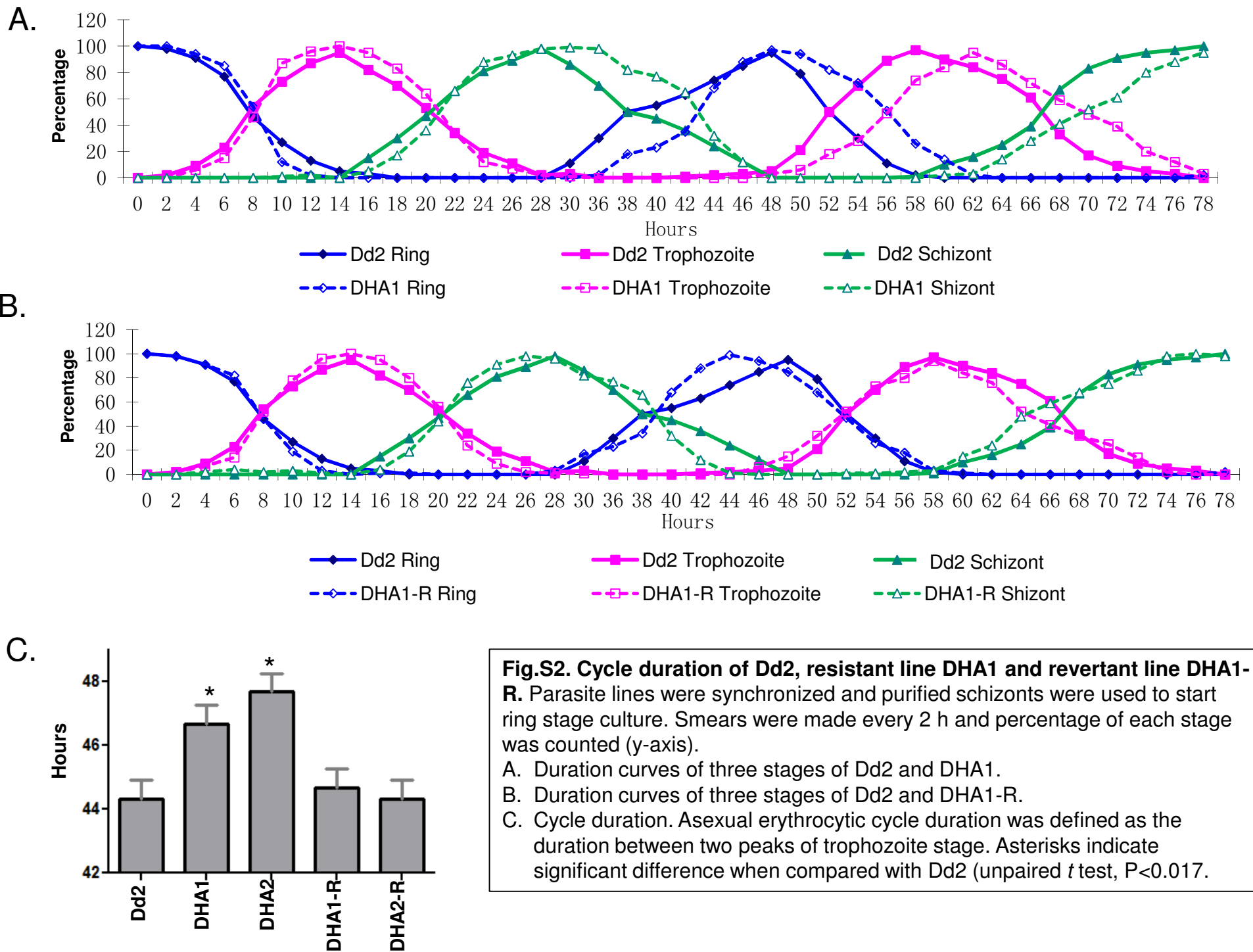
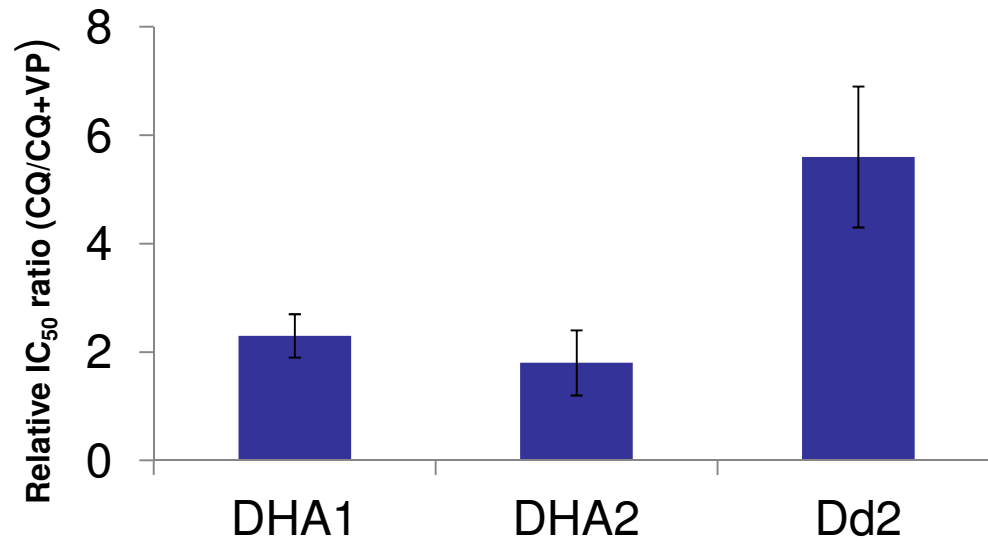
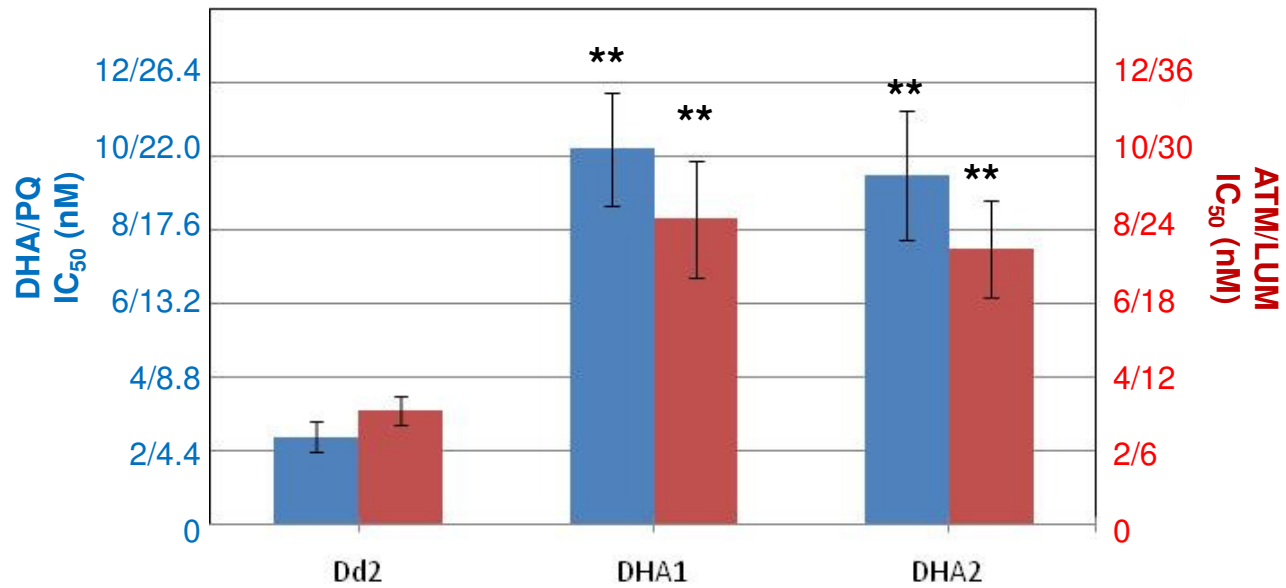


**Fig.S1. A. Selection scheme for dihydroartemisinin (DHA) resistance in Dd2 strain.** Dd2 parasites were subjected to step-wise selection with increasing DHA concentrations starting at 10 nM. When steady growth of parasites was achieved, DHA concentration was doubled. After 15 months, the parasite population was able to grow under constant exposure to 320 nM of DHA. **B. DHA IC<sub>50</sub> values of cloned parasites.** The DHA-resistant population was cloned in DHA-free medium in ~35 days. IC<sub>50</sub> values of the 26 clones to DHA were measured using the SYBR-Green I method. Shown are the mean IC<sub>50</sub>s of individual clones. Two clones (DHA1 and DHA2) with the highest DHA IC<sub>50</sub> values were selected for future studies.

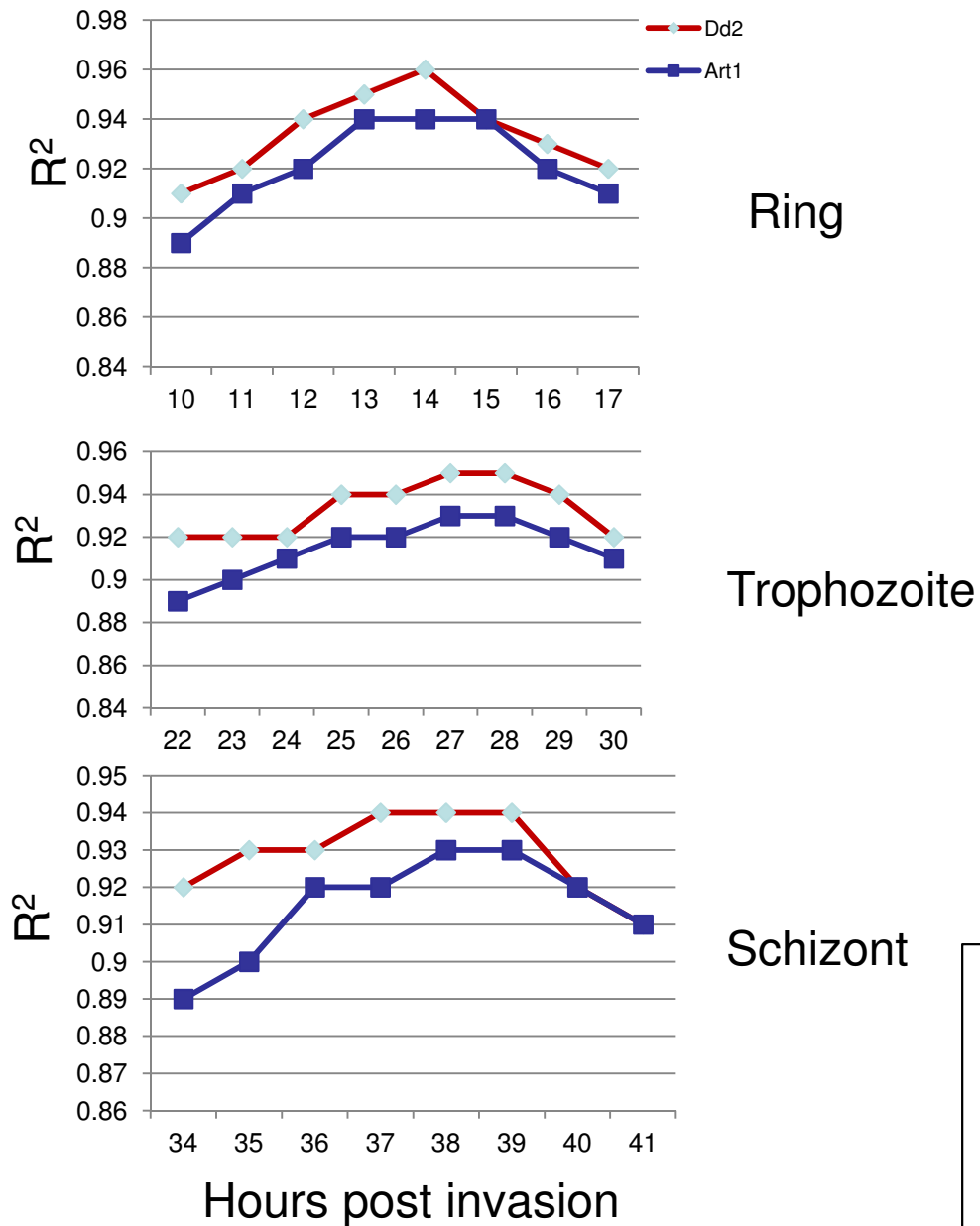




**Fig. S3. Relative IC<sub>50</sub> ratios of CQ in DHA1, DHA2 and Dd2 in the presence of verapamil (VP).** Relative ratio was calculated by comparing the IC<sub>50</sub> values of CQ alone with those of CQ/VP treatment. A CQ:VP ratio of 2:25  $\mu$ M was used for the assay. The VP concentrations used do not have obvious cytotoxic effect on the parasites (Patel et al. 2010).

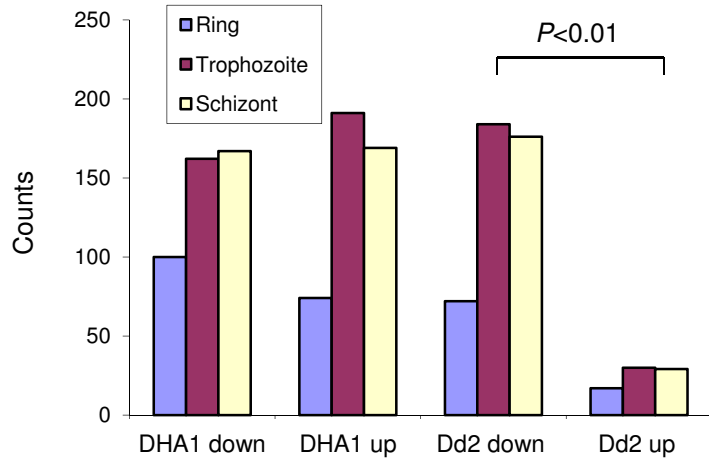


**Fig.S4. In vitro IC<sub>50</sub> values of Dd2, DHA1 and DHA2 to two ACTs: dihydroartemisinin with piperazine (DHA/PQ) (blue bars) and artemether with lumefantrine (ATM/LUM) (red bars).**  
 \*\* indicates significant difference between Dd2 and DHA1 or DHA2 (unpaired *t*-test, P<0.003)

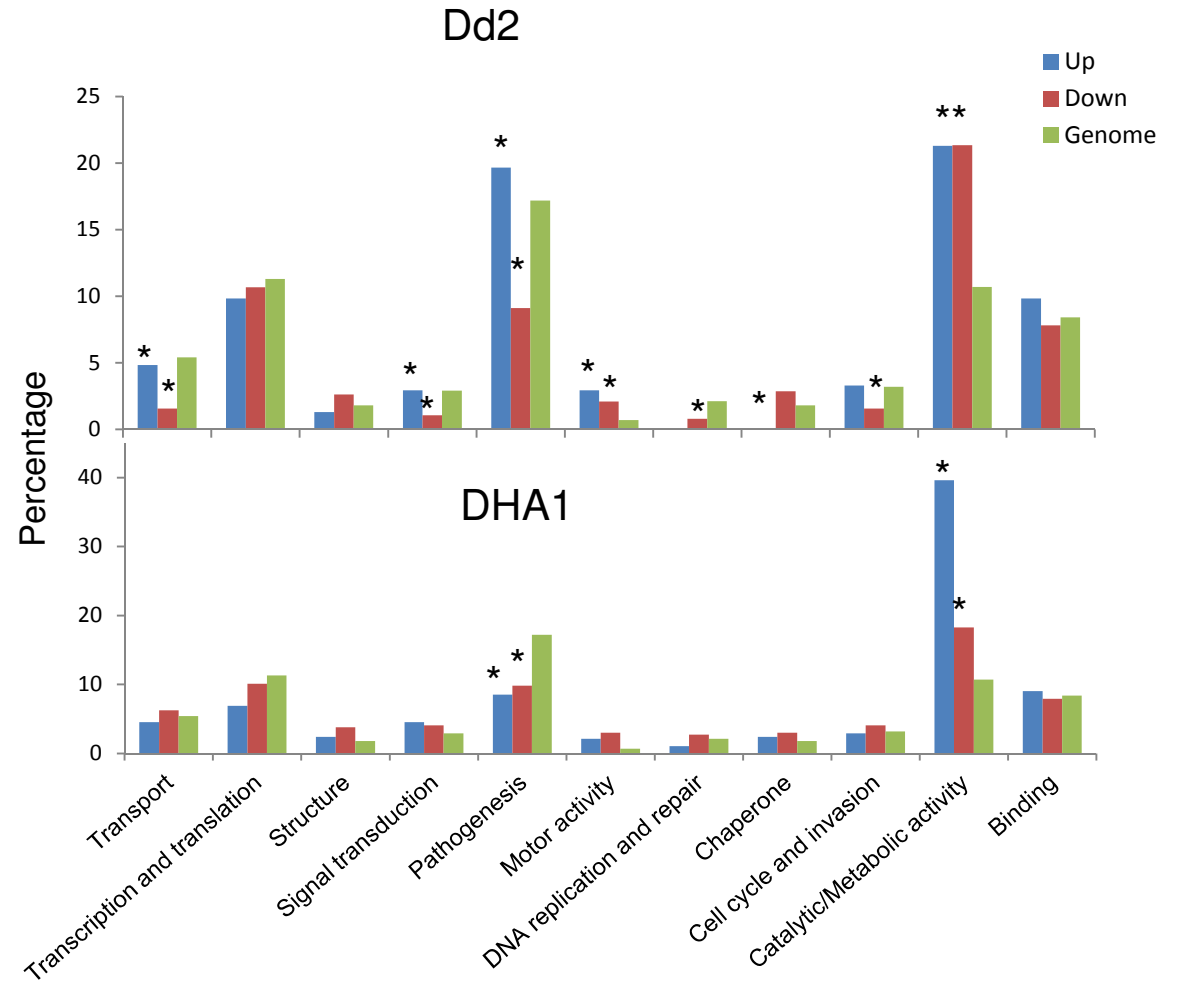


**Fig.S5. Correlations in microarray data between Dd2 and DHA1 at different time points with the published 48 h gene expression profile of Dd2 (Llinas et al. 2006).** Microarray data from two experiments were normalized, averaged, and  $\log_2$  transformed. Pearson correlation was performed between our microarray data and the published Dd2 gene expression profile.

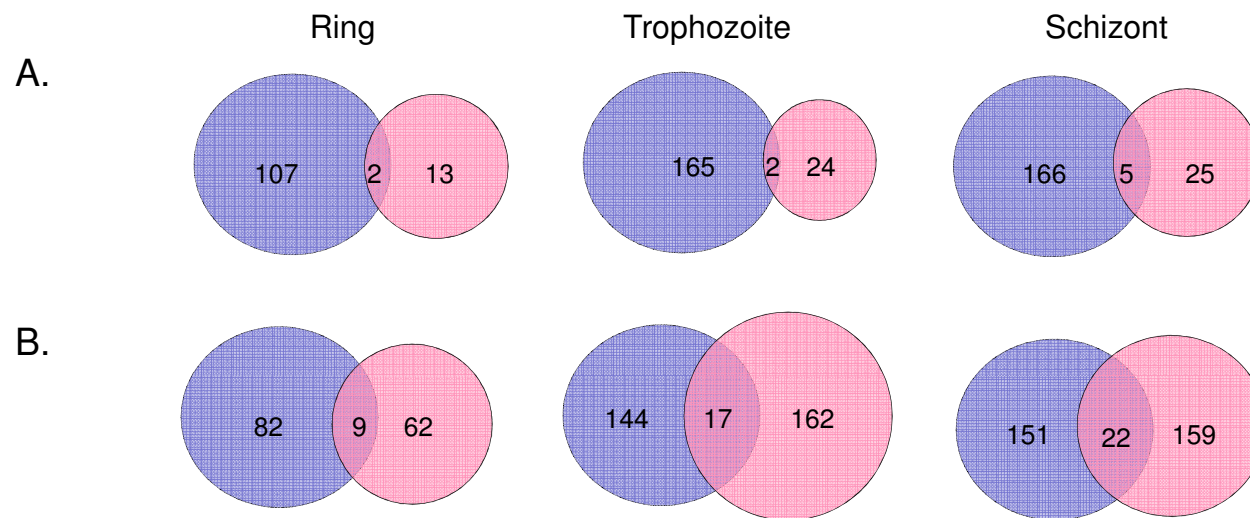
A.



B.

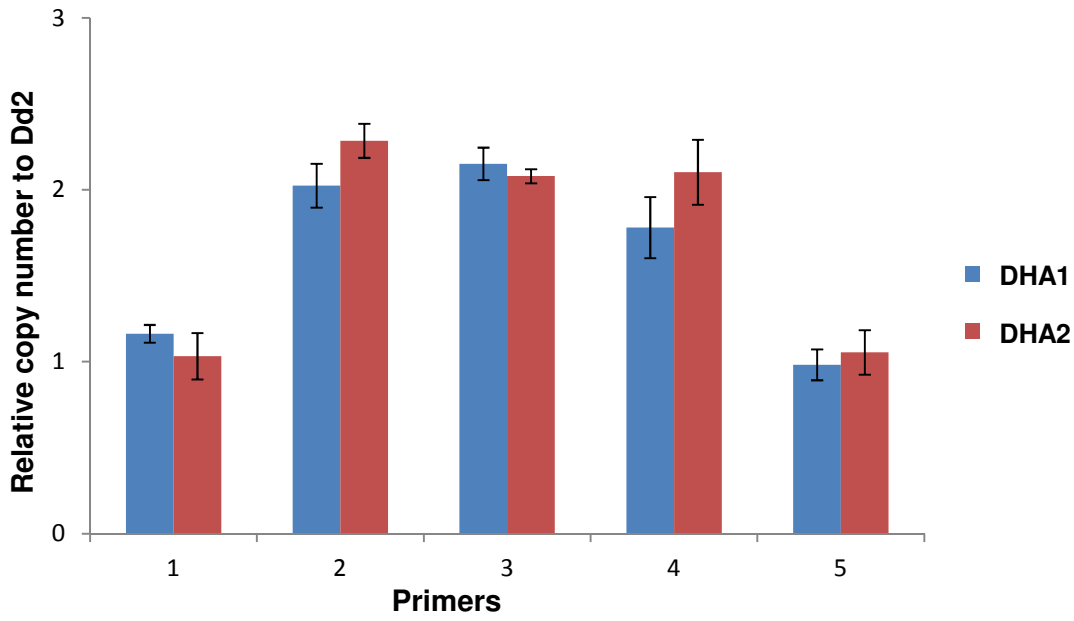


**Fig. S6. Microarray analysis to detect perturbation in genome-wide gene expression after DHA treatment. A.** Numbers of genes with  $\geq 2$ -fold changes in the expression level after DHA treatment DHA1 and Dd2 at three IDC stages. Note that significantly more genes were down-regulated than up-regulated in Dd2 parasite by DHA treatment ( $Z$ -test,  $P < 0.05$ ). **B.** Percentage of different functional categories of genes in the gene pools with  $\geq 2$ -fold up (blue) and down (red) regulation are compared to the overall genomic representations of the functional categories (green) in Dd2 (upper panel) and DHA1 (lower panel) in response to DHA treatment. Genes encoding hypothetical proteins are not shown. Asterisk (\*) denotes categories significantly enriched in up- or down-regulated gene pools as compared genomic representations ( $Z$ -test,  $P < 0.05$ ).



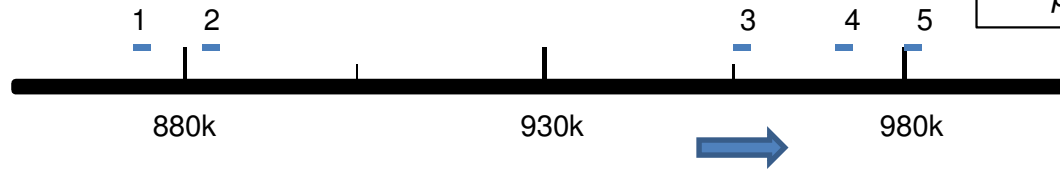
**Fig. S7. Overlapped genes in DHA1 (blue) and Dd2 (pink) that had  $\geq 2$ -fold changes after DHA treatment. A.** Up-regulated genes after DHA treatment; **B.** Down regulated genes after DHA treatment.

A.

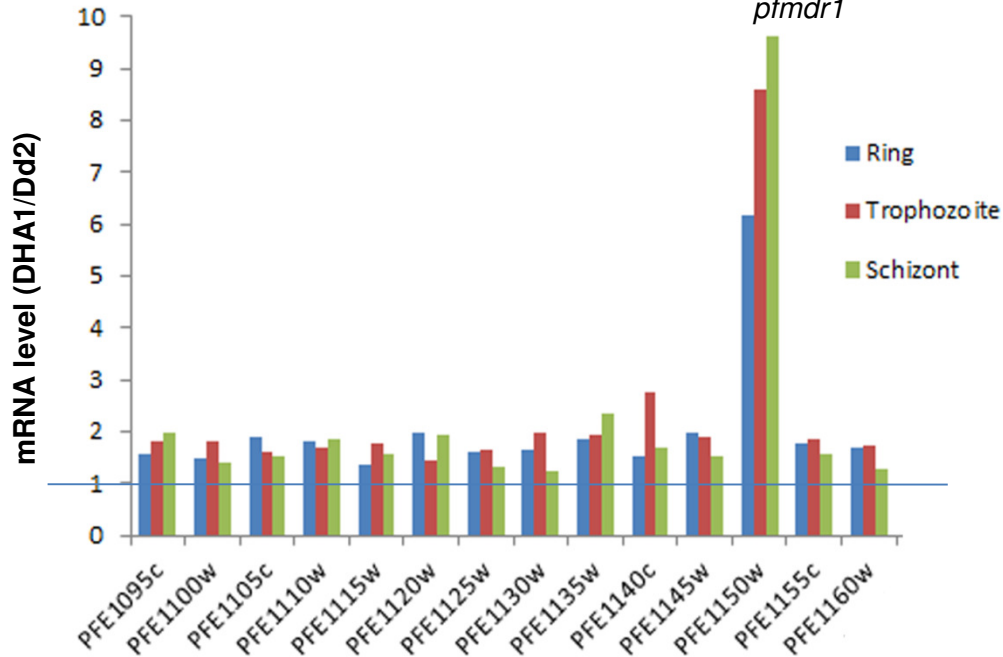


**Fig. S8. Gene copy numbers and mRNA expression levels of genes at the amplified locus on chromosome 5.**  
 A. Real-time PCR analysis of amplification region on chromosome 5. Gene copy number was compared to that in Dd2.  
 B. Relative mRNA levels (DHA1/Dd2, microarray data) of 14 genes which are in the amplified region of chromosome 5 (PFE1150w is *pfmdr1*).

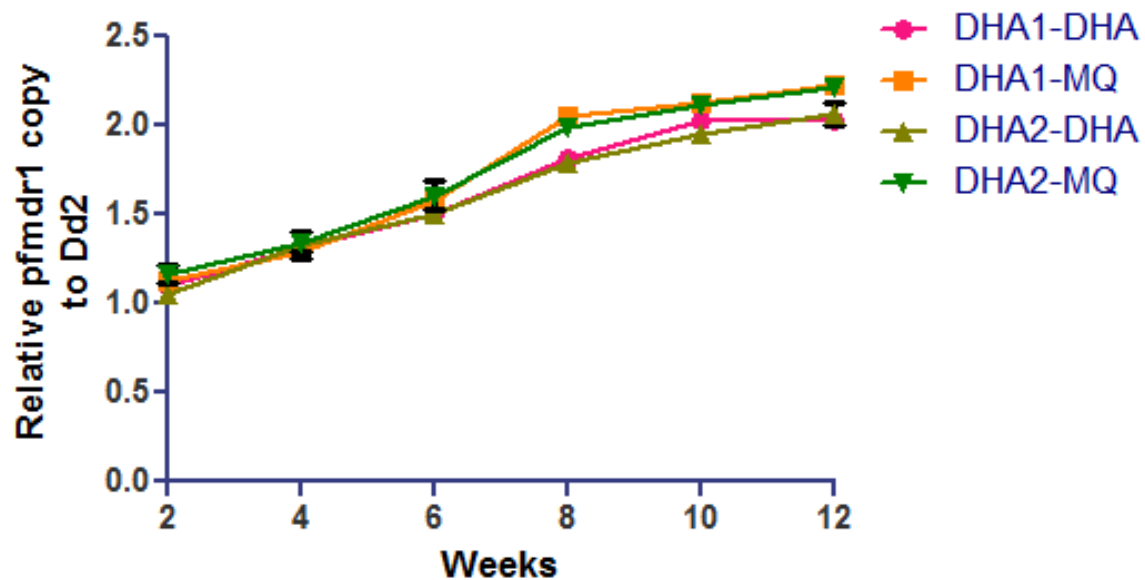
Chromosome 5



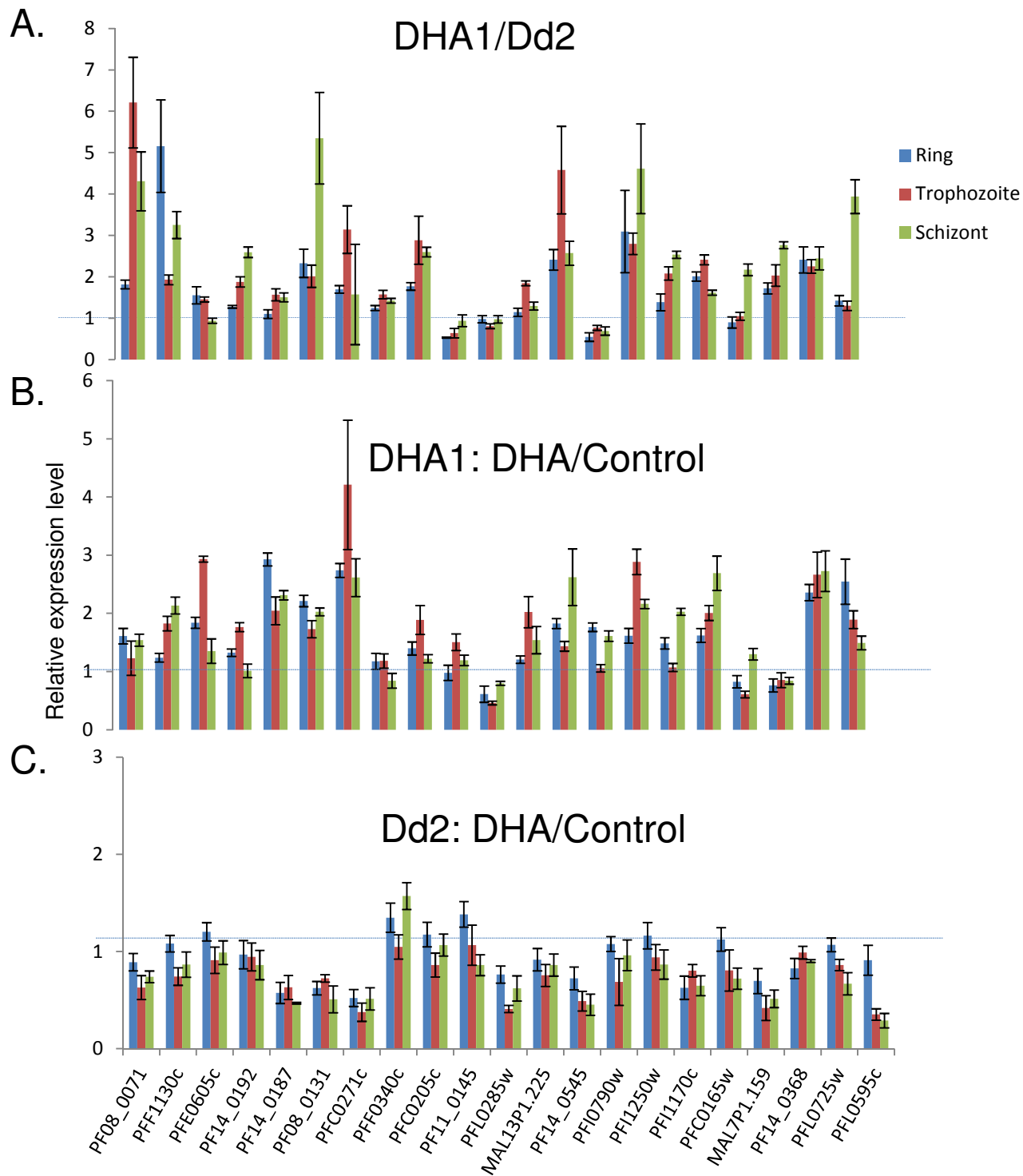
B.



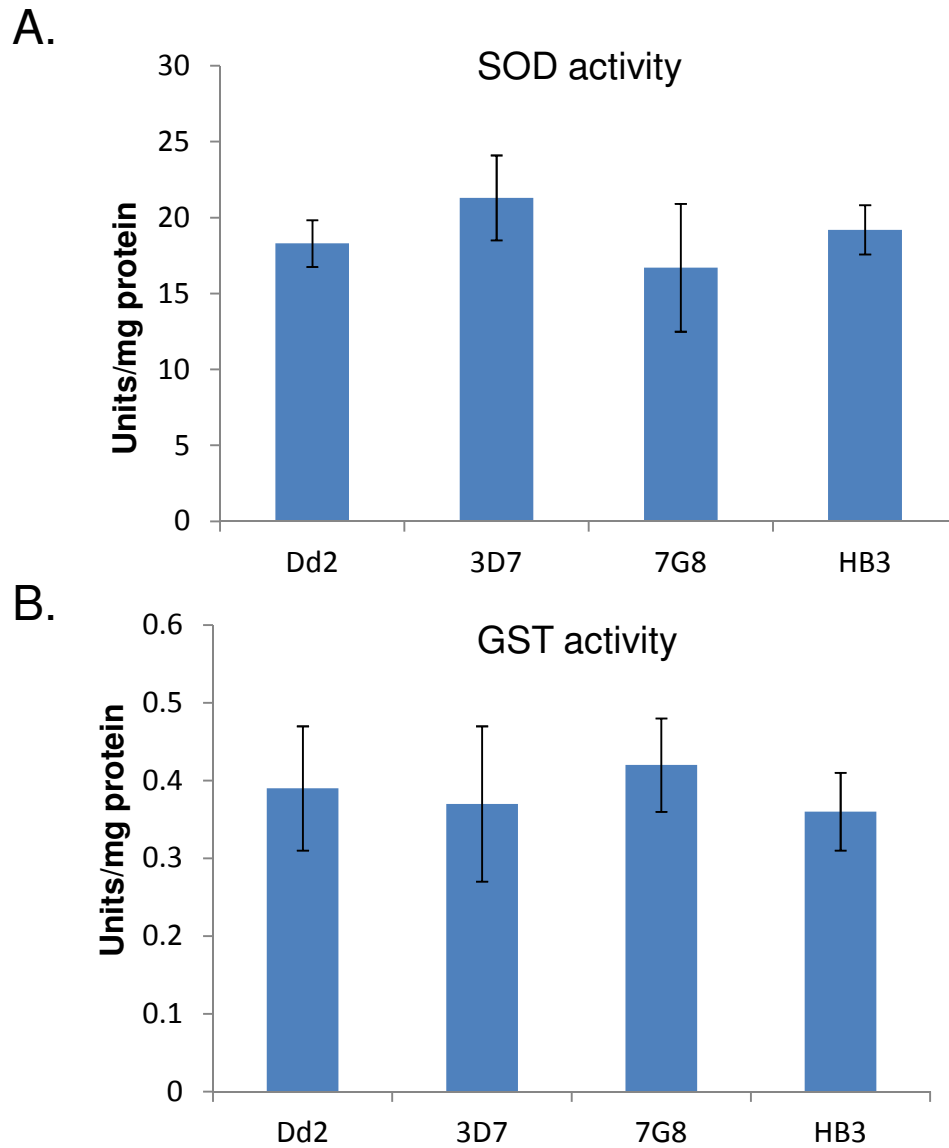




**Fig. S9. Gene copy numbers of *pfmdr1* in the revertant lines during re-selection with either dihydroartemisinin (DHA) or mefloquine (MQ).** Real-time PCR was performed at a bi-weekly interval and the *pfmdr1* copy number in Dd2 was used as the reference .



**Fig. S10. Real-time RT-PCR analysis of mRNA expression levels of antioxidant associated genes in Dd2 and DHA1 in ring (blue), trophozoite (red) and schizont (green) stages.** Relative expression of these genes were compared: **A.** between DHA1 and Dd2; **B.** Between DHA treated DHA1 and untreated (control) DHA1; and **C.** Between DHA treated Dd2 and untreated (control) Dd2. Relative expression levels in ring (14 h), trophozoite (28 h) and schizont (38 h) stages were determined by real-time RT-PCR compared to constitutively expressed *seryl-tRNA synthetase*.



**Fig. S11. SOD and GST activities in different parasite strains.** The result represents mean  $\pm$  standard deviation from three replications. No significant differences were detected between the strains (unpaired t test,  $P > 0.013$ ). **A.** SOD activity; **B.** GST activity.

**Table S1.** Person correlation ( $R^2$ ) matrix of  $IC_{50}$ s of Dd2, two DHA-selected clones (DHA1 and DHA2), their respective revertant lines DHA1-R and DHA2-R, and re-selected lines by DHA (DHA1-R-DHA and DHA2-R-DHA) and MQ (DHA1-R-MQ and DHA2-R-MQ) between two drugs (above diagonal).  $P$  values between each comparison are shown below the diagonal.

	DHA	ATM	ATS	ART	CQ	AQ	PQ	MQ	LUM	QN	ATQ
DHA		0.80	0.78	0.91	0.33	0.36	0.41	0.51	0.67	0.69	0.20
ATM	<0.001		0.83	0.81	0.57	0.33	0.40	0.65	0.55	0.63	0.16
ATS	<0.001	<0.001		0.81	0.21	0.41	0.46	0.61	0.65	0.64	0.19
ART	<0.001	<0.001	<0.001		0.42	0.34	0.46	0.52	0.61	0.58	0.24
CQ	0.012	0.004	0.052	0.059		0.82	0.22	0.67	0.28	0.35	0.15
AQ	0.013	0.014	0.010	0.015	<0.001		0.71	0.77	0.42	0.47	0.18
PQ	0.006	0.007	0.004	0.006	0.087	<0.001		0.70	0.32	0.35	0.26
MQ	0.005	0.002	0.003	0.029	0.002	<0.001	<0.001		0.49	0.70	0.31
LUM	0.002	0.003	0.002	0.039	0.023	0.015	0.057	0.012		0.79	0.25
QN	0.002	0.002	0.002	0.010	0.030	0.009	0.061	<0.001	<0.001		0.19
ATQ	0.056	0.066	0.060	0.065	0.087	0.064	0.060	0.051	0.056	0.076	

**Table S2. Up- and down-regulated genes in DHA1 as compared to Dd2**

<b>Up-regulated gens in Art1</b>				
Gene Id	Gene Description	Fold change (Art1/Dd2)		
		R	T	S
<b>Transport</b>				
PFI0775w	glycolipid transfer protein	3.1		
PF14_0034	translocation associated membrane protein			2.6
PFL2105c	microtubule associated katanin			3.8
PF14_0792	conserved Plasmodium protein, unknown function			2.0
MAL13P1.232	mog1 homolog			2.2
PF13_0359	mitochondrial carrier protein		2.0	2.1
PF13_0324	Sec24 subunit a			2.7
MAL8P1.82	vacuolar sorting protein VPS9		2.0	
PF13_0281	conserved Plasmodium protein, unknown function			2.6
PF10_0190	conserved Plasmodium protein, unknown function		2.1	
PF08_0017	conserved Plasmodium protein, unknown function		2.0	
MAL8P1.205	Plasmodium exported protein, unknown function		2.3	
MAL13P1.256	phosphatidylinositol transfer protein		2.4	2.0
PFF1330c	mitochondrial import inner membrane translocase subunit			2.2
PF14_0328	mitochondrial import inner membrane translocase subunit tim17			3.1
PFA0590w	ABC transporter, (CT family)	2.3		
PFE1150w	multidrug resistance protein 1 (mdr1)	6.2	8.6	9.8
PF10_0216	zinc transporter			2.5
PFB0465c	monocarboxylate transporter			3.3
PF14_0662	nucleoside transporter			2.3
PF11_0059	metabolite/drug transporter			2.0
PF07_0064	drug/metabolite exporter, drug/metabolite transporter			2.3
<b>Translation and transcription</b>				
PF14_0665	conserved Plasmodium protein, unknown function	5.7		
PF13_0235	transcription factor with AP2 domain(s)	3.5	4.2	2.8
PF13_0310	small subunit rRNA processing factor		2.5	
PF14_0059	conserved Plasmodium protein, unknown function		2.9	
PF14_0079	transcription factor with AP2 domain(s)		3.3	
PFF0345w	translation initiation factor IF-2		2.4	
PF07_0126	transcription factor with AP2 domain(s)		4.5	
PF10_0078	histone deacetylase		2.0	
PF13_0097	transcription factor with AP2 domain(s)		2.9	
PFL1645w	conserved Plasmodium protein, unknown function		2.8	
PF11_0077	DEAD/DEAH box helicase		2.2	3.0
PFA0180w	ATP-dependent RNA helicase		2.3	2.4
PFF1225c	DNA polymerase 1		2.9	2.1
PF08_0012	SET domain protein		3.4	2.4
PFF0505c	conserved Plasmodium protein, unknown function		2.1	2.0
MAL13P1.14	DEAD/DEAH box ATP-dependent RNA helicase		2.4	2.0
MAL13P1.63	eukaryotic translation initiation factor 4 gamma		2.0	3.1
PFF1440w	SET domain protein		3.2	3.5

PFA0510w	bromodomain protein		2.9	2.7
PFL0830w	snoRNA-associated small subunit rRNA processing protein		4.3	2.2
PF11_0293	multiprotein bridging factor type 1			3.4
PFC0410w	YT521-B-like family protein			2.0
PF10_0336	conserved Plasmodium protein, unknown function	9.2	6.4	5.0
PF14_0185	ATP-dependent RNA helicase		2.6	
PF14_0370	DEAD/DEAH box helicase		2.8	
MAL8P1.64	conserved Plasmodium protein, unknown function		3.1	
MAL8P1.83	eukaryotic translation initiation factor			3.0
MAL7P1.20	peptide chain release factor			2.4
MAL13P1.213	transcription activator			3.5
PF14_0514	tRNA intron endonuclease			2.5
PF08_0037	RNA polymerase II mediator complex protein MED7			2.0
PFL2230c	conserved Plasmodium protein, unknown function			2.7
MAL8P1.131	gas41 homologue			2.5
PFB0245c	DNA-directed RNA polymerase II 16 kDa subunit			3.7
PF14_0398	transcription factor TFIIH complex subunit Tfb5			2.2
PF13_0341	DNA-directed RNA polymerase 2			2.4
PFI0475w	small nuclear ribonucleoprotein (snRNP)			2.5
PF10_0179a	PHF5-like protein			2.0
PF11_0437	60S ribosomal protein L28		3.1	2.2
PFL1150c	mitochondrial ribosomal protein L24-2 precursor			2.5
PF11_0272	40S ribosomal protein S18			2.2
PFI1585c	mitochondrial ribosomal protein S6 precursor			2.7
PF11_0274	large ribosomal subunit processing factor			3.0
PF14_0709	mitochondrial ribosomal protein L20 precursor			2.5
PF11_0255	ribonucleoprotein			2.6
PF14_0584	mitochondrial ribosomal protein S4/S9 precursor			2.8
PFL0400w	apicoplast ribosomal protein L29 precursor			2.0
PF14_0635	large ribosomal subunit assembling protein			3.4
PFC0295c	40S ribosomal protein S12			2.2
PF11_0337	mitochondrial ribosomal protein L2 precursor			2.4
PF14_0451	mitochondrial ribosomal protein S14 precursor			2.3
PF13_0224	60S ribosomal protein L18			2.5
MAL13P1.327	mitochondrial ribosomal protein S17 precursor			2.3
PF11_0058-a	RNA polymerase subunit			3.8

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#### Structure

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MAL13P1.128	conserved Plasmodium protein, unknown function		2.7	
PFE1135w	iron-sulfur assembly protein			2.4
PFD1050w	alpha tubulin 2			3.8
PFE1140c	G10 protein			2.6
PFI1510w	nucleolar protein Nop52		3.7	
PFD0225w	conserved Plasmodium membrane protein, unknown function		5.2	
PFL0925w	formin 2		2.9	3.2
PF11_0234	conserved Plasmodium protein, unknown function		2.1	2.0
PF08_0134	conserved Plasmodium protein, unknown function			2.3

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#### Signal transduction

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PFE0890c	conserved Plasmodium protein, unknown function			2.0
PFL0080c	NIMA related kinase 3	2.9		
PF14_0734	serine/threonine protein kinase, FIKK family			2.4
PF14_0733	serine/threonine protein kinase, FIKK family			2.7
MAL13P1.84	protein kinase			2.0
MAL13P1.279	protein kinase 5			3.0
PFI0210c	conserved protein, unknown function			2.9
PFE1270c	WD domain, G-beta repeat-containing protein		2.7	
PF11_0127	conserved Plasmodium protein, unknown function		3.5	
MAL13P1.190	conserved Plasmodium protein, unknown function		2.7	
PFD0965w	phosphatidylinositol 4-kinase		2.5	
PF13_0210	conserved Plasmodium protein, unknown function		2.2	
PFA0380w	serine/threonine protein kinase		2.2	3.4
PF13_0221	conserved Plasmodium protein, unknown function		7.2	2.1
<b>Pathogenesis</b>				
PFD1205w	Plasmodium exported protein (hyp15), unknown function	5.7		
P1.161	Plasmodium exported protein (hyp7), unknown function	2.5		
PFI1770w	Plasmodium exported protein (PHISTb), unknown function	2.0		
MAL13P1.2	rifin	11.2		
PFD1240w	rifin	3.2		
PF14_0763	Plasmodium exported protein (PHISTa), unknown function	2.1		
MAL13P1.60	erythrocyte Binding antigen-140	2.0		
PFL2590w	Plasmodium exported protein (PHISTa), unknown function	9.6		
PF14_0748	Plasmodium exported protein (PHISTa), unknown function	2.7		
MAL8P1.6	early transcribed membrane protein 8	2.8		
PFA0020w	rifin	9.2		
PF10_0026	tryptophan-rich antigen 3		2.2	
PFI0030c	rifin	2.0		
PFD1007w	conserved Plasmodium protein, unknown function	2.3		
PF14_0732	Plasmodium exported protein (PHISTb), unknown function	12.7		
PF10_0006	rifin	7.1		
PFD0100c	surface-associated interspersed gene 4.1, (SURFIN4.1)	8.4		
PFL1955w	erythrocyte membrane protein 1, PfEMP1	12.4		
PFD1006w	conserved Plasmodium protein, unknown function	2.0		
PFD0070c-a	rifin	3.4		8.5
MAL7P1.225-a	Plasmodium exported protein (PHISTa-like), unknown function	5.1	7.9	
PFI1785w	Plasmodium exported protein (PHISTb), unknown function	2.0	6.7	
PFC1080c	Pfmc-2TM Maurer's cleft two transmembrane protein	7.9	5.4	
PFA0065w	Pfmc-2TM Maurer's cleft two transmembrane protein	2.0	5.9	
PFA0680c	Pfmc-2TM Maurer's cleft two transmembrane protein	8.9	3.6	
MAL7P1.58	Pfmc-2TM Maurer's cleft two transmembrane protein	8.9	62.0	13.0
PFI1780w	Plasmodium exported protein (PHISTc), unknown function	66.0	21.4	5.1
PFB0100c	Knob-associated histidine-rich protein	8.7	3.1	2.2
PFI1805w	rifin	15.7	3.7	2.0
PFI0450c	apoptosis-related protein			2.5
PF07_0132	rifin	5.2		5.2
PF10_0013	Plasmodium exported protein (hyp12), unknown function			2.0

PFF1520w	RESA-like protein		2.1	
PF11_0024	Plasmodium exported protein (hyp4), unknown function		2.8	
PF08_0137	Plasmodium exported protein (PHISTc), unknown function		7.4	
PF10_0115	QF122 antigen		2.0	
MAL8P1.209	var-like protein		2.1	
PF11_0111	asparagine-rich antigen		2.3	
PFD1205w	Plasmodium exported protein (hyp15), unknown function		6.2	
PFB1035w	rifin		7.3	
MAL7P1.227	stevor		8.2	
PF08_0102	asparagine-rich antigen Pfa55-14		2.9	
PFB0020c	erythrocyte membrane protein 1 (PfEMP1), exon2		9.7	
PFB0985c	Pfmc-2TM Maurer's cleft two transmembrane protein		7.0	
PF14_0758	Plasmodium exported protein (hyp17), unknown function		10.2	
PF11_0037	Plasmodium exported protein (PHISTb), unknown function		2.3	
PF10_0161	Plasmodium exported protein (PHISTc), unknown function		6.7	
PFI1770w	Plasmodium exported protein (PHISTb), unknown function		2.0	8.1
PFI1750c	Plasmodium exported protein (hyp11), unknown function		2.3	3.4
PFB0095c	erythrocyte membrane protein 3		2.1	7.4
PFC0045w	rifin		6.7	3.0
PF11_0506	antigen 332, DBL-like protein		3.5	2.7
PF10_0213	conserved Plasmodium protein (10b antigen), unknown function		2.0	2.0
PFD1045c	erythrocyte membrane-associated antigen		2.4	
<b>Motor activity</b>				
PF07_0042	conserved Plasmodium protein, unknown function	3.0	2.1	
PFL0660w	dynein light chain 1			2.1
PF07_0016	conserved Plasmodium membrane protein, unknown function		2.3	
PF13_0277	conserved Plasmodium protein, unknown function		2.0	
PFC0960c	microtubule and actin Binding protein		2.3	
PF11_0277	conserved Plasmodium protein, unknown function		2.3	
PFD0320c	conserved Plasmodium protein, unknown function		2.7	
PFE0230w	conserved Plasmodium protein, unknown function		2.5	
PFC0860w	kinesin		2.8	
PF11_0047	actin-like protein			2.2
<b>DNA replication and repairing</b>				
PFB0755w	conserved Plasmodium protein, unknown function		3.4	2.3
PF10_0040	conserved Plasmodium protein, unknown function		2.0	
PFB0160w	ERCC1 nucleotide excision repair protein			2.8
PFA0545c	replication factor c protein		3.5	
PFL2440w	DNA repair protein rhp16		2.9	
PF10_0099	DNA2/NAM7 helicase. putative		3.0	
<b>Chaperone</b>				
PF08_0006	prohibitin			3.3
PF10_0144	prohibitin			2.6
MAL13P1.341	ribosome biogenesis protein MRT4			2.7
PF10_0276	zinc finger, C3HC4 type	2.0		
PFL0740c	10 kd chaperonin			2.2
PF11_0351	heat shock protein 70			2.5



PF10_0273	DHHC-type zinc finger protein			2.3
PF14_0167	prefoldin subunit 2			2.2
PFB0595w	heat shock protein 40			2.0
PF07_0031	heat shock protein 86 family protein			2.8
PFI0335w	tubulin-specific Chaperone			2.8
PF11_0026	hypothetical protein	2.1		
PF11_0088	prefoldin			2.5
PF10_0370	enhancer of rudimentary homolog			2.3
PF08_0054	heat shock protein 70	2.1	2.1	2.1
PF11_0170	cyclophilin			2.9
PFI0875w	heat shock protein 70		2.4	
PFD0970c	zinc finger protein		2.1	
PF07_0029	heat shock protein 90		2.9	2.5
PFE0055c	heat shock protein 40, type II		2.0	3.2
PF11_0357	zinc finger protein		3.3	3.1
<b>Cell cycle and invasion</b>				
PFE1540w	CPW-WPC family protein			2.3
PF13_0022	cyclin			2.5
PFC0165w	spindle pole body protein			2.4
PFL0800c	cell traversal protein for ookinetes and sporozoites	2.6		
<b>Catalytic/Metabolic activity</b>				
PF14_0415	dephospho-CoA kinase	3.4		
PF11_0411	carbonic anhydrase	2.1		
PFL1260w	hydrolase/phosphatase	2.2		
MAL8P1.22	dehydrodolichyl diphosphate synthetase	2.9		
PFI1250w	thioredoxin-like protein 2	2.8	3.4	4.7
PFI0925w	gamma-glutamylcysteine synthetase	2.0		2.2
PFF1130c	superoxide dismutase	4.8	2.5	2.6
PF14_0164	NADP-specific glutamate dehydrogenase	3.1	3.0	2.4
PFL0725w	thioredoxin peroxidase 2	2.5	2.0	2.2
PFB0423c	conserved protein, unknown function			2.1
PFL0595c	glutathione peroxidase			5.7
PFI1050c	Fe-S-cluster redox enzyme			2.0
PF13_0317	conserved Plasmodium protein, unknown function			3.1
PF11_0169	SNO glutamine amidotransferase family protein			2.2
PF14_0590	thioredoxin-like protein			2.1
PFF1490w	conserved Plasmodium protein, unknown function			2.4
MAL7P1.31	conserved Plasmodium membrane protein, unknown function			2.0
PFL0720w	conserved Plasmodium membrane protein, unknown function			2.4
PFC0495w	plasmepsin VI			2.7
PFL0230w	cytidine/deoxycytidylate deaminase			2.3
MAL7P1.26	O-sialoglycoprotein endopeptidase			2.2
PFL0365c	conserved Plasmodium protein, unknown function			2.0
PF13_0122	RRM containing cyclophilin			2.0
PF13_0144	oxidoreductase			3.0
PFE0730c	ribose 5-phosphate epimerase			2.1
MAL13P1.284	pyrroline carboxylate reductase			2.0

PFF1335c	4-methyl-5(B-hydroxyethyl)-thiazol monophosphate biosynthesis		2.4
PF10_0379	phospholipase		3.2
PF10_0155	enolase		1.7
MAL7P1.159	1-cys peroxiredoxin		3.1
PFC0595c	serine/threonine protein phosphatase		2.2
PF10_0225	orotidine monophosphate decarboxylase		2.9
MAL13P1.55	cytochrome c2 precursor		2.7
PF14_0022	conserved Plasmodium protein, unknown function		2.1
PFL0705c	adrenodoxin-type ferredoxin		2.5
PF14_0484	acetyl-CoA acetyltransferase		2.6
PF14_0192	glutathione reductase		2.7
PFL2510w	chitinase		2.4
PF10_0210	deoxyribose-phosphate aldolase		2.0
PFA0355w	carbon catabolite repressor protein 4		2.1
PF11420w	guanylate kinase		2.4
PFA0530c	adenylate kinase		3.1
PF14_0187	glutathione S-transferase		2.1
MAL7P1.19	ubiquitin transferase	2.1	
PF14_0088	aldo-keto reductase	2.0	
PF14_0206	conserved Plasmodium protein, unknown function	2.0	
PFL1650w	conserved Plasmodium protein, unknown function	2.2	
PFB0870w	conserved Plasmodium protein, unknown function	2.6	
PFB0510w	GAF domain-related protein	3.2	
PFC0271c	glutaredoxin 1	2.4	2.6
PFL1130c	conserved Plasmodium protein, unknown function		2.5
PFD0207c	conserved Plasmodium protein, unknown function		2.3
PF14_0647	conserved Plasmodium protein, unknown function		2.1
PF14_0741	hypothetical protein		2.2
PFF0745c	ribonuclease		2.4
PF11_0436	coproporphyrinogen III oxidase		2.1
MAL8P1.154	conserved Plasmodium protein, unknown function		2.6
PF11_0251	endoplasmic reticulum oxidoreductin		2.7
PF14_0286	glutamate dehydrogenase		2.0
PF08_0131	1-cys peroxiredoxin		2.3
PF14_0368	thioredoxin peroxidase 1		2.6
PF11170c	thioredoxin reductase		2.7
PF14_0545	thioredoxin		4.6
PF07_0085	ferredoxin reductase-like protein		3.0
PF07_0059	4-nitrophenylphosphatase		2.4
PFA0455c	fatty acid elongation protein, GNS1/SUR4 family		2.7
PFF0770c	conserved Plasmodium protein, unknown function		2.9
MAL8P1.8	prolyl 4-hydroxylase alpha subunit 1		2.4
PF10_0211	conserved Plasmodium membrane protein, unknown function		2.0
PF14_0143	atypical protein kinase, ABC-1 family		2.2
PF13_0272	thioredoxin-related protein		2.0
PFC0205c	1-cys-glutaredoxin-like protein-1		2.6
PF14_0174	pseudouridine synthase		2.3

PF14_0326	dynein-related AAA-type ATPase		2.5	3.0
PFB0280w	conserved Plasmodium protein, unknown function		2.2	2.0
PFB0279w	conserved Plasmodium protein, unknown function		2.0	2.7
PF14_0145	ubiquitin carboxyl-terminal hydrolase		2.1	2.1
PFE0155w	conserved Plasmodium protein, unknown function		2.2	2.0
PF13_0273	P-loop containing nucleoside triphosphate hydrolase		2.8	2.1
PF14_0123	conserved Plasmodium protein, unknown function		3.0	2.1
PF14_0342	conserved Plasmodium membrane protein, unknown function		2.4	2.0
PFE1430c	cyclophilin	2.7		2.7
PF11_0457	ubiquitin activating enzyme (E1) subunit Aos1	2.2		2.2
PFD0355c	peptidyl-tRNA hydrolase PTH2			2.1
PFE0630c	orotate phosphoribosyltransferase			2.0
PFF0515c	conserved protein, unknown function			3.2
PF14_0363	metacaspase-like protein		2.1	
PF10_0069	PPPDE peptidase		2.4	2.5
PF08_0071	Fe-superoxide dismutase	2.1	4.1	4.2
PF11_0307	phosphatidylinositol-4-phosphate-5-kinase		2.2	2.6
PFE0570w	RNA pseudouridylate synthase		2.7	
PF13_0083	lipoate protein ligase a type 1			2.2
PF10_0212a	conserved Plasmodium protein, unknown function		2.1	
PF14_0736	Plasmodium exported protein, unknown function		2.0	2.4
MAL8P1.76	meiotic recombination protein dmc1-like protein			2.5
PF13_0148	conserved Plasmodium protein, unknown function		2.2	
PFL2175w	ubiquitin conjugating enzyme E2			2.9
PF11030c-a	ubiquitin conjugating enzyme			2.0
PF14_0036	phosphatase			2.6

#### Binding

MAL13P1.106	probable protein, unknown function	2.7		2.7
PFF0400w	conserved Plasmodium protein, unknown function	2.6	2.6	
PF11_0086	MIF4G domain containing protein		2.2	2.0
PFD0150w	conserved Plasmodium protein, unknown function	4.1	2.0	2.4
PFF0683c	conserved Plasmodium protein, unknown function		2.4	
PFB0225c	conserved Plasmodium protein, unknown function		2.1	
PF13_0254	conserved Plasmodium membrane protein, unknown function		2.0	
PFD0150w	conserved Plasmodium protein, unknown function		2.0	2.4
PFB0775w	conserved Plasmodium protein, unknown function		2.7	
PFF1180w	anaphase promoting complex subunit	2.1		
MAL13P1.294	GTP Binding protein			2.9
PF13_0010	glycophorin Binding protein	2.0		
MAL13P1.176	reticulocyte Binding protein 2 homologue b	2.1		
PF11520w	asparagine-rich antigen	2.3		
PF14_0749	acyl-CoA Binding protein	2.6		
PFD0700c	RNA Binding protein			2.1
PF11610c	calcyclin Binding protein			2.4
MAL8P1.50	conserved Plasmodium protein, unknown function			2.7
PF14_0057	RNA Binding protein			2.2
PF14_0056	RNA Binding protein		2.1	

PFB0195c	conserved Plasmodium protein, unknown function		2.0	
PF14_0509	RAP protein		2.2	
PFC0425w	conserved Plasmodium protein, unknown function		2.1	
PF14_0315	conserved Plasmodium membrane protein, unknown function		2.5	
PF11_0418	conserved Plasmodium protein, unknown function		2.4	
PFB0115w	conserved Plasmodium protein, unknown function		2.2	2.1
PF11_0326	conserved Plasmodium protein, unknown function		2.5	2.0
PFL1620w	asparagine and aspartate rich protein 1		2.6	2.2
PFE0665c	GTP Binding protein			2.1
PFC0235w	conserved Plasmodium protein, unknown function		2.4	
PF11_0241	conserved Plasmodium protein, unknown function		2.0	2.1
PFB0615c	conserved Plasmodium protein, unknown function		2.0	2.1
PF14_0577	conserved Plasmodium protein, unknown function		2.1	
PFL1430c	conserved Plasmodium protein, unknown function		2.0	
PF11_0044	iron-sulfur assembly protein, sufD		2.0	
PF14_0325	conserved Plasmodium membrane protein, unknown function	2.2		
<b>Unknown function</b>				
PF13_0090a	conserved Plasmodium protein, unknown function			2.4
PFD0815c	conserved Plasmodium protein, unknown function		2.2	
PFE0695w	conserved Plasmodium protein, unknown function			2.1
MAL13P1.172	conserved protein, unknown function			1.9
MAL7P1.167	conserved Plasmodium protein, unknown function		2.6	
PF07_0118	conserved Plasmodium membrane protein, unknown function		2.9	2.1
PFD1065c	conserved Plasmodium protein, unknown function			2.7
PFE0725c	conserved Plasmodium membrane protein, unknown function			2.5
MAL8P1.48	splicing factor			2.2
PF11_0419	conserved Plasmodium protein, unknown function		2.1	2.3
MAL13P1.12	conserved Plasmodium membrane protein, unknown function			2.8
PF14_0463	chloroquine resistance marker protein	3.0	2.8	3.4
MAL7P1.146	conserved Plasmodium membrane protein, unknown function		2.0	
PFB0600c	conserved Plasmodium protein, unknown function			2.2
MAL8P1.93	conserved Plasmodium protein, unknown function			2.2
PFE0385w	conserved Plasmodium protein, unknown function		2.0	
PFF0280w	conserved Plasmodium protein, unknown function	2.2	2.5	2.3
MAL13P1.211	conserved Plasmodium protein, unknown function			2.0
PFF1270c	conserved Plasmodium protein, unknown function			2.1
PFE1255w	conserved Plasmodium protein, unknown function		2.4	
PFF0280w	conserved Plasmodium protein, unknown function		2.2	
MAL13P1.226	conserved Plasmodium protein, unknown function		2.1	
PF13_0298	conserved Plasmodium protein, unknown function		2.5	
MAL13P1.249	conserved Plasmodium protein, unknown function		2.0	2.3
PFF0920c-a	conserved Plasmodium protein, unknown function		2.2	2.0
PFF0980w	conserved Plasmodium protein, unknown function			2.3
MAL7P1.59	hypothetical protein conserved in <i>P. falciparum</i>	2.0		
PFI1765c	Plasmodium exported protein, unknown function	2.1		
PFI1725w	Plasmodium exported protein, unknown function	3.7		
PF14_0726	conserved Plasmodium protein, unknown function	2.0		

PFB0230c	conserved Plasmodium protein, unknown function	2.2	
PFE1205c	conserved Plasmodium membrane protein, unknown function	2.1	
PF07_0119	conserved Plasmodium protein, unknown function	2.2	
PFE0950c	conserved Plasmodium protein, unknown function	2.3	
PFL0750w	conserved Plasmodium protein, unknown function	2.1	
PF14_0693	conserved Plasmodium protein, unknown function	2.0	
PF07_0004	Plasmodium exported protein, unknown function	2.0	
MAL13P1.342a	conserved Plasmodium protein, unknown function	2.2	
PFE0315c	conserved Plasmodium protein, unknown function	2.2	2.0
PF11_0130	conserved Plasmodium protein, unknown function		2.2
PF14_0805	conserved Plasmodium protein, unknown function		2.7
PFE0220w	conserved Plasmodium protein, unknown function		2.0
PFB0620w	conserved protein, unknown function		2.2
PF14_0633a	conserved Plasmodium protein, unknown function		2.1
PF11220w	conserved protein, unknown function		2.4
PF14_0685	conserved Plasmodium protein, unknown function		2.2
PFF0240c	conserved Plasmodium protein, unknown function		2.5
PFE0510c	conserved Plasmodium protein, unknown function		2.4
PFL0220c	conserved Plasmodium membrane protein, unknown function		2.0
PF14_0775	conserved Plasmodium protein, unknown function		2.1
PFD0325w	conserved Plasmodium protein, unknown function		2.2
PF14_0275	conserved Plasmodium protein, unknown function		2.0
PF10_0134	conserved Plasmodium protein, unknown function		2.7
PF13_0331	conserved protein, unknown function		2.0
PF14_0272	CPW-WPC family protein		2.2
PF11_0550	conserved Plasmodium protein, unknown function		2.3
PFL2075c	conserved Plasmodium protein, unknown function		2.1
PFF0405c	conserved Plasmodium protein, unknown function		2.0
PF14_0087	conserved Plasmodium protein, unknown function		2.5
PF11390w	conserved Plasmodium protein, unknown function		2.2
PFF0545c	conserved Plasmodium protein, unknown function		2.4
PFL0515w	conserved Plasmodium protein, unknown function		2.0
PF10_0063a	conserved Plasmodium protein, unknown function		2.2
PF10840w	conserved Plasmodium membrane protein, unknown function		2.4
PF14_0452a	conserved Plasmodium protein, unknown function		2.0
PF11_0128	coq4 homolog		2.2
PF14_0604a	conserved Plasmodium protein, unknown function		2.0
PF14_0287	conserved Plasmodium protein, unknown function		2.6
MAL13P1.129	conserved Plasmodium protein, unknown function		2.0
PF14_0490	conserved Plasmodium protein, unknown function		2.1
MAL8P1.380	conserved Plasmodium protein, unknown function		2.4
PF10_0035	conserved Plasmodium protein, unknown function		2.3
PFL0700w	conserved Plasmodium protein, unknown function		2.0
MAL8P1.77	conserved Plasmodium protein, unknown function		2.1
PFL1432w	conserved Plasmodium protein, unknown function		2.3
MAL13P1.46	conserved Plasmodium protein, unknown function		2.2
MAL13P1.217	conserved Plasmodium protein, unknown function		2.5

PFL2340w	conserved Plasmodium protein, unknown function	2.4
MAL13P1.580	conserved Plasmodium protein, unknown function	2.0
PF14_060w	conserved Plasmodium protein, unknown function	2.2
PF14_0031b	conserved Plasmodium protein, unknown function	2.5
PF14_0645	conserved Plasmodium protein, unknown function	2.4
MAL8P1.25a	conserved Plasmodium protein, unknown function	2.0
MAL8P1.114	conserved Plasmodium protein, unknown function	2.1
PF0890w	conserved Plasmodium protein, unknown function	2.3
PF11_0545	conserved Plasmodium protein, unknown function	2.0
MAL13P1.305	conserved Plasmodium protein, unknown function	2.1
PFL2320w	conserved Plasmodium protein, unknown function	2.2
PF07_0008	Plasmodium exported protein, unknown function	2.1
PF11_0355	conserved Plasmodium protein, unknown function	2.0
PFL0623c-a	conserved Plasmodium membrane protein, unknown function	2.2
MAL8P1.136	conserved Plasmodium protein, unknown function	2.0
PF10_0109	conserved Plasmodium protein, unknown function	2.0
PF14_0745	probable protein, unknown function	2.1
PFL1805c	conserved Plasmodium protein, unknown function	2.0
MAL13P1.307	conserved Plasmodium protein, unknown function	2.5
PF10_0324	conserved Plasmodium protein, unknown function	3.2
PF11_0263	conserved Plasmodium protein, unknown function	2.5
PFL1695c	conserved Plasmodium protein, unknown function	2.0
PF0315c	conserved Plasmodium protein, unknown function	2.1
PF14_0482	conserved Plasmodium protein, unknown function	2.0
PFL1800w	conserved Plasmodium protein, unknown function	2.3
MAL13P1.70	conserved Plasmodium membrane protein, unknown function	2.2
PF14_0454	conserved Plasmodium protein, unknown function	2.1
PF14_0131	conserved Plasmodium protein, unknown function	2.3
PF07_0082	conserved Plasmodium membrane protein, unknown function	2.5
PF08_0122	conserved Plasmodium protein, unknown function	2.1
PF11_0433	conserved Plasmodium protein, unknown function	2.3
PFC1075w	hypothetical protein	2.7
PFA0320w	conserved Plasmodium protein, unknown function	2.0
PF14_0226	conserved Plasmodium protein, unknown function	2.2
PF14_0084	conserved Plasmodium protein, unknown function	2.2
MAL13P1.145	conserved Plasmodium protein, unknown function	2.1
PF0220w	conserved Plasmodium protein, unknown function	2.0
PF14_0594	conserved Plasmodium protein, unknown function	2.0
MAL8P1.60	conserved Plasmodium protein, unknown function	2.3
PF0065c	Plasmodium exported protein, unknown function, fragment	2.2
PFL2560c	Plasmodium exported protein, unknown function	2.5
PF11_0324	conserved Plasmodium protein, unknown function	2.0
PF14_0613	conserved Plasmodium membrane protein, unknown function	2.2
PFL1795c	conserved Plasmodium protein, unknown function	2.0
MAL8P1.7	conserved Plasmodium protein, unknown function	2.1
PF0630c	conserved Plasmodium protein, unknown function	2.5
PF07_0097	conserved Plasmodium protein, unknown function	2.3

PF13_0161	conserved Plasmodium protein, unknown function	2.2	
PFI1150w	conserved Plasmodium protein, unknown function	2.7	
PF14_0667	conserved Plasmodium protein, unknown function	2.1	
PF14_0402	conserved Plasmodium protein, unknown function	2.3	
PFD0075w	conserved Plasmodium falciparum protein family	2.2	
PFB0227c	conserved Plasmodium protein, unknown function	2.2	
PFL0290w	conserved Plasmodium protein, unknown function	2.0	
PFL0200c	conserved Plasmodium protein, unknown function	2.2	
PF10_0198	conserved Plasmodium protein, unknown function	2.5	
PF14_0759	conserved Plasmodium protein, unknown function, pseudogene	2.1	
PFD0840w	conserved Plasmodium protein, unknown function	2.4	
PF14_0706	conserved Plasmodium protein, unknown function	2.1	
MAL7P1.173	Plasmodium exported protein, unknown function	2.0	
PF10_0234	conserved Plasmodium protein, unknown function	2.2	
PFL1865w	conserved Plasmodium protein, unknown function	2.1	
PFB0460c	conserved Plasmodium protein, unknown function	2.0	
PF10_0171	conserved Plasmodium protein, unknown function	2.0	
PF11_0213	conserved Plasmodium protein, unknown function	2.1	
PFB0601c	conserved Plasmodium protein, unknown function	2.1	2.0
PFI1225w	conserved Plasmodium protein, unknown function	2.4	2.2
PF11_0535	conserved Plasmodium protein, unknown function	2.0	2.7
PF14_0340	conserved Plasmodium protein, unknown function	2.3	2.5
MAL13P1.29	conserved Plasmodium protein, unknown function	2.4	2.0
PFC0230c	conserved Plasmodium protein, unknown function	2.2	2.8
PF10_0140	conserved protein, unknown function	2.1	3.0
PFC1060c	conserved Plasmodium protein, unknown function	2.8	2.4
PF11_0456	conserved Plasmodium protein, unknown function	2.4	2.0
MAL13P1.202	conserved Plasmodium protein, unknown function	2.5	2.1
PFB0980w	conserved Plasmodium falciparum protein family	2.9	2.1
MAL13P1.262	conserved Plasmodium protein, unknown function	3.9	2.1
PF14_0686	conserved Plasmodium protein, unknown function	2.2	2.7
PFI0495w	conserved Plasmodium protein, unknown function	2.0	2.2
PFE1485w	conserved Plasmodium protein, unknown function	2.5	2.1
PFL0350c	conserved Plasmodium protein, unknown function	2.0	2.1
PFC0570c	conserved Plasmodium protein, unknown function	2.2	2.1
PF10_0199	conserved Plasmodium membrane protein, unknown function	2.4	2.1
MAL13P1.133	conserved Plasmodium membrane protein, unknown function	2.0	2.0
PFF0445w	conserved Plasmodium protein, unknown function	2.1	2.3
MAL7P1.129	conserved Plasmodium protein, unknown function	2.4	2.5
PFD0585c	conserved Plasmodium protein, unknown function	2.0	2.4
PFE0250w	conserved Plasmodium protein, unknown function	2.7	2.0
PF11_0279	conserved Plasmodium protein, unknown function	2.1	2.1
PFB0765w	conserved Plasmodium protein, unknown function	2.0	2.0
PF11_0479	conserved Plasmodium protein, unknown function	2.3	2.2
MAL7P1.142	conserved Plasmodium membrane protein, unknown function		2.2
PFC0705c	conserved Plasmodium protein, unknown function	2.1	
MAL13P1.39	conserved Plasmodium protein, unknown function	2.0	

PF14_0552	conserved Plasmodium protein, unknown function		2.2	2.0
PF11_0448	conserved Plasmodium protein, unknown function	2.2		
PF10_0373a	conserved Plasmodium protein, unknown function			2.1
PF14_0249	conserved Plasmodium protein, unknown function		2.4	
PFD1115c	conserved Plasmodium protein, unknown function		2.0	
PF10_0052	conserved Plasmodium protein, unknown function	2.1		

## Down-regulated gens in DHA1

Transport				
PF08_0069	importin beta		-2.2	
PF11_0112	vacuolar sorting protein 35	-2.7	-2.7	
PFD0255w	ag-1 blood stage membrane protein homologue		-2.2	-3.0
PFE1400c	beta adaptin protein		-2.0	
PF08_0078	ABC transporter			-2.1
PF13_0019	sodium/hydrogen exchanger, Na <sup>+</sup> , H <sup>+</sup> antiporter	-2.4		
PFA0245w	transporter		-2.0	
PFC0125w	ABC transporter, (TAP family)		-2.3	-2.1
PFE0410w	triose phosphate transporter		-2.1	
PFE1185w	transporter	-2.0	-2.1	
PFL0420w	amino acid transporter		-2.2	-2.0
Translation and transcription				
PFF1185w	SNF2 helicase	-2.1		
MAL13P1.328	DNA topoisomerase VI, b subunit		-2.4	
PF10_0232	chromodomain-helicase-DNA-binding protein 1 homolog			-2.7
PF13_0179	isoleucine-tRNA ligase	-2.1	-2.1	
PF13_0184	U3 snoRNA-associated small subunit rRNA processing	-2.0		-2.0
PF13_0354	alanine-tRNA ligase	-2.4		
PF14_0194	spliceosome-associated protein		-2.2	
PF14_0374	CCAAT-binding transcription factor	-2.0		
PF14_0456	U3 snoRNA-associated small subunit rRNA processing protein	-2.8		
PF14_0589	valine-tRNA ligase	-2.1	-2.5	
PFC0441c-a	SAC3/GNAP family-related protein		-2.2	
PFE0090w	chromosome assembly factor 1		-2.0	-2.4
PFE0330w	conserved Plasmodium protein, unknown function		-2.1	
PFE0430w	ATP-dependent RNA helicase		-2.4	-2.0
PFI0295c	RNB-like protein	-2.2		
PFI1235w	rRNA processing and telomere maintaining methyltransferase	-2.1		
PFI1260c	histone deacetylase		-2.3	
PFL0465c	zinc finger transcription factor (krox1)			-2.1
PFE0450w	chromosome condensation protein		-2.8	-2.2
Structure				
MAL13P1.69	septum formation protein MAF homologue		-2.1	
PF08_0125	tubulin gamma chain		-2.0	
PF10_0262	conserved Plasmodium protein, unknown function			-2.4
PF14_0507	conserved Plasmodium protein, unknown function			-2.3
PF10_0193	microtubule-associated protein 1 light chain 3		-2.0	



<b>Signal Transduction</b>			
PF11_0321	serpentine receptor	-2.1	
MAL13P1.169	syntaxin, Qa-SNARE family		-2.1
MAL13P1.278	serine/threonine protein kinase	-2.0	
MAL7P1.18	serine/threonine protein kinase	-2.4	
MAL8P1.203	serine/threonine protein kinase, FIKK family	-2.3	
PF07_0038	Cg7 protein		-2.1
PF08_0129	serine/threonine protein phosphatase		-2.3
PF10_0177a	serine/threonine protein phosphatase	-2.0	
PF11_0464	serine/threonine protein kinase		-2.1
PF14_0407	guanine nucleotide exchange factor		-2.5
PFC0060c	serine/threonine protein kinase, FIKK family	-2.0	
PFE1195w	karyopherin beta	-2.1	
<b>Pathogenesis</b>			
PFL1530w	asparagine-rich protein	-2.3	
MAL13P1.269	tryptophan-rich antigen		-2.0
MAL13P1.490	stevor	-2.1	-2.3
MAL13P1.495	rifin	-2.3	-2.0
MAL7P1.208	rhoptry-associated membrane antigen		-2.2
PF10_0162	Plasmodium exported protein (PHISTc), unknown function	-2.0	
PF10_0343	S-antigen		-2.2
PF10_0025	PF70 protein	-2.4	
PF11_0344	apical membrane antigen 1		-2.1
PF11_0509	ring-infected erythrocyte surface antigen		-2.0
PFA0010c	rifin		-2.1
PFA0110w	ring-infected erythrocyte surface antigen	-2.0	
PFA0125c	erythrocyte binding antigen-181		-2.0
PFA0280w	asparagine-rich antigen Pfa35-2		-2.4
PFB0075c	Plasmodium exported protein (hyp9), unknown function		-2.5
PFB0335c	serine repeat antigen 6		-2.0
PFB0360c	serine repeat antigen 1	-2.0	
PFB0915w	liver stage antigen 3		-2.1
PFB1050w	rifin		-2.1
PFD0080c	Plasmodium exported protein (PHISTb), unknown function		-2.4
PFD1155w	erythrocyte binding antigen-165		-2.1
PFL0010c	rifin	-2.2	
PFL0025c	rifin		-2.3
PFL0050c	Plasmodium exported protein (PHISTb), unknown function		-2.2
<b>Motor activity</b>			
PFE0255w	actin-like protein		-2.2
PFF0675c	myosin E	-2.0	
<b>DNA replication and repairing</b>			
MAL7P1.21	origin recognition complex subunit 2	-2.4	
PF14_0308	conserved Plasmodium protein, unknown function	-2.0	
PFE0160c	Ser/Arg-rich splicing factor	-2.1	
<b>Chaperone</b>			
PF11_0099	heat shock protein DnaJ homologue Pfj2		-2.0

PF11_0513	DnaJ protein	-2.2	-2.0
PFF0485c	zinc finger protein		-2.1
PFL1425w	T-complex protein 1, gamma subunit	-2.2	-2.0
PFL2550w	DnaJ protein		-2.1
PFL0355c	small subunit rRNA processing factor	-2.2	
<b>Cell Cycle and Invasion</b>			
PF10_0345	merozoite surface protein 3		-2.4
PF13_0191	MSP7-like protein	-2.1	
PF14_0261	proliferation-associated protein 2g4	-2.4	
PFB0300c	merozoite surface protein 2		-2.0
<b>Metabolism/Catalytic activity</b>			
MAL13P1.210	dolichyl-phosphate-mannose-glygolipidalpha-mannosyltransferase		-2.0
MAL13P1.260	alveolin		-2.1
MAL13P1.285	patatin-like phospholipase	-2.3	
MAL13P1.310	calpain		-2.3
MAL13P1.326	ferrochelatase		-2.0
MAL8P1.150	adenylyl cyclase beta		-2.1
PF10_0149	cysteinyl-tRNA synthetase	-2.0	
PF11_0168a	serine esterase	-2.1	
PF11_0252	neutral-sphingomyelinase activation factor protein	-2.0	
PF11_0362	protein phosphatase		-2.2
PF14_0063	ATP-dependent Clp protease		-2.0
PF14_0511	glucose-6-phosphate dehydrogenase-6-phosphogluconolactonase	-2.1	-2.2
PF14_0614	phosphatase	-2.0	
PFA0500w	human hepatopietin-like protein	-2.5	
PFC0050c	acyl-CoA synthetase	-2.0	
PFC0275w	FAD-dependent glycerol-3-phosphate dehydrogenase		-2.5
PFD0085c	acyl-CoA synthetase, PfACS6		-2.0
PFD0390c	AAA family ATPase		-2.2
PFI1020c	inosine-5'-monophosphate dehydrogenase	-2.0	
PFL0675c	conserved Plasmodium protein, unknown function	-2.2	
PFL1870c	sphingomyelin phosphodiesterase		-2.7
MAL13P1.114	conserved Plasmodium protein, unknown function		-2.0
MAL8P1.75	ubiquitin-activating enzyme		-2.0
PF08_0020	ubiquitination-mediated degradation component		-2.1
PF11_0298	GPI8p transamidase		-2.3
PF11_0481	tubulin-tyrosine ligase	-2.0	-2.0
PF11_0049	NOT family protein		-2.1
PF13_0229	aconitase		-2.0
PFD0780w	glutamyl-tRNA(Gln) amidotransferase subunit A		-2.1
PFF1275c	3-oxoacyl-acyl-carrier protein synthase I/II		-2.1
PFL2100w	ubiquitin conjugating enzyme E2	-2.0	-2.9
PF13_0066	malonyl CoA-acyl carrier protein transacylase precursor		-2.0
PF13_0227	vacuolar ATP synthase subunit d	-2.4	
PF14_0541	V-type H( )-translocating pyrophosphatase		-2.0
<b>Binding</b>			
PFF0595c	leucine-rich repeat protein		-2.2

MAL13P1.238	leucine-rich repeat protein			-2.0
MAL8P1.101	RNA binding protein	-2.1		
PF07_0017	phosphoinositide-binding protein	-2.0		
PF08_0086	RNA binding protein	-2.0		
PF10_0015	acyl-CoA binding protein, isoform 1, ACBP1		-2.2	-2.1
PF10_0047	RNA binding protein	-2.1		
PF10_0146	conserved Plasmodium protein, unknown function			-2.2
PF11_0429	conserved Plasmodium protein, unknown function		-2.0	
PF13_0257	glutamate--tRNA ligase	-2.1		
PF14_0201	surface protein, Pf113	-2.1		
PFC0760c	conserved Plasmodium protein, unknown function			-2.0
PFD0110w	normocyte binding protein 1,reticulocyte binding protein			-2.4
PFD0295c	apical sushi protein	-8.0	-2.2	-4.4
PFD0535w	conserved Plasmodium protein, unknown function			-2.0
PFD1150c	reticulocyte binding protein homologue 4			-2.2
PFF1000w	cleavage stimulation factor subunit 1-like protein		-2.1	-2.0
PFL1930w	conserved Plasmodium protein, unknown function			-2.0
PFL2520w	reticulocyte binding protein homologue 3, pseudogene			-2.1
PFC0345w	conserved Plasmodium protein, unknown function	-7.7	-4.1	-9.4
PFE0440w	conserved Plasmodium protein, unknown function			-2.2
PFB0145c	conserved Plasmodium protein, unknown function			-2.0
<b>Unknown function</b>				
MAL8P1.36	conserved Plasmodium protein, unknown function	-2.1		
MAL8P1.88	conserved Plasmodium protein, unknown function	-2.1		
MAL13P1.189	conserved Plasmodium membrane protein, unknown function		-2.0	
MAL13P1.237a	conserved Plasmodium protein, unknown function		-2.3	
PF10_0070a	conserved Plasmodium protein, unknown function		-2.2	
PF10_0189	conserved Plasmodium protein, unknown function			-2.1
PF11_0342	conserved Plasmodium protein, unknown function			-2.0
PF11_0392	conserved Plasmodium protein, unknown function			-2.3
PF11_0439	conserved protein, unknown function	-2.2		
PF13_0162	conserved Plasmodium protein, unknown function	-2.0		
PF14_0093	conserved Plasmodium protein, unknown function			-2.1
PF14_0184	conserved Plasmodium protein, unknown function			-2.1
PF14_0355	conserved Plasmodium membrane protein, unknown function		-2.2	
PF14_0762	Plasmodium exported protein, unknown function			-2.0
PFA0205w	conserved Plasmodium membrane protein, unknown function		-2.2	
PFA0270c	conserved Plasmodium protein, unknown function		-2.1	
PFC0265c	conserved Plasmodium protein, unknown function	-2.1		
PFD0925w	conserved Plasmodium protein, unknown function		-2.1	
PFE1555c	conserved Plasmodium protein, unknown function			-2.0
PFF0810c	conserved Plasmodium protein, unknown function		-2.0	
PFF1090c	conserved Plasmodium membrane protein, unknown function		-2.1	
PFI0850w	conserved Plasmodium protein, unknown function			-2.2
PFI1210w	conserved Plasmodium protein, unknown function			-2.0
PFI1385c	conserved Plasmodium protein, unknown function		-2.2	
PFL1000c	conserved Plasmodium protein, unknown function			-2.1

PFL1060c	conserved protein, unknown function		-2.3	
PFL1835w	conserved Plasmodium protein, unknown function	-2.0		
PFL2575c	Plasmodium exported protein, unknown function			-2.2
PF10_0331a	conserved Plasmodium protein, unknown function	-2.1	-2.0	-2.2
PF13_0072	conserved Plasmodium protein, unknown function	-2.0		-2.0

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**Table S3. Genes with  $\geq 2$ -fold changes in expression in DHA1 in response to DHA treatment (DHA/control)**

**UP-regulated**

Gene Id	Gene Description	Fold change		
		R	T	S
<b>Transport</b>				
PF08_0069	importin beta		2.0	
PF10_0193	microtubule-associated protein 1 light chain 3		2.2	
PF11_0112	vacuolar sorting protein 35		2.4	
PF13_0324	Sec24 subunit a	2.1	2.7	
PFE1400c	beta adaptin protein		2.2	
PF13_0359	mitochondrial carrier protein			2.1
MAL13P1.256	phosphatidylinositol transfer protein			2.4
PF08_0078	ABC transporter			2.0
PF13_0019	sodium/hydrogen exchanger, Na , H antiporter	2.2		
PFA0245w	transporter		2.1	
PFB0465c	monocarboxylate transporter		2.9	
PFC0125w	ABC transporter, (TAP family)		2.5	2.1
PFE0410w	triose phosphate transporter		2.1	
PFE1185w	transporter	2.0	2.8	
PFL0420w	amino acid transporter		2.1	2.0
PFE0785c	metabolite/drug transporter		2.4	
<b>Translation and transcription</b>				
PFF1185w	SNF2 helicase	2.4		
PF08_0018	translation initiation factor-like protein			2.2
PFE0160c	Ser/Arg-rich splicing factor	2.1		
MAL8P1.83	eukaryotic translation initiation factor	2.0		
PF08_0012	SET domain protein	2.0		
PF10_0232	chromodomain-helicase-DNA-binding protein 1 homolog	2.1		2.1
PF13_0179	isoleucine-tRNA ligase	2.5	2.3	
PF13_0184	U3 snoRNA-associated small subunit rRNA processing associated	2.4	2.1	
PF13_0354	alanine--tRNA ligase	2.2		
PF14_0185	ATP-dependent RNA helicase		2.1	2.4
PF14_0194	spliceosome-associated protein		2.0	
PF14_0374	CCAAT-binding transcription factor	2.1		
PF14_0456	U3 snoRNA-associated small subunit rRNA processing protein	2.1		
PF14_0589	valine-tRNA ligase	2.0	2.2	
PF14_0633	transcription factor with AP2 domain(s)	2.8		
PF14_0656	U2 snRNP auxiliary factor	2.1		
PFA0510w	bromodomain protein		2.7	2.1
PFE0090w	chromosome assembly factor 1		2.0	2.1
PFE0330w	conserved Plasmodium protein, unknown function		2.2	
PFE0430w	ATP-dependent RNA helicase		2.1	2.4
PFI0295c	RNB-like protein	2.2		
PF11235w	rRNA processing and telomere maintaining methyltransferase	2.0		
PF11260c	histone deacetylase		2.5	
PFL0465c	zinc finger transcription factor (krox1)			2.4
PFE0400w	SET domain protein		2.2	
PF13_0235	transcription factor with AP2 domain(s)			2.7
<b>Structure</b>				
MAL13P1.69	septum formation protein MAF homologue		2.0	
PF08_0125	tubulin gamma chain		2.1	
PF10_0262	conserved Plasmodium protein, unknown function			2.3

PF11_0481	tubulin-tyrosine ligase	2.1	2.4
PF14_0507	conserved Plasmodium protein, unknown function		2.1
PFE1550w	conserved Plasmodium protein, unknown function	2.2	
PFF0380w	conserved Plasmodium protein, unknown function	2.0	
PF11185c	conserved Plasmodium protein, unknown function		2.0
PFE0450w	chromosome condensation protein	2.2	2.1

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**Signal transduction**

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PF11_0321	serpentine receptor	2.2	
MAL13P1.169	syntaxin, Qa-SNARE family		2.3
MAL13P1.278	serine/threonine protein kinase	2.2	
MAL8P1.203	serine/threonine protein kinase, FIKK family	2.4	
PF07_0038	Cg7 protein		2.3
PF08_0129	serine/threonine protein phosphatase		2.2
PF10_0177a	serine/threonine protein phosphatase	2.5	
PF11_0464	serine/threonine protein kinase		2.1 2.0
PF13_0210	conserved Plasmodium protein, unknown function		2.0
PF14_0407	guanine nucleotide exchange factor		2.2
PF14_0733	serine/threonine protein kinase, FIKK family	2.1	2.1
PF14_0734	serine/threonine protein kinase, FIKK family	2.2	2.0
PFC0060c	serine/threonine protein kinase, FIKK family	2.0	
PFC0595c	serine/threonine protein phosphatase	2.1	
PFE1195w	karyopherin beta	2.0	
MAL7P1.18	serine/threonine protein kinase	2.0	2.0
PF10_0072	conserved Plasmodium protein, unknown function		2.2

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**Pathogenesis**

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PFB0100c	knob-associated histidine-rich protein		2.1
MAL13P1.269	tryptophan-rich antigen		2.4
MAL13P1.490	stevor	7.7	2.1
MAL13P1.495	rifin	5.1	2.0
PF10_0026	tryptophan-rich antigen 3	2.5	2.2
PF10_0162	Plasmodium exported protein (PHISTc), unknown function	2.0	
PF10_0343	S-antigen		2.0
PF11_0111	asparagine-rich antigen	2.1	2.7
PF11_0344	apical membrane antigen 1	3.0	
PF11_0509	ring-infected erythrocyte surface antigen		2.0
PFA0010c	rifin		7.8
PFA0110w	ring-infected erythrocyte surface antigen	2.1	
PFA0125c	erythrocyte binding antigen-181		2.0
PFA0280w	asparagine-rich antigen Pfa35-2		2.4 2.0
PFA0680c	Pfmc-2TM Maurer's cleft two transmembrane protein	8.7	
PF10_0025	PF70 protein	2.1	
PFB0075c	Plasmodium exported protein (hyp9), unknown function		2.5
PFB0095c	erythrocyte membrane protein 3		2.0
PFB0360c	serine repeat antigen 1	2.1	
PFB0915w	liver stage antigen 3		2.1
PFB1050w	Rifin		2.9
PFD0080c	Plasmodium exported protein (PHISTb), unknown function	5.1	
PFD1155w	erythrocyte binding antigen-165	2.0	
PFD1205w	Plasmodium exported protein (hyp15), unknown function		3.7
PFE0830c	sporozoite surface antigen MB2		2.2
PFL0010c	rifin	3.7	
PFL0025c	rifin		3.3
PFL0050c	Plasmodium exported protein (PHISTb), unknown function		5.1

PFB0335c	serine repeat antigen 6		2.0
MAL7P1.225-b	Plasmodium exported protein (PHISTA-like), unknown function		2.4
PF07_0004	Plasmodium exported protein, unknown function		2.2
PFD0055w	rifin		3.4
<b>Motor activity</b>			
PF07_0042	conserved Plasmodium protein, unknown function		2.0
PFE0440w	conserved Plasmodium protein, unknown function		2.1
PFC0960c	microtubule and actin binding protein	2.2	
PFF0675c	myosin E	2.4	
PFE0255w	actin-like protein		2.0
PF10_0361	conserved Plasmodium protein, unknown function		2.1
PFC0770c	kinesin-like protein		2.7
<b>DNA replication and repairing</b>			
MAL13P1.328	DNA topoisomerase VI, b subunit		2.2
MAL7P1.21	origin recognition complex subunit 2	2.1	
PF14_0308	conserved Plasmodium protein, unknown function	2.0	
PFD0590c	DNA polymerase alpha		2.1
<b>Chaperone</b>			
PF11_0099	heat shock protein DnaJ homologue Pfj2		2.0
PF11_0513	DnaJ protein	2.1	2.1
PFL1425w	T-complex protein 1, gamma subunit	2.5	2.1
PF11_0170	cyclophilin		2.0
PFL2550w	DnaJ protein		2.1
PF10_0276	zinc finger, C3HC4 type	2.2	
PFF0485c	zinc finger protein		2.0
PF13_0310	small subunit rRNA processing factor	2.0	
PFL0355c	small subunit rRNA processing factor	2.1	
<b>Cell cycle and invasion</b>			
PF10_0345	merozoite surface protein 3		2.0
MAL7P1.208	rhoptry-associated membrane antigen		2.3
PF13_0191	MSP7-like protein	2.0	
PF14_0261	proliferation-associated protein 2g4	2.1	
PFC0165w	spindle pole body protein		3.9
PFI1490c-a	cyclophilin-like protein		2.1
PFL1330c	cyclin		2.3
MAL7P1.119	rhoptry-associated leucine zipper-like protein 1		2.2
PFE0080c	rhoptry-associated protein 2		2.2
MAL8P1.73	rhoptry neck protein 5		2.0
MAL13P1.96	chromosome segregation protein	2.1	
PFB0300c	merozoite surface protein 2		2.0
<b>Catalytic/Metabolic activity</b>			
MAL13P1.202	conserved Plasmodium protein, unknown function		2.2
MAL13P1.284	pyrroline carboxylate reductase		2.1
MAL13P1.550	cytochrome c2 precursor		2.0
MAL7P1.159	1-cys peroxiredoxin	2.2	
MAL7P1.26	O-sialoglycoprotein endopeptidase		2.1
MAL7P1.310	conserved Plasmodium membrane protein, unknown function		2.1
MAL8P1.133	glycosyltransferase family 28 protein	2.0	
MAL8P1.154	conserved Plasmodium protein, unknown function		2.2
MAL8P1.220	dehydrodolichyl diphosphate synthetase		2.3
MAL8P1.8	prolyl 4-hydroxylase alpha subunit 1		2.0
PF07_0059	4-nitrophenylphosphatase		2.7
PF07_0085	ferrodoxin reductase-like protein	2.4	2.5

PF07_0098	dynactin 4			2.2
PF08_0071	Fe-superoxide dismutase	2.7		
PF08_0131	1-cys peroxiredoxin	2.5		2.0
PF08_0134	conserved Plasmodium protein, unknown function			2.2
PF10_0029	conserved Plasmodium protein, unknown function			2.0
PF10_0120	ubiquinol-cytochrome c reductase complex subunit	2.4		
PF10_0150	methionine aminopeptidase 1b	2.1		
PF10_0155	enolase			2.7
PF10_0210	deoxyribose-phosphate aldolase			2.1
PF10_0211	conserved Plasmodium membrane protein, unknown function		2.2	
PF10_0225	orotidine monophosphate decarboxylase			2.1
PF10_0245	glucosamine-fructose-6-phosphate aminotransferase		2.5	
PF10_0275	protoporphyrinogen oxidase	2.1		
PF10_0336	conserved Plasmodium protein, unknown function	2.7	2.2	3.1
PF10_0379	phospholipase			2.1
PF11_0169	SNO glutamine amidotransferase family protein			2.0
PF11_0251	endoplasmic reticulum oxidoreductin		2.0	2.4
PF11_0277	conserved Plasmodium protein, unknown function		2.1	
PF11_0411	carbonic anhydrase			2.4
PF11_0436	coproporphyrinogen III oxidase		2.1	
PF11_0437	60S ribosomal protein L28			2.1
PF13_0122	RRM containing cyclophilin			2.2
PF13_0142	lsm6 homologue			2.0
PF13_0144	oxidoreductase			2.0
PF13_0254	conserved Plasmodium membrane protein, unknown function		2.2	
PF13_0272	thioredoxin-related protein		2.0	
PF13_0273	P-loop containing nucleoside triphosphate hydrolase		2.2	
PF13_0298	conserved Plasmodium protein, unknown function		2.4	
PF13_0317	conserved Plasmodium protein, unknown function	2.1		2.4
PF14_0053	ribonucleotide reductase small subunit	2.2		
PF14_0088	aldo-keto reductase		2.7	
PF14_0123	conserved Plasmodium protein, unknown function		2.1	
PF14_0143	atypical protein kinase, ABC-1 family		2.5	
PF14_0145	ubiquitin carboxyl-terminal hydrolase		2.0	
PF14_0164	NADP-specific glutamate dehydrogenase	2.2		
PF14_0174	pseudouridine synthase		2.1	
PF14_0187	glutathione S-transferase	3.0	2.1	2.2
PF14_0192	glutathione reductase		2.0	
PF14_0206	conserved Plasmodium protein, unknown function		2.2	
PF14_0246	phosphoenolpyruvate carboxylase		2.1	
PF14_0286	glutamate dehydrogenase		2.4	2.0
PF14_0288	cytochrome c oxidase subunit II precursor	2.2		
PF14_0326	dynein-related AAA-type ATPase		2.4	
PF14_0342	conserved Plasmodium membrane protein, unknown function		2.1	
PF14_0368	thioredoxin peroxidase 1		2.3	2.1
PF14_0415	dephospho-CoA kinase	2.0		
PF14_0484	acetyl-CoA acetyltransferase			2.2
PF14_0545	thioredoxin		2.0	2.2
PF14_0572	conserved Plasmodium membrane protein, unknown function	2.4		
PF14_0590	thioredoxin-like protein			2.0
PF14_0647	conserved Plasmodium protein, unknown function		2.1	
PF14_0736	Plasmodium exported protein, unknown function		2.0	
PF14_0741	hypothetical protein		2.4	



PF14_0761	acyl-CoA synthetase	2.1	2.2	
PF14_0791	dfg10 like protein	2.1		
PFA0355w	carbon catabolite repressor protein 4			2.2
PFA0455c	fatty acid elongation protein, GNS1/SUR4 family			2.4
PFA0530c	adenylate kinase			2.1
PFB0135w	conserved Plasmodium protein, unknown function	2.0		
PFB0225c	conserved Plasmodium protein, unknown function		2.1	
PFB0279w	conserved Plasmodium protein, unknown function		2.2	
PFB0280w	conserved Plasmodium protein, unknown function		2.0	
PFB0510w	GAF domain-related protein		2.4	
PFB0590w	conserved Plasmodium protein, unknown function	2.0		
PFB0870w	conserved Plasmodium protein, unknown function		2.1	
PFC0205c	1-cys-glutaredoxin-like protein-1		2.0	
PFC0271c	glutaredoxin 1	2.6	3.2	2.2
PFC0275w	FAD-dependent glycerol-3-phosphate dehydrogenase		2.1	
PFC0935c	N-acetylglucosamine-1-phosphate transferase			2.0
PFD0150w	conserved Plasmodium protein, unknown function	2.4	2.2	2.2
PFD0207c	conserved Plasmodium protein, unknown function		2.1	
PFD0320c	conserved Plasmodium protein, unknown function		2.2	
PFD0660w	phosphoglycerate mutase	2.7		
PFD0669c	conserved Plasmodium protein, unknown function			2.1
PFE0155w	conserved Plasmodium protein, unknown function		2.2	
PFE0230w	conserved Plasmodium protein, unknown function		2.0	
PFE0290c	conserved Plasmodium protein, unknown function			2.2
PFE0605c	glutathione synthetase	2.3	3.0	2.1
PFE0730c	ribose 5-phosphate epimerase			2.1
PFE1120w	conserved Plasmodium protein, unknown function		2.2	
PFE1280w	conserved Plasmodium protein, unknown function			2.2
PFF0280w	conserved Plasmodium protein, unknown function	2.4	2.1	2.7
PFF0680c	thiamin-phosphate pyrophosphorylase	2.1		
PFF0683c	conserved Plasmodium protein, unknown function		2.2	
PFF0770c	conserved Plasmodium protein, unknown function		2.2	
PFF0900c	rhomoid protease ROM10	2.0		
PFF0920c-a	conserved Plasmodium protein, unknown function		2.1	
PFF1130c	superoxide dismutase		2.6	2.3
PFF1270c	conserved Plasmodium protein, unknown function			2.1
PFF1335c	4-methyl-5(B-hydroxyethyl)-thiazol monophosphate biosynthesis			2.0
PFE0605c	glutathione synthetase	2.3	3.0	2.1
PFF1490w	conserved Plasmodium protein, unknown function			2.4
PFF1495w	conserved Plasmodium protein, unknown function	2.2		
PFI0925w	gamma-glutamylcysteine synthetase	2.1	2.9	2.0
PFI1050c	Fe-S-cluster redox enzyme			2.1
PFI1170c	thioredoxin reductase	2.0		
PFI1250w	thioredoxin-like protein 2	2.1	2.5	2.2
PFI1420w	guanylate kinase			2.1
PFI1800w	lysophospholipase	2.4	2.0	
PFL0230w	cytidine/deoxycytidylate deaminase			2.2
PFL0365c	conserved Plasmodium protein, unknown function			2.0
PFL0595c	glutathione peroxidase	3.7		
PFL0692c	geranylgeranyltransferase type2 beta subunit			2.3
PFL0705c	adrenodoxin-type ferredoxin			2.2
PFL0720w	conserved Plasmodium membrane protein, unknown function			2.0
PFL0725w	thioredoxin peroxidase 2	2.7	2.4	2.4

PFL1260w	hydrolase/phosphatase	2.0		
PFL1650w	conserved Plasmodium protein, unknown function		2.1	
PFL1720w	serine hydroxymethyltransferase		2.2	
PFL1920c	hydroxyethylthiazole kinase			2.4
PFL2510w	chitinase			2.0
MAL8P1.134	ferlin like protein		2.1	
PF11_0362	protein phosphatase		2.2	
PFE0340c	rhomboid protease ROM4		2.0	
PFF1365c	HECT-domain (ubiquitin-transferase)		2.0	
PF11370c	phosphatidylserine decarboxylase		2.1	
PF11685w	cAMP-dependent protein kinase catalytic subunit		2.3	
PFL0300c	protein phosphatase		2.0	
PFL1870c	sphingomyelin phosphodiesterase		2.1	
PF13_0322	falcilysin			2.2
PF14_0324	Hsp70/Hsp90 organizing protein			2.1
PFB0815w	calcium dependent protein kinase 1	2.1	2.5	
PF13_0066	malonyl CoA-acyl carrier protein transacylase precursor		2.2	
PFL1700c	V-type K -independent H -translocating inorganic pyrophosphatase		2.2	
PF10950w	protein disulfide isomerase	2.1		
PF13_0229	aconitase		2.2	
MAL7P1.19	ubiquitin transferase	2.0		2.2
MAL8P1.75	ubiquitin-activating enzyme		2.2	
PF08_0020	ubiquitination-mediated degradation component		2.1	
PF11_0298	GPI8p transamidase		2.0	
PFD0780w	glutamyl-tRNA(Gln) amidotransferase subunit A		2.0	
PFF1275c	3-oxoacyl-acyl-carrier protein synthase I/II		2.1	
PFL2100w	ubiquitin conjugating enzyme E2	2.2		2.2
MAL13P1.114	conserved Plasmodium protein, unknown function			2.1
MAL8P1.82	vacuolar sorting protein VPS9	2.0		2.0
PF13_0227	vacuolar ATP synthase subunit d	2.4		
PF14_0541	V-type H( )-translocating pyrophosphatase	2.1		

### Binding

PFF0595c	leucine-rich repeat protein			2.1
MAL13P1.163-a	ER lumen protein retaining receptor 1		2.2	
MAL13P1.238	leucine-rich repeat protein		2.0	
MAL8P1.101	RNA binding protein	2.2		
PF07_0017	phosphoinositide-binding protein	2.8		
PF08_0086	RNA binding protein	2.0		
PF10_0015	acyl-CoA binding protein, isoform 1, ACBP1		2.2	2.1
PF10_0047	RNA binding protein	2.2		
PF10_0146	conserved Plasmodium protein, unknown function		2.1	2.5
PF11_0086	MIF4G domain containing protein	2.1		
PF11_0249	conserved Plasmodium protein, unknown function			2.0
PF13_0257	glutamate--tRNA ligase	2.1		
PF14_0056	RNA binding protein	2.0		
PF14_0061	PPR repeat protein		2.1	
PF14_0201	surface protein, Pf113	2.0		
PFC0760c	conserved Plasmodium protein, unknown function			2.2
PFD0110w	normocyte binding protein 1,reticulocyte binding protein homologue			2.1
PFD0295c	apical sushi protein		2.4	2.1
PFD0535w	conserved Plasmodium protein, unknown function			2.0
PFD1150c	reticulocyte binding protein homologue 4			2.2
PFL1930w	conserved Plasmodium protein, unknown function			2.1

PFL2520w	reticulocyte binding protein homologue 3, pseudogene			2.0
MAL13P1.130	glideosome associated protein with multiple membrane spans 1		2.4	
PF11_0429	conserved Plasmodium protein, unknown function		2.1	
PFC0110w	cytoadherence linked asexual protein 3.2		2.0	
PFC1045c	conserved Plasmodium protein, unknown function		2.1	
PFI1730w	cytoadherence linked asexual protein 9		2.0	
MAL13P1.176	reticulocyte binding protein 2 homologue b			2.3
PF11_0402	conserved Plasmodium protein, unknown function			2.1
PFC0515c	TPR domain containing protein			2.0
PFC0345w	conserved Plasmodium protein, unknown function	5.4	2.0	2.1
PFF0400w	conserved Plasmodium protein, unknown function			2.1
PFC0441c-a	SAC3/GNAP family-related protein		2.0	
MAL7P1.142	conserved Plasmodium membrane protein, unknown function	2.2		
PFD0255w	ag-1 blood stage membrane protein homologue		2.1	2.4
PFF1000w	cleavage stimulation factor subunit 1-like protein		2.0	2.1

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**Unknown function**

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PF14_0463	chloroquine resistance marker protein		2.1	2.0
MAL13P1.189	conserved Plasmodium membrane protein, unknown function		2.0	
MAL13P1.237a	conserved Plasmodium protein, unknown function		2.1	
MAL13P1.262	conserved Plasmodium protein, unknown function			2.2
PF08_0082	conserved Plasmodium protein, unknown function			2.1
PF10_0070a	conserved Plasmodium protein, unknown function		2.2	
PF11_0049	NOT family protein			2.0
PF11_0342	conserved Plasmodium protein, unknown function			2.1
PF11_0392	conserved Plasmodium protein, unknown function			2.2
PF11_0439	conserved protein, unknown function	2.2		
PF13_0162	conserved Plasmodium protein, unknown function	2.1		
PF14_0093	conserved Plasmodium protein, unknown function			3.1
PF14_0184	conserved Plasmodium protein, unknown function			2.0
PF14_0217	conserved Plasmodium protein, unknown function			2.0
PF14_0355	conserved Plasmodium membrane protein, unknown function		2.1	
PF14_0442	conserved Plasmodium protein, unknown function			2.2
PF14_0461	conserved Plasmodium protein, unknown function			2.1
PF14_0726	conserved Plasmodium protein, unknown function			2.0
PF14_0762	Plasmodium exported protein, unknown function			2.2
PFA0205w	conserved Plasmodium membrane protein, unknown function		2.1	
PFA0270c	conserved Plasmodium protein, unknown function		2.1	
PFB0145c	conserved Plasmodium protein, unknown function			2.0
PFB0423c	conserved protein, unknown function		2.2	
PFB0765w	conserved Plasmodium protein, unknown function			2.0
PFC0265c	conserved Plasmodium protein, unknown function	2.1		
PFD0925w	conserved Plasmodium protein, unknown function		2.2	
PFE1555c	conserved Plasmodium protein, unknown function			2.3
PFF0545c	conserved Plasmodium protein, unknown function		2.0	
PFF0810c	conserved Plasmodium protein, unknown function		2.1	
PFF1090c	conserved Plasmodium membrane protein, unknown function		2.1	
PFI0495w	conserved Plasmodium protein, unknown function			2.3
PFI0845w	conserved Plasmodium membrane protein, unknown function		2.1	
PFI0850w	conserved Plasmodium protein, unknown function			2.3
PFI1210w	conserved Plasmodium protein, unknown function			2.2
PFI1385c	conserved Plasmodium protein, unknown function		2.2	
PFL1000c	conserved Plasmodium protein, unknown function			2.2
PFL1060c	conserved protein, unknown function		2.1	

PFL1130c	conserved Plasmodium protein, unknown function			2.0
PFL1530w	asparagine-rich protein	2.2		
PFL1835w	conserved Plasmodium protein, unknown function	2.2		
PFL1840w	conserved Plasmodium membrane protein, unknown function		2.2	
PFL2335w	conserved Plasmodium protein, unknown function			2.5
PFL2575c	Plasmodium exported protein, unknown function			2.1
MAL13P1.315	conserved Plasmodium protein, unknown function		2.0	
PFL0260c	conserved Plasmodium protein, unknown function		2.1	
PFL1025c	conserved Plasmodium protein, unknown function		2.2	
PFL2505c	conserved Plasmodium protein, unknown function		2.1	
PF13_0155	conserved Plasmodium protein, unknown function			2.3
PF13_0200	conserved Plasmodium protein, unknown function			2.1
PF14_0229	conserved Plasmodium protein, unknown function			2.0
PF14_0380	conserved Plasmodium protein, unknown function			2.1
PF14_0482	conserved Plasmodium protein, unknown function			2.2
PF14_0686	conserved Plasmodium protein, unknown function			2.0
PFI0710c	conserved Plasmodium protein, unknown function			2.4
MAL7P1.146	conserved Plasmodium membrane protein, unknown function		2.2	2.1
PF13_0335	conserved Plasmodium protein, unknown function		2.0	
PFF1475c	conserved Plasmodium protein, unknown function		2.1	
PF10_0189	conserved Plasmodium protein, unknown function			2.0
PF10_0331a	conserved Plasmodium protein, unknown function	2.7	2.1	2.8
PF13_0072	conserved Plasmodium protein, unknown function			2.1

#### Down

<b>Transport</b>				
PFD1110w	glideosome associated protein with multiple membrane spans 2		-2.2	
MAL13P1.188	conserved Plasmodium protein, unknown function			-2.1
PFF0335c	probable protein, unknown function		-2.5	
PFF1345w	transportin		-2.1	-2.1
PFL0890c	triose or hexose phosphate/phosphate translocator		-2.0	
MAL13P1.137	conserved Plasmodium protein, unknown function	-2.3		-2.1
PF08_0093	mitochondrial carrier protein		-2.1	
PF14_0344	translocon component PTEX150	-2.1		
PF11_0340	conserved Plasmodium protein, unknown function	-2.3		-2.1
MAL13P1.206	sodium-dependent phosphate transporter	-2.4		
MAL13P1.37	conserved Plasmodium protein, unknown function		-2.1	
MAL7P1.167	conserved Plasmodium protein, unknown function			-2.7
PF10_0360	acetyl-CoA transporter		-2.0	
PF11_0172	folate/biopterin transporter	-2.6		
PF11_0287	CRAL/TRIO domain-containing protein	-2.1		
PF11_0338	aquaglyceroporin			-2.0
PF14_0369	copper transporter putative		-2.4	
PF14_0662	nucleoside transporter		-2.1	
PFB0435c	transporter		-2.0	
PFD0210c	6-cysteine protein		-2.2	
PFF1430c	amino acid transporter	-2.2		
PFI0785c	sugar transporter		-2.0	
PFL1410c	ABC transporter, (CT family)	-2.7	-2.4	-2.1
<b>Translation and transcription</b>				
MAL13P1.336	conserved Plasmodium protein, unknown function		-2.2	-2.7
MAL7P1.17	conserved Plasmodium membrane protein, unknown function		-2.0	-2.4
PF08_0127	conserved Plasmodium protein, unknown function			-2.4

MAL8P1.56	conserved Plasmodium membrane protein, unknown function	-2.1	
MAL8P1.84	conserved Plasmodium protein, unknown function	-2.0	
PF07_0012	conserved Plasmodium protein, unknown function		-2.2
PF07_0053	conserved Plasmodium protein, unknown function		-2.0
PF07_0058	conserved Plasmodium protein, unknown function		-2.1
PF10_0085	small subunit rRNA processing protein	-2.1	
PF10_0272	60S ribosomal protein L3	-2.0	
PF08_0034	histone acetyltransferase GCN5		-2.4
PF10_0078	histone deacetylase		-2.1
PF10_0143	transcriptional coactivator ADA2	-2.4	-2.0
PF10_0295	conserved Plasmodium protein, unknown function	-2.2	
PF10_0296	conserved Plasmodium protein, unknown function		-2.1
PF11_0204	conserved Plasmodium protein, unknown function	-2.0	-2.9
PF13_0086	conserved Plasmodium protein, unknown function		-2.2
PF13_0148	conserved Plasmodium protein, unknown function		-2.4
PF14_0059	conserved Plasmodium protein, unknown function		-2.0
PF14_0406	conserved Plasmodium protein, unknown function		-2.4
PFA0525w	transcription initiation factor TFIIIB	-2.2	
PFB0550w	peptide chain release factor subunit 1	-2.0	
PFB0730w	DEAD/DEAH box helicase		-2.2
PFD0385w	conserved Plasmodium protein, unknown function	-2.1	
PFD0940w	conserved Plasmodium protein, unknown function		-2.1
PFD1100c	conserved Plasmodium protein, unknown function		-2.2
PFE0840c	transcription factor with AP2 domain(s)		-2.1
PFF0185c	conserved Plasmodium protein, unknown function	-2.3	
PFF0200c	transcription factor with AP2 domain(s),SPE2-interacting protein	-2.8	-2.1
PFF0505c	conserved Plasmodium protein, unknown function		-2.1
PFF0670w	transcription factor with AP2 domain(s)	-2.0	-2.4
PFF0930w	conserved Plasmodium protein, unknown function		-2.0
PFI0160w	conserved Plasmodium membrane protein, unknown function		-2.1
PFL0625c	eukaryotic translation initiation factor 3 subunit 10		-2.0
PFL1180w	chromatin assembly protein (ASF1)		-2.2
PFL1645w	conserved Plasmodium protein, unknown function		-2.1

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### Structure

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PFE1545c	formin 1	-2.1	-2.5
PFA0295c	conserved Plasmodium protein, unknown function	-2.1	
MAL8P1.146	filament assembling protein	-2.4	-2.1
PF10_0190	conserved Plasmodium protein, unknown function		-2.0
PF11_0267	kelch protein	-2.4	
PF11_0268	kelch protein	-2.1	
PF14_0222	ankyrin		-2.1
PFB0935w	cytoadherence linked asexual protein 2		-2.2
PFC0185w	membrane skeletal protein IMC1-related	-2.1	
PFE1285w	membrane skeletal protein IMC1-related		-2.4
PFF0330w	coatamer alpha subunit	-2.0	-2.8
PFF0870w	conserved Plasmodium membrane protein, unknown function		-2.5
PFI0265c	high molecular weight rhostry protein 3		-2.1
PF14_0065	glideosome associated protein with multiple membrane spans 3	-2.2	

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### Signal transduction

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MAL13P1.297	ADP-ribosylation factor		-2.5
PF07_0019	conserved Plasmodium protein, unknown function		-2.0
MAL13P1.295	conserved Plasmodium protein, unknown function		-2.1
MAL7P1.102	conserved Plasmodium protein, unknown function		-2.0

MAL7P1.123	conserved Plasmodium protein, unknown function	-2.1	
PF10_0133	conserved Plasmodium protein, unknown function		-2.2
PF10_0161a	Plasmodium exported protein, unknown function	-2.0	
PF11_0220	protein kinase	-2.3	-2.1
PF11_0227	serine/threonine protein kinase		-2.0
PF14_0361	secretory complex protein 62		-2.2
PF14_0476	serine/threonine protein kinase	-2.1	
PFA0130c	serine/threonine protein kinase, FIKK family	-2.2	
PFC0945w	protein kinase		-2.1
PFF0750w	cdc2-related protein kinase 5		-2.2
PFI0100c	serine/threonine protein kinase, FIKK family	-2.0	-2.2
PFL2280w	serine/threonine protein kinase		-2.0

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**Pathogenesis**

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PFC0640w	CSP and TRAP-related protein	-2.2	-2.9
PFB0330c	serine repeat antigen 7		-2.1
PFB0340c	serine repeat antigen 5		-2.2
PFB0345c	serine repeat antigen 4		-2.0
PFB0350c	serine repeat antigen 3		-2.0
PFI1755c	ring-exported protein 3	-2.8	
MAL13P1.58	Plasmodium exported protein (PHISTa-like), unknown function	-2.0	
MAL7P1.58	Pfmc-2TM Maurer's cleft two transmembrane protein		-2.2
MAL8P1.208	rifin		-2.1
PF08_0102	asparagine-rich antigen Pfa55-14		-2.0
PF10_0115	QF122 antigen		-2.5
PF14_0018	Plasmodium exported protein (PHISTb), unknown function		-2.1
PF14_0732	Plasmodium exported protein (PHISTb), unknown function	-3.2	-2.0
PF14_0753	Plasmodium exported protein (hyp13), unknown function		-2.1
PFA0020w	rifin		-2.0
PFA0065w	Pfmc-2TM Maurer's cleft two transmembrane protein		-2.1
PFA0700c	Plasmodium exported protein (hyp10), unknown function		-2.0
PFB0080c	Plasmodium exported protein (PHISTb), unknown function		-5.1
PFC0045w	rifin		-2.4
PFC1080c	Pfmc-2TM Maurer's cleft two transmembrane protein		-2.2
PFD0015c	rifin		-2.0
PFD0060w	rifin		-2.4
PFD0090c	Plasmodium exported protein (PHISTa), unknown function		-2.4
PFD0625c	erythrocyte membrane protein 1, PfEMP1	-2.4	
PFD1240w	rifin		-2.1
PFE0040c	mature parasite-infected erythrocyte surface antigen,erythrocyte		-2.1
PFE0060w	parasite-infected erythrocyte surface protein	-2.4	
PFF0060w	Pfmc-2TM Maurer's cleft two transmembrane protein		-2.0
PFF0850c	stevor		-2.4
PFF0855c	rifin	-2.1	-2.4
PFF1575w	rifin		-2.0
PFI0010c	rifin		-2.7
PFI0030c	rifin	-2.0	-2.9
PFI1805w	rifin		-9.1
PFC0080c	Plasmodium exported protein (hyp1), unknown function	-2.3	

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**Motor activity**

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PF10_0037	conserved Plasmodium protein, unknown function		-2.1
MAL13P1.140	conserved Plasmodium protein, unknown function		-2.4
PF11_0193	conserved Plasmodium protein, unknown function	-2.3	
PF11_0241	conserved Plasmodium protein, unknown function		-2.2

PFC0860w	kinesin		-2.1
PF11_0114	actin-like protein homolog, ALP1 homolog		-2.1
PFL2225w	myosin A tail domain interacting protein	-2.0	
PFL2460w	coronin		-2.5
PF14_0243a	dynein-associated protein		-2.1

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#### DNA replication and repairing

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PFE1345c	minichromosome maintenance (MCM) complex subunit	-2.2	-2.0
PF11_0383	conserved Plasmodium protein, unknown function		-2.0
PF14_0316	DNA topoisomerase II	-2.2	
PF14_0527	conserved Plasmodium protein, unknown function	-2.1	-2.4
PFA0545c	replication factor c protein		-2.0
PFD0790c	DNA replication licensing factor		-2.3
PFE0520c	topoisomerase I		-2.3
PFF1225c	DNA polymerase 1		-2.0
PFL0580w	minichromosome maintenance (MCM) complex subunit		-2.1
PF13_0095	minichromosome maintenance (MCM) complex subunit		-2.1

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#### Chaperone

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PFC0285c	T-complex protein beta subunit	-2.6	
PF08_0032	DnaJ protein	-2.1	-2.5
PF08_0054	heat shock protein 70	-2.2	
PF11_0175	heat shock protein 101	-2.1	
PF14_0013	DnaJ protein	-2.0	
PFC0350c	TCP-1/cpn60 Chaperonein family	-2.1	
PFF0615c	6-cysteine protein		-2.2
PFI0875w	heat shock protein 70	-2.0	-2.1
PF11580c	DHHC-type zinc finger protein		-2.2
MAL13P1.540	heat shock protein 70	-2.3	-2.1
PFE0895c	zinc finger protein		-2.2

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#### Cell cycle and invasion

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PF10_0344	glutamate-rich protein	-2.0	-2.2
PF10_0352	merozoite surface protein		-2.1
PF13_0197	merozoite surface protein 7 precursor	-2.1	
PF13_0338	cysteine-rich surface protein	-2.0	
PFC0120w	cytoadherence linked asexual protein 3.1	-2.0	
PF10_0347	merozoite surface protein	-2.1	
PF14_0538	conserved Plasmodium protein, unknown function		-2.0
PFE1415w	cell cycle regulator with zn-finger domain	-2.1	
PFC0435w	parasite-infected erythrocyte surface protein		-2.0
PF13_0193	MSP7-like protein	-2.3	-2.0
PF14_0495	roptry neck protein 2		-2.2
PFE0075c	roptry-associated protein 3	-2.1	
PFB0680w	roptry neck protein 6	-2.0	
PFD0955w	apical merozoite protein	-2.1	
PF11445w	high molecular weight roptry protein 2	-2.4	

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#### Catalytic/Metabolic activity

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MAL13P1.118	3',5'-cyclic nucleotide phosphodiesterase		-2.4
MAL13P1.344	RNAse L inhibitor protein	-2.1	
MAL13P1.38	conserved Plasmodium membrane protein, unknown function		-2.0
MAL13P1.56	M1-family alanyl aminopeptidase	-2.4	
MAL8P1.109	protein phosphatase		-2.1
MAL8P1.144	AAA family ATPase	-2.4	
MAL8P1.16	rhomboid protease ROM3		-2.0
PF07_0024	inositol phosphatase	-2.4	-2.1

PF08_0108	plasmepsin X	-2.2	-2.5	
PF10_0020	alpha/beta hydrolase		-2.5	
PF10_0071	rhoGAP GTPase		-2.1	
PF10_0094	tubulin-tyrosine ligase		-2.4	
PF10_0220	phospholipid scramblase 1		-2.1	
PF11_0122	endonuclease/exonuclease/phosphatase family protein		-2.0	
PF11_0164	peptidyl-prolyl cis-trans isomerase,cyclophilin		-2.0	
PF11_0167	conserved Plasmodium membrane protein, unknown function			-2.0
PF11_0222	WD domain, G-beta repeat-containing protein		-2.1	
PF11_0257	ethanolamine kinase		-2.0	
PF11_0300	conserved Plasmodium protein, unknown function		-2.0	
PF11_0395	guanylyl cyclase		-2.1	
PF11_0452	conserved Plasmodium protein, unknown function	-2.1		
PF13_0063	26S proteasome regulatory subunit 7		-2.0	
PF14_0015	aminopeptidase	-2.0		
PF14_0017	lysophospholipase	-2.1		
PF14_0025	proteosome subunit		-2.3	
PF14_0076	plasmepsin I	-2.0		
PF14_0281	plasmepsin IX		-2.1	
PF14_0346	cGMP-dependent protein kinase	-2.1	-2.0	
PF14_0352	ribonucleoside-diphosphate reductase, large subunit	-2.0	-2.0	-2.4
PF14_0373	ubiquinol-cytochrome c reductase iron-sulfur subunit			-2.1
PF14_0439	M17 leucyl aminopeptidase	-2.0		
PF14_0660	protein phosphatase		-2.1	
PFA0220w	ubiquitin carboxyl-terminal hydrolase	-2.0		
PFB0515w	dolichol-linked oligosaccharide biosynthesis enzyme		-2.0	
PFC0065c	alpha/beta hydrolase	-2.1		
PFD0230c	dipeptidyl peptidase 3			-2.4
PFE0355c	subtilisin-like protease 3		-2.0	
PFE0555w	stearoyl-CoA delta 9 desaturase		-2.1	
PFE0585c	myo-inositol 1-phosphate synthase	-2.0	-2.0	-2.4
PFE0875c	conserved Plasmodium protein, unknown function	-2.1	-2.0	-2.5
PFF0745c	ribonuclease			-2.1
PFF1210w	phosphatidic acid phosphatase			-2.1
PFF1350c	acetyl-CoA synthetase	-2.0		
PFI0320w	arginase	-2.0		
PFI0755c	6-phosphofructokinase	-2.1		
PFI0920c	dihydrouridine synthase	-2.2		
PFI1090w	S-adenosylmethionine synthetase		-2.1	
PFI1180w	patatin-like phospholipase	-2.0		
PFI1340w	fumarate hydratase			-2.0
PFI1775w	lysophospholipase	-2.1		
PFL0035c	acyl-CoA synthetase, PfACS7	-2.0		
PFL0590c	non-SERCA-type Ca2 -transporting P-ATPase	-2.0		
PFL0620c	glycerol-3-phosphate acyltransferase		-2.1	
PFL1110c	cAMP-dependent protein kinase regulatory subunit		-2.2	
PFL1565c	CG2-related protein		-2.2	
PFL1885c	protein kinase 2	-2.1		
PFL1890c	HD superfamily phosphohydrolase protein	-2.0		
PF08_0007	conserved Plasmodium protein, unknown function			-2.2
MAL8P1.91	phospholipase DDHD1		-2.1	
MAL13P1.205	Rab GTPase 11b		-2.0	
PF10_0330	ubiquitin conjugating enzyme		-2.0	



PF13_0301	ubiquitin conjugating enzyme		-2.7
PFC0160w	palmitoyl transferase		-2.0
PFE0815w	tRNA pseudouridine synthase	-2.2	
PFB0585w	Leu/Phe-tRNA protein transferase		-2.3
PFC0840w	P-type ATPase		-2.1
PFL2060c	rab specific GDP dissociation inhibitor		-2.2

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#### Binding

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MAL13P1.287	conserved Plasmodium protein, unknown function	-2.1	-2.0
MAL7P1.108	phosphoinositide-binding protein		-2.1
MAL7P1.229	cytoadherence linked asexual protein		-2.0
MAL8P1.11	conserved Plasmodium membrane protein, unknown function	-2.1	-2.0
PF08_0136b	von Willebrand factor A-domain related protein		-2.0
PF10_0348	duffy binding-like merozoite surface protein	-2.1	-2.5
PF10_0351	probable protein, unknown function		-2.4
PF11_0243	leucine-rich repeat protein		-2.0
PF13_0249	conserved Plasmodium protein, unknown function		-2.0
PF14_0249	conserved Plasmodium protein, unknown function		-2.1
PF14_0293	conserved Plasmodium protein, unknown function	-2.1	-2.0
PF14_0315	conserved Plasmodium membrane protein, unknown function		-2.3
PF14_0383	conserved Plasmodium protein, unknown function		-2.2
PF14_0433	erythrocyte membrane-like protein		-2.0
PF14_0652	conserved Plasmodium protein, unknown function	-2.1	-2.0
PFA0165c	conserved Plasmodium protein, unknown function		-2.3
PFB0125c	conserved Plasmodium protein, unknown function	-2.1	-2.0
PFB0190c	conserved Plasmodium protein, unknown function		-2.1
PFB0195c	conserved Plasmodium protein, unknown function		-2.0
PFC1060c	conserved Plasmodium protein, unknown function		-2.1
PFE0750c	RNA recognition motif		-2.2
PFL1170w	polyadenylate-binding protein		-2.0
PF07_0021	conserved Plasmodium protein, unknown function	-2.0	-2.1
PF10_0342	probable protein, unknown function		-2.0
PFE1410c	conserved Plasmodium protein, unknown function		-2.4
PF14_0159	root hair defective 3 GTP-binding protein (RHD3) homolog	-2.0	
PFE1485w	conserved Plasmodium protein, unknown function		-2.2
PF13_0261	nucleolar preribosomal associated cytoplasmic ATPase	-2.3	

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#### Unknown function

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MAL7P1.129	conserved Plasmodium protein, unknown function		-2.0
MAL7P1.231	histidine-rich protein II		-2.1
MAL8P1.135	conserved Plasmodium membrane protein, unknown function	-2.0	
MAL8P1.29	conserved Plasmodium protein, unknown function		-2.0
MAL8P1.30	conserved Plasmodium membrane protein, unknown function	-2.1	-2.0
PF07_0016	conserved Plasmodium membrane protein, unknown function		-2.1
PF07_0107	Plasmodium exported protein, unknown function	-2.1	
PF08_0005	conserved Plasmodium protein, unknown function	-2.0	
PF08_0058	conserved Plasmodium protein, unknown function		-2.1
PF08_0090	conserved Plasmodium protein, unknown function	-2.1	
PF10_0031	conserved Plasmodium protein, unknown function	-2.2	-2.0
PF10_0034	conserved Plasmodium protein, unknown function	-2.1	
PF10_0059	conserved Plasmodium membrane protein, unknown function		-2.0
PF10_0119	conserved Plasmodium protein, unknown function	-2.1	-2.4
PF10_0135	conserved Plasmodium protein, unknown function		-2.0
PF10_0140	conserved protein, unknown function		-2.1
PF10_0254	conserved Plasmodium protein, unknown function	-2.4	

PF10_0283	conserved Plasmodium protein, unknown function	-2.1	-2.1
PF10_0292	conserved Plasmodium protein, unknown function		-2.0
PF11_0238	conserved Plasmodium protein, unknown function		-2.2
PF11_0304	conserved Plasmodium protein, unknown function		-2.0
PF11_0343	conserved Plasmodium protein, unknown function		-2.0
PF11_0354	conserved Plasmodium protein, unknown function		-2.1
PF11_0373	conserved Plasmodium protein, unknown function		-2.3
PF11_0433	conserved Plasmodium protein, unknown function		-2.0
PF13_0250	G-beta repeat protein	-2.1	
PF13_0277	conserved Plasmodium protein, unknown function		-2.2
PF13_0290	conserved Plasmodium protein, unknown function		-2.0
PF14_0106	ankyrin-repeat protein	-2.1	-2.2
PF14_0176	conserved Plasmodium protein, unknown function		-2.1
PF14_0213	conserved Plasmodium protein, unknown function		-2.0
PF14_0303	conserved Plasmodium protein, unknown function		-2.1
PF14_0343	conserved Plasmodium protein, unknown function		-2.0
PF14_0453	conserved Plasmodium protein, unknown function		-2.3
PF14_0468a	conserved Plasmodium protein, unknown function		-2.5
PF14_0472	conserved Plasmodium protein, unknown function	-2.4	-2.2
PF14_0480	conserved Plasmodium protein, unknown function		-2.1
PF14_0487	conserved Plasmodium protein, unknown function		-2.4
PF14_0499	conserved Plasmodium protein, unknown function		-2.1
PF14_0506	conserved Plasmodium protein, unknown function		-2.8
PF14_0544	conserved Plasmodium protein, unknown function		-2.0
PF14_0552	conserved Plasmodium protein, unknown function		-2.2
PF14_0567	conserved Plasmodium protein, unknown function		-2.1
PF14_0607	conserved Plasmodium membrane protein, unknown function		-2.1
PF14_0613	conserved Plasmodium membrane protein, unknown function		-2.0
PF14_0682	conserved Plasmodium membrane protein, unknown function		-2.0
PF14_0708	probable protein, unknown function		-2.1
PFB0115w	conserved Plasmodium protein, unknown function		-2.1
PFB0460c	conserved Plasmodium protein, unknown function		-2.0
PFC0355c	conserved Plasmodium protein, unknown function	-2.0	-2.2
PFC0615w	conserved Plasmodium protein, unknown function		-2.0
PFC0705c	conserved Plasmodium protein, unknown function		-2.2
PFD0240c	6-cysteine protein		-2.1
PFD0400w	conserved Plasmodium protein, unknown function		-2.2
PFD0445c	conserved Plasmodium protein, unknown function		-2.0
PFD0585c	conserved Plasmodium protein, unknown function		-2.0
PFD0715c	conserved Plasmodium protein, unknown function	-2.1	
PFE0650c	conserved Plasmodium protein, unknown function	-2.1	-2.2
PFE1130w	conserved protein, unknown function		-2.3
PFF0570c	conserved Plasmodium protein, unknown function		-2.1
PFF0645c	integral membrane protein	-2.0	-2.5
PFF0710w	conserved Plasmodium protein, unknown function		-2.1
PFF0960c	conserved Plasmodium protein, unknown function		-2.0
PFF1235w	conserved Plasmodium membrane protein, unknown function		-2.1
PFI0390c	conserved Plasmodium membrane protein, unknown function		-2.4
PFI0460w	conserved Plasmodium protein, unknown function		-2.1
PFI0665w	conserved Plasmodium protein, unknown function		-2.0
PFI0705w	conserved Plasmodium protein, unknown function	-2.2	-2.0
PFI0800c	conserved Plasmodium protein, unknown function		-2.2
PFI1395w	conserved Plasmodium membrane protein, unknown function		-2.2

**Table S4. Genes with  $\geq 2$ -fold changes in expression in Dd2 in response to DHA treatment (DHA/control)**

**Up-regulated**

Gene ID	Gene Description	Fold change		
		R	T	S
<b>Transport</b>				
PF11_0459	apicoplast import protein Tic20			2.0
PFD0900w	conserved Plasmodium protein, unknown function		2.4	
PFF0870w	conserved Plasmodium membrane protein, unknown function		2.1	
PF10_0216	zinc transporter	2.0		2.1
PFB0465c	monocarboxylate transporter			2.3
PFE0410w	triose phosphate transporter			2.0
<b>Transcription and translation</b>				
PF10_0143	transcriptional coactivator ADA2	2.0		
PF10_0383	Plasmodium repeat_MYXSPDY protein			2.2
PF13_0305	elongation factor 1-alpha			2.0
MAL7P1.17	conserved Plasmodium membrane protein, unknown function		2.1	
PF11_0442	transcription factor with AP2 domain(s)		2.0	
PFI0540w	conserved Plasmodium protein, unknown function		2.0	
<b>Structure</b>				
PF13_0210	conserved Plasmodium protein, unknown function		2.1	2.0
PF11_0146	conserved Plasmodium membrane protein, unknown function		2.3	2.1
<b>Signal transduction</b>				
PF11_0242	calcium-dependent protein kinase 7			2.3
PF11_0464	serine/threonine protein kinase		2.1	
MAL13P1.278	serine/threonine protein kinase	2.1	2.0	
<b>Pathogenesis</b>				
PFI1745c	early transcribed membrane protein		2.2	
MAL13P1.2	Rifin		9.1	2.0
PFE0070w	interspersed repeat antigen	2.0		
MAL13P1.60	erythrocyte binding antigen-140		3.0	
MAL13P1.535	rifin	8.1		2.1
PF08_0139	rifin			3.0
PF10_0397	rifin			5.0
PF14_0567	conserved Plasmodium protein, unknown function			2.0
PFA0065w	Pfmc-2TM Maurer's cleft two transmembrane protein			12.3
PFC1080c	Pfmc-2TM Maurer's cleft two transmembrane protein			2.2
PFD0030c	rifin			3.2
PFA0680c	Pfmc-2TM Maurer's cleft two transmembrane protein		8.3	
<b>Motor activity</b>				
PF07_0042	conserved Plasmodium protein, unknown function		2.1	
MAL13P1.260	alveolin		2.0	
PF11_0342	conserved Plasmodium protein, unknown function	2.0		
<b>Cell cycle and invasion</b>				
MAL13P1.96	chromosome segregation protein	2.0		
PFB0300c	merozoite surface protein 2		2.3	
<b>Catalytic/Metabolic activity</b>				
PFE0570w	RNA pseudouridylate synthase	2.1		
PF14_0174	pseudouridine synthase	2.2		
PF14_0545	thioredoxin	2.4	2.0	2.0
PF10_0121	hypoxanthine phosphoribosyltransferase			2.1

PF10_0155	enolase			2.0
PF13_0028	membrane integral peptidase, M50 family			2.1
PF13_0141	L-lactate dehydrogenase			2.2
PFE0915c	proteasome subunit beta type 1			2.0
PFL0230w	cytidine/deoxycytidylate deaminase			2.0
PFI1050c	Fe-S-cluster redox enzyme	2.1		2.0
PF13_0083	lipoate protein ligase a type 1			2.1
PFC0855w	ubiquitin conjugating enzyme			2.2
MAL13P1.114	conserved Plasmodium protein, unknown function			2.1
<b>Binding</b>				
PF13_0254	conserved Plasmodium membrane protein, unknown function	2.0		
PFL0290w	conserved Plasmodium protein, unknown function	2.0		
PF14_0325	conserved Plasmodium membrane protein, unknown function		2.1	
PFD0110w	normocyte binding protein 1,reticulocyte binding protein homologue			2.0
MAL13P1.176	reticulocyte binding protein 2 homologue b			2.0
PFI1730w	cytoadherence linked asexual protein 9			2.1
<b>Unknown function</b>				
MAL13P1.295	conserved Plasmodium protein, unknown function	2.1		
PF08_0035	conserved Plasmodium protein, unknown function		2.2	
PF10_0138	conserved Plasmodium protein, unknown function		2.1	
PF07_0097	conserved Plasmodium protein, unknown function	2.0		
PF13_0161	conserved Plasmodium protein, unknown function	2.0	2.1	
PF10_0207	conserved Plasmodium membrane protein, unknown function			2.0
PF13_0331	conserved protein, unknown function			2.1
PFE0220w	conserved Plasmodium protein, unknown function			2.2
<b>Down</b>				
<b>Transport</b>				
MAL8P1.82	vacuolar sorting protein VPS9			-2.1
PF08_0093	mitochondrial carrier protein		-2.2	
PFI1015w	conserved Plasmodium protein, unknown function			-2.0
MAL13P1.232	mog1 homolog			-2.0
PF14_0049	sybindin-like protein	-2.1		
PF08_0078	ABC Transporter			-2.1
<b>Translation and transcription</b>				
PF14_0406	conserved Plasmodium protein, unknown function			-2.0
PF14_0426	conserved Plasmodium protein, unknown function	-2.4	-2.0	-2.1
PF14_0514	tRNA intron endonuclease		-2.0	
PF14_0603	conserved Plasmodium protein, unknown function		-2.2	
PF14_0656	U2 snRNP auxiliary factor			-2.1
PFB0855c	apicoplast RNA methyltransferase precursor		-2.0	
PFD0355c	peptidyl-tRNA hydrolase PTH2		-2.1	
PFL0145c	high mobility group protein		-2.0	
PFL0665c	RNA polymerase subunit 8c		-2.2	-2.1
PFL0690c	histone-lysine N-methyltransferase		-2.1	-2.0
PFL1540c	phenylalanyl-tRNA synthetase alpha chain			-2.3
MAL13P1.200	mitochondrial ribosomal protein L49 precursor			-2.0
MAL13P1.272	60S ribosomal protein L7-2		-2.1	
MAL13P1.318	mitochondrial ribosomal protein L9 precursor			-2.1
MAL13P1.92	40S ribosomal protein S15/S19			-2.1
PF14_0205	40S ribosomal protein S25		-2.0	
PF14_0584	mitochondrial ribosomal protein S4/S9 precursor		-2.0	
PF14_0635	large ribosomal subunit assembling protein		-2.1	
PFB0467w	50S ribosomal protein L33			-2.0

PFB0885w	40S ribosomal protein S30	-2.2	
PFC0200w-a	60S ribosomal protein L44	-2.1	
PFC0290w	40S ribosomal protein S23	-2.3	
PFC0295c	40S ribosomal protein S12	-2.1	
PFC0400w	60S acidic ribosomal protein P2	-2.0	
PFC0535w	60S ribosomal protein L26	-2.0	
PFL1150c	mitochondrial ribosomal protein L24-2 precursor	-2.3	-2.1
MAL13P1.327	mitochondrial ribosomal protein S17 precursor		-2.2
PFL2095w	translation initiation factor SUI1		-2.1
PFL2240w	conserved Plasmodium protein, unknown function	-2.0	
PFL2300w	conserved Plasmodium protein, unknown function		-2.1
PF07_0012	conserved Plasmodium protein, unknown function		-2.0
PFL0625c	eukaryotic translation initiation factor 3 subunit 10		-2.2
PFF0200c	transcription factor with AP2 domain(s),SPE2-interacting protein		-2.1
PFA0525w	transcription initiation factor TFIIB	-2.1	-2.0
PFA0355w	carbon catabolite repressor protein 4		-2.1
PFE0105c	HCNGP-like protein	-2.1	-2.2
MAL13P1.336	conserved Plasmodium protein, unknown function		-2.1
PFA0565c	conserved Plasmodium protein, unknown function	-2.2	
PFL1510c	conserved Plasmodium protein, unknown function		-2.0
<b>Structure</b>			
MAL13P1.413	membrane associated histidine-rich protein		-2.0
PF07_0054	histone H2B variant		-2.0
PF11_0062	histone H2B	-2.0	-2.1
PF11_0267	kelch protein		-2.0
PFC0416w	conserved Plasmodium protein, unknown function	-2.0	
PFE1285w	membrane skeletal protein IMC1-related		-2.1
PFE1550w	conserved Plasmodium protein, unknown function	-2.0	
PFF0860c	histone H2A		-2.1
PFF0865w	histone H3 variant		-2.0
PFF1480w	microtubule-associated protein ytm1 homologue	-2.5	
PFI1070c	nucleolar preribosomal assembly protein	-2.1	-2.0
<b>Signal transduction</b>			
PF14_0407	guanine nucleotide exchange factor		-2.0
PF14_0733	serine/threonine protein kinase, FIKK family	-2.1	
PF14_0734	serine/threonine protein kinase, FIKK family	-2.0	
PFA0130c	serine/threonine protein kinase, FIKK family		-2.2
<b>Pathogenesis</b>			
PFE1590w	early transcribed membrane protein 5	-2.0	
MAL13P1.269	tryptophan-rich antigen		-2.0
MAL13P1.490	stevor		-5.1
MAL13P1.495	rifin		-3.0
MAL13P1.59	Plasmodium exported protein (PHISTa), unknown function		-2.3
MAL7P1.208	rhoptry-associated membrane antigen		-2.1
PF10_0390	Pfmc-2TM Maurer's cleft two transmembrane protein	-2.4	
PF11_0014	PfMC-2TM_11.1	-3.1	-2.2
PF11_0111	asparagine-rich antigen		-2.1
PFA0030c	rifin	-3.2	
PFA0125c	erythrocyte Binding antigen-181		-2.2
PFB0056c	hypothetical protein		-2.0
PFB0110w	Plasmodium exported protein (hyp11), unknown function	-3.5	
PFB1010w	rifin	-3.1	
PFD1200c	Plasmodium exported protein (hyp6), unknown function	-2.0	

PFE0830c	sporozoite surface antigen MB2			-2.2
PPF1525c	Pfmc-2TM Maurer's cleft two transmembrane protein	-2.1	-3.0	
PPF1570w	rifin		-2.1	
PFI0450c	apoptosis-related protein		-2.0	
PFI1805w	rifin		-2.1	-2.0
PFI1810w	rifin		-2.3	-2.1
PFL0050c	Plasmodium exported protein (PHISTb), unknown function			-2.0
PFL2585c	rifin		-2.2	-2.5
PFL2590w	Plasmodium exported protein (PHISTa), unknown function			-2.1
PFA0700c	Plasmodium exported protein (hyp10), unknown function			-2.0
PF14_0753	Plasmodium exported protein (hyp13), unknown function		-2.2	
PF10_0115	QF122 antigen	-2.1		
PFA0020w	rifin		-2.8	
PFC0045w	rifin			-2.2
PFD0015c	rifin		-2.0	
PPF0855c	rifin			-2.0
PPF1575w	rifin	-2.2		
PPF0850c	stevor			-2.1
PFC0640w	CSP and TRAP-related protein	-2.2		
<b>Motor activity</b>				
MAL7P1.161	dynein light chain		-2.2	
PFB0196c	dynein light chain		-2.0	
PFE1173c	outer arm dynein lc3			-2.1
PF14_0082	conserved Plasmodium protein, unknown function	-3.4	-2.1	-2.0
PFE1485w	conserved Plasmodium protein, unknown function			-2.1
<b>DNA replication and repairing</b>				
PFD0590c	DNA polymerase alpha			-2.0
PFL0755c	conserved Plasmodium protein, unknown function			-2.1
PF14_0316	DNA topoisomerase II		-2.1	
<b>Chaperone</b>				
PPF1050w	nascent polypeptide associated complex alpha chain		-2.0	
PFE0135w	DnaJ protein		-2.0	
PFI0220w	prefoldin subunit		-2.1	
PFI0985c	chaperone		-2.0	
PFL0740c	10 kd chaperonin		-2.2	-2.1
PFL1470c	WD-repeat protein		-2.0	-2.0
PF08_0032	DnaJ protein	-2.1		
PF11_0175	heat shock protein 101	-2.2		
MAL13P1.341	ribosome biogenesis protein MRT4			-2.2
PFC0800w	band 7-related protein		-2.2	
PF14_0061	PPR repeat protein			-2.0
<b>Cell cycle and invasion</b>				
PFC0165w	spindle pole body protein			-2.2
PFE1430c	cyclophilin		-2.0	
PFI1490c-a	cyclophilin-like protein			-2.0
PF13_0193	MSP7-like protein	-2.0		-2.4
PFL1330c	cyclin			-2.1
PFI1475w	merozoite surface protein 1			-2.0
PF11_0249	conserved Plasmodium protein, unknown function			-2.2
<b>Catalytic/Metabolic activity</b>				
MAL13P1.153	ribonuclease P protein subunit rpr			-2.0
MAL13P1.285	patatin-like phospholipase			-2.1
MAL13P1.326	ferrochelatase			-2.0

MAL13P1.344	RNAse L inhibitor protein			-2.0
MAL13P1.55	cytochrome c2 precursor			-2.1
MAL13P1.56	M1-family alanyl aminopeptidase			-2.2
MAL7P1.159	1-cys peroxiredoxin			-2.1
PF08_0071	Fe-superoxide dismutase	-2.0		
PF08_0131	1-cys peroxiredoxin	-2.0		
PF10_0150	methionine aminopeptidase 1b	-2.2		
PF10_0245	glucosamine-fructose-6-phosphate aminotransferase		-2.1	
PF11_0036	flavoprotein			-2.0
PF11_0050	conserved Plasmodium protein, unknown function			-2.1
PF11_0452	conserved Plasmodium protein, unknown function	-2.1		
PF14_0015	aminopeptidase	-2.0		
PF14_0017	lysophospholipase			-2.0
PF14_0076	plasmepsin I	-2.2		
PF14_0164	NADP-specific glutamate dehydrogenase	-2.0		
PF14_0187	glutathione S-transferase	-3.1	-2.0	-2.3
PF14_0246	phosphoenolpyruvate carboxylase		-2.0	
PF14_0346	cGMP-dependent protein kinase		-2.2	
PF14_0466	Appr-1-p processing domain protein		-2.1	
PF14_0534	serine hydroxymethyltransferase		-2.0	
PF14_0541	V-type H( )-translocating pyrophosphatase	-2.2		
PF14_0598	glyceraldehyde-3-phosphate dehydrogenase		-2.1	
PF14_0677	RNA 3'-terminal phosphate cyclase-like protein		-2.0	
PF14_0761	acyl-CoA synthetase		-2.0	
PF14_0784	ribosome biogenesis protein, NOP10-like		-2.2	
PFA0455c	fatty acid elongation protein, GNS1/SUR4 family		-2.0	
PFA0540c	conserved Plasmodium protein, unknown function			-2.0
PFC0050c	acyl-CoA synthetase		-2.1	
PFC0271c	glutaredoxin 1		-2.1	-2.0
PFC0275w	FAD-dependent glycerol-3-phosphate dehydrogenase		-2.2	
PFC0975c	peptidyl-prolyl cis-trans isomerase		-2.0	
PFD1007w	conserved Plasmodium protein, unknown function	-2.1		
PFE0605c	glutathione synthetase		-2.2	
PFE0630c	orotate phosphoribosyltransferase	-2.1	-2.3	
PFE0670w	mitochondrial matrix protein		-2.0	
PFE0730c	ribose 5-phosphate epimerase		-2.0	
PFE0755c	rhomboid protease ROM9		-2.1	
PFE1120w	conserved Plasmodium protein, unknown function		-2.2	
PFF1025c	SNO glutamine amidotransferase family protein		-2.1	
PFF1080w	conserved Apicomplexan protein, unknown function		-2.0	
PFF1335c	4-methyl-5(B-hydroxyethyl)-thiazol monophosphate biosynthesis		-2.1	
PFF1350c	acetyl-CoA synthetase	-2.0		
PFF1360w	6-pyruvoyltetrahydropterin synthase		-2.1	
PFF1405c	conserved protein, unknown function		-2.0	
PFI0755c	6-phosphofructokinase	-2.1		
PFI0795w	conserved Plasmodium protein, unknown function			-2.1
PFI0815c	methyltransferase		-2.4	
PFI0920c	dihydrouridine synthase	-2.0		
PFI0965w	pyridoxal 5'-phosphate dependent enzyme class III		-2.1	
PFI1020c	inosine-5'-monophosphate dehydrogenase			-2.1
PFI1135c	OTU-like cysteine protease		-2.2	-2.0
PFI1170c	thioredoxin reductase	-2.1		
PFL0035c	acyl-CoA synthetase, PfACS7	-2.0		

PFL0300c	protein phosphatase	-2.1	
PFL0320w	rhodanese like protein		-2.0
PFL0590c	non-SERCA-type Ca2 -transporting P-ATPase		-2.1
PFL0595c	glutathione peroxidase	-2.2	
PFL0705c	adrenodoxin-type ferredoxin	-2.1	-2.0
PFL0710w	conserved Plasmodium protein, unknown function	-2.0	-2.2
PFL1555w	cytochrome b5	-2.0	-2.1
PFL1720w	serine hydroxymethyltransferase	-2.2	
PFL1885c	protein kinase 2		-2.1
PF11_0257	ethanolamine kinase		-2.0
PFL0620c	glycerol-3-phosphate acyltransferase	-2.2	-2.0
PF11_0395	guanylyl cyclase		-2.1
PFL1890c	HD superfamily phosphohydrolase protein	-2.0	
PFB0345c	serine repeat antigen 4		-2.2
PFB0340c	serine repeat antigen 5	-2.0	
PFE0555w	stearoyl-CoA delta 9 desaturase		-2.1
PFL1700c	V-type K -independent H -translocating inorganic pyrophosphatase	-2.0	
MAL7P1.130	3-demethylubiquinone-9 3-methyltransferase		-2.1
PF13_0347	conserved Plasmodium protein, unknown function	-2.0	
PFA0530c	adenylate kinase	-2.3	
PFE1100w	conserved Plasmodium protein, unknown function		-2.1
PFE1235c	ubiquitin fusion degradation protein UFD1		-2.2
MAL13P1.205	Rab GTPase 11b	-2.0	
PF13_0301	ubiquitin conjugating enzyme	-2.1	
PFB0815w	calcium dependent protein kinase 1		-2.0
PF08_0007	conserved Plasmodium protein, unknown function	-2.1	

### Binding

PFD0365c	conserved Plasmodium protein, unknown function	-2.3	-2.1
PFE1425c	conserved Plasmodium protein, unknown function		-2.1
PF10_0072	conserved Plasmodium protein, unknown function	-3.0	
PF10_0042	conserved Plasmodium protein, unknown function	-2.1	
PF10_0063	DNA/RNA-binding protein Alba	-2.0	
MAL7P1.102	conserved Plasmodium protein, unknown function		-2.1
PFF0400w	conserved Plasmodium protein, unknown function		-2.0
PFF1230c	conserved Plasmodium protein, unknown function		-2.1
PFD0345c	conserved Plasmodium protein, unknown function	-2.0	
MAL13P1.163-	ER lumen protein retaining receptor 1	-2.1	
MAL8P1.101	RNA Binding protein		-2.1
MAL8P1.70	conserved Plasmodium protein, unknown function		-2.0
PF08_0099	acyl-CoA binding protein		-2.2
PF10_0047	RNA Binding protein		-2.0
PF10_0156	conserved Plasmodium protein, unknown function		-2.1
PF10_0351	probable protein, unknown function		-2.0
PF10_0357	probable protein, unknown function		-2.3
PFB0735c	conserved Plasmodium protein, unknown function	-2.1	
PFD0115c	Plasmodium exported protein, unknown function	-2.0	-2.2
PFD0807c	PfMNL-2 CISD1-like iron-sulfur protein		-2.0
PFE0665c	GTP binding protein	-2.1	
PFI0328c	leucine-rich repeat protein	-2.0	
PFI0885w	cytochrome b5-like heme/steroid binding protein	-2.2	
PFL2040w	conserved Plasmodium protein, unknown function		-2.2
PF13_0249	conserved Plasmodium protein, unknown function	-2.1	
PFC1060c	conserved Plasmodium protein, unknown function		-2.0



PF13_0338	cysteine-rich surface protein			-2.1
PF14_0433	erythrocyte membrane-like protein			-2.0
PF11_0243	leucine-rich repeat protein			-2.4
PF08_0136b	von Willebrand factor A-domain related protein			-2.0
<b>Unknown function</b>				
PFB0877c	probable protein, unknown function			-2.3
PFD0270c	conserved Plasmodium protein, unknown function			-2.0
PFE1260c	conserved Plasmodium protein, unknown function			-2.1
MAL13P1.295	conserved Plasmodium protein, unknown function			-2.2
MAL13P1.215	conserved Plasmodium protein, unknown function			-2.0
MAL8P1.36	conserved Plasmodium protein, unknown function			-2.1
PF08_0072	conserved Plasmodium protein, unknown function			-2.2
PFD0290w	conserved Plasmodium protein, unknown function		-2.0	
MAL13P1.37	conserved Plasmodium protein, unknown function		-2.1	
MAL7P1.167	conserved Plasmodium protein, unknown function			-2.3
PF10_0100	conserved Plasmodium protein, unknown function			-2.0
PF10_0109	conserved Plasmodium protein, unknown function		-2.0	-2.1
PF13_0263	conserved Plasmodium protein, unknown function		-2.2	-2.0
PFB0886c	conserved Plasmodium protein, unknown function		-2.0	
PFI0655c	conserved Plasmodium protein, unknown function		-2.1	
MAL8P1.84	conserved Plasmodium protein, unknown function		-2.0	
PFE0345c	conserved Plasmodium protein, unknown function		-2.2	
MAL7P1.123	conserved Plasmodium protein, unknown function		-2.0	
MAL7P1.14	conserved Plasmodium protein, unknown function			-2.3
PF13_0335	conserved Plasmodium protein, unknown function		-2.2	
PFA0395w	conserved Plasmodium protein, unknown function		-2.0	
PF10_0373a	conserved Plasmodium protein, unknown function		-2.0	-2.1
PF13_0218a	conserved Plasmodium protein, unknown function		-2.3	
PFA0230c	conserved Plasmodium protein, unknown function		-2.0	
PFA0315w	conserved Plasmodium protein, unknown function		-2.4	
PFA0560c	conserved Plasmodium protein, unknown function		-2.2	-2.0
PFB0423c	conserved protein, unknown function		-2.2	-2.2
PFC0940c	conserved Plasmodium protein, unknown function		-2.1	
PFE0600c	conserved Plasmodium protein, unknown function		-2.0	
PFF0310w	conserved Plasmodium protein, unknown function			-2.2
PFF1270c	conserved Plasmodium protein, unknown function		-2.1	
PFL1165w	conserved Plasmodium protein, unknown function			-2.3
MAL13P1.49	conserved Plasmodium protein, unknown function		-2.2	
MAL8P1.18	conserved Plasmodium protein, unknown function		-2.1	
MAL13P1.181	conserved Plasmodium membrane protein, unknown function			-2.3
MAL13P1.236	conserved Plasmodium protein, unknown function		-2.2	
MAL13P1.237	conserved Plasmodium protein, unknown function		-2.0	
MAL13P1.253	small nuclear ribonucleoprotein		-2.1	
MAL13P1.262	conserved Plasmodium protein, unknown function			-2.3
MAL13P1.331	conserved Plasmodium protein, unknown function		-2.1	
MAL13P1.370	conserved Plasmodium membrane protein, unknown function			-2.0
MAL13P1.46	conserved Plasmodium protein, unknown function		-2.2	
MAL13P1.465	Plasmodium exported protein, unknown function		-2.1	
MAL13P1.480	histidine-rich protein III			-2.0
MAL13P1.53	conserved Plasmodium protein, unknown function		-2.1	-2.0
MAL13P1.580	conserved Plasmodium protein, unknown function			-2.2
MAL13P1.91	conserved Plasmodium protein, unknown function			-2.0
MAL7P1.141	conserved Plasmodium protein, unknown function			-2.1

MAL7P1.98	conserved Plasmodium protein, unknown function	-2.0	-2.3	-2.0
PF07_0011	conserved Plasmodium protein, unknown function	-2.2	-2.0	
PF08_0001	Plasmodium exported protein, unknown function			-2.0
PF08_0043	conserved Plasmodium protein, unknown function		-2.0	
PF08_0082	conserved Plasmodium protein, unknown function			-2.2
PF08_0116	conserved Plasmodium protein, unknown function			-2.0
PF10_0258	conserved Plasmodium protein, unknown function			-2.1
PF10_0359	conserved Plasmodium protein, unknown function		-2.2	
PF11_0346	conserved Plasmodium protein, unknown function	-2.0	-2.1	
PF11_0455	conserved Plasmodium protein, unknown function		-2.0	
PF14_0180	conserved Plasmodium protein, unknown function			-2.1
PF14_0184	conserved Plasmodium protein, unknown function			-2.2
PF14_0189	conserved Plasmodium protein, unknown function	-2.1		-2.3
PF14_0217	conserved Plasmodium protein, unknown function			-2.0
PF14_0336	conserved Plasmodium protein, unknown function	-2.0		
PF14_0442	conserved Plasmodium protein, unknown function			-2.1
PF14_0457	conserved Plasmodium protein, unknown function		-2.0	
PF14_0461	conserved Plasmodium protein, unknown function			-2.1
PF14_0477a	conserved Plasmodium protein, unknown function		-2.5	
PF14_0499	conserved Plasmodium protein, unknown function			-2.1
PF14_0536	conserved Plasmodium protein, unknown function		-2.0	
PF14_0566	conserved protein, unknown function	-2.1		-2.2
PF14_0568	conserved Plasmodium protein, unknown function		-2.0	
PF14_0604	conserved Plasmodium protein, unknown function	-2.2		
PF14_0613	conserved Plasmodium membrane protein, unknown function			-2.0
PF14_0645	conserved Plasmodium protein, unknown function		-2.2	
PF14_0670	conserved Plasmodium protein, unknown function		-2.7	
PF14_0705	conserved Plasmodium protein, unknown function		-2.1	
PF14_0728	conserved Plasmodium protein, unknown function		-2.0	
PF14_0790	conserved Plasmodium protein, unknown function		-2.1	
PFA0270c	conserved Plasmodium protein, unknown function		-2.0	
PFA0635c	Plasmodium exported protein (hyp1), unknown function		-2.0	
PFB0620w	conserved protein, unknown function		-2.2	
PFB0660w	conserved Plasmodium protein, unknown function	-2.0		
PFB0946c	conserved Plasmodium falciparum protein family			-2.1
PFB0972w	hypothetical protein	-2.0		
PFC0070c	Plasmodium exported protein, unknown function	-2.0		
PFC0075c	Plasmodium exported protein, unknown function			-2.0
PFC0705c	conserved Plasmodium protein, unknown function			-2.1
PFC1025w	conserved Plasmodium protein, unknown function	-2.1		
PFD0155c	conserved Plasmodium protein, unknown function			-2.3
PFD0520c	conserved Plasmodium protein, unknown function	-2.1		-2.4
PFD0890w	conserved Plasmodium protein, unknown function	-2.2	-2.3	
PFD0925w	conserved Plasmodium protein, unknown function		-2.0	
PFD1030c	conserved Plasmodium protein, unknown function			-2.2
PFE0390w	conserved Plasmodium protein, unknown function		-2.0	
PFE0565w	conserved Plasmodium protein, unknown function			-2.1
PFE0990w	conserved Plasmodium protein, unknown function			-2.0
PFE1065w	conserved Plasmodium protein, unknown function		-2.2	
PFE1110w	conserved Plasmodium protein, unknown function			-2.0
PFE1300w	conserved Plasmodium membrane protein, unknown function		-2.1	
PFE1610w	Plasmodium exported protein, unknown function	-2.1		
PFF0210w	conserved Plasmodium protein, unknown function		-2.0	

PFF0240c	conserved Plasmodium protein, unknown function	-2.1	
PFF0725w	conserved Plasmodium protein, unknown function		-2.1
PFF0810c	conserved Plasmodium protein, unknown function	-2.2	
PFF0920c-a	conserved Plasmodium protein, unknown function		-2.1
PFF1005w	conserved Plasmodium protein, unknown function		-2.0
PFF1310c	conserved Plasmodium protein, unknown function		-2.1
PFI0090c	probable protein, unknown function	-2.2	
PFI0336w	conserved Plasmodium protein, unknown function	-2.1	
PFI0560c-a	conserved Plasmodium protein, unknown function		-2.0
PFI0780w	conserved Plasmodium protein, unknown function		-2.1
PFI0825w	conserved Plasmodium protein, unknown function	-2.5	
PFI0845w	conserved Plasmodium membrane protein, unknown function	-2.4	
PFI0995w	conserved Plasmodium protein, unknown function	-2.2	
PFI1055w	conserved Plasmodium protein, unknown function		-2.0
PFI1281w	conserved Plasmodium protein, unknown function		-2.1
PFI1390w	conserved Plasmodium protein, unknown function	-2.2	-2.0
PFI1400c	conserved Plasmodium protein, unknown function	-2.1	
PFI1675w	conserved Plasmodium protein, unknown function		-3.1
PFL0140w	conserved Plasmodium protein, unknown function	-2.1	-2.0
PFL0165c	conserved Plasmodium protein, unknown function	-2.2	-2.1
PFL0340w	conserved Plasmodium protein, unknown function		-2.0
PFL0345w	conserved Plasmodium protein, unknown function		-2.1
PFL0490c	conserved Plasmodium protein, unknown function	-2.1	-2.5
PFL0525w	conserved Plasmodium protein, unknown function	-2.4	-2.0
PFL0640w	conserved Plasmodium protein, unknown function		-2.2
PFL0845w	conserved Plasmodium protein, unknown function	-2.1	
PFL1130c	conserved Plasmodium protein, unknown function		-2.1
PFL1495w	conserved Plasmodium protein, unknown function		-2.0
PFL1505c	conserved Plasmodium protein, unknown function		-2.4
PFL1815c	conserved Plasmodium protein, unknown function		-2.1
PFL1840w	conserved Plasmodium membrane protein, unknown function	-2.3	
PFL2075c	conserved Plasmodium protein, unknown function	-2.0	-2.2
PFL2078w	conserved Plasmodium protein, unknown function	-2.1	
PFL2200w	conserved Plasmodium protein, unknown function	-2.7	-2.0
PFL2265c	conserved Plasmodium protein, unknown function	-2.1	
PFL2335w	conserved Plasmodium protein, unknown function		-2.0
PFL2350c	conserved Plasmodium membrane protein, unknown function	-2.2	-2.0
MAL13P1.315	conserved Plasmodium protein, unknown function	-2.0	
MAL7P1.129	conserved Plasmodium protein, unknown function		-2.1
MAL8P1.29	conserved Plasmodium protein, unknown function	-2.2	
PF08_0005	conserved Plasmodium protein, unknown function	-2.1	
PF11_0343	conserved Plasmodium protein, unknown function		-2.0
PF11_0354	conserved Plasmodium protein, unknown function		-2.1
PF13_0277	conserved Plasmodium protein, unknown function		-2.3
PFD0150w	conserved Plasmodium protein, unknown function		-2.0
PF14_0708	probable protein, unknown function		-2.1

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PFI1620c	conserved Plasmodium protein, unknown function			-2.0
PFL0165c	conserved Plasmodium protein, unknown function			-2.1
PFL0275w	conserved Plasmodium protein, unknown function			-2.0
PFL0350c	conserved Plasmodium protein, unknown function			-2.1
PFL0470w	conserved Plasmodium protein, unknown function	-2.2		
PFL1015w-a	conserved Plasmodium protein, unknown function	-2.1	-2.0	
PFL1160c	conserved Plasmodium protein, unknown function	-2.1	-2.2	
PFL1495w	conserved Plasmodium protein, unknown function			-2.1
PFL1865w	conserved Plasmodium protein, unknown function			-2.0
MAL13P1.228	conserved Plasmodium protein, unknown function			-2.1
MAL13P1.49	conserved Plasmodium protein, unknown function			-2.0
MAL8P1.18	conserved Plasmodium protein, unknown function	-2.1		-2.2
PF10_0138	conserved Plasmodium protein, unknown function	-2.0	-2.1	
PF11_0158	conserved Plasmodium protein, unknown function	-2.0	-2.0	-2.4
PF13_0067	conserved Plasmodium protein, unknown function		-2.1	-2.2
PF13_0079	conserved Plasmodium protein, unknown function		-2.0	-2.1
PFC0940c	conserved Plasmodium protein, unknown function	-2.1		-2.4
PF13_0199	conserved Plasmodium protein, unknown function			-3.1
PF11_0185	conserved Plasmodium protein, unknown function			-2.0
PF11_0415	conserved Plasmodium protein, unknown function		-2.1	
PF11_0290	conserved Plasmodium protein, unknown function	-2.2		
PFD1115c	conserved Plasmodium protein, unknown function			-2.4
PFE0395c	6-cysteine protein			-2.1
PFE1515w	conserved Plasmodium membrane protein, unknown function		-2.0	
PFI0270w	conserved Plasmodium protein, unknown function		-2.0	
MAL13P1.94	conserved Plasmodium membrane protein, unknown function			-2.2
PFI1560c	conserved Plasmodium membrane protein, unknown function	-2.4		-2.0

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