

TABLE S2: Peptides and corresponding *P.berghei* target proteins tested

Chromosome	Pb gene	Pb protein	Peptide Sequence	Peptide ID	
I	PBANKA_010060	SMAC	FNFYNSTFM	59	
	PBANKA_010330	unknown ORF	FIYAYIEL	58	
	PBANKA_010460	RAD50	IIFFFGRL	247	
	PBANKA_010670	unknown ORF	FSYFFFRL	346	
	PBANKA_010910	transketolase	SALSNHHVL	464	
	PBANKA_010930	unknown ORF	INLFYIVL	67	
			ISYNSFPL	71	
			ISYNSFPLF	72	
	PBANKA_011120	GTP-binding	RAVVRNTPF	460	
			RSLNRRNTI	463	
PBANKA_011240	unknown ORF	KAYEYVPV	145		
		LSYGFKSM	160		
		TVIQNFDFL	230		
	II	PBANKA_020150	exported protein	YSMENIQPI	403
		PBANKA_020310	PIP5K	VKYTFRSL	592
		PBANKA_020520	unknown ORF	SSNTNNHPM	379
			RSIVNLENM	462	
			VNLENMDYM	485	
	PBANKA_020580	UIS1/IK2	LHLLWWSYL	85	
			SNYEKKVLL	105	
		VMIKFYTRI	190		
		YNYSYKNI	199		
PBANKA_020620	unknown ORF	IIWSYAFI	257		
	PBANKA_020870	LytB	SQIRNTDAI	373	
PBANKA_020900	unknown ORF	VSVINQYQL	113		
		FLSENQIGYCL	6		
		LSYIYFLI	28		
		VLFFFFFFIV	48		
		INTVYNNV	69		
		SVINQYQLM	108		
PBANKA_020910	TRSP	FSVVNIIL	8		
	PBANKA_020970	zinc peptidase	LAITNYDKL	215	
		LNYNFRLI	158		
		TNYIFIII	185		
		YPYTYSYL	200		
		NSIKNIEDI	222		
PBANKA_021060	Ubi hydrolase	KVYDKYSYI	83		
		DTYRYLPL	57		
		IFYEYSLI	62		
		LIYPYPPL	87		
		NQISNFSEI	94		
		SIYNMESH	101		
		SSIEFETL	106		
		SSISYNNI	107		
	PBANKA_021130	NFS	INRYFGNM	68	
			MTYIYGNA	91	
PBANKA_021440	ApiA2	STYYFKYTL	181		
		VAILNIALI	479		
III	PBANKA_030360	26S proteasome	TVYIYPKV	186	
	PBANKA_030380	Sufe	VNPNFISL	191	
			ISIVNMFYV	354	
	PBANKA_030400	unknown ORF	KIYQYCTL	147	
	PBANKA_030830	GAF-domain	KSILNYNTI	358	
	PBANKA_030920	unknown ORF	MSIFNDQPI	450	
	PBANKA_030940	unknown ORF	NSIKNYLLM	455	
	PBANKA_031000	HSP40	KAYRKMAMM	77	
			NTYVYSGV	95	
	PBANKA_031100	SEC31	GSLNNYTYL	423	
		ASSTNMDTI	410		
PBANKA_031120	unknown ORF	YMLKNFNPL	392		
PBANKA_031180	AcylCoA synthase	HNLINDIYI	539		

TABLE S2: Peptides and corresponding *P.berghei* target proteins tested (contin.)

Chromosome	Pb gene	Pb protein	Peptide Sequence	Peptide ID	
III	PBANKA_031180	AcylCoA synthase	VHFSYLPL	591	
	PBANKA_031310	VPS45	YSYTNYDAL	408	
	PBANKA_031320	unknown ORF	IYFPKNL	267	
	PBANKA_031430	unknown ORF	CALVNSLYI	324	
	PBANKA_031470	replication C2	VSYIFKAL	488	
IV	PBANKA_040100	unknown ORF	NSIINDDPI	364	
	PBANKA_040120	ABC transporter	LAYSYYNI	154	
	PBANKA_040200	unknown ORF	INYAFALL	274	
	PBANKA_040380	unknown ORF	VIYFFPFL	307	
				VIYFYNNL	308
	PBANKA_040480	FAD-G3PDH	VSYKYSPI	489	
	PBANKA_040550	ribosomal L7	VTYGYPSL	490	
	PBANKA_040610	unknown ORF	AMIENEEMI	202	
				LMHTNMDSI	216
				SALKNVDLL	227
	PBANKA_040640	unknown ORF	NMLTNDFDI	363	
	PBANKA_040650	TCP-1/CPN60	RSICNKEQI	461	
	PBANKA_040920	Val tRNA ligase	TSYCNAIYM	477	
	PBANKA_040990	unknown ORF	ISYLFSYM	292	
	PBANKA_041010	RING Zn ²⁺ finger	SANNNWEYM	370	
	PBANKA_041200	DER1	KAWFNLDYI	357	
	PBANKA_041290	CTR1	FALRNRDYI	329	
	PBANKA_041380	unknown ORF	LIYSYNNF	559	
	PBANKA_041410	P _i pyrophosphatase	FQINNKHYM	421	
				ISNMFSNL	439
	PBANKA_041610	dynein, h chain	IQYNFSPL	278	
				SALSNVDIL	369
				IFFRFISM	429
				ISFFLNPL	436
	PBANKA_041660	replication A1	ISIRNWNDM	438	
	PBANKA_041800	DEAD helicase	FVFIYYMHF	60	
				LYYMYLL	561
				NNLINYSII	572
				QNIRNTDIL	574
				SSNNNYSEM	584
	PBANKA_041810	unknown ORF	ISYDYAYL	290	
				CAIHNTIYI	411
			SSVNSYEV	472	
			VNYLYNV	486	
V	PBANKA_050280	unknown ORF	IFYTYGGV	542	
			IIFTFGSF	544	
			LIFHYMHL	558	
			MKYKYNNL	562	
	PBANKA_050620	unknown ORF	SSFSFALL	301	
			INICNKFFI	504	
	PBANKA_050730	dynein, h chain	IQIINMDAI	435	
			YIYFYKNL	498	
	PBANKA_051090	ribosomal S2B	SAYANIPVI	466	
	PBANKA_051300	unknown ORF	SAYTRELPL	173	
	PBANKA_051410	PRP22	YSLENLYYL	395	
	PBANKA_051430	unknown ORF	VSYEYKST	195	
	PBANKA_051640	unknown ORF	ISFSFGLL	285	
	PBANKA_051830	unknown ORF	IIFFFNNL	248	
	PBANKA_051870	Met tRNA ligase	VAIMNIKPL	480	
	PBANKA_051980	AcylCoA transp.	FAIFNPFFI	325	
	PBANKA_051990	unknown ORF	FNYSFTNL	420	
	PBANKA_052000	pyruvate kinase2	SAVKNIDNI	465	

TABLE S2: Peptides and corresponding *P.berghei* target proteins tested (contin.)

Chromosome	Pb gene	Pb protein	Peptide Sequence	Peptide ID	
VI	PBANKA_060150	unknown ORF	YSNRNVYVI	405	
	PBANKA_060200	ORC1	NIFNFSNL	92	
	PBANKA_060430	unknown ORF	YSYVFIRL	499	
	PBANKA_060490	unknown ORF	FTFFYTKL	121	
				INYSFEKL	137
	PBANKA_060530	TIF5	YMIKNPPQI	232	
	PBANKA_060590	unknown ORF	VVFEKDTFL	53	
	PBANKA_060660	unknown ORF	VIYTYLYL	310	
	PBANKA_060950	kinesin	ISLNYNE	19	
				ISLNYNEL	20
				SNFKFAGL	35
				SNFKFAGLM	36
				ISHVFINEM	70
	PBANKA_060970	unknown ORF	FMNMNSEPM	336	
	PBANKA_060990	PFj4	ISYLILYF	139	
	PBANKA_061160	RNDP reductase	VAVCNLASI	481	
	PBANKA_061210	unknown ORF	IFYYFSFL	243	
	PBANKA_061460	transporter	ISFIFLFL	281	
	PBANKA_061480	unknown ORF	YSIKNKTYM	393	
	PBANKA_061570	dynein, h-chain	FMIENSHIL	418	
				IFYEYKYL	430
				SMLYNIVFI	467
				SSNINFDFL	470
	PBANKA_061860	unknown ORF	SNISNFDEI	469	
	PBANKA_061890	unknown ORF	TSVTNAFKI	111	
	PBANKA_062220	unknown ORF	LSFQFFNL	295	
	VII	PBANKA_070190	GAMA	VSYALFAL	194
				KSLVNGQLI	212
		PBANKA_070790	unknown ORF	IIFFFISL	351
		PBANKA_070800	SEC23	VMYSNIEYI	483
				VSLANRAVM	487
		PBANKA_070880	ribosomal L4	FASINDDPI	331
		PBANKA_071420	ClpB	ISYRFLPD	442
PBANKA_071570		Lys decarboxylase	TSILNFDML	476	
PBANKA_071670		GTP-binding	VIYVFDPL	311	
PBANKA_071950		unknown ORF	INYFFNFL	275	
			KSISNVTYI	359	
PBANKA_072030		proteasome sub.	DAIQNLQYI	413	
PBANKA_072090		unknown ORF	IIFLFFFL	251	
VIII		PBANKA_080030	unknown ORF	INYVYENL	277
		PBANKA_080230	Ubi transferase	YMLFNYPMP	391
	PBANKA_080410	unknown ORF	MNYYYNL	298	
	PBANKA_080460	AAA ATPase	SYYSNFDYI	473	
	PBANKA_080590	kinesin	IAMLNNTTI	349	
	PBANKA_080810	unknown ORF	IGWSFNLSL	125	
	PBANKA_081030	unknown ORF	TVYIFSEI	590	
	PBANKA_081110	helicase	MAYLYSNL	296	
	PBANKA_081130	Ran-binding	FAYLNCLEL	415	
	PBANKA_081300	falstatin	IKYLYIFL	503	
				IVYSYRPF	507
				KSPSNFTII	510
				TSYNSFNHL	521
				YLYIFLNL	526
	PBANKA_081310	unknown ORF	IIMYIREF	502	
				INIDYENI	505
				MNMKYMNI	513
			MYINYNL	514	
			MYINYNLM	515	
			NMYINYNL	516	
			SGLRNLNDNI	518	
			SSYCYSKT	520	

TABLE S2: Peptides and corresponding *P.berghei* target proteins tested (contin.)

Chromosome	Pb gene	Pb protein	Peptide Sequence	Peptide ID	
VIII	PBANKA_081320	unknown ORF	IIYSYCYL	269	
	PBANKA_081340	unknown ORF	SSNVNQENI	471	
	PBANKA_081390	proteasoe subun.	FMVKNNDIM	419	
	PBANKA_081410	unknown ORF	VNSNYIYL	524	
	PBANKA_081630	unknown ORF	ILYSYSKV	134	
				IMYYYAKL	135
				QTYRYMCL	169
	PBANKA_081970	DHU synthase	YSLVNAFEL	401	
	PBANKA_082000	DNAJ chaperone	VIFVYMWL	428	
	PBANKA_082030	PDI	ITYNFENV	21	
				IVFFFTPEL	22
				IVYLASFIL	23
				TSFKMYPPI	42
				YIYIFFIIV	54
	PBANKA_082040	sugar transport	MICSFCNL	163	
				VSMIFMFI	193
	PBANKA_082150	unknown ORF	ISFSYFKL	286	
	PBANKA_082300	Ubi-like	SIYVFFNL	300	
	PBANKA_082340	PGK	MAYTFKRV	89	
	PBANKA_082420	PPLP3	FAMCNDDSI	330	
	PBANKA_082590	unknown ORF	FTYSFEVL	122	
				IAFYLFYLF	124
				ISYSLMYI	140
				VLFI FYTQL	189
	PBANKA_082690	kinase	ACLSNATTI	533	
				INFLHTPI	548
				MSSIYSNL	567
				NSTSNMETL	573
				SVYNIYPPL	586
	PBANKA_082760	unknown ORF	SSFSNDTTI	374	
	PBANKA_083100	MSP1	FSFVFFAI	537	
				IGLLFSFV	543
				ISYVSGGL	554
				NALKKNDML	568
				YVIRNPYQL	600
	PBANKA_083120	DAG kinase	NMLLNFLPI	362	
	PBANKA_083410	unknown ORF	IIFTFYLL	254	
	IX	PBANKA_090130	MAEBL	KSLINKEYI	80
				NYYSFTNL	96
		PBANKA_090210	SLARP	AIYNCYKNL	1
				ILFSFFSYF	14
				INYYKAQQY	18
				TNYFYTSKM	40
				TNYLTRNSL	41
				NSINNSDTM	456
PBANKA_090230		unknown ORF	KIFVYSNL	555	
			YNTQNSMPM	598	
PBANKA_090240		unknown ORF	MLYLFGKV	563	
PBANKA_090315		unknown ORF	FSYAYFNL	236	
PBANKA_090460		unknown ORF	INFIFLII	546	
			KSSRFYNL	556	
PBANKA_090670		unknown ORF	ISFILYIL	553	
			YILSFIPL	596	
			YSFIFNLI	599	
PBANKA_091020		phophatase 2C	ISYNYFYRI	441	
PBANKA_091030		GCalpha	MVFAFRYL	451	
PBANKA_091160		ribosomal S9	RALLNACPL	366	
PBANKA_091230		EBNA2 binding	YAYINDYTI	389	
PBANKA_091260		unknown ORF	FMNTNSKSM	535	
			FNLAYNNL	536	

TABLE S2: Peptides and corresponding *P.berghei* target proteins tested (contin.)

Chromosome	Pb gene	Pb protein	Peptide Sequence	Peptide ID	
IX	PBANKA_091260	unknown ORF	INIKNIPI	549	
			MSLNNHDNI	566	
			NIYVYANL	569	
	PBANKA_091380	RNA polymerase	KNYEYEF	148	
			KSYIYNKI	152	
			QIYLRKEM	167	
			KSVINYCVL	213	
			IAIKNEDII	425	
			NAINISAI	452	
	PBANKA_091430	PDI-related	IAIKNEDII	425	
	PBANKA_091440	UIS24/HSP70	NAINISAI	452	
	PBANKA_091480	unknown ORF	ISYIFEYL	291	
	PBANKA_091520	unknown ORF	KMLINWNYV	445	
	PBANKA_091530	unknown ORF	VSFFFSLM	593	
	PBANKA_091640	UBI-like	RAISNIEAI	459	
	PBANKA_092430	ER oxidoreductin	ISYVVPIL	141	
			LVYLLYILL	161	
			LYFTFAIL	162	
			KSIWNRIYL	210	
			AMLSNIPYI	320	
			YAIFNICPN	493	
			INVSNFLEI	550	
			NMHKNWNYI	570	
			KSFCFFNI	150	
			SNYNFEKPF	177	
	PBANKA_092910	AcylCoa-binding	KSFCFFNI	150	
	PBANKA_093030	GTP-binding	SNYNFEKPF	177	
	PBANKA_093140	STT3 subunit	ISFIFSVL	282	
	PBANKA_093190	Ser esterase	IGYVYDLI	126	
	PBANKA_093260	unknown ORF	INFFFYYL	272	
	PBANKA_093650	RFC5	YAPRNDEL	494	
	PBANKA_093810	unknown ORF	YMINNDSYI	390	
	PBANKA_093960	PABP-interacting	SMHINGIHM	582	
	X	PBANKA_100250	unknown ORF	DIYNYVSL	4
				YQVINPVPI	114
		PBANKA_100620	SIAP-1	YSFGKYTYM	115
				SAFVNYKDI	577
				AVLYYTRL	3
		PBANKA_100630	SPECT2	KNYMYLVCV	26
				VSYLEIEC	52
				LAYIFKQKL	153
		PBANKA_100740	unknown ORF	LAYIFKQKL	153
		PBANKA_100750	ALP	ISFIYNSL	283
		PBANKA_100950	Glu synthetase	YSLVNAHEL	402
				IALLNCTPV	426
		PBANKA_101050	HOP	YAIENRYNF	492
		PBANKA_101060	calmodulin	ISYLFVYL	293
PBANKA_101350		GTPase	ISVLNKDPI	355	
			KAIQNSDEI	256	
			SSICNSSFI	377	
PBANKA_101530		rRNA methyl tf	SSICNSSFI	377	
PBANKA_101640		transporter	IIYEFAYL	258	
PBANKA_101750	UIS28	ENYKKYKKL	5		
		HYFFYFVFL	11		
		IIFGFGFS	12		
		IMFGCSSYL	15		
		IMFLFMKYF	16		
		LNFTFTIMF	27		
		THYFFYFVF	39		
		LNDFGNI	88		
		QTWYFCYL	98		
		RSIMFLM	99		
		ASMANMSSL	500		
FSHKNVMFM	501				

TABLE S2: Peptides and corresponding *P.berghei* target proteins tested (contin.)

Chromosome	Pb gene	Pb protein	Peptide Sequence	Peptide ID	
X	PBANKA_101760	unknown ORF	YSYLVNDVPI	407	
	PBANKA_101800	unknown ORF	FAVFNILPI	332	
	PBANKA_101950	ribosomal L5	TIFYFGHL	474	
	PBANKA_102010	phosphatase	ISMVYKIL	138	
	PBANKA_102020	CYP52	KVIIYTSL	82	
	PBANKA_102050	unknown ORF	SSICNDDVL	375	
	PBANKA_102430	RNA helicase	INLYTFL	276	
	PBANKA_102460	LISP1	IALRNINYI	427	
	PBANKA_102790	SNRPB	IALNNYVPM	348	
	PBANKA_103060	unknown ORF	RALMNTYPL	367	
	PBANKA_103100	unknown ORF	VSFQNM	383	
	PBANKA_103160	unknown ORF	IVFLCYPSSL	74	
	PBANKA_103380	unknown ORF	IYRYFSL	268	
	PBANKA_103390	ribosomal S8e	RNYKYRAI	170	
	PBANKA_103910	unknown ORF	IYLFYFL	264	
	XI	PBANKA_110650	ROM4	ILYGFATI	133
				SAYRSYTPM	172
			SMYLVHGGGL	176	
PBANKA_110770		SET-domain	IIIKYLM	129	
			IIWQYSPF	131	
			SGIMYYTV	174	
			SNYYYTLL	178	
			SSLIYSYI	179	
			SVYSYYNV	183	
			ASIWNSYTI	204	
			KSFKNIIYYL	209	
PBANKA_111380		UIS26	ILQFFANM	65	
PBANKA_111400		Asn tRNA ligase	IIYIYNFL	243	
PBANKA_111490		PI3K	RAFTNLSEI	576	
			SIYLYWFL	579	
			SIYLYWFL	580	
			SSFFYNFL	583	
PBANKA_111510		Aa transporter	IIFAFIYL	244	
PBANKA_111590		unknown ORF	ISFFFSVL	279	
PBANKA_111600		TLP	SISSYSHL	175	
			KSVNNLDEI	214	
PBANKA_111830		unknown ORF	IIFKYPNL	250	
PBANKA_112060		unknown ORF	FMLINFLYI	334	
PBANKA_112370		unknown ORF	KNLTFSNL	25	
PBANKA_112680		HECT-E3	KAFLYQPV	144	
			LSFIFSL	159	
			YAIKNCTAI	386	
PBANKA_112690		PK4	YSLPNMHYI	400	
PBANKA_112790		RAP protein	FSLKNKDAM	342	
PBANKA_112810		phospholipase	YTLNWKYEL	531	
PBANKA_112870		PI/PC transfer	RTYRFIDL	171	
PBANKA_113000		Ran-BP	IANLNICFI	541	
			MSLANGYYI	565	
PBANKA_113160		MCM subunit	SMPRNMDVI	468	
PBANKA_113280		unknown ORF	YSILNYFPL	394	
PBANKA_113530		unknown ORF	ISFGYSNL	280	
PBANKA_113670		GCbeta	AAPKNVLKL	532	
		IAFLFADI	540		
		ILFIYINI	545		
		LAYNFESPI	557		
		LSLCNVIEL	560		
		TNYTYFYI	588		
		TSLDNLEYI	589		
		VSILFIYI	594		
		VSNKNSDFV	595		
PBANKA_113730	unknown ORF	NMLQSYDTI	219		

TABLE S2: Peptides and corresponding *P.berghei* target proteins tested (contin.)

Chromosome	Pb gene	Pb protein	Peptide Sequence	Peptide ID
XI	PBANKA_113840	calpain	YSLKNYSTI	397
	PBANKA_113950	unknown ORF	IFYSYKNL	350
	PBANKA_114390	unknown ORF	IIFIFFL	249
	PBANKA_114570	U2 ribonucleo A	QIFAYAYL	458
XII	PBANKA_120630	UIS11	GTYIFNYL	61
			IIYDFLNL	64
			KTNMNIYPM	511
			YMFQNNQFL	527
			YMVANNYNL	528
			YTLQNYLKI	530
	PBANKA_120680	Zn ²⁺ finger	SMMYNFKLL	34
			SYFDIFPTM	38
			MMYNFKLL	90
			TMHMNDYPV	109
	PBANKA_120830	unknown ORF	KSLSFYSFL	151
			NSIINYKMI	221
			YAHINYNNI	231
	PBANKA_121100	GMP5	YFIENKIPI	496
	PBANKA_121250	unknown ORF	ISIDYFIFL	506
			KNYVFNML	509
			VTPEYINV	525
	PBANKA_121270	unknown ORF	NQTMNFTPL	220
	PBANKA_121360	Cys tRNA synth.	FAINMITM	326
			KSLKNFITI	447
	PBANKA_121670	unknown ORF	FSLLNFEET	343
	PBANKA_121760	H2A.Z	KALMNKVPV	444
	PBANKA_122100	unknown ORF	SNFRMISL	519
			YSINNDLI	529
	PBANKA_122480	unknown ORF	SSICNKYVI	376
	PBANKA_122770	inositol P-ase	IFFQFFFL	240
	PBANKA_122790	unknown ORF	FAIYNTPEM	328
	PBANKA_122830	unknown ORF	IYYMRNEL	143
	PBANKA_122890	WARP	ITYIFFSL	294
	PBANKA_123100	ribosomal S14	FASFNDTFI	206
	PBANKA_123350	PUF1	NMIRNIDNI	218
			NSLKNSIII	224
			SNISNDDYL	228
	PBANKA_123400	vacuolar ATPase	ASSIFSNL	117
	PBANKA_123460	unknown ORF	AILVYSPL	116
			NAIKNVNII	217
	PBANKA_123540	unknown ORF	YSLLNNTYI	398
	PBANKA_123630	DEAD helicase	VSFQFKNL	314
	PBANKA_123780	MDR1	FAIVNQEPM	327
	PBANKA_124180	MCM3	NSLINYTLM	457
	PBANKA_124230	HRP58	NMMSNPDLI	454
	PBANKA_124510	unknown ORF	TIYSFVNL	303
XIII	PBANKA_130080	CRMP4	INFIFSF	273
	PBANKA_130200	unknown ORF	VSYYIYIYL	316
	PBANKA_130320	unknown ORF	INFLFFLI	547
	PBANKA_130530	FACT-S	ISYEYTN	440
	PBANKA_130550	ACP33	LIQLYAKL	155
	PBANKA_130630	unknown ORF	ISIQNETYI	353
	PBANKA_130660	unknown ORF	RSIRNTTYL	368
	PBANKA_130940	unknown ORF	SNLQNYQSI	103
	PBANKA_131160	unknown ORF	SSIFNDDFM	378
	PBANKA_131480	EF2	NAIRNCDPN	453
	PBANKA_131690	unknown ORF	IYKYFNI	431
	PBANKA_131740	chaperone p23	FAVRNSRAI	414
			FIYFFLRL	417
	PBANKA_131790	unknown ORF	FSIVNGQFI	339
	PBANKA_131820	NifU	ASHLNLPPV	203

TABLE S2: Peptides and corresponding *P.berghei* target proteins tested (contin.)

Chromosome	Pb gene	Pb protein	Peptide Sequence	Peptide ID
XIII	PBANKA_132010	UIS25	KSSVFSNL	81
	PBANKA_132220	unknown ORF	ASIVNYDTN	321
	PBANKA_132650	unknown ORF	FSILNTFLI	338
	PBANKA_132670	unknown ORF	YSYVNNTFI	409
	PBANKA_132680	replication C3	TSFRFSPL	304
	PBANKA_132800	UIS2	KNFEWHKIM	24
			RNFFFYNI	31
	PBANKA_132970	26S proteasome	IKYEYVNL	434
	PBANKA_133090	unknown ORF	SSFVYQNL	302
	PBANKA_133130	unknown ORF	FSHVNSFYI	337
			ANLIYANL	534
			INYVFKLL	551
			IQYIFICL	552
			SKLRNIDYL	581
	PBANKA_133330	unknown ORF	IIFFFFHL	245
	PBANKA_133440	anion transport	YSLNLIPL	399
	PBANKA_133460	DAG kinase	FNMTNYFSI	208
	PBANKA_133510	unknown ORF	KILKFINV	146
			VSYSSYYL	196
	PBANKA_133590	RNA polymerase	QIYGAIIV	166
	PBANKA_134090	unknown ORF	TSICNKVPM	382
	PBANKA_134210	unknown ORF	YSLFNQTTL	396
	PBANKA_134250	unknown ORF	TIQNFSSL	184
			NSYVNTGPL	225
			RSIGNIEFL	226
			STIQNFSSL	229
	PBANKA_134360	unknown ORF	VHFYISL	187
	PBANKA_134410	myosin	CSYIYAYA	119
			FATSNSAYL	207
	PBANKA_134790	UBA	FSIWNYYI	340
	PBANKA_134980	TRAP/SSP2/S8	SALLNVDNL	100
	PBANKA_135240	unknown ORF	VSYLHSP	317
	PBANKA_135400	DBR1	SAPQNLDP	371
	PBANKA_135520	aconitase	ANYLASPAL	2
			SAIRNCDNL	32
	PBANKA_135660	UDP-N-AG-PP	QNLQNGTII	575
			SIYEHQNL	578
			SSVSNNNTL	585
	PBANKA_135900	sec61alpha	IYQFYEM	433
	PBANKA_135920	ALBA2	SSVNVVAEM	380
	PBANKA_136260	ATPase	MSKKYYRL	164
			SSLSYASL	180
	PBANKA_136430	glycerol kinase	FGITNMYAL	416
PBANKA_136520	thioredoxin-like	IFFLFLTL	428	
XIV	PBANKA_140070	unknown ORF	LGITFAIL	84
			TYHYWIPM	112
	PBANKA_140080	UIS3	FNFPFNK	7
			TTFFFNPC	43
			TTFFFNPCF	44
			VFFVFVLY	46
			VFVLYITT	47
			VLYYMYKSH	49
			NSLKNIDTA	517
			VFFVFYVL	523
	PBANKA_140290	unknown ORF	FSYVNGNYM	347
	PBANKA_140370	ApiAP2	YALSNNYFI	388
	PBANKA_140670	CP synthetase	IAICNMENI	424
	PBANKA_140690	unknown ORF	FSFLFNLL	235
			IIFSFFYL	253
	PBANKA_141340	UIS23	KNFFFKNPV	78

TABLE S2: Peptides and corresponding *P.berghei* target proteins tested (contin.)

Chromosome	Pb gene	Pb protein	Peptide Sequence	Peptide ID
XIV	PBANKA_141380	unknown ORF	ASNSNYDYI	323
	PBANKA_141570	ApiAP2	GSIANLDSI	538
			MNIPYMNL	564
			NMHNNYMPL	571
			TNYRYENI	587
			YMNNNYLTV	597
			VNFLYYNV	484
	PBANKA_141830	rhoptry protein 2		
	PBANKA_141930	unknown ORF	ISLVFYNL	288
	PBANKA_141940	unknown ORF	YALSNLYEI	387
	PBANKA_142240	importin beta	VSYFYSYL	315
	PBANKA_142280	unknown ORF	VYYIYAPF	198
	PBANKA_142290	unknown ORF	INYNHKERF	17
			YSLSNHDEI	55
			QIYKYVFPL	30
	PBANKA_142520	unknown ORF	SIFIFYTPV	33
			IIFAWASI	63
			KSIVNDYDM	446
	PBANKA_142690	helicase		
	PBANKA_142780	C50 peptidase	AYYYFEKRL	56
			FSMVNYFTI	345
			CIFIFGNL	412
			IYHLHNNL	432
			ISIEYSFL	437
			TSYLYDRL	478
			KVYNYISI	512
			VNYSFLYLF	51
			SNVCRFAPL	104
			SNVCRFAPL	104
	PBANKA_143230	CelTOS	FVFFCFFNV	9
			HTYSLVSPV	10
			SVFVFFCFF	37
			VFFCFFNVL	45
			VNRHTYSLV	50
			VFFCFFNV	522
			FSLLNIFYFL	344
			IFYFYYNL	242
			AVVTYANM	118
			IAALYYRL	123
	PBANKA_143470	clathrin h-chain	ITLNYINL	443
	PBANKA_143820	DNA gyrase alpha	YAHNNKTYI	384
	PBANKA_143920	PABP	YAYVNYHNL	495
	PBANKA_144070	UBA	FIYAFANL	234
			YAFANLRAM	491
	PBANKA_144820	unknown ORF	FSVKNEPTL	422
			LSLVNADYV	448
			MMILNFDVI	449
TSFLFRQL			475	
FMLLNKYKI			335	
PBANKA_144870	unknown ORF			
PBANKA_144930	CPW-WPC family	ISFYFMFL	287	
PBANKA_144960	unknown ORF	FAHRNMNSL	205	
		NSLINIFPI	223	
		NSLINIFPI	365	
		IMYKKNLVL	66	
PBANKA_145420	unknown ORF	ITYVQNNL	73	
		IVIKYHHI	75	
		KNYRYSVM	79	
		LILRFEHL	86	
		QIMNYTNL	97	
		TNFMFSSV	110	
		IYQYVLL	352	
		FSYNYFKM	120	
PBANKA_145570	unknown ORF			
PBANKA_146270	unknown ORF			

TABLE S2: Peptides and corresponding *P.berghei* target proteins tested (contin.)

Chromosome	Pb gene	Pb protein	Peptide Sequence	Peptide ID
XIV	PBANKA_146270	unknown ORF	IIFKIAGL	127
			INQKFLFL	136
			LNIFYNNL	157
unknown	PBANKA_146330	unknown ORF	YTSTNLDYI	233
	PB000530.00.0	unknown	KSLENIDEL	211
	PB000530.00.0	unknown	VSHGFSEL	192
	PB100935.00.0	unknown	IIFYYALL	256
	-	UIS6	IYYMHFLNF	76
	PB100963.00.0	guanyl cyclase	IIQKYNNV	130
			VIYVYFIL	188
	PB101556.00.0	unknown	ISYAYCAL	289
	PB101774.00.0	unknown	IIFFFFYL	246
	PB102211.00.0	unknown	IKYYFQNEL	132
	PB102515.00.0	unknown	ISFPFPRL	284
	PB102994.00.0	unknown	IITYYAYM	270
	PB103202.00.0	unknown	SIYKFASL	372
	PB103347.00.0	unknown	VSYNFLFL	319
	PB103980.00.0	unknown	IVFFFFAFL	142
	PB104119.00.0	unknown	VFFQFGNL	305
	PB104445.00.0	unknown	MSYFFFPL	299
	PB104461.00.0	unknown	LIYVYFFV	156
			VVYMSFNISI	197
			YVYFFVNSL	201
	PB104640.00.0	unknown	SSYTNMFPL	381
	PB104885.00.0	unknown	IYYIFYLL	262
	PB105090.00.0	unknown	SVIYKSL	182
	PB105459.00.0	unknown	IFFFFSYL	239
	PB105607.00.0	unknown	IHHFFINI	128
			MTLKFIVV	165
			QNYIFFAL	168
	PB105775.00.0	unknown	IFFFFFYL	238
	PB106391.00.0	unknown	YSVNVYELI	406
	PB106640.00.0	unknown	IFFSFFFL	241
	PB106724.00.0	unknown	MNFLYANL	297
	PB107429.00.0	unknown	IYGFVAFV	261
	PB107461.00.0	unknown	SLFVFIYL	102
	PB107666.00.0	unknown	FAYSNMTNI	333
			YSMENLIYI	404
	PB108856.00.0	unknown	NNYKFSLL	93
	PB301444.00.0	unknown	KIFYFGSV	508
	PB301531.00.1	unknown	IILLFSLL	13
	PB400289.00.0	unknown	VFYVFFNL	306
	PB400627.00.0	unknown	VSYLEVLL	318
	PB401053.00.0	unknown	VNYHYALL	313
	PB401186.00.0	unknown	NMLINRYYM	361
	PB401464.00.0	unknown	IMFRFAFL	271
	PB401772.00.0	unknown	VIYFVIPL	312
	PB401949.00.0	unknown	VIYLFNFL	309
	PB402277.00.0	unknown	IIFYYLFL	260
			IYLYLFL	265
	PB402615.00.0	unknown	KNYYFSYV	149
	PB403128.00.0	unknown	YAIINRVNM	385
	PB403225.00.0	unknown	IIFNFAQL	252
	PB403477.00.0	unknown	IYFFLNL	259
	PB404783.00.0	unknown	ASMVNMLHM	322
	PB405175.00.0	unknown	FSLINTFVI	341
	PB405410.00.0	unknown	KSLINMYFI	360
	PB405453.00.0	unknown	IIFYVIPL	255
	PB405552.00.0	unknown	IFFFFFPL	237
	PB405815.00.0	unknown	IYMFLLFL	266