HORVU1Hr1G078140	Photosystem II reaction center W protein, chloroplastic	-5
2782	HORVU6Hr1G093680	Protein of unknown function (DUF789)	-5
2783	HORVU1Hr1G027830	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-5
2784	HORVU6Hr1G060100	pH-response regulator protein palA/RIM20	-5
2785	HORVU4Hr1G006200	Phosphatidylinositol-4-phosphate 5-kinase family protein	-5
2786	HORVU5Hr1G094570	undescribed protein	-5
2787	HORVU2Hr1G072530	Calcineurin-like metallo-phosphoesterase superfamily protein	-5
2788	HORVU5Hr1G039210	Chaperone DnaJ-domain superfamily protein	-5
2789	HORVU4Hr1G002020	cationic amino acid transporter 2	-5
2790	HORVU2Hr1G102040	myb-like transcription factor family protein	-5
2791	HORVU6Hr1G014100	Protein LOW PSII ACCUMULATION 2, chloroplastic	-5
2792	HORVU5Hr1G107000	OTU domain-containing protein	-5
2793	HORVU3Hr1G098290	methyl esterase 3	-5
2794	HORVU5Hr1G069380	Heavy metal transport/detoxification superfamily protein	-5
2795	HORVU7Hr1G072870	undescribed protein	-5
2796	HORVU7Hr1G073250	unknown function	-5
2797	HORVU2Hr1G021280	Phage shock protein A homolog	-5
2798	HORVU5Hr1G063820	Fatty acid hydroxylase superfamily	-5
2799	HORVU3Hr1G061850	RING/U-box superfamily protein	-5
2800	HORVU7Hr1G039610	NACHT, LRR and PYD domains-containing protein 5	-5
2801	HORVU3Hr1G094600	HCP-like superfamily protein with MYND-type zinc finger	-5
2802	HORVU7Hr1G051200	NAD(P)H-quinone oxidoreductase subunit 3, chloroplastic	-5



S.No.	Feature ID	Barley Annotation	Fold changes
2803	HORVU6Hr1G078770	methionine aminopeptidase 1D	-5
2804	HORVU7Hr1G051570	Peroxidase superfamily protein	-5
2805	HORVU6Hr1G012320	Glutathione-specific gamma-glutamylcyclotransferase 1	-5
2806	HORVU6Hr1G053100	phosphate transporter 2;1	-5
2807	HORVU5Hr1G007530	unknown function	-5
2808	HORVU6Hr1G025840	undescribed protein	-5
2809	HORVU6Hr1G078480	undescribed protein	-5
2810	HORVU1Hr1G073720	Solute carrier family 35 member F2	-5
2811	HORVU4Hr1G067630	Microtubule-associated protein 70-4	-5
2812	HORVU2Hr1G048850	undescribed protein	-5
2813	HORVU6Hr1G015420	undescribed protein	-5
2814	HORVU7Hr1G031990	CAAX amino terminal protease family protein	-5
2815	HORVU3Hr1G051330	One-helix protein 2	-5
2816	HORVU3Hr1G059840	1,4-dihydroxy-2-naphthoyl-CoA synthase	-5
2817	HORVU2Hr1G066800	undescribed protein	-5
2818	HORVU0Hr1G040200	coenzyme F420 hydrogenase family / dehydrogenase, beta subunit family	-5
2819	HORVU4Hr1G074810	D-ribulose-5-phosphate-3-epimerase	-5
2820	HORVU5Hr1G056390	Galactose mutarotase-like superfamily protein	-5
2821	HORVU5Hr1G104160	Peptidase M50 family protein	-5
2822	HORVU2Hr1G008380	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-5
2823	HORVU7Hr1G064100	proton gradient regulation 5	-5
2824	HORVU7Hr1G027800	Pentatricopeptide repeat-containing protein	-5
2825	HORVU2Hr1G089810	undescribed protein	-5
2826	HORVU4Hr1G048970	dimeric A/B barrel domainS-protein 1	-5
2827	HORVU7Hr1G041710	Ribonucleoside-diphosphate reductase small chain	-5
2828	HORVU1Hr1G061230	resistance to phytophthora 1	-5
2829	HORVU2Hr1G123530	pentatricopeptide repeat 336	-5
2830	HORVU5Hr1G025960	acyl carrier protein 5	-5
2831	HORVU3Hr1G051370	undescribed protein	-5
2832	HORVU2Hr1G089970	Aquaporin-like superfamily protein	-5
2833	HORVU0Hr1G014170	Chaperone protein DnaJ	-5
2834	HORVU1Hr1G024640	Kinase interacting (KIP1-like) family protein	-5
2835	HORVU6Hr1G035260	30S ribosomal protein S21	-5
2836	HORVU5Hr1G096800	Domain of Uncharacterized protein function isoform 1	-5
2837	HORVU5Hr1G017040	unknown function	-5
2838	HORVU4Hr1G013420	BTB/POZ domain-containing protein	-5
2839	HORVU4Hr1G008210	histidine kinase 3	-5
2840	HORVU3Hr1G110330	Phospholipase A1-II 6	-5
2841	HORVU3Hr1G116490	Pectin acetyltransferase 5	-5
2842	HORVU4Hr1G085960	Peroxisomal membrane protein 11-1	-5
2843	HORVU7Hr1G051160	Photosystem II reaction center PsbP family protein	-5
2844	HORVU2Hr1G036110	NADP-dependent glyceraldehyde-3-phosphate dehydrogenase	-5

S.No.	Feature ID	Barley Annotation	Fold changes
2845	HORVU2Hr1G023170	Thioredoxin reductase	-5
2846	HORVU3Hr1G003050	glutamate decarboxylase	-5
2847	HORVU5Hr1G075570	FASCICLIN-like arabinogalactan 1	-5
2848	HORVU7Hr1G023250	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-5
2849	HORVU1Hr1G082540	Protein phosphatase 2C family protein	-5
2850	HORVU3Hr1G071600	undescribed protein	-5
2851	HORVU2Hr1G038550	Transposon Ty1-BL Gag-Pol polyprotein	-5
2852	HORVU6Hr1G082060	10 kDa chaperonin	-5
2853	HORVU6Hr1G087720	Thioredoxin-like 2-2, chloroplastic	-5
2854	HORVU7Hr1G096250	high chlorophyll fluorescence phenotype 173	-5
2855	HORVU4Hr1G084410	50S ribosomal protein L5	-5
2856	HORVU3Hr1G108540	Two-component response regulator ARR8	-5
2857	HORVU3Hr1G046070	RNA-directed DNA polymerase (reverse transcriptase)-related family protein	-5
2858	HORVU5Hr1G019000	FAR1-related sequence 5	-5
2859	HORVU7Hr1G091440	CASP-like protein 1	-5
2860	HORVU5Hr1G098890	malate dehydrogenase	-5
2861	HORVU1Hr1G020240	NBS-LRR disease resistance protein homologue	-5
2862	HORVU0Hr1G007660	0	-5
2863	HORVU2Hr1G063250	Aspartyl/glutamyl-tRNA(Asn/Gln) amidotransferase subunit B	-5
2864	HORVU3Hr1G112010	Abscisic stress-ripening protein 1	-5
2865	HORVU1Hr1G028680	Thioredoxin superfamily protein	-5
2866	HORVU3Hr1G043300	zinc induced facilitator-like 2	-5
2867	HORVU4Hr1G032270	undescribed protein	-5
2868	HORVU4Hr1G040950	50S ribosomal protein L6	-5
2869	HORVU7Hr1G118340	Heavy metal transport/detoxification superfamily protein	-5
2870	HORVU6Hr1G052230	undescribed protein	-5
2871	HORVU2Hr1G076530	Ribosome maturation factor RimP	-5
2872	HORVU1Hr1G071160	Protein kinase superfamily protein	-5
2873	HORVU7Hr1G010290	Thioredoxin family protein	-5
2874	HORVU7Hr1G118900	Serine/threonine-protein kinase	-5
2875	HORVU5Hr1G064500	undescribed protein	-5
2876	HORVU6Hr1G052420	Glycerophosphodiester phosphodiesterase GDPDL4	-5
2877	HORVU3Hr1G065960	Farnesyl pyrophosphate synthase	-5
2878	HORVU3Hr1G011560	Mitochondrial glycoprotein family protein	-5
2879	HORVU4Hr1G059950	ROTUNDIFOLIA like 7	-5
2880	HORVU3Hr1G010370	DNA damage-binding protein 2	-5
2881	HORVU2Hr1G113330	Protein COFACTOR ASSEMBLY OF COMPLEX C SUBUNIT B CCB4, chloroplastic	-5
2882	HORVU6Hr1G031370	Calcineurin-like metallo-phosphoesterase superfamily protein	-5
2883	HORVU1Hr1G005600	ACT domain-containing protein	-5
2884	HORVU5Hr1G092240	Aspartyl/glutamyl-tRNA(Asn/Gln) amidotransferase subunit C	-5
2885	HORVU5Hr1G088200	Carboxyl-terminal-processing protease	-5

S.No.	Feature ID	Barley Annotation	Fold changes
2886	HORVU6Hr1G000070	Rhodanese-like domain-containing protein 17	-5
2887	HORVU4Hr1G011600	P-loop containing nucleoside triphosphate hydrolases superfamily protein	-5
2888	HORVU7Hr1G091740	post-illumination chlorophyll fluorescence increase	-5
2889	HORVU3Hr1G084660	Phosphoglucan, water dikinase, chloroplastic	-5
2890	HORVU2Hr1G101440	Structural molecule, putative isoform 5	-5
2891	HORVU3Hr1G064340	Protein PLASTID MOVEMENT IMPAIRED 2	-5
2892	HORVU1Hr1G054260	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-5
2893	HORVU4Hr1G059050	Sterol 3-beta-glucosyltransferase UGT80A2	-5
2894	HORVU4Hr1G074990	DOF zinc finger protein 1	-5
2895	HORVU3Hr1G018840	Mini-ribonuclease 3	-5
2896	HORVU2Hr1G034620	undescribed protein	-5
2897	HORVU7Hr1G017880	ribosome-binding factor A family protein	-5
2898	HORVU1Hr1G016360	Triose phosphate/phosphate translocator, chloroplastic	-5
2899	HORVU6Hr1G025120	Elongation factor 4	-5
2900	HORVU3Hr1G026070	Pentatricopeptide repeat-containing protein	-5
2901	HORVU2Hr1G094960	F-box protein PP2-A13	-5
2902	HORVU6Hr1G033290	MLO-like protein 1	-5
2903	HORVU5Hr1G080300	Dehydration-responsive element-binding protein 1B	-5
2904	HORVU7Hr1G045680	Trigger factor	-5
2905	HORVU2Hr1G107830	cyclin p2;l	-5
2906	HORVU5Hr1G113850	undescribed protein	-6
2907	HORVU1Hr1G088880	Chlorophyll a-b binding protein, chloroplastic	-6
2908	HORVU2Hr1G097670	Plastid-lipid associated protein	-6
2909	HORVU7Hr1G083670	Cytochrome P450 superfamily protein	-6
2910	HORVU6Hr1G043170	FAR1-related sequence 5	-6
2911	HORVU0Hr1G012340	undescribed protein	-6
2912	HORVU7Hr1G001310	unknown function	-6
2913	HORVU2Hr1G047480	ATP-dependent protease La (LON) domain protein	-6
2914	HORVU7Hr1G069710	ACT domain-containing protein	-6
2915	HORVU1Hr1G079270	Polyketide cyclase/dehydrase and lipid transport superfamily protein	-6
2916	HORVU6Hr1G013240	ATP-dependent protease La (LON) domain protein	-6
2917	HORVU5Hr1G033050	Thioredoxin superfamily protein	-6
2918	HORVU6Hr1G063250	undescribed protein	-6
2919	HORVU1Hr1G088590	Ribosome maturation factor RimM	-6
2920	HORVU6Hr1G054430	methionine aminopeptidase 1B	-6
2921	HORVU3Hr1G066960	Phospholipase A1-II 5	-6
2922	HORVU2Hr1G022780	Haloacid dehalogenase-like hydrolase domain-containing protein 3	-6
2923	HORVU3Hr1G056580	Ribosomal protein L31	-6
2924	HORVU3Hr1G016240	receptor kinase 2	-6
2925	HORVU6Hr1G048710	Retrotransposon protein, putative, unclassified	-6
2926	HORVU2Hr1G099770	Oxygen-dependent coproporphyrinogen-III oxidase	-6

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
2927	HORVU1Hr1G077920	unknown function	-6
2928	HORVU4Hr1G017200	Cytochrome P450 superfamily protein	-6
2929	HORVU2Hr1G098680	APO protein 1, chloroplastic	-6
2930	HORVU5Hr1G020500	Protein of unknown function (DUF1118)	-6
2931	HORVU4Hr1G016190	60S ribosomal protein L10-1	-6
2932	HORVU4Hr1G075010	50S ribosomal protein L18	-6
2933	HORVU1Hr1G018080	ATP-dependent RNA helicase DOB1	-6
2934	HORVU3Hr1G015130	Cytochrome P450 superfamily protein	-6
2935	HORVU7Hr1G089480	Peroxidase superfamily protein	-6
2936	HORVU1Hr1G058630	Phytochrome A-associated F-box protein	-6
2937	HORVU5Hr1G114230	Bowman-Birk type trypsin inhibitor	-6
2938	HORVU7Hr1G040390	Alanine--tRNA ligase	-6
2939	HORVU3Hr1G034210	HAD-superfamily hydrolase, subfamily IG, 5'-nucleotidase	-6
2940	HORVU4Hr1G072930	Photosynthetic NDH subunit of subcomplex B 2, chloroplastic	-6
2941	HORVU0Hr1G012330	undescribed protein	-6
2942	HORVU3Hr1G069290	Chaperone protein DnaJ	-6
2943	HORVU2Hr1G007080	Nuclear transport factor 2 (NTF2) family protein	-6
2944	HORVU6Hr1G009280	copper ion transmembrane transporters	-6
2945	HORVU1Hr1G012440	Pentatricopeptide repeat-containing protein	-6
2946	HORVU1Hr1G090190	WRKY family transcription factor	-6
2947	HORVU7Hr1G050030	tonoplast dicarboxylate transporter	-6
2948	HORVU2Hr1G069110	NAD dependent epimerase/dehydratase family protein, expressed	-6
2949	HORVU5Hr1G001750	undescribed protein	-6
2950	HORVU2Hr1G127250	proteinaceous RNase P 1	-6
2951	HORVU5Hr1G018680	undescribed protein	-6
2952	HORVU6Hr1G091260	Auxin-responsive protein IAA10	-6
2953	HORVU5Hr1G066020	NAC domain protein,	-6
2954	HORVU2Hr1G025380	alpha/beta-Hydrolases superfamily protein	-6
2955	HORVU2Hr1G123730	AT hook motif DNA-binding family protein	-6
2956	HORVU2Hr1G111540	Farnesyl pyrophosphate synthase 2	-6
2957	HORVU3Hr1G087210	respiratory burst oxidase protein F	-6
2958	HORVU7Hr1G095100	stress enhanced protein 1	-6
2959	HORVU3Hr1G029260	Peptide-N4-(N-acetyl-beta-glucosaminyl)asparagine amidase A protein	-6
2960	HORVU2Hr1G001600	Pyruvate dehydrogenase E1 component subunit alpha	-6
2961	HORVU5Hr1G114890	Transcription termination/antitermination protein NusG	-6
2962	HORVU5Hr1G087250	Chlorophyll a-b binding protein 2, chloroplastic	-6
2963	HORVU4Hr1G021950	Signal recognition particle 54 kDa protein, chloroplastic	-6
2964	HORVU4Hr1G060870	maternal effect embryo arrest 59	-6
2965	HORVU2Hr1G022920	glutamate synthase 1	-6
2966	HORVU0Hr1G022440	serine acetyltransferase 1;1	-6
2967	HORVU4Hr1G021820	DUF3049 family protein	-6
2968	HORVU4Hr1G033670	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-6

S.No.	Feature ID	Barley Annotation	Fold changes
2969	HORVU6Hr1G028250	Cytochrome P450 superfamily protein	-6
2970	HORVU5Hr1G110960	Transcription initiation factor IIE subunit beta	-6
2971	HORVU2Hr1G056650	polyribonucleotide nucleotidyltransferase, putative	-6
2972	HORVU6Hr1G020050	CRS2-associated factor 2, mitochondrial	-6
2973	HORVU1Hr1G022840	Peroxisomal membrane protein 2	-6
2974	HORVU5Hr1G049210	undescribed protein	-6
2975	HORVU4Hr1G057050	undescribed protein	-6
2976	HORVU4Hr1G000230	PsbP-like protein 1	-6
2977	HORVU6Hr1G004980	unknown function	-6
2978	HORVU2Hr1G080510	undescribed protein	-6
2979	HORVU5Hr1G050510	kinesin 4	-6
2980	HORVU5Hr1G123920	xyloglucan endotransglucosylase/hydrolase 30	-6
2981	HORVU2Hr1G058710	undescribed protein	-6
2982	HORVU2Hr1G016440	Pentatricopeptide repeat-containing protein	-6
2983	HORVU5Hr1G065350	serine/threonine protein kinase 1	-6
2984	HORVU6Hr1G077440	Threonine endopeptidase	-6
2985	HORVU2Hr1G072890	Glucan endo-1,3-beta-glucosidase 14	-6
2986	HORVU1Hr1G072750	uracil phosphoribosyltransferase	-6
2987	HORVU7Hr1G030210	Jacalin-like lectin domain containing protein	-6
2988	HORVU1Hr1G022650	hAT transposon superfamily protein	-6
2989	HORVU1Hr1G090100	Ubiquitin carboxyl-terminal hydrolase family protein	-6
2990	HORVU2Hr1G115690	Protein kinase superfamily protein	-6
2991	HORVU2Hr1G105900	unknown function	-6
2992	HORVU4Hr1G077140	Pentatricopeptide repeat-containing protein	-6
2993	HORVU4Hr1G011160	Endoglucanase 10	-6
2994	HORVU3Hr1G082280	Glutamine--fructose-6-phosphate aminotransferase [isomerizing]	-6
2995	HORVU3Hr1G002810	Cysteine-rich receptor-like protein kinase 10	-6
2996	HORVU2Hr1G079840	Lipase/lipoxygenase, PLAT/LH2 family protein	-6
2997	HORVU3Hr1G088970	Nucleic acid-binding, OB-fold-like protein	-6
2998	HORVU5Hr1G050180	Na <sup>+</sup> /H <sup>+</sup> antiporter 2	-6
2999	HORVU6Hr1G033970	glycerol dehydrogenase	-6
3000	HORVU7Hr1G085980	Salt overly sensitive 1	-6
3001	HORVU2Hr1G090100	Oxygen-evolving enhancer protein 3-1, chloroplastic	-6
3002	HORVU2Hr1G012040	DnaJ/Hsp40 cysteine-rich domain superfamily protein	-6
3003	HORVU2Hr1G119760	Pentatricopeptide repeat-containing protein	-6
3004	HORVU3Hr1G050800	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-6
3005	HORVU4Hr1G020030	Abscisic stress-ripening protein 1	-6
3006	HORVU7Hr1G043360	undescribed protein	-6
3007	HORVU4Hr1G074320	ABC-type Co <sup>2+</sup> transport system, permease component	-6
3008	HORVU4Hr1G084830	50S ribosomal protein L11	-6
3009	HORVU3Hr1G085420	alpha-glucan phosphorylase 2	-6
3010	HORVU7Hr1G067110	rubredoxin family protein	-6

S.No.	Feature ID	Barley Annotation	Fold changes
3011	HORVU3Hr1G073480	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-6
3012	HORVU3Hr1G032170	Plant regulator RWP-RK family protein	-6
3013	HORVU1Hr1G077820	Poly [ADP-ribose] polymerase 3	-6
3014	HORVU0Hr1G021910	undescribed protein	-6
3015	HORVU6Hr1G087450	undescribed protein	-6
3016	HORVU7Hr1G042080	Zinc finger protein CONSTANS-LIKE 16	-6
3017	HORVU4Hr1G080810	Late embryogenesis abundant protein D-7	-6
3018	HORVU7Hr1G094170	undescribed protein	-6
3019	HORVU4Hr1G025000	undescribed protein	-6
3020	HORVU3Hr1G067110	Glycine dehydrogenase (decarboxylating)	-6
3021	HORVU4Hr1G004270	23S rRNA methyltransferase	-6
3022	HORVU7Hr1G049870	alanine:glyoxylate aminotransferase	-6
3023	HORVU7Hr1G042480	aluminum-activated malate transporter 9	-6
3024	HORVU6Hr1G084690	Translation initiation factor 3 protein	-6
3025	HORVU7Hr1G106280	auxin response factor 6	-6
3026	HORVU3Hr1G089490	receptor-like kinase 1	-6
3027	HORVU4Hr1G010120	Prostamide/prostaglandin F synthase	-6
3028	HORVU2Hr1G084420	BnaA09g28020D protein	-6
3029	HORVU2Hr1G023480	Uncharacterised protein family (UPF0114)	-6
3030	HORVU2Hr1G041610	Cytochrome b6-f complex iron-sulfur subunit	-6
3031	HORVU6Hr1G028560	undescribed protein	-6
3032	HORVU3Hr1G088470	Pentatricopeptide repeat-containing protein	-6
3033	HORVU3Hr1G019710	unknown function	-6
3034	HORVU5Hr1G094400	unknown protein; LOCATED IN: chloroplast; EXPRESSED IN: 23 plant structures; EXPRESSED DURING: 15 growth stages; Has 30 Blast hits to 30 proteins in 13 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 30; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	-6
3035	HORVU7Hr1G052740	Type II inositol polyphosphate 5-phosphatase 15	-6
3036	HORVU4Hr1G027260	Ribulose bisphosphate carboxylase/oxygenase activase A, chloroplastic	-6
3037	HORVU6Hr1G014480	adenylate kinase family protein	-6
3038	HORVU3Hr1G010030	Repressor of RNA polymerase III transcription	-6
3039	HORVU3Hr1G103630	tRNA (guanine(26)-N(2))-dimethyltransferase	-6
3040	HORVU4Hr1G050230	Pentatricopeptide repeat-containing protein	-6
3041	HORVU3Hr1G069330	Peroxisomal membrane 22 kDa (Mpv17/PMP22) family protein	-6
3042	HORVU1Hr1G064750	EG2771	-6
3043	HORVU4Hr1G003580	Phosphomethylpyrimidine synthase	-6
3044	HORVU4Hr1G051810	unknown function	-6
3045	HORVU7Hr1G121630	UPF0392 protein	-6
3046	HORVU6Hr1G025730	Quinone oxidoreductase-like protein 2 homolog	-6
3047	HORVU0Hr1G017140	Methyltransferase-like protein 7A	-6
3048	HORVU5Hr1G124380	Light-repressed protein A	-6
3049	HORVU2Hr1G125200	Peroxidase superfamily protein	-6



S.No.	Feature ID	Barley Annotation	Fold changes
3050	HORVU4Hr1G018230	Dehydrogenase/reductase SDR family member 13	-6
3051	HORVU2Hr1G056280	ATP-dependent DNA helicase MER3 homolog	-6
3052	HORVU5Hr1G067480	65-kDa microtubule-associated protein 7	-6
3053	HORVU3Hr1G086190	Photosystem II reaction center Psb28 protein	-6
3054	HORVU4Hr1G025330	2,3-bisphosphoglycerate-dependent phosphoglycerate mutase	-6
3055	HORVU5Hr1G007410	unknown function	-6
3056	HORVU4Hr1G071730	Inositol-3-phosphate synthase	-6
3057	HORVU0Hr1G031970	Protein DEHYDRATION-INDUCED 19 homolog 5	-6
3058	HORVU5Hr1G039960	GCN5 family acetyltransferase	-6
3059	HORVU0Hr1G002860	unknown function	-6
3060	HORVU5Hr1G034240	undescribed protein	-6
3061	HORVU2Hr1G032400	alpha/beta-Hydrolases superfamily protein	-6
3062	HORVU4Hr1G048960	UBA domain-containing protein 7	-6
3063	HORVU6Hr1G009500	Peroxidase superfamily protein	-6
3064	HORVU3Hr1G037780	PQ-loop repeat family protein / transmembrane family protein	-6
3065	HORVU7Hr1G067990	unknown function	-6
3066	HORVU2Hr1G035220	fatty acid desaturase 6	-6
3067	HORVU3Hr1G009490	Non-specific lipid-transfer protein 4.2	-6
3068	HORVU6Hr1G072740	calcium sensing receptor	-6
3069	HORVU6Hr1G063100	F-box protein	-6
3070	HORVU3Hr1G054220	undescribed protein	-6
3071	HORVU3Hr1G005420	Lecithin-cholesterol acyltransferase-like 1	-6
3072	HORVU3Hr1G053910	maternal effect embryo arrest 18	-6
3073	HORVU2Hr1G084750	2-phosphoglycolate phosphatase 1	-6
3074	HORVU6Hr1G061840	undescribed protein	-6
3075	HORVU4Hr1G048990	undescribed protein	-6
3076	HORVU1Hr1G086110	Protein of unknown function (DUF760)	-6
3077	HORVU2Hr1G084350	undescribed protein	-6
3078	HORVU3Hr1G049730	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-6
3079	HORVU6Hr1G072200	DOF zinc finger protein 1	-6
3080	HORVU6Hr1G075340	Mitochondrial transcription termination factor family protein	-6
3081	HORVU4Hr1G065110	Cation-efflux pump FieF	-6
3082	HORVU7Hr1G070870	circadian clock associated 1	-6
3083	HORVU2Hr1G063740	alanine aminotransferase 2	-6
3084	HORVU4Hr1G010130	Small RNA degrading nuclease 5	-6
3085	HORVU3Hr1G023470	undescribed protein	-7
3086	HORVU1Hr1G093350	plastid transcriptionally active 14	-7
3087	HORVU4Hr1G090380	BnaC04g09850D protein	-7
3088	HORVU5Hr1G066350	N-lysine methyltransferase setd6	-7
3089	HORVU4Hr1G015330	Rieske (2Fe-2S) domain-containing protein	-7
3090	HORVU2Hr1G036490	Mitochondrial transcription termination factor family protein	-7
3091	HORVU4Hr1G071070	Dehydrodolichyl diphosphate syntase complex subunit NUS1	-7

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
3092	HORVU2Hr1G019560	Adenine nucleotide alpha hydrolases-like superfamily protein	-7
3093	HORVU3Hr1G056090	Cytochrome P450 superfamily protein	-7
3094	HORVU6Hr1G014080	StAR-related lipid transfer protein 7, mitochondrial	-7
3095	HORVU5Hr1G081750	alpha/beta hydrolase	-7
3096	HORVU2Hr1G001500	undescribed protein	-7
3097	HORVU6Hr1G063110	undescribed protein	-7
3098	HORVU0Hr1G005570	Ribulose biphosphate carboxylase/oxygenase activase 2, chloroplastic	-7
3099	HORVU1Hr1G026430	undescribed protein	-7
3100	HORVU2Hr1G003460	ATP-dependent Clp protease adapter protein ClpS	-7
3101	HORVU2Hr1G018730	alkyl hydroperoxide reductase	-7
3102	HORVU5Hr1G048510	mitochondrial substrate carrier family protein	-7
3103	HORVU5Hr1G072120	unknown function	-7
3104	HORVU4Hr1G037290	Ferredoxin-thioredoxin reductase, catalytic chain	-7
3105	HORVU6Hr1G063510	unknown function	-7
3106	HORVU7Hr1G051760	chaperone protein dnaJ-related	-7
3107	HORVU1Hr1G077160	unknown protein; Has 640 Blast hits to 638 proteins in 201 species: Archae - 0; Bacteria - 293; Metazoa - 0; Fungi - 71; Plants - 72; Viruses - 0; Other Eukaryotes - 204 (source: NCBI BLink).	-7
3108	HORVU7Hr1G080510	phosphoenolpyruvate carboxylase 3	-7
3109	HORVU2Hr1G102730	Protein NRT1/ PTR FAMILY 8.3	-7
3110	HORVU7Hr1G109380	Peptidyl-prolyl cis-trans isomerase	-7
3111	HORVU3Hr1G011630	undescribed protein	-7
3112	HORVU1Hr1G044680	Protochlorophyllide reductase B, chloroplastic	-7
3113	HORVU7Hr1G024210	P-loop containing nucleoside triphosphate hydrolases superfamily protein	-7
3114	HORVU7Hr1G056700	BAG family molecular chaperone regulator 3	-7
3115	HORVU6Hr1G003160	O-methyltransferase family protein	-7
3116	HORVU4Hr1G005320	Protein of unknown function, DUF538	-7
3117	HORVU6Hr1G073170	Zinc finger protein CONSTANS-LIKE 16	-7
3118	HORVU5Hr1G089290	Mitochondrial transcription termination factor family protein	-7
3119	HORVU2Hr1G060010	L-lactate dehydrogenase	-7
3120	HORVU2Hr1G093670	PH01B001I13.17 protein	-7
3121	HORVU2Hr1G060710	unknown function	-7
3122	HORVU0Hr1G018190	4-coumarate:CoA ligase 3	-7
3123	HORVU7Hr1G089450	Peroxidase superfamily protein	-7
3124	HORVU3Hr1G007490	undescribed protein	-7
3125	HORVU0Hr1G021630	Auxin-responsive protein IAA21	-7
3126	HORVU6Hr1G016870	undescribed protein	-7
3127	HORVU5Hr1G114990	GDP-mannose transporter	-7
3128	HORVU4Hr1G021830	Rho GTPase-activating protein 1	-7
3129	HORVU5Hr1G115460	ATP-dependent RNA helicase Dead	-7
3130	HORVU4Hr1G060630	Fructose-1,6-bisphosphatase class 1	-7
3131	HORVU5Hr1G093310	basic helix-loop-helix (bHLH) DNA-binding superfamily protein	-7

S.No.	Feature ID	Barley Annotation	Fold changes
3132	HORVU0Hr1G017560	Cytochrome P450 superfamily protein	-7
3133	HORVU2Hr1G039100	Protein TIC 20-I, chloroplastic	-7
3134	HORVU0Hr1G034290	Photosystem II reaction center protein I	-7
3135	HORVU6Hr1G005250	allene oxide synthase	-7
3136	HORVU7Hr1G025590	undescribed protein	-7
3137	HORVU2Hr1G105520	DnaJ/Hsp40 cysteine-rich domain superfamily protein	-7
3138	HORVU6Hr1G053680	Elongation factor Tu	-7
3139	HORVU3Hr1G017000	Tetratricopeptide repeat 6	-7
3140	HORVU2Hr1G039510	Cytochrome c	-7
3141	HORVU7Hr1G116600	unknown function	-7
3142	HORVU6Hr1G085170	Photosystem II 10 kDa polypeptide	-7
3143	HORVU5Hr1G024470	elongation factor Ts family protein	-7
3144	HORVU1Hr1G045280	BnaC08g35780D protein	-7
3145	HORVU7Hr1G024560	undescribed protein	-7
3146	HORVU1Hr1G069430	Acetyltransferase NSI	-7
3147	HORVU5Hr1G037920	histone deacetylase 14	-7
3148	HORVU3Hr1G068300	Cytosolic Fe-S cluster assembly factor NUBP2 homolog	-7
3149	HORVU7Hr1G097660	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-7
3150	HORVU4Hr1G007380	undescribed protein	-7
3151	HORVU1Hr1G000720	Protein of unknown function (DUF 3339)	-7
3152	HORVU5Hr1G011960	Short-chain dehydrogenase/reductase family protein	-7
3153	HORVU3Hr1G013900	Cytochrome P450 superfamily protein	-7
3154	HORVU3Hr1G003410	tryptophan synthase alpha chain	-7
3155	HORVU1Hr1G039250	cellulose synthase A4	-7
3156	HORVU2Hr1G111590	unknown function	-7
3157	HORVU5Hr1G049980	Protein translocase subunit SecY	-7
3158	HORVU2Hr1G114720	Haloalkane dehalogenase 2	-7
3159	HORVU7Hr1G045830	RNA recognition motif (RRM)-containing protein-like	-7
3160	HORVU2Hr1G071100	Myb/SANT-like DNA-binding domain protein	-7
3161	HORVU5Hr1G022760	Solute carrier family 40 member 1	-7
3162	HORVU4Hr1G002700	Protein of unknown function (DUF581)	-7
3163	HORVU1Hr1G091520	Transcription factor RADIALIS	-7
3164	HORVU1Hr1G057680	beta-1,3-glucanase_putative	-7
3165	HORVU6Hr1G000650	Glyoxylate/hydroxypyruvate reductase B	-7
3166	HORVU3Hr1G069280	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-7
3167	HORVU2Hr1G039020	unknown function	-7
3168	HORVU5Hr1G104810	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-7
3169	HORVU5Hr1G053270	Rhodanese-like domain-containing protein 10	-7
3170	HORVU6Hr1G049050	Protein kinase superfamily protein	-7
3171	HORVU3Hr1G091150	Protein of unknown function (DUF803)	-7
3172	HORVU4Hr1G083800	unknown function	-7
3173	HORVU7Hr1G008820	high-affinity nickel-transport family protein	-7

S.No.	Feature ID	Barley Annotation	Fold changes
3174	HORVU0Hr1G013900	L-lactate dehydrogenase	-7
3175	HORVU0Hr1G017440	Homoserine O-acetyltransferase	-7
3176	HORVU7Hr1G096560	Cytochrome P450 superfamily protein	-7
3177	HORVU0Hr1G013830	Protein kinase superfamily protein	-7
3178	HORVU5Hr1G087970	plastid movement impaired1	-7
3179	HORVU5Hr1G023820	undescribed protein	-7
3180	HORVU2Hr1G045620	Protein LHCP TRANSLOCATION DEFECT	-7
3181	HORVU1Hr1G072180	Riboflavin biosynthesis protein RibBA	-7
3182	HORVU4Hr1G048440	RNA-binding protein 1	-7
3183	HORVU5Hr1G046250	RING/U-box superfamily protein	-7
3184	HORVU5Hr1G113990	Pentatricopeptide repeat-containing protein	-7
3185	HORVU7Hr1G116610	undescribed protein	-7
3186	HORVU3Hr1G063280	D-glycerate 3-kinase, chloroplastic	-7
3187	HORVU6Hr1G066340	oxidative stress 3	-7
3188	HORVU6Hr1G005020	unknown function	-7
3189	HORVU2Hr1G062850	unknown function	-7
3190	HORVU3Hr1G089380	Protein of unknown function (DUF1685)	-7
3191	HORVU5Hr1G000620	Early light-induced protein 1, chloroplastic	-7
3192	HORVU1Hr1G014240	undescribed protein	-7
3193	HORVU5Hr1G005290	Thaumatococcus-like protein	-7
3194	HORVU6Hr1G036760	undescribed protein	-7
3195	HORVU7Hr1G033500	Peroxiredoxin Q, chloroplastic	-7
3196	HORVU6Hr1G068760	Inorganic pyrophosphatase	-7
3197	HORVU7Hr1G054610	Bifunctional uridylyltransferase/uridylyl-removing enzyme	-7
3198	HORVU3Hr1G013600	unknown function	-7
3199	HORVU7Hr1G082590	Haloacid dehalogenase-like hydrolase (HAD) superfamily protein	-7
3200	HORVU4Hr1G057450	50S ribosomal protein L10	-7
3201	HORVU2Hr1G014470	undescribed protein	-7
3202	HORVU4Hr1G052990	haloacid dehalogenase-like hydrolase family protein	-7
3203	HORVU1Hr1G018720	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-7
3204	HORVU2Hr1G046740	Exonuclease 3'-5' domain-containing protein 2	-7
3205	HORVU2Hr1G101040	calcium-transporting ATPase, putative	-7
3206	HORVU3Hr1G049690	undescribed protein	-7
3207	HORVU4Hr1G072950	unknown function	-7
3208	HORVU2Hr1G041320	3'(2'),5'-bisphosphate nucleotidase 1	-7
3209	HORVU3Hr1G011620	Pentapeptide repeat-containing protein	-7
3210	HORVU6Hr1G025170	undescribed protein	-7
3211	HORVU2Hr1G017480	undescribed protein	-7
3212	HORVU3Hr1G078200	Protein CHLOROPLAST ENHANCING STRESS TOLERANCE, chloroplastic	-7
3213	HORVU6Hr1G065710	SPX domain-containing membrane protein	-7
3214	HORVU7Hr1G049070	caffeoyl-CoA 3-O-methyltransferase	-7

S.No.	Feature ID	Barley Annotation	Fold changes
3215	HORVU7Hr1G073170	Multiple organellar RNA editing factor 9, chloroplastic	-7
3216	HORVU4Hr1G079600	undescribed protein	-7
3217	HORVU4Hr1G010270	Core-2/I-branching beta-1,6-N-acetylglucosaminyltransferase family protein	-7
3218	HORVU5Hr1G106790	GTPase Obg	-7
3219	HORVU3Hr1G030250	unknown function	-7
3220	HORVU3Hr1G078860	UDP-Glycosyltransferase superfamily protein	-7
3221	HORVU7Hr1G062930	Peptidyl-prolyl cis-trans isomerase, chloroplastic	-8
3222	HORVU4Hr1G076180	unknown function	-8
3223	HORVU0Hr1G007950	undescribed protein	-8
3224	HORVU2Hr1G073760	Peroxiredoxin-2	-8
3225	HORVU6Hr1G054420	Oxygen-dependent coproporphyrinogen-III oxidase	-8
3226	HORVU6Hr1G073180	methyltransferase type 11	-8
3227	HORVU7Hr1G069500	sigma factor A	-8
3228	HORVU4Hr1G010430	BEL1-type homeodomain protein	-8
3229	HORVU6Hr1G015690	Pentatricopeptide repeat-containing protein	-8
3230	HORVU5Hr1G028180	LIM domain-containing protein 2	-8
3231	HORVU2Hr1G091800	Arabidopsis thaliana protein of unknown function (DUF821)	-8
3232	HORVU5Hr1G059140	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-8
3233	HORVU2Hr1G071940	Photosystem II stability/assembly factor HCF136	-8
3234	HORVU1Hr1G049420	Heavy metal transport/detoxification superfamily protein	-8
3235	HORVU5Hr1G120650	polyribonucleotide nucleotidyltransferase, putative	-8
3236	HORVU2Hr1G113510	Plant protein of unknown function (DUF247)	-8
3237	HORVU4Hr1G025010	undescribed protein	-8
3238	HORVU2Hr1G082250	Serine/threonine-protein kinase	-8
3239	HORVU5Hr1G080980	5-keto-4-deoxy-D-glucarate aldolase	-8
3240	HORVU2Hr1G092280	NAD(P)H-quinone oxidoreductase subunit M	-8
3241	HORVU6Hr1G072540	signal peptide peptidase	-8
3242	HORVU4Hr1G071050	alpha/beta-Hydrolases superfamily protein	-8
3243	HORVU4Hr1G085930	Protein kinase superfamily protein	-8
3244	HORVU6Hr1G034620	Peroxiredoxin-2B	-8
3245	HORVU2Hr1G093700	oxidative stress 3 .	-8
3246	HORVU6Hr1G054110	Protein HHL1, chloroplastic	-8
3247	HORVU5Hr1G020410	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-8
3248	HORVU1Hr1G069560	Protein kinase superfamily protein	-8
3249	HORVU7Hr1G090800	Lipid A export ATP-binding/permease protein MsbA	-8
3250	HORVU4Hr1G082700	glyceraldehyde-3-phosphate dehydrogenase C2	-8
3251	HORVU7Hr1G118110	undescribed protein	-8
3252	HORVU2Hr1G071850	Protein phosphatase 2C family protein	-8
3253	HORVU4Hr1G011090	ATP synthase delta-subunit gene	-8
3254	HORVU4Hr1G090000	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-8

S.No.	Feature ID	Barley Annotation	Fold changes
3255	HORVU3Hr1G006320	Glycosyltransferase family 61 protein	-8
3256	HORVU4Hr1G057040	undescribed protein	-8
3257	HORVU1Hr1G026780	Protein of unknown function (DUF581)	-8
3258	HORVU1Hr1G042490	aspartate aminotransferase	-8
3259	HORVU7Hr1G002200	nodulin MtN21 /EamA-like transporter family protein	-8
3260	HORVU1Hr1G068500	unknown function	-8
3261	HORVU4Hr1G005690	undescribed protein	-8
3262	HORVU7Hr1G037010	undescribed protein	-8
3263	HORVU6Hr1G077970	undescribed protein	-8
3264	HORVU2Hr1G101630	Similar to Maltose excess protein 1	-8
3265	HORVU3Hr1G034100	germin-like protein 10	-8
3266	HORVU3Hr1G006150	unknown protein; INVOLVED IN: biological_process unknown; LOCATED IN: chloroplast; EXPRESSED IN: 22 plant structures; EXPRESSED DURING: 13 growth stages; Has 74 Blast hits to 74 proteins in 29 species: Archae - 0; Bacteria - 19; Metazoa - 0; Fungi - 0; Plants - 49; Viruses - 0; Other Eukaryotes - 6 (source: NCBI BLINK).	-8
3267	HORVU4Hr1G067340	3-ketoacyl-CoA synthase 6	-8
3268	HORVU0Hr1G009140	YGGT family protein	-8
3269	HORVU2Hr1G076010	PsbP domain-containing protein 2, chloroplastic	-8
3270	HORVU1Hr1G020000	Protease Do-like 9	-8
3271	HORVU2Hr1G043960	Oxygen-evolving enhancer protein 3-1, chloroplastic	-8
3272	HORVU5Hr1G001650	Protein of unknown function (DUF1218)	-8
3273	HORVU7Hr1G068610	undescribed protein	-8
3274	HORVU7Hr1G090330	Sec14p-like phosphatidylinositol transfer family protein	-8
3275	HORVU7Hr1G038770	dehydroascorbate reductase 1	-8
3276	HORVU4Hr1G007420	Zinc finger protein CONSTANS-LIKE 16	-8
3277	HORVU6Hr1G090240	undescribed protein	-8
3278	HORVU6Hr1G078290	50S ribosomal protein L29	-8
3279	HORVU7Hr1G030200	undescribed protein	-8
3280	HORVU3Hr1G075960	Jacalin-related lectin 3	-8
3281	HORVU4Hr1G075160	unknown function	-8
3282	HORVU4Hr1G015570	Sucrose-phosphate synthase family protein	-8
3283	HORVU5Hr1G063320	Protein of unknown function (DUF581)	-8
3284	HORVU2Hr1G078540	undescribed protein	-8
3285	HORVU1Hr1G051360	plastid transcriptionally active 18	-8
3286	HORVU4Hr1G066230	allene oxide synthase	-8
3287	HORVU1Hr1G088870	Chlorophyll a-b binding protein, chloroplastic	-8
3288	HORVU3Hr1G018110	Protein phosphatase PTC7 homolog	-8
3289	HORVU4Hr1G004590	Inositol hexakisphosphate and diphosphoinositol-pentakisphosphate kinase	-8
3290	HORVU0Hr1G012860	Alcohol dehydrogenase	-8
3291	HORVU1Hr1G024400	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase	-8
3292	HORVU4Hr1G088650	protein kinase family protein	-8



<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
3293	HORVU5Hr1G064130	Pentatricopeptide repeat-containing protein	-8
3294	HORVU7Hr1G078020	Pentatricopeptide repeat (PPR) superfamily protein	-8
3295	HORVU7Hr1G089670	undescribed protein	-8
3296	HORVU5Hr1G000950	F-box family protein	-8
3297	HORVU2Hr1G065110	D-inositol 3-phosphate glycosyltransferase	-8
3298	HORVU7Hr1G030390	undescribed protein	-8
3299	HORVU0Hr1G001170	unknown function	-8
3300	HORVU5Hr1G016970	Retrovirus-related Pol polyprotein LINE-1	-8
3301	HORVU3Hr1G049900	glyoxylate reductase 2	-8
3302	HORVU2Hr1G115080	Retrotransposon protein, putative, unclassified	-8
3303	HORVU2Hr1G066790	UDP-Glycosyltransferase superfamily protein	-8
3304	HORVU7Hr1G002300	Eukaryotic aspartyl protease family protein	-8
3305	HORVU1Hr1G063220	unknown function	-8
3306	HORVU2Hr1G092180	Elongation factor G	-8
3307	HORVU7Hr1G096430	myb-like transcription factor family protein	-8
3308	HORVU3Hr1G095700	metacaspase 1	-8
3309	HORVU4Hr1G076990	undescribed protein	-8
3310	HORVU7Hr1G018800	undescribed protein	-8
3311	HORVU1Hr1G067070	Early light-induced protein 1, chloroplastic	-8
3312	HORVU2Hr1G103760	Cytochrome P450 superfamily protein	-8
3313	HORVU3Hr1G029480	Plant protein 1589 of unknown function	-8
3314	HORVU4Hr1G032780	Peptide chain release factor 1	-8
3315	HORVU4Hr1G022630	serine/threonine protein kinase 1	-8
3316	HORVU7Hr1G000120	Protein of unknown function (DUF3754)	-8
3317	HORVU4Hr1G004210	ferredoxin 3	-8
3318	HORVU2Hr1G043170	Pentatricopeptide repeat-containing protein	-8
3319	HORVU6Hr1G079070	unknown function	-8
3320	HORVU1Hr1G023160	Flavin-containing monooxygenase family protein	-8
3321	HORVU0Hr1G008540	undescribed protein	-8
3322	HORVU6Hr1G042170	undescribed protein	-8
3323	HORVU6Hr1G013620	transferases, transferring glycosyl groups	-8
3324	HORVU3Hr1G030010	GDT1-like protein 1, chloroplastic	-8
3325	HORVU1Hr1G089430	GTPase Era	-8
3326	HORVU3Hr1G057400	BnaA07g15680D protein	-8
3327	HORVU1Hr1G019530	GDSL esterase/lipase	-8
3328	HORVU5Hr1G044410	Hydroxymethylglutaryl-CoA lyase	-8
3329	HORVU4Hr1G049000	undescribed protein	-8
3330	HORVU4Hr1G052470	30S ribosomal protein S1 homolog A	-8
3331	HORVU3Hr1G014780	shikimate kinase like 1	-8
3332	HORVU3Hr1G111040	protein kinase family protein	-8
3333	HORVU3Hr1G089390	Protein of unknown function (DUF1685)	-8
3334	HORVU3Hr1G096650	NAD(P)H dehydrogenase 18	-9

S.No.	Feature ID	Barley Annotation	Fold changes
3335	HORVU3Hr1G089370	Protein of unknown function (DUF1685)	-9
3336	HORVU5Hr1G040640	undescribed protein	-9
3337	HORVU7Hr1G076030	Beta-carotene isomerase D27, chloroplastic	-9
3338	HORVU3Hr1G088020	dihydroflavonol 4-reductase-like1	-9
3339	HORVU3Hr1G084050	Transposon protein Mutator sub-class	-9
3340	HORVU3Hr1G032490	Triose phosphate/phosphate translocator, chloroplastic	-9
3341	HORVU1Hr1G000040	50S ribosomal protein L28	-9
3342	HORVU3Hr1G059950	undescribed protein	-9
3343	HORVU5Hr1G011100	Protoporphyrinogen oxidase	-9
3344	HORVU1Hr1G035870	undescribed protein	-9
3345	HORVU1Hr1G001890	Tubulin-specific chaperone E	-9
3346	HORVU1Hr1G061830	Beta-propeller domain-containing protein, methanol dehydrogenase	-9
3347	HORVU5Hr1G079950	plastid movement impaired1	-9
3348	HORVU7Hr1G069410	undescribed protein	-9
3349	HORVU2Hr1G023530	undescribed protein	-9
3350	HORVU7Hr1G056240	Peptidyl-prolyl cis-trans isomerase	-9
3351	HORVU6Hr1G020960	UDP-Glycosyltransferase superfamily protein	-9
3352	HORVU3Hr1G009210	Photosystem I reaction center subunit XI	-9
3353	HORVU4Hr1G062920	Protein disulfide-isomerase LQY1, chloroplastic	-9
3354	HORVU4Hr1G014070	UPF0454 protein C12orf49 homolog	-9
3355	HORVU5Hr1G109360	Chlorophyll a-b binding protein, chloroplastic	-9
3356	HORVU1Hr1G014140	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-9
3357	HORVU2Hr1G095400	Iron-sulfur cluster assembly protein HesB	-9
3358	HORVU2Hr1G070440	ACT domain repeat 4	-9
3359	HORVU5Hr1G091810	RNA binding	-9
3360	HORVU4Hr1G090780	Disease resistance-responsive (dirigent-like protein) family protein	-9
3361	HORVU2Hr1G059780	ATP-binding protein	-9
3362	HORVU2Hr1G059380	RNA binding	-9
3363	HORVU5Hr1G095480	unknown function	-9
3364	HORVU6Hr1G049260	Ribulose bisphosphate carboxylase large chain	-9
3365	HORVU5Hr1G032980	fructose-bisphosphate aldolase 2	-9
3366	HORVU4Hr1G060140	Pentatricopeptide repeat-containing protein	-9
3367	HORVU5Hr1G009380	undescribed protein	-9
3368	HORVU2Hr1G111570	alpha/beta-Hydrolases superfamily protein	-9
3369	HORVU3Hr1G105260	unknown function	-9
3370	HORVU3Hr1G047030	Ferredoxin-thioredoxin reductase, catalytic chain	-9
3371	HORVU2Hr1G080260	Oxygen-evolving enhancer protein 3-1, chloroplastic	-9
3372	HORVU7Hr1G104490	glutamate receptor 3.4	-9
3373	HORVU5Hr1G109440	Lactoylglutathione lyase	-9
3374	HORVU6Hr1G008190	undescribed protein	-9
3375	HORVU2Hr1G112330	purple acid phosphatase 22	-9

S.No.	Feature ID	Barley Annotation	Fold changes
3376	HORVU6Hr1G070420	fatty acid desaturase 2	-9
3377	HORVU2Hr1G002180	fructokinase-like 2	-9
3378	HORVU6Hr1G067660	Phosphoribulokinase / Uridine kinase family	-9
3379	HORVU3Hr1G063700	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-9
3380	HORVU2Hr1G060880	Oxygen-evolving enhancer protein 2, chloroplastic	-9
3381	HORVU5Hr1G065330	cinnamoyl coa reductase 1	-9
3382	HORVU6Hr1G009510	chlororespiratory reduction 6	-9
3383	HORVU2Hr1G059910	undescribed protein	-9
3384	HORVU3Hr1G062250	Chlororespiratory reduction 41	-9
3385	HORVU7Hr1G078490	Casparian strip membrane protein 2	-9
3386	HORVU6Hr1G092750	C2H2-like zinc finger protein	-9
3387	HORVU6Hr1G090160	unknown function	-9
3388	HORVU3Hr1G054700	ATP-dependent RNA helicase Dead	-9
3389	HORVU7Hr1G114170	50S ribosomal protein L35	-9
3390	HORVU7Hr1G118130	Cytokinin dehydrogenase 11	-9
3391	HORVU7Hr1G082350	UDP-Glycosyltransferase superfamily protein	-9
3392	HORVU6Hr1G061780	undescribed protein	-9
3393	HORVU4Hr1G090720	Jacalin-related lectin 34	-9
3394	HORVU2Hr1G009850	Thylakoid luminal 15.0 kDa protein 2, chloroplastic	-9
3395	HORVU4Hr1G007260	unknown function	-9
3396	HORVU7Hr1G105950	undescribed protein	-9
3397	HORVU5Hr1G120390	Thiopurine S-methyltransferase	-9
3398	HORVU6Hr1G000620	Ferredoxin--NADP reductase	-9
3399	HORVU6Hr1G056000	CONSTANS-like 3	-9
3400	HORVU7Hr1G117540	Pseudouridine synthase family protein	-9
3401	HORVU0Hr1G022240	Sec14p-like phosphatidylinositol transfer family protein	-9
3402	HORVU7Hr1G069930	P0696G06.27 protein	-9
3403	HORVU4Hr1G082800	unknown function	-9
3404	HORVU6Hr1G093240	High-light-induced protein, chloroplastic	-9
3405	HORVU0Hr1G003270	Oxygen-evolving enhancer protein 3-1, chloroplastic	-9
3406	HORVU2Hr1G037550	tubulin alpha-4 chain	-9
3407	HORVU6Hr1G075280	ATP synthase delta-subunit gene	-9
3408	HORVU2Hr1G057700	Oxygen-evolving enhancer protein 1, chloroplastic	-9
3409	HORVU7Hr1G012690	magnesium-protoporphyrin IX methyltransferase	-9
3410	HORVU5Hr1G042160	purple acid phosphatase 22	-9
3411	HORVU0Hr1G005920	Pentatricopeptide repeat-containing protein	-9
3412	HORVU6Hr1G087420	Protein of unknown function (DUF3531)	-9
3413	HORVU2Hr1G093220	Pentatricopeptide repeat-containing protein	-9
3414	HORVU2Hr1G042370	cellulose-synthase like D2	-9
3415	HORVU6Hr1G090510	O-methyltransferase family protein	-9
3416	HORVU6Hr1G075250	Pentatricopeptide repeat-containing protein	-9
3417	HORVU5Hr1G053950	Bifunctional aspartokinase/homoserine dehydrogenase 1	-9

S.No.	Feature ID	Barley Annotation	Fold changes
3418	HORVU1Hr1G066510	Domain of unknown function (DUF1995)	-9
3419	HORVU1Hr1G074420	Ribosome biogenesis GTPase A	-9
3420	HORVU2Hr1G105930	RNA-binding protein 28	-9
3421	HORVU7Hr1G069590	undescribed protein	-9
3422	HORVU1Hr1G094050	Protein kinase superfamily protein	-9
3423	HORVU7Hr1G041080	SOUL heme-binding family protein	-10
3424	HORVU6Hr1G093860	unknown protein; Has 56 Blast hits to 56 proteins in 18 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 2; Plants - 46; Viruses - 0; Other Eukaryotes - 8 (source: NCBI BLINK).	-10
3425	HORVU6Hr1G033160	chlorophyll A/B binding protein 3	-10
3426	HORVU7Hr1G079190	PSRP4	-10
3427	HORVU4Hr1G021960	Signal recognition particle protein	-10
3428	HORVU7Hr1G097250	Peptidyl-prolyl cis-trans isomerase B	-10
3429	HORVU3Hr1G058830	TRICHOME BIREFRINGENCE-LIKE 19	-10
3430	HORVU1Hr1G047720	Protein of unknown function (DUF604)	-10
3431	HORVU3Hr1G073530	undescribed protein	-10
3432	HORVU1Hr1G078350	Phosphoethanolamine N-methyltransferase 1	-10
3433	HORVU4Hr1G090750	Retrotransposon protein, putative, unclassified	-10
3434	HORVU1Hr1G045590	Glutamyl-tRNA reductase family protein	-10
3435	HORVU3Hr1G075870	Photosystem II reaction center W protein, chloroplastic	-10
3436	HORVU3Hr1G013770	GTPase Der	-10
3437	HORVU2Hr1G012810	Cytochrome P450 superfamily protein	-10
3438	HORVU3Hr1G053290	Pentatricopeptide repeat-containing protein	-10
3439	HORVU2Hr1G034540	unknown function	-10
3440	HORVU4Hr1G048470	Phosphatidylinositol-4-phosphate 5-kinase family protein	-10
3441	HORVU4Hr1G023230	undescribed protein	-10
3442	HORVU2Hr1G023540	Magnesium-chelatase subunit ChlH, chloroplastic	-10
3443	HORVU5Hr1G066280	Chlorophyll a-b binding protein 1B-20, chloroplastic	-10
3444	HORVU5Hr1G067530	1-aminocyclopropane-1-carboxylate oxidase 1	-10
3445	HORVU4Hr1G011500	serine hydroxymethyltransferase 2	-10
3446	HORVU1Hr1G005120	outer plastid envelope protein 16-1	-10
3447	HORVU7Hr1G111190	D-3-phosphoglycerate dehydrogenase	-10
3448	HORVU5Hr1G113900	Photosystem I reaction center subunit IV	-10
3449	HORVU2Hr1G041280	Chlorophyll a-b binding protein CP29	-10
3450	HORVU6Hr1G062040	50S ribosomal protein L19	-10
3451	HORVU0Hr1G010770	undescribed protein	-10
3452	HORVU2Hr1G039000	unknown function	-10
3453	HORVU4Hr1G062890	Nuclear transcription factor Y subunit C-4	-10
3454	HORVU7Hr1G030800	Pco114914	-10
3455	HORVU4Hr1G085050	purple acid phosphatase 27	-10
3456	HORVU5Hr1G048300	Double Clp-N motif-containing P-loop nucleoside triphosphate hydrolases superfamily protein	-10
3457	HORVU2Hr1G019820	Photosystem I reaction center subunit N, chloroplastic	-10

S.No.	Feature ID	Barley Annotation	Fold changes
3458	HORVU7Hr1G087630	undescribed protein	-10
3459	HORVU3Hr1G087420	DNA-3-methyladenine glycosylase 1	-10
3460	HORVU5Hr1G087920	plastid movement impaired1	-10
3461	HORVU1Hr1G093430	BnaC06g06240D protein	-10
3462	HORVU1Hr1G067080	Early light-induced protein, chloroplastic	-10
3463	HORVU3Hr1G082740	Photosystem II 22 kDa protein, chloroplastic	-10
3464	HORVU7Hr1G119100	Serine/threonine-protein kinase	-10
3465	HORVU1Hr1G087320	xyloglucan endotransglucosylase/hydrolase 25	-10
3466	HORVU2Hr1G116160	undescribed protein	-10
3467	HORVU4Hr1G016260	ATP-dependent protease La (LON) domain protein	-10
3468	HORVU5Hr1G120250	30S ribosomal protein S6	-10
3469	HORVU4Hr1G015260	Chlorophyll a-b binding protein 2, chloroplastic	-10
3470	HORVU7Hr1G098660	Fe/S biogenesis protein NfuA	-10
3471	HORVU4Hr1G072220	pseudouridine synthase family protein	-10
3472	HORVU5Hr1G115340	50S ribosomal protein L18	-10
3473	HORVU1Hr1G088270	IMP dehydrogenase/GMP reductase	-10
3474	HORVU6Hr1G084650	Clustered mitochondria protein	-10
3475	HORVU7Hr1G047000	ATP-dependent 6-phosphofructokinase 3	-10
3476	HORVU7Hr1G002690	RING-H2 finger A1A	-10
3477	HORVU7Hr1G030810	glutathione peroxidase 1	-10
3478	HORVU7Hr1G120190	Ycf48-like protein	-10
3479	HORVU2Hr1G106880	chloroplastic lipocalin	-10
3480	HORVU5Hr1G125110	RNA polymerase sigma-C factor	-10
3481	HORVU3Hr1G115610	Vacuolar-processing enzyme	-10
3482	HORVU7Hr1G095670	undescribed protein	-10
3483	HORVU7Hr1G097670	Macrophage migration inhibitory factor homolog	-10
3484	HORVU5Hr1G009200	NAD-dependent epimerase/dehydratase	-10
3485	HORVU5Hr1G056270	undescribed protein	-10
3486	HORVU4Hr1G068930	unknown function	-10
3487	HORVU4Hr1G054240	cAMP-regulated phosphoprotein 19-related protein	-10
3488	HORVU4Hr1G060970	50S ribosomal protein L4	-10
3489	HORVU4Hr1G048560	Tubby-like F-box protein 6	-10
3490	HORVU4Hr1G042560	undescribed protein	-10
3491	HORVU5Hr1G098980	HAD-superfamily hydrolase, subfamily IG, 5'-nucleotidase	-10
3492	HORVU7Hr1G096370	unknown protein; Has 30201 Blast hits to 17322 proteins in 780 species: Archae - 12; Bacteria - 1396; Metazoa - 17338; Fungi - 3422; Plants - 5037; Viruses - 0; Other Eukaryotes - 2996 (source: NCBI BLink).	-10
3493	HORVU4Hr1G027050	Laccase	-10
3494	HORVU5Hr1G124160	Chlorophyll a-b binding protein 2, chloroplastic	-10
3495	HORVU1Hr1G064970	amino acid permease 2	-10
3496	HORVU5Hr1G038630	ribulose biphosphate carboxylase small chain 1A	-10
3497	HORVU7Hr1G046320	Chlorophyll a-b binding protein 1B-21, chloroplastic	-10

S.No.	Feature ID	Barley Annotation	Fold changes
3498	HORVU2Hr1G068610	violaxanthin de-epoxidase-related	-10
3499	HORVU2Hr1G075180	undescribed protein	-10
3500	HORVU6Hr1G053730	Protein GLE1	-10
3501	HORVU4Hr1G014010	NAD(P)H dehydrogenase subunit 48	-10
3502	HORVU7Hr1G082380	Class I glutamine amidotransferase-like superfamily protein	-10
3503	HORVU1Hr1G073170	LSD1 zinc finger family protein	-11
3504	HORVU0Hr1G016150	RNA-binding protein 39	-11
3505	HORVU2Hr1G007840	60 kDa chaperonin 2	-11
3506	HORVU7Hr1G100480	undescribed protein	-11
3507	HORVU1Hr1G015000	unknown function	-11
3508	HORVU1Hr1G038620	plastid transcriptionally active 3	-11
3509	HORVU1Hr1G054190	unknown function	-11
3510	HORVU6Hr1G078500	fucosyltransferase 1	-11
3511	HORVU7Hr1G038940	Aquaporin-like superfamily protein	-11
3512	HORVU4Hr1G081910	undescribed protein	-11
3513	HORVU1Hr1G091530	DnaJ homolog subfamily C member 2	-11
3514	HORVU5Hr1G111310	magnesium chelatase i2	-11
3515	HORVU6Hr1G075900	Geranylgeranyl diphosphate reductase	-11
3516	HORVU4Hr1G035330	Tryptophan synthase beta chain 2	-11
3517	HORVU3Hr1G034640	unknown function	-11
3518	HORVU4Hr1G069050	unknown protein; Has 38 Blast hits to 38 proteins in 17 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 38; Viruses - 0; Other Eukaryotes - 0 (source: NCBI BLink).	-11
3519	HORVU0Hr1G001490	Photosystem I reaction center subunit VI, chloroplastic	-11
3520	HORVU5Hr1G025560	Glutaredoxin family protein	-11
3521	HORVU7Hr1G076290	GDSL esterase/lipase	-11
3522	HORVU0Hr1G007360	Chlorophyllide a oxygenase, chloroplastic	-11
3523	HORVU3Hr1G036600	TRAM, LAG1 and CLN8 (TLC) lipid-sensing domain containing protein	-11
3524	HORVU3Hr1G019510	Zinc finger CCCH domain-containing protein 2	-11
3525	HORVU1Hr1G045520	Thylakoid luminal 17.4 kDa protein, chloroplastic	-11
3526	HORVU4Hr1G090840	ATP-dependent RNA helicase DeaD	-11
3527	HORVU5Hr1G063380	Pentatricopeptide repeat-containing protein	-11
3528	HORVU2Hr1G116660	BnaC07g36720D protein	-11
3529	HORVU6Hr1G059850	3'(2),5'-bisphosphate nucleotidase 2	-11
3530	HORVU2Hr1G093210	cyclin p4;l	-11
3531	HORVU7Hr1G070600	Transposable element protein, putative	-11
3532	HORVU5Hr1G010960	Glutaredoxin family protein	-11
3533	HORVU7Hr1G108930	F-box family protein	-11
3534	HORVU6Hr1G010890	undescribed protein	-11
3535	HORVU5Hr1G112670	Chalcone--flavonone isomerase	-11
3536	HORVU6Hr1G033590	undescribed protein	-11
3537	HORVU4Hr1G031320	methionine S-methyltransferase	-11



S.No.	Feature ID	Barley Annotation	Fold changes
3538	HORVU4Hr1G046120	undescribed protein	-11
3539	HORVU3Hr1G030150	Cold induced 16	-11
3540	HORVU6Hr1G067620	Pentatricopeptide repeat-containing protein	-11
3541	HORVU7Hr1G036990	undescribed protein	-11
3542	HORVU4Hr1G077310	Ethylene-responsive transcription factor 1	-11
3543	HORVU6Hr1G016070	Sodium Bile acid symporter family	-11
3544	HORVU3Hr1G085270	Fructose-1,6-bisphosphatase class 1	-11
3545	HORVU2Hr1G080480	30S ribosomal protein 3, chloroplastic	-11
3546	HORVU3Hr1G094270	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-11
3547	HORVU3Hr1G082730	Photosystem II 22 kDa protein, chloroplastic	-11
3548	HORVU2Hr1G003250	undescribed protein	-11
3549	HORVU5Hr1G021340	Rubredoxin-like superfamily protein	-11
3550	HORVU7Hr1G028920	Heparanase-like protein 3	-11
3551	HORVU6Hr1G072050	Ribulose-1,5-bisphosphate carboxylase/oxygenase small subunit N-methyltransferase I	-12
3552	HORVU5Hr1G100140	Photosystem I reaction center subunit III	-12
3553	HORVU5Hr1G075660	UDP-glucose 4-epimerase	-12
3554	HORVU6Hr1G080420	sugar transporter 2	-12
3555	HORVU7Hr1G098400	Chlororespiratory reduction 42	-12
3556	HORVU7Hr1G000900	plastocyanin 1	-12
3557	HORVU1Hr1G076120	Protein of unknown function (DUF506)	-12
3558	HORVU2Hr1G115710	unknown protein; LOCATED IN: chloroplast; EXPRESSED IN: 22 plant structures; EXPRESSED DURING: 13 growth stages; BEST Arabidopsis thaliana protein match is: unknown protein .	-12
3559	HORVU6Hr1G010900	undescribed protein	-12
3560	HORVU3Hr1G095300	stress enhanced protein 1	-12
3561	HORVU7Hr1G090850	fructose-bisphosphate aldolase 2	-12
3562	HORVU1Hr1G000430	Chalcone--flavonone isomerase 1B-1	-12
3563	HORVU3Hr1G077530	Sulfite exporter TauE/SafE family protein	-12
3564	HORVU3Hr1G010460	Peptidase M50 family protein	-12
3565	HORVU4Hr1G065560	Erythronate-4-phosphate dehydrogenase family protein	-12
3566	HORVU4Hr1G014080	enzyme binding;tetrapyrrole binding	-12
3567	HORVU7Hr1G114890	UDP-Glycosyltransferase superfamily protein	-12
3568	HORVU6Hr1G071520	Eukaryotic aspartyl protease family protein	-12
3569	HORVU4Hr1G067320	SprT-like domain-containing protein Spartan	-12
3570	HORVU3Hr1G062490	30S ribosomal protein S20	-12
3571	HORVU2Hr1G009950	receptor-like protein kinase 1	-12
3572	HORVU2Hr1G039880	Cyclophilin-like peptidyl-prolyl cis-trans isomerase family protein	-12
3573	HORVU5Hr1G109710	Photosystem I reaction center subunit II	-12
3574	HORVU3Hr1G081230	expansin A1	-12
3575	HORVU3Hr1G094240	23S rRNA (uracil(747)-C(5))-methyltransferase RlmC	-12
3576	HORVU6Hr1G050760	undescribed protein	-12
3577	HORVU1Hr1G076350	trehalose-6-phosphate synthase	-12

S.No.	Feature ID	Barley Annotation	Fold changes
3578	HORVU5Hr1G098370	Cytochrome c biogenesis protein CcsB	-12
3579	HORVU5Hr1G067490	1-aminocyclopropane-1-carboxylate oxidase 1	-12
3580	HORVU2Hr1G032970	6-phosphogluconolactonase 1	-12
3581	HORVU0Hr1G004830	glyceraldehyde-3-phosphate dehydrogenase C2	-12
3582	HORVU2Hr1G094280	Protein FATTY ACID EXPORT 4, chloroplastic	-12
3583	HORVU6Hr1G084860	purple acid phosphatase 10	-12
3584	HORVU7Hr1G085070	undescribed protein	-12
3585	HORVU6Hr1G045140	P0696G06.27 protein	-12
3586	HORVU3Hr1G013970	NAD(P)-binding Rossmann-fold superfamily protein	-12
3587	HORVU7Hr1G115540	Pyrophosphate-energized vacuolar membrane proton pump	-12
3588	HORVU4Hr1G060200	RNA polymerase sigma-C factor	-12
3589	HORVU2Hr1G112450	purple acid phosphatase 21	-12
3590	HORVU1Hr1G050730	undescribed protein	-12
3591	HORVU1Hr1G013740	Dihydrolipoyl dehydrogenase	-12
3592	HORVU4Hr1G075030	undescribed protein	-12
3593	HORVU7Hr1G078690	cytochrome B561-1	-12
3594	HORVU2Hr1G062910	unknown function	-12
3595	HORVU1Hr1G062450	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-12
3596	HORVU7Hr1G069520	RNA polymerase sigma-C factor	-12
3597	HORVU1Hr1G061970	'putative endo-1,3;1,4-beta-D-glucanase'	-12
3598	HORVU2Hr1G060480	Photosystem I reaction center subunit psaK, chloroplastic	-12
3599	HORVU1Hr1G060610	1-deoxy-D-xylulose 5-phosphate synthase 1	-12
3600	HORVU5Hr1G019440	Dirigent protein 11	-12
3601	HORVU5Hr1G027740	undescribed protein	-12
3602	HORVU5Hr1G100990	Obg-like ATPase 1	-12
3603	HORVU2Hr1G075170	undescribed protein	-12
3604	HORVU6Hr1G009170	NAD(P)-binding Rossmann-fold superfamily protein	-12
3605	HORVU4Hr1G060440	Digalactosyldiacylglycerol synthase 2, chloroplastic	-12
3606	HORVU0Hr1G027050	oxidative stress 3	-12
3607	HORVU0Hr1G038990	Protein of unknown function (DUF3511)	-12
3608	HORVU7Hr1G077740	ferredoxin 1	-12
3609	HORVU3Hr1G078820	Photosystem II reaction center PsbP family protein	-12
3610	HORVU7Hr1G077750	ferredoxin 1	-12
3611	HORVU6Hr1G015120	undescribed protein	-12
3612	HORVU6Hr1G033310	BEST Arabidopsis thaliana protein match is: TPX2 (targeting protein for Xklp2) protein family .	-13
3613	HORVU4Hr1G083230	S-adenosyl-L-methionine-dependent methyltransferases superfamily protein	-13
3614	HORVU3Hr1G090270	thylakoid rhodanese-like	-13
3615	HORVU2Hr1G045970	unknown function	-13
3616	HORVU5Hr1G113910	undescribed protein	-13
3617	HORVU3Hr1G052490	5'-methylthioadenosine/S-adenosylhomocysteine nucleosidase	-13
3618	HORVU4Hr1G019570	fructose-bisphosphate aldolase 2	-13

S.No.	Feature ID	Barley Annotation	Fold changes
3619	HORVU4Hr1G006730	Plastid-lipid associated protein PAP / fibrillin family protein	-13
3620	HORVU2Hr1G123750	glutathione peroxidase 6	-13
3621	HORVU6Hr1G088610	terpene synthase 14	-13
3622	HORVU5Hr1G069480	Protein of unknown function, DUF547	-13
3623	HORVU3Hr1G044430	undescribed protein	-13
3624	HORVU5Hr1G098340	30S ribosomal protein S9	-13
3625	HORVU1Hr1G054240	expansin B2	-13
3626	HORVU1Hr1G013250	undescribed protein	-13
3627	HORVU5Hr1G088550	undescribed protein	-13
3628	HORVU2Hr1G073370	photosystem I subunit O	-13
3629	HORVU4Hr1G089990	Protein WEAK CHLOROPLAST MOVEMENT UNDER BLUE LIGHT 1	-13
3630	HORVU7Hr1G122750	BnaA09g56450D protein	-13
3631	HORVU7Hr1G026100	undescribed protein	-13
3632	HORVU7Hr1G101810	50S ribosomal protein L24	-13
3633	HORVU1Hr1G051700	Protein CURVATURE THYLAKOID 1B, chloroplastic	-13
3634	HORVU5Hr1G115000	Thylakoid soluble phosphoprotein TSP9 protein	-13
3635	HORVU2Hr1G013870	fatty acid desaturase 8	-13
3636	HORVU4Hr1G033310	Retrotransposon protein, putative, unclassified	-13
3637	HORVU6Hr1G040040	Protein of unknown function (DUF3511)	-13
3638	HORVU3Hr1G114960	undescribed protein	-13
3639	HORVU1Hr1G067300	phosphoglycerate kinase 1	-13
3640	HORVU1Hr1G004400	unknown function	-13
3641	HORVU7Hr1G122470	sulfotransferase 4A	-13
3642	HORVU4Hr1G016210	unknown function	-13
3643	HORVU4Hr1G057000	Low temperature and salt responsive protein family	-13
3644	HORVU1Hr1G001900	undescribed protein	-13
3645	HORVU7Hr1G036460	PATATIN-like protein 4	-13
3646	HORVU3Hr1G081180	expansin A1	-13
3647	HORVU5Hr1G079600	undescribed protein	-13
3648	HORVU1Hr1G043820	alpha-galactosidase 2	-13
3649	HORVU2Hr1G040780	Chlorophyll a-b binding protein 13, chloroplastic	-13
3650	HORVU5Hr1G112280	TRICHOME BIREFRINGENCE-LIKE 32	-13
3651	HORVU2Hr1G074280	unknown function	-13
3652	HORVU6Hr1G004860	3-beta hydroxysteroid dehydrogenase	-13
3653	HORVU6Hr1G032680	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-13
3654	HORVU3Hr1G069650	BURP domain-containing protein	-13
3655	HORVU6Hr1G068710	undescribed protein	-14
3656	HORVU3Hr1G059810	50S ribosomal protein L7/L12	-14
3657	HORVU4Hr1G011120	unknown function	-14
3658	HORVU2Hr1G111580	undescribed protein	-14
3659	HORVU3Hr1G039930	Magnesium-protoporphyrin IX monomethyl ester [oxidative] cyclase 3	-14

S.No.	Feature ID	Barley Annotation	Fold changes
3660	HORVU2Hr1G111530	alpha/beta-Hydrolases superfamily protein	-14
3661	HORVU2Hr1G036960	Chlorophyll a-b binding protein 7, chloroplastic	-14
3662	HORVU6Hr1G011990	unknown function	-14
3663	HORVU5Hr1G111330	unknown function	-14
3664	HORVU1Hr1G038750	Double-stranded RNA-binding protein 5	-14
3665	HORVU1Hr1G075580	oxidative stress 3 .	-14
3666	HORVU2Hr1G077970	3-oxoacyl-[acyl-carrier-protein] synthase 2	-14
3667	HORVU6Hr1G095380	multidrug MFS transporter	-14
3668	HORVU5Hr1G101020	ribose-5-phosphate isomerase 2	-14
3669	HORVU7Hr1G038300	Transmembrane amino acid transporter family protein	-14
3670	HORVU7Hr1G096140	Thylakoid luminal 16.5 kDa protein, chloroplastic	-14
3671	HORVU1Hr1G089760	50S ribosomal protein L7/L12	-14
3672	HORVU2Hr1G005220	Chalcone synthase 2	-14
3673	HORVU3Hr1G089650	Rhodanese/Cell cycle control phosphatase superfamily protein	-14
3674	HORVU6Hr1G093030	50S ribosomal protein L9	-14
3675	HORVU4Hr1G051330	undescribed protein	-14
3676	HORVU6Hr1G090250	unknown function	-14
3677	HORVU3Hr1G007480	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-14
3678	HORVU5Hr1G053230	RNA-binding protein 1	-14
3679	HORVU7Hr1G042160	Protein CURVATURE THYLAKOID 1A, chloroplastic	-14
3680	HORVU3Hr1G065570	undescribed protein	-14
3681	HORVU7Hr1G009800	LEA	-14
3682	HORVU7Hr1G115040	30S ribosomal protein S17	-14
3683	HORVU2Hr1G113800	undescribed protein	-14
3684	HORVU2Hr1G077410	60 kDa chaperonin 1	-14
3685	HORVU6Hr1G000090	sulfurtransferase protein 16	-14
3686	HORVU4Hr1G073730	Protein of unknown function (DUF506)	-14
3687	HORVU6Hr1G063020	unknown protein; BEST Arabidopsis thaliana protein match is: unknown protein .	-14
3688	HORVU4Hr1G056120	Protein kinase superfamily protein	-14
3689	HORVU7Hr1G033940	Pentatricopeptide repeat-containing protein	-14
3690	HORVU6Hr1G018830	50S ribosomal protein L3	-14
3691	HORVU3Hr1G093310	Transcription factor bHLH62	-14
3692	HORVU3Hr1G094820	thylakoid rhodanese-like	-14
3693	HORVU6Hr1G066600	Pentatricopeptide repeat-containing protein	-14
3694	HORVU2Hr1G092750	Protein of unknown function, DUF584	-14
3695	HORVU3Hr1G040880	F-box family protein	-14
3696	HORVU3Hr1G080430	Protein LURP-one-related 8	-15
3697	HORVU4Hr1G067020	Caleosin-related family protein	-15
3698	HORVU2Hr1G089350	undescribed protein	-15
3699	HORVU2Hr1G101720	Multiple organellar RNA editing factor 5, mitochondrial	-15
3700	HORVU2Hr1G038570	Ribosome-recycling factor	-15

S.No.	Feature ID	Barley Annotation	Fold changes
3701	HORVU4Hr1G016510	Chaperone protein DnaJ	-15
3702	HORVU2Hr1G041270	Chlorophyll a-b binding protein 6, chloroplastic	-15
3703	HORVU3Hr1G025020	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-15
3704	HORVU4Hr1G078510	1,4-dihydroxy-2-naphthoate phytyltransferase	-15
3705	HORVU1Hr1G012110	xylulose kinase-1	-15
3706	HORVU5Hr1G043090	Two-component response regulator ARR8	-15
3707	HORVU5Hr1G022570	Stress responsive alpha-beta barrel domain protein	-15
3708	HORVU6Hr1G015770	Photosystem II 5 kD protein	-15
3709	HORVU2Hr1G038580	F-box domain containing protein	-15
3710	HORVU7Hr1G006980	NBS-LRR disease resistance protein	-15
3711	HORVU1Hr1G093780	Ribonuclease T2 family protein	-15
3712	HORVU3Hr1G105790	Glucan endo-1,3-beta-glucosidase GI	-15
3713	HORVU4Hr1G002050	2-methyl-6-phytyl-1,4-hydroquinone methyltransferase 2, chloroplastic	-15
3714	HORVU2Hr1G074770	Abscisic stress-ripening protein 3	-15
3715	HORVU3Hr1G014590	serine/threonine protein phosphatase 2A	-15
3716	HORVU3Hr1G071530	50S ribosomal protein L13	-15
3717	HORVU2Hr1G019270	undescribed protein	-15
3718	HORVU4Hr1G038570	30S ribosomal protein S5	-15
3719	HORVU0Hr1G013070	cinnamoyl coa reductase	-15
3720	HORVU5Hr1G019480	Disease resistance-responsive (dirigent-like protein) family protein	-15
3721	HORVU3Hr1G073740	unknown protein; LOCATED IN: chloroplast; Has 35333 Blast hits to 34131 proteins in 2444 species: Archae - 798; Bacteria - 22429; Metazoa - 974; Fungi - 991; Plants - 531; Viruses - 0; Other Eukaryotes - 9610 (source: NCBI BLINK).	-15
3722	HORVU1Hr1G056500	AP2-like ethylene-responsive transcription factor	-15
3723	HORVU4Hr1G087350	UPF0187 protein YneE	-15
3724	HORVU3Hr1G031130	Pentatricopeptide repeat-containing protein	-15
3725	HORVU2Hr1G021870	Tryptophan/tyrosine permease	-15
3726	HORVU7Hr1G002620	undescribed protein	-15
3727	HORVU7Hr1G121210	At5g37260-like protein	-15
3728	HORVU3Hr1G095330	50S ribosomal protein L27	-15
3729	HORVU2Hr1G103130	Aminomethyltransferase	-15
3730	HORVU3Hr1G093990	Haloalkane dehalogenase 2	-15
3731	HORVU2Hr1G117070	matrix metalloproteinase	-15
3732	HORVU1Hr1G076460	Non-symbiotic hemoglobin 1	-15
3733	HORVU5Hr1G020940	undescribed protein	-15
3734	HORVU4Hr1G045210	Mitochondrial transcription termination factor family protein	-15
3735	HORVU3Hr1G025430	undescribed protein	-15
3736	HORVU5Hr1G100870	undescribed protein	-15
3737	HORVU1Hr1G011520	Glutamyl-tRNA reductase family protein	-15
3738	HORVU3Hr1G039790	50S ribosomal protein L40	-15
3739	HORVU6Hr1G090190	RNA-binding protein 1	-15
3740	HORVU7Hr1G058940	RNA-binding protein 1	-16

S.No.	Feature ID	Barley Annotation	Fold changes
3741	HORVU1Hr1G005360	Cytochrome P450 superfamily protein	-16
3742	HORVU1Hr1G052790	undescribed protein	-16
3743	HORVU1Hr1G073630	undescribed protein	-16
3744	HORVU4Hr1G073650	Heat stress transcription factor A-2d	-16
3745	HORVU5Hr1G112580	rRNA N-glycosidase	-16
3746	HORVU5Hr1G049590	undescribed protein	-16
3747	HORVU7Hr1G098330	xyloglucan endotransglucosylase/hydrolase 25	-16
3748	HORVU5Hr1G033540	ribulose biphosphate carboxylase small chain 1A	-16
3749	HORVU7Hr1G065970	undescribed protein	-16
3750	HORVU7Hr1G115600	heptahelical transmembrane protein1	-16
3751	HORVU1Hr1G045080	PPR containing protein, putative	-16
3752	HORVU5Hr1G110610	undescribed protein	-16
3753	HORVU5Hr1G058300	trehalose-6-phosphate phosphatase	-16
3754	HORVU6Hr1G015430	alpha/beta-Hydrolases superfamily protein	-16
3755	HORVU2Hr1G097970	undescribed protein	-16
3756	HORVU7Hr1G105250	DUF4408 domain protein	-16
3757	HORVU5Hr1G097440	Acyl-CoA N-acyltransferases (NAT) superfamily protein	-16
3758	HORVU1Hr1G057640	peptide chain release factor, putative	-16
3759	HORVU5Hr1G046480	Chalcone--flavonone isomerase	-16
3760	HORVU6Hr1G076880	Glycine cleavage system H protein	-16
3761	HORVU3Hr1G109830	undescribed protein	-16
3762	HORVU7Hr1G055890	50S ribosomal protein 6, chloroplastic	-16
3763	HORVU7Hr1G071000	undescribed protein	-16
3764	HORVU2Hr1G113050	sulfate transporter 91	-16
3765	HORVU7Hr1G039140	Glutathione S-transferase family protein	-16
3766	HORVU3Hr1G000900	Peptidyl-prolyl cis-trans isomerase B	-16
3767	HORVU6Hr1G055980	undescribed protein	-16
3768	HORVU1Hr1G004720	Protein NRT1/ PTR FAMILY 6.2	-16
3769	HORVU2Hr1G063460	Peroxidase superfamily protein	-16
3770	HORVU3Hr1G113920	undescribed protein	-16
3771	HORVU3Hr1G040050	undescribed protein	-16
3772	HORVU5Hr1G035300	P-loop containing nucleoside triphosphate hydrolases superfamily protein	-16
3773	HORVU7Hr1G095860	undescribed protein	-16
3774	HORVU1Hr1G071180	Chaperone protein DnaJ	-16
3775	HORVU5Hr1G099020	Leucine carboxyl methyltransferase	-17
3776	HORVU4Hr1G002610	undescribed protein	-17
3777	HORVU4Hr1G018160	undescribed protein	-17
3778	HORVU4Hr1G009380	Lariat debranching enzyme	-17
3779	HORVU2Hr1G090980	Starch synthase 2, chloroplastic/amyloplastic	-17
3780	HORVU2Hr1G114170	General transcription factor 2-related zinc finger protein	-17
3781	HORVU7Hr1G083690	Two-component response regulator-like APRR2	-17
3782	HORVU3Hr1G039670	undescribed protein	-17



S.No.	Feature ID	Barley Annotation	Fold changes
3783	HORVU7Hr1G098320	xyloglucan endotransglucosylase/hydrolase 25	-17
3784	HORVU3Hr1G071770	cellulose synthase family protein	-17
3785	HORVU2Hr1G094390	histone H1-3	-17
3786	HORVU1Hr1G089240	Cytochrome c oxidase subunit 1	-17
3787	HORVU3Hr1G010830	Protein NRT1/ PTR FAMILY 8.2	-17
3788	HORVU6Hr1G068720	carotenoid cleavage dioxygenase 1	-17
3789	HORVU5Hr1G064230	Cellulose synthase family protein	-17
3790	HORVU5Hr1G124520	unknown function	-17
3791	HORVU4Hr1G068870	Pentatricopeptide repeat-containing protein	-17
3792	HORVU3Hr1G004080	undescribed protein	-17
3793	HORVU1Hr1G091850	unknown function	-17
3794	HORVU5Hr1G010870	Glutaredoxin family protein	-17
3795	HORVU3Hr1G078780	Ribosomal protein L34	-17
3796	HORVU6Hr1G035460	undescribed protein	-17
3797	HORVU2Hr1G079920	Chlorophyll a-b binding protein, chloroplastic	-17
3798	HORVU2Hr1G096850	Haloacid dehalogenase-like hydrolase (HAD) superfamily protein	-18
3799	HORVU7Hr1G090100	Thiamine thiazole synthase	-18
3800	HORVU7Hr1G086810	GATA transcription factor 23	-18
3801	HORVU2Hr1G065420	undescribed protein	-18
3802	HORVU2Hr1G023560	Magnesium-chelatase subunit H	-18
3803	HORVU3Hr1G059350	undescribed protein	-18
3804	HORVU3Hr1G083790	unknown function	-18
3805	HORVU1Hr1G081350	undescribed protein	-18
3806	HORVU3Hr1G059330	undescribed protein	-18
3807	HORVU6Hr1G048120	undescribed protein	-18
3808	HORVU5Hr1G001180	lipoxygenase 2	-18
3809	HORVU6Hr1G010520	unknown protein; Has 52 Blast hits to 46 proteins in 20 species: Archae - 0; Bacteria - 0; Metazoa - 0; Fungi - 0; Plants - 45; Viruses - 0; Other Eukaryotes - 7 (source: NCBI BLINK).	-18
3810	HORVU3Hr1G108860	undescribed protein	-18
3811	HORVU6Hr1G091640	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-18
3812	HORVU5Hr1G111640	50S ribosomal protein L17	-18
3813	HORVU5Hr1G005740	PHYTOENE SYNTHASE	-18
3814	HORVU2Hr1G111300	Bifunctional lysine-specific demethylase and histidyl-hydroxylase NO66	-18
3815	HORVU6Hr1G082710	UDP-Glycosyltransferase superfamily protein	-18
3816	HORVU7Hr1G037600	sodium/calcium exchanger family protein / calcium-binding EF hand family protein	-18
3817	HORVU2Hr1G102100	Bifunctional inhibitor/lipid-transfer protein/seed storage 2S albumin superfamily protein	-18
3818	HORVU2Hr1G089030	Plastid transcriptionally active 5, putative isoform 1	-18
3819	HORVU7Hr1G038060	Transcription factor IL4	-18
3820	HORVU2Hr1G049560	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-18
3821	HORVU5Hr1G082420	Chlorophyll a-b binding protein, chloroplastic	-18
3822	HORVU3Hr1G039310	undescribed protein	-18

S.No.	Feature ID	Barley Annotation	Fold changes
3823	HORVU5Hr1G051010	ribulose bisphosphate carboxylase small chain 1A	-19
3824	HORVU6Hr1G002550	Nitric oxide-associated protein 1	-19
3825	HORVU6Hr1G055350	undescribed protein	-19
3826	HORVU3Hr1G085520	laccase 7	-19
3827	HORVU5Hr1G069730	Zinc-finger homeodomain protein 1	-19
3828	HORVU1Hr1G017310	undescribed protein	-19
3829	HORVU4Hr1G087230	Ectonucleoside triphosphate diphosphohydrolase 5	-19
3830	HORVU5Hr1G053060	BnaA04g27590D protein	-19
3831	HORVU6Hr1G010940	undescribed protein	-19
3832	HORVU3Hr1G005500	Transcription factor bHLH35	-19
3833	HORVU7Hr1G119060	GDSL esterase/lipase	-19
3834	HORVU5Hr1G109260	Chlorophyll a-b binding protein, chloroplastic	-19
3835	HORVU7Hr1G000550	Glycine--tRNA ligase beta subunit	-19
3836	HORVU7Hr1G002210	Ferredoxin--NADP reductase	-19
3837	HORVU5Hr1G062240	Chlorophyll a-b binding protein 7, chloroplastic	-19
3838	HORVU1Hr1G093570	Ribonuclease T2 family protein	-19
3839	HORVU4Hr1G076050	O-methyltransferase family protein	-19
3840	HORVU5Hr1G096260	UDP-Glycosyltransferase superfamily protein	-20
3841	HORVU5Hr1G071920	Photosystem I reaction center subunit V	-20
3842	HORVU1Hr1G075160	Isoflavone reductase-like protein	-20
3843	HORVU1Hr1G035720	ribulose bisphosphate carboxylase small chain 1A	-20
3844	HORVU5Hr1G025820	Retrotransposon protein, putative, unclassified	-20
3845	HORVU5Hr1G050990	ribulose bisphosphate carboxylase small chain 1A	-20
3846	HORVU3Hr1G055260	myb domain protein 66	-20
3847	HORVU1Hr1G071910	Plant protein 1589 of unknown function	-20
3848	HORVU7Hr1G090410	polyamine oxidase 1	-20
3849	HORVU1Hr1G007690	General transcription factor 2-related zinc finger protein	-20
3850	HORVU2Hr1G001320	Protein NRT1/ PTR FAMILY 8.5	-20
3851	HORVU3Hr1G004320	MULTISPECIES: hypothetical protein	-20
3852	HORVU1Hr1G043900	Chloroplast inner envelope protein, putative, expressed	-20
3853	HORVU2Hr1G029950	undescribed protein	-20
3854	HORVU2Hr1G108430	undescribed protein	-20
3855	HORVU0Hr1G017890	undescribed protein	-20
3856	HORVU5Hr1G119230	oligopeptide transporter 4	-21
3857	HORVU2Hr1G116390	Chalcone synthase 1	-21
3858	HORVU2Hr1G085300	haloacid dehalogenase-like hydrolase family protein	-21
3859	HORVU0Hr1G022410	undescribed protein	-21
3860	HORVU7Hr1G112290	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-21
3861	HORVU1Hr1G070190	Nodulin-like / Major Facilitator Superfamily protein	-21
3862	HORVU4Hr1G018070	Auxilin-related protein 2	-21
3863	HORVU7Hr1G092880	undescribed protein	-21
3864	HORVU7Hr1G006880	undescribed protein	-21

S.No.	Feature ID	Barley Annotation	Fold changes
3865	HORVU6Hr1G073100	Protein CURVATURE THYLAKOID 1A, chloroplastic	-21
3866	HORVU4Hr1G002350	N utilization substance protein B homolog	-21
3867	HORVU2Hr1G079630	Protein OBERON 3	-21
3868	HORVU5Hr1G010950	Glutaredoxin family protein	-21
3869	HORVU1Hr1G091540	Transcription factor RADIALIS	-22
3870	HORVU7Hr1G073860	2-succinylbenzoate--CoA ligase	-22
3871	HORVU1Hr1G078290	4-hydroxy-tetrahydrodipicolinate reductase	-22
3872	HORVU2Hr1G113790	undescribed protein	-22
3873	HORVU6Hr1G035450	undescribed protein	-22
3874	HORVU5Hr1G074000	NAD(P)-binding Rossmann-fold superfamily protein	-22
3875	HORVU3Hr1G065090	undescribed protein	-22
3876	HORVU2Hr1G063190	undescribed protein	-22
3877	HORVU5Hr1G018970	0	-22
3878	HORVU2Hr1G090400	Protein of unknown function (DUF177)	-22
3879	HORVU2Hr1G101730	ascorbate peroxidase 4	-22
3880	HORVU0Hr1G022690	Senescence-associated protein DIN1	-23
3881	HORVU2Hr1G090670	sulfotransferase 4B	-23
3882	HORVU2Hr1G072880	ferredoxin 3	-23
3883	HORVU1Hr1G093660	ribonuclease 3	-23
3884	HORVU5Hr1G062450	unknown function	-23
3885	HORVU3Hr1G025820	Mitochondrial substrate carrier family protein	-23
3886	HORVU5Hr1G103440	zinc-finger protein 1	-23
3887	HORVU5Hr1G094110	undescribed protein	-23
3888	HORVU4Hr1G090860	metacaspase 1	-23
3889	HORVU2Hr1G113850	undescribed protein	-23
3890	HORVU3Hr1G091140	NAD(P)H-quinone oxidoreductase subunit N	-23
3891	HORVU5Hr1G043200	strictosidine synthase-like 2	-23
3892	HORVU1Hr1G035700	undescribed protein	-24
3893	HORVU2Hr1G079180	unknown function	-24
3894	HORVU2Hr1G005570	2-oxoglutarate (2OG) and Fe(II)-dependent oxygenase superfamily protein	-24
3895	HORVU1Hr1G073010	unknown function	-24
3896	HORVU4Hr1G018150	sterol C4-methyl oxidase 1-2	-24
3897	HORVU7Hr1G085350	F-box/kelch-repeat protein	-24
3898	HORVU5Hr1G067200	RING/U-box superfamily protein	-24
3899	HORVU1Hr1G047100	Aquaporin-like superfamily protein	-24
3900	HORVU6Hr1G076040	Photosynthetic NDH subcomplex B 4	-25
3901	HORVU2Hr1G043530	undescribed protein	-25
3902	HORVU5Hr1G086670	Flavin-binding monooxygenase family protein	-25
3903	HORVU4Hr1G076000	O-methyltransferase family protein	-25
3904	HORVU1Hr1G088920	Chlorophyll a-b binding protein, chloroplastic	-25
3905	HORVU5Hr1G066750	zinc finger protein 8	-25
3906	HORVU2Hr1G095080	Cytochrome P450 superfamily protein	-25

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
3907	HORVU6Hr1G093940	Peroxidase superfamily protein	-25
3908	HORVU7Hr1G098280	xyloglucan endotransglucosylase/hydrolase 25	-25
3909	HORVU3Hr1G083520	Glutathione S-transferase family protein	-26
3910	HORVU1Hr1G024890	NAD(P)H dehydrogenase 18	-26
3911	HORVU6Hr1G016890	Chlorophyll a-b binding protein, chloroplastic	-26
3912	HORVU6Hr1G079190	Peroxidase superfamily protein	-26
3913	HORVU5Hr1G077390	Transcription factor bHLH137	-26
3914	HORVU7Hr1G023140	Photosynthetic NDH subunit of subcomplex B 3, chloroplastic	-26
3915	HORVU5Hr1G016270	Sulfurtransferase	-26
3916	HORVU4Hr1G087610	Transcription factor bHLH35	-26
3917	HORVU2Hr1G077630	Histone H2B.1	-26
3918	HORVU3Hr1G014790	thylakoid lumenal 17.9 kDa protein, chloroplast	-26
3919	HORVU7Hr1G047880	undescribed protein	-26
3920	HORVU6Hr1G028970	undescribed protein	-26
3921	HORVU3Hr1G110660	NADH dehydrogenase-like complex O	-26
3922	HORVU3Hr1G024920	undescribed protein	-26
3923	HORVU3Hr1G057090	carbonic anhydrase 2	-26
3924	HORVU3Hr1G027220	Polyketide cyclase/dehydrase and lipid transport superfamily protein	-26
3925	HORVU7Hr1G098600	GDSL esterase/lipase	-27
3926	HORVU4Hr1G018180	sterol C4-methyl oxidase 1-2	-27
3927	HORVU6Hr1G016940	Chlorophyll a-b binding protein, chloroplastic	-27
3928	HORVU7Hr1G036960	unknown function	-27
3929	HORVU1Hr1G083580	undescribed protein	-27
3930	HORVU5Hr1G053480	Protein FLUORESCENT IN BLUE LIGHT, chloroplastic	-27
3931	HORVU3Hr1G021750	Serine incorporator 1	-27
3932	HORVU3Hr1G025300	undescribed protein	-28
3933	HORVU7Hr1G105500	Nuclear transcription factor Y subunit B-2	-28
3934	HORVU4Hr1G081040	ABC transporter G family member 45	-28
3935	HORVU1Hr1G078380	Chlorophyll a-b binding protein, chloroplastic	-28
3936	HORVU7Hr1G081250	ABC transporter G family member 8	-28
3937	HORVU7Hr1G010690	Acid phosphatase 1	-28
3938	HORVU4Hr1G040120	undescribed protein	-28
3939	HORVU4Hr1G069690	undescribed protein	-28
3940	HORVU2Hr1G066020	undescribed protein	-29
3941	HORVU2Hr1G000420	HXXXD-type acyl-transferase family protein	-29
3942	HORVU6Hr1G016880	Chlorophyll a-b binding protein, chloroplastic	-29
3943	HORVU2Hr1G051040	undescribed protein	-29
3944	HORVU4Hr1G040100	undescribed protein	-29
3945	HORVU6Hr1G005050	flowering promoting factor 1	-29
3946	HORVU1Hr1G007810	UDP-Glycosyltransferase superfamily protein	-29
3947	HORVU4Hr1G088110	Eukaryotic aspartyl protease family protein	-29
3948	HORVU2Hr1G004170	Chalcone synthase 2	-29

<b>S.No.</b>	<b>Feature ID</b>	<b>Barley Annotation</b>	<b>Fold changes</b>
3949	HORVU2Hr1G095380	undescribed protein	-29
3950	HORVU1Hr1G057860	cytokinin oxidase/dehydrogenase 1	-30
3951	HORVU5Hr1G109250	Chlorophyll a-b binding protein, chloroplastic	-30
3952	HORVU3Hr1G086160	laccase 17	-30
3953	HORVU7Hr1G112130	undescribed protein	-30
3954	HORVU7Hr1G040380	Chlorophyll a-b binding protein, chloroplastic	-30
3955	HORVU5Hr1G081060	Cytochrome P450 superfamily protein	-31
3956	HORVU0Hr1G020630	Benzoate O-methyltransferase	-31
3957	HORVU1Hr1G089180	Chlorophyll a-b binding protein, chloroplastic	-31
3958	HORVU6Hr1G061270	Aldehyde dehydrogenase family 3 member F1	-31
3959	HORVU6Hr1G021460	Zinc finger protein CONSTANS-LIKE 7	-31
3960	HORVU4Hr1G088160	Eukaryotic aspartyl protease family protein	-32
3961	HORVU5Hr1G063630	Early light-induced protein 1, chloroplastic	-32
3962	HORVU6Hr1G091650	Chlorophyll a-b binding protein, chloroplastic	-32
3963	HORVU2Hr1G064730	Protein of unknown function, DUF584	-33
3964	HORVU2Hr1G051050	undescribed protein	-33
3965	HORVU3Hr1G026920	metallothionein 3	-34
3966	HORVU7Hr1G081510	DnaJ/Hsp40 cysteine-rich domain superfamily protein	-34
3967	HORVU6Hr1G012270	terpene synthase 14	-34
3968	HORVU2Hr1G009970	Eukaryotic aspartyl protease family protein	-34
3969	HORVU5Hr1G022750	PsbP domain-containing protein 1, chloroplastic	-34
3970	HORVU7Hr1G040370	Chlorophyll a-b binding protein, chloroplastic	-35
3971	HORVU7Hr1G111010	unknown function	-35
3972	HORVU2Hr1G089340	phosphoenolpyruvate carboxylase kinase 1	-36
3973	HORVU5Hr1G097870	Cytochrome b6-f complex subunit 7	-36
3974	HORVU2Hr1G103150	Pectinesterase inhibitor domain containing protein	-36
3975	HORVU7Hr1G057100	Cytochrome P450 superfamily protein	-36
3976	HORVU6Hr1G016860	undescribed protein	-37
3977	HORVU7Hr1G120660	PHYTOENE SYNTHASE	-37
3978	HORVU2Hr1G010630	ribulose biphosphate carboxylase small chain 1A	-38
3979	HORVU2Hr1G003470	Cytochrome P450 superfamily protein	-38
3980	HORVU5Hr1G023160	Transmembrane amino acid transporter family protein	-38
3981	HORVU2Hr1G070140	Heavy metal transport/detoxification superfamily protein	-38
3982	HORVU3Hr1G027970	TRICHOME BIREFRINGENCE-LIKE 38	-39
3983	HORVU3Hr1G052710	myb-like transcription factor family protein	-40
3984	HORVU4Hr1G088080	expansin B2	-40
3985	HORVU5Hr1G089230	Fatty acyl-CoA reductase 1	-42
3986	HORVU7Hr1G058120	Chlorophyll a-b binding protein 1B, chloroplastic	-43
3987	HORVU6Hr1G075080	FKBP-like peptidyl-prolyl cis-trans isomerase family protein	-43
3988	HORVU7Hr1G117710	O-methyltransferase family protein	-43
3989	HORVU2Hr1G077650	ferric reduction oxidase 7	-43
3990	HORVU2Hr1G002720	PLANT CADMIUM RESISTANCE 1	-45

S.No.	Feature ID	Barley Annotation	Fold changes
3991	HORVU2Hr1G010690	ribulose biphosphate carboxylase small chain 1A	-46
3992	HORVU3Hr1G068200	Heavy metal transport/detoxification superfamily protein	-47
3993	HORVU2Hr1G010670	ribulose biphosphate carboxylase small chain 1A	-48
3994	HORVU3Hr1G108550	undescribed protein	-48
3995	HORVU3Hr1G096910	Beta-glucosidase 3	-49
3996	HORVU4Hr1G002900	Protein of unknown function (DUF1677)	-50
3997	HORVU2Hr1G103160	undescribed protein	-51
3998	HORVU6Hr1G051650	Oxygen-evolving enhancer protein 3-1, chloroplastic	-51
3999	HORVU7Hr1G047690	Chromosome 3B, genomic scaffold, cultivar Chinese Spring	-52
4000	HORVU6Hr1G012110	terpene synthase 14	-52
4001	HORVU1Hr1G007630	TRICHOME BIREFRINGENCE-LIKE 11	-53
4002	HORVU4Hr1G086020	4-hydroxy-tetrahydrodipicolinate reductase	-54
4003	HORVU2Hr1G065450	flowering promoting factor 1	-55
4004	HORVU6Hr1G016850	Chlorophyll a-b binding protein, chloroplastic	-55
4005	HORVU7Hr1G036720	germin-like protein 1	-55
4006	HORVU3Hr1G089910	Trigger factor	-56
4007	HORVU3Hr1G083360	Fructose-1,6-bisphosphatase class 1	-57
4008	HORVU5Hr1G086710	Flavin-containing monooxygenase family protein	-58
4009	HORVU1Hr1G088900	Chlorophyll a-b binding protein, chloroplastic	-59
4010	HORVU5Hr1G084230	Aquaporin-like superfamily protein	-61
4011	HORVU3Hr1G073860	chlororespiratory reduction 7	-63
4012	HORVU7Hr1G007800	undescribed protein	-65
4013	HORVU5Hr1G004700	terpene synthase 21	-66
4014	HORVU1Hr1G069830	expansin A1	-67
4015	HORVU5Hr1G101880	Protein phosphatase 2C 35	-68
4016	HORVU5Hr1G102530	Hfr-2-like protein	-70
4017	HORVU4Hr1G040110	undescribed protein	-74
4018	HORVU6Hr1G025050	undescribed protein	-75
4019	HORVU7Hr1G119930	Cathepsin B-like cysteine proteinase 1	-86
4020	HORVU2Hr1G074730	unknown function	-90
4021	HORVU4Hr1G080820	Group 3 late embryogenesis abundant protein	-107
4022	HORVU1Hr1G089380	Subtilisin-like protease	-131
4023	HORVU7Hr1G120060	Cathepsin B-like cysteine proteinase 1	-141
4024	HORVU1Hr1G016410	undescribed protein	-146
4025	HORVU2Hr1G073030	Carbonic anhydrase	-158
4026	HORVU5Hr1G102620	Amaranthin-like lectin	-190
4027	HORVU4Hr1G058590	unknown function	-199