

**Table S5: Single SPE2 sites upstream of chromosome-internal genes**

chromosome	SPE2 start	SPE2 end	+/-	annotation	accession	SPE2 location	5bp spacing	gene +/-	ATG	SPE2 upstream (bp)	Pf-IRBC+Spz+Gam max expr stage (Atfy)	
chr12	2123397	2123412	1	chitinase	PFL2510w	upstream				2125421	2024	Merozoite
chr12	917547	917563	1	glideosome-associated protein 45	PFL1090w	upstream	5	-1		918714	1167	Late Schizogony
chr12	855439	855454	-1	conserved Plasmodium protein, unknown function	PFL1025c	upstream		-1		854732	722	Gametocyte
chr12	347208	347224	1	conserved Plasmodium protein, unknown function	PFL0370w	exon 2	5	-1		345917		Gametocyte
chr12	205902	205917	-1	eukaryotic initiation factor 5a, putative	PFL0210c	exon		-1		205973		Early Trophozoite
chr9	1359737	1359752	-1	UBX domain, putative	PFI1680w	PFI1685w						Gametocyte
chr9	616555	616571	1	conserved Plasmodium protein, unknown function	PFI0705w	upstream	5	-1		617954	1399	Gametocyte
chr9	398159	398174	-1	conserved Plasmodium protein, unknown function	PFI0410c	upstream		-1		398007	167	Late Schizogony
chr9	373429	373444	-1	P1 nuclease, putative	PFI0385c	upstream		-1		370444	3000	Late Schizogony
chr9	275999	276014	-1	RhopH3	PFI0265c	upstream		-1		274787	1227	Late Schizogony
chr6	880216	880232	1	conserved Plasmodium protein, unknown function	PFF1040w	upstream	5	-1		881961	1745	Early Ring
chr6	545545	545561	1	integral membrane protein, putative	PFF0645c	upstream	5	-1		546959	1414	Late Schizogony
chr5	898616	898631	1	conserved Plasmodium protein, unknown function	PFE1105c	exon		-1		899751		Early Schizogony
chr5	365711	365726	1	conserved Plasmodium protein, unknown function	PFE0440w	upstream		-1		367022	1311	Late Schizogony
chr5	85954	85970	-1	rhoptry-associated protein 2, RAP2	PFE0080c	upstream	5	-1		85237	733	Early Schizogony
chr5	82925	82941	-1	rhoptry-associated protein 3, RAP3	PFE0075c	upstream	5	-1		82336	605	Late Schizogony
chr4	879424	879439	1	apical merozoite protein	PFD0955w	upstream		-1		880118	694	Late Schizogony
chr4	326137	326153	1	conserved Plasmodium protein, unknown function	PFD0300w	upstream	5	-1		327491	1354	Early Schizogony
chr4	270350	270365	1	protease, putative	PFD0230c	PFD0235c		-1				Late Schizogony
chr4	270352	270367	-1	protease, putative	PFD0230c	upstream		-1		269883	484	Late Schizogony
chr3	199711	199726	-1	membrane skeletal protein, putative	PFC0180c	PFC0185w						Merozoite
chr2	610088	610104	-1	rhoptry neck protein 6	PFB0680w	exon1	5	-1		610087		Late Schizogony
chr14	2261182	2261198	-1	conserved Plasmodium protein, unknown function	PF14_0527	exon		-1		2259401		Late Schizogony
chr14	1919382	1919397	-1	centrin-2	PF14_0443	upstream		-1		1917953	1444	Gametocyte
chr14	1237682	1237698	-1	conserved Plasmodium protein, unknown function	PF14_0293	upstream	5	-1		1237067	631	Late Schizogony
chr14	657954	657969	1	conserved protein, unknown function	PF14_0161	upstream		-1		659538	1584	Merozoite
chr13	1331766	1331781	1	conserved Plasmodium protein, unknown function	PF13_0173	upstream		-1		1332497	731	Late Schizogony
chr13	981644	981660	-1	conserved Plasmodium protein, unknown function	PF13_0134	MAL13P1.130	5	-1				Gametocyte
chr11	490720	490735	1	conserved Plasmodium protein, unknown function	PF11_0528	upstream		-1		492090	1370	Late Schizogony
chr11	1606698	1606714	-1	conserved Plasmodium protein, unknown function	PF11_0414	PF11_0415	5	-1				Early Trophozoite
chr11	663498	663513	1	conserved Plasmodium protein, unknown function	PF11_0179	upstream		-1		664162	664	Merozoite
chr11	607322	607337	1	moving junction protein	PF11_0168	intron		-1		613393		Late Schizogony
chr10	772648	772663	-1	conserved Plasmodium protein, unknown function	PF10_0184	upstream		-1		771953	710	Gametocyte
chr10	691351	691366	-1	conserved Plasmodium protein, unknown function	PF10_0166	upstream		-1		690819	547	Late Schizogony
chr10	609000	609015	1	FAD synthetase, putative	PF10_0147	upstream		-1		611212	2212	Gametocyte
chr10	159324	159339	-1	conserved Plasmodium protein, unknown function	PF10_0037	upstream		-1		158517	822	Late Schizogony
chr8	1124705	1124721	-1	ubiquitin-protein ligase 1, putative	MAL8P1.23	exon	5	-1		1140216		Early Ring
chr8	208975	208991	1	mitogen-activated protein kinase organizer 1, putative	MAL8P1.145	upstream	5	-1		209571	596	Gametocyte
chr8	400130	400145	-1	serine protease, putative	MAL8P1.126	upstream		-1		399909	236	Late Schizogony
chr4	1195676	1195691	1	hypothetical protein, conserved in P. falciparum	PFD1250w	intron		-1		1192754		
chr8	1410598	1410613	1	hypothetical protein, conserved in P. falciparum	MAL8P1.330	upstream		-1		1412780	2182	
chr8	1411226	1411241	1	hypothetical protein, conserved in P. falciparum	MAL8P1.330	upstream		-1		1412780	1554	
chr8	1412206	1412221	-1	hypothetical protein, conserved in P. falciparum	MAL8P1.330	upstream		-1		1412780	574	