

Protein ID	Protein Name	Average-Enrich. Triton	Average-Enrich. CHAPS
PF3D7_1147300	Conserved Plasmodium protein, unknown function	∞	ND
PF3D7_1459000	ATP-dependent RNA helicase DBP5	∞	ND
PF3D7_1251600	Conserved Plasmodium protein, unknown function	∞	ND
PF3D7_0720100	Small subunit rRNA processing protein, putative	∞	ND
PF3D7_1123400	Translation elongation factor EF-1, subunit a	∞	ND
PF3D7_1027400	DNA-directed RNA polymerase II subunit RPB7	∞	ND
PF3D7_0208700	Conserved Plasmodium protein, unknown function	∞	ND
PF3D7_1471400	Diacylglycerol kinase	∞	ND
PF3D7_0611700	60S ribosomal protein L39	∞	ND
PF3D7_1138800	WD repeat-containing protein	∞	∞
PF3D7_1434300	Hsp70/Hsp90 organizing protein	∞	∞
<b>PF3D7_1218300</b>	<b>AP-2 complex subunit mu</b>	28.65	341.39
PF3D7_1114200	GTPase-activating protein, putative	21.83	∞
PF3D7_0617100	AP-2 complex subunit alpha	21.01	240.76
PF3D7_1022600	Kelch protein K10	19.82	0.07
PF3D7_0217300	AP-2 complex subunit sigma	17.10	∞
PF3D7_1461300	40S ribosomal protein S28e	9.75	ND
PF3D7_0710400	DNA repair protein RAD14	8.44	ND
PF3D7_0802000	Glutamate dehydrogenase	8.33	5.06
PF3D7_1137400	UVB-resistance protein UVR8 homologue	7.54	ND
PF3D7_1205900	Conserved protein, unknown function	7.45	∞
PF3D7_1402500	Ribosomal protein S27a	6.60	∞
PF3D7_1470700	Conserved Plasmodium protein	6.60	ND
PF3D7_1230900	Serine/threonine protein kinase RIO1	6.30	∞
PF3D7_0508600	Conserved Plasmodium protein, unknown function	6.16	ND
PF3D7_0321100	Conserved Plasmodium protein, unknown function	5.90	ND
PF3D7_0813000	Conserved Plasmodium protein, unknown function	5.19	ND
PF3D7_0801800	Mannose-6-phosphate isomerase	5.15	ND
PF3D7_0529500	Cell cycle regulator protein	5.07	ND
PF3D7_0212300	Peptide chain release factor subunit 1	4.93	ND
PF3D7_0205800	PH domain-containing protein	4.74	ND
PF3D7_0102200	Ring-infected erythrocyte surface antigen	4.66	ND
PF3D7_1149200	Ring-infected erythrocyte surface antigen 3	4.62	ND
PF3D7_0303300	DNA-directed RNA polymerases I, II, and III subunit RPABC2	4.45	ND
PF3D7_0304200	EH domain-containing protein (EPS15)	4.43	∞
PF3D7_1111000	tRNA m5C-methyltransferase	4.23	ND
PF3D7_1109400	Essential nuclear protein 1	4.18	ND
PF3D7_0106700	Small ribosomal subunit assembling AARP2 protein	4.18	ND
PF3D7_1404500	rRNA biogenesis protein RRP5	4.09	ND
PF3D7_1205700	Targeted glyoxalase II	3.90	ND

PF3D7_1104400	Thioredoxin	3.85	ND
PF3D7_1451900	Ribosome biogenesis protein TSR1	3.83	∞
PF3D7_0731300	Plasmodium exported protein (PHISTb), unknown function	3.83	ND
PF3D7_0813600	Translation initiation factor SUI1	3.70	ND
PF3D7_0416400	Histone acetyltransferase	3.70	ND
PF3D7_0803100	U3 small nucleolar RNA-associated protein 14	3.65	ND
PF3D7_1471000	RNA 3-terminal phosphate cyclase-like protein	3.61	ND
PF3D7_0522300	18S rRNA (guanine-N(7))-methyltransferase	3.54	ND
PF3D7_0708500	Heat shock protein 86 family protein	3.52	ND
PF3D7_0528100	AP-1 complex subunit beta	3.49	26.11
PF3D7_1129100	Parasitophorous vacuolar protein 1	3.47	11.66
PF3D7_0722000	Conserved Plasmodium protein, unknown function	3.45	∞
PF3D7_1010600	Eukaryotic translation initiation factor 2 subunit	3.41	ND
PF3D7_0408500	Flap endonuclease 1	3.41	∞
PF3D7_1108000	IWS1-like protein	3.39	ND
PF3D7_0106000	Conserved Plasmodium protein	3.30	ND
PF3D7_0417800	Cdc2-related protein kinase 1	3.19	ND
PF3D7_0903400	ATP-dependent RNA helicase DDX60	3.16	ND
PF3D7_1033300	Conserved Plasmodium protein, unknown function	3.09	ND
PF3D7_0907600	Translation initiation factor SUI1	3.08	ND
PF3D7_0205600	Conserved Plasmodium protein	3.04	ND
PF3D7_1407500	Multifunctional methyltransferase subunit TRM	3.04	∞
PF3D7_0926900	Replication termination factor	3.00	ND
PF3D7_0615700	RNA export binding protein	1.73	∞
PF3D7_1027300	peroxiredoxin (oxidative stress defense)	1.63	159.73
PF3D7_1226900	Parasitophorous vacuolar protein 2	1.30	∞
PF3D7_1323400	60S Ribosomal Protein L23	0.83	24.54
PF3D7_0312800	60S Ribosomal Protein L26	0.81	15.67
PF3D7_1222600	AP2 domain transcription factor AP2-G (nuclear)	0.53	27.51
PF3D7_1341300	60S Ribosomal Protein L18	0.49	15.35
PF3D7_1237200	Conserved Plasmodium protein, unknown function	0.46	10.11

### Supplementary Dataset 1A. Extended IP-MS interactome of AP-2 $\mu$

Factors identified with greater than 3-fold enrichment in HA pulldown in either condition compared to control pulldowns with statistical difference between HA and control pulldowns greater than 0 and at least 2 peptides per protein. ∞ indicates that no peptides were detected in the control pulldown; ND indicates protein was not identified in either the control or HA pulldown.

Protein ID	Protein Name	Average-LFQ wt (N=3)	Average-LFQ GFP (N=4)	Enrichment	-log(P)
PF3D7_1421000	DIX domain-containing protein	ND	9.42E+08	∞	3.34
PF3D7_1411300	DnaJ protein	ND	7.14E+08	∞	5.05
PF3D7_0903400	ATP-dependent RNA helicase DDX60	ND	5.67E+08	∞	0.25
PF3D7_API0180	Apicoplast ribosomal protein L16	ND	1.30E+08	∞	0.62
PF3D7_0815800	Vacuolar protein sorting-associated protein Vps9	ND	1.25E+08	∞	2.26
PF3D7_1037600	TFIIH basal transcription factor complex XPB subunit	ND	7.32E+07	∞	0.27
PF3D7_0806800	V-type proton ATPase subunit A	ND	6.37E+07	∞	2.09
PF3D7_0202600	Nucleic acid binding protein	ND	6.27E+07	∞	0.40
PF3D7_1210100	Syntaxin, Qa-SNARE family	ND	5.22E+07	∞	0.46
PF3D7_0907700	Proteasome activator 28 subunit beta	ND	4.51E+07	∞	0.12
PF3D7_1458000	Cysteine proteinase falcipain 1	ND	3.84E+07	∞	0.64
PF3D7_0316500	Kinetochore protein NUF2	ND	3.15E+07	∞	0.01
PF3D7_0301700	Plasmodium exported protein, unknown function	ND	3.12E+07	∞	0.49
PF3D7_0314100	Vesicle transport v-SNARE protein	ND	2.95E+07	∞	0.60
PF3D7_1006700	Conserved Plasmodium protein, unknown function	ND	2.94E+07	∞	0.06
PF3D7_1118100	AP-1 complex subunit sigma	ND	2.90E+07	∞	0.15
PF3D7_0802400	Conserved Plasmodium protein, unknown function	ND	2.89E+07	∞	0.00
PF3D7_0306100	Conserved Plasmodium protein, unknown function	ND	2.79E+07	∞	0.21
PF3D7_0820500	Protein transport protein YIF1	ND	2.71E+07	∞	0.76
PF3D7_0320100	Protein transport protein SEC22	ND	2.51E+07	∞	0.02
PF3D7_1328100	Proteasome subunit beta type-7	ND	2.36E+07	∞	0.41
PF3D7_1110200	Pre-mRNA-processing factor 6	ND	2.21E+07	∞	0.02
PF3D7_0914900	BSD-domain protein	ND	2.10E+07	∞	0.26
PF3D7_0103200	Nucleoside transporter 4	ND	1.89E+07	∞	0.48
PF3D7_0529000	Conserved Plasmodium protein, unknown function	ND	1.86E+07	∞	0.62
PF3D7_0205500	DNA-directed RNA polymerase II 16 kDa subunit	ND	1.86E+07	∞	0.03
PF3D7_1329500	Conserved protein, unknown function	ND	1.58E+07	∞	0.17
PF3D7_1464700	ATP synthase (C/AC39) subunit	ND	1.23E+07	∞	0.15
PF3D7_1004400	RNA-binding protein	ND	1.22E+07	∞	0.37
PF3D7_0931800	Proteasome subunit beta type-6	ND	9.31E+06	∞	0.07
PF3D7_1419400	Conserved Plasmodium membrane protein, unknown function	ND	9.13E+06	∞	0.12
PF3D7_1435500	Clathrin light chain	7.17E+07	2.19E+09	30.56	2.74
<b>PF3D7_1219100</b>	<b>Clathrin heavy chain</b>	3.07E+09	6.87E+10	22.38	2.81
PF3D7_1307700	TOM1-like protein	3.32E+07	6.91E+08	20.81	2.78
PF3D7_1459600	Conserved Plasmodium protein, unknown function	1.17E+08	2.33E+09	19.89	2.31
PF3D7_1432800	HP12 protein homolog	1.72E+07	2.14E+08	12.40	1.63
PF3D7_1311400	AP-1 complex subunit mu-1	2.93E+07	3.18E+08	10.85	2.42
PF3D7_1353200	Membrane associated histidine-rich protein	5.61E+06	5.30E+07	9.45	0.35
PF3D7_1016300	GBP130 protein	1.75E+07	1.56E+08	8.92	2.38
PF3D7_1455500	AP-1 complex subunit gamma	7.43E+07	6.48E+08	8.72	2.27

PF3D7_1308200	Carbamoyl phosphate synthetase	2.60E+08	1.71E+09	6.57	3.07
PF3D7_1451800	Sortilin	6.96E+08	4.47E+09	6.42	1.51
PF3D7_1408700	Conserved protein, unknown function	3.24E+08	1.99E+09	6.15	1.33
PF3D7_1214900	Conserved protein, unknown function	2.96E+07	1.71E+08	5.78	1.93
PF3D7_0704400	Phosphoinositide-binding protein	4.90E+07	2.72E+08	5.55	1.58
PF3D7_0102200	Ring-infected erythrocyte surface antigen	5.42E+07	2.64E+08	4.87	2.16
PF3D7_0528100	AP-1 complex subunit beta, putative   tr	1.25E+08	5.69E+08	4.56	2.06
PF3D7_1215900	Serpentine receptor	2.48E+07	1.11E+08	4.47	1.27
PF3D7_0530100	SNARE protein	1.38E+07	5.95E+07	4.32	1.18
PF3D7_0936000	Ring-exported protein 2	1.76E+07	6.67E+07	3.80	0.90
PF3D7_0103900	Parasite-infected erythrocyte surface protein	2.84E+07	1.04E+08	3.65	1.28
PF3D7_0412000	LITAF-like zinc finger protein	2.06E+07	7.26E+07	3.52	0.36
PF3D7_1330400	ER lumen protein retaining receptor 1	1.01E+08	3.52E+08	3.50	1.26
PF3D7_0716300	Conserved protein, unknown function	1.03E+08	3.59E+08	3.47	1.36
PF3D7_1320000	Golgi protein 1	2.77E+07	9.49E+07	3.42	1.22
PF3D7_1359600	Conserved Plasmodium protein, unknown function	8.12E+08	2.77E+09	3.41	0.35
PF3D7_1015600	Heat shock protein 60	3.59E+07	1.22E+08	3.38	0.99
PF3D7_1010100	PI31 domain-containing protein	2.63E+07	8.86E+07	3.38	1.40
PF3D7_0532100	Early transcribed membrane protein 5	1.01E+08	3.36E+08	3.32	1.08
PF3D7_0936800	Plasmodium exported protein (PHISTc), unknown function	3.30E+07	1.08E+08	3.27	1.12
PF3D7_1123500	Golgi protein 2	2.97E+07	9.70E+07	3.26	1.10
PF3D7_0922100	Ubiquitin-like protein	2.32E+07	7.14E+07	3.07	0.17
PF3D7_1239700	ATP-dependent zinc metalloprotease FTSH 1	5.34E+07	1.60E+08	3.00	1.18

### Supplementary Dataset 1B. Extended IP-MS interactome of clathrin heavy chain

Factors identified with greater than 3-fold enrichment in GFP pulldowns compared to control pulldowns with statistical difference between GFP and control pulldowns greater than 0 and at least 2 peptides per protein. ∞ indicates that no peptides were detected in the control pulldown; ND indicates protein was not identified in either the control or HA pulldown.