

Table S2. Cloning strategy

| Construct | Primers | Template | Cloned into |
|------------------------------------|---|--|---|
| SBP1-mDHFR-GFP | SBP-1fw(XhoI) SBP-1rv(AvrII) | cDNA | pARL2-REX2mDHFR-GFP (Grüiring et. al 2012) |
| SBP1-mDHFR-GFP PH mut | GFP-PH mut fw BstBI PH mut rv XmaI | GFP PH mut (Kruse et al, unpublished data) | pARL2 SBP-1mDHFR-GFP |
| REX2-GFP-mDHFR | REX2XhoI fw GFPrv Nhe-XmaI mDHFR Nhe fw mDHFR Spe-XmaI | REX2-GFP (Haase et al.,2009) REX2mDHFR-GFP (Grüiring et. al 2012) | pARL2-REX2mDHFR-GFP (Grüiring et. al 2012) |
| REX2+3C-mDHFR-GFP | REX2XhoI fw REX2rvAvrII Ext C-t | synthesized gene | pARL2-REX2mDHFR-GFP (Grüiring et. al 2012) |
| MAHRP1-mDHFR-GFP | MAHRP1 Xho fw MAHRP1 AvrII rv | cDNA | pARL2-REX2mDHFR-GFP (Grüiring et. al 2012) |
| REX3-mDHFR-GFP | REX3 XhoI fw REX3 AvrII rv | cDNA | pARL2-REX2mDHFR-GFP (Grüiring et. al 2012) |
| KAHRP-mDHFR-GFP | KAHRP Xho fw KAHRP AvrII rv | cDNA | pARL2-REX2mDHFR-GFP (Grüiring et. al 2012) |
| PTP1-mDHFR-GFP | PTP1 XhoI fw PTP1 rv AvrII | 3D7 genomic DNA | pARL2-REX2mDHFR-GFP (Grüiring et. al 2012) |
| PTP1+3C-mDHFR-GFP | PTP1 XhoI fw PTP1 rv SpeI | 3D7 genomic DNA | pARL2-REX2 (3C) mDHFR-GFP |
| STEVOR-mDHFR-GFP | STEVOR_0900900 XhoI fw STEVOR_0900900 AvrII rv | 3D7 genomic DNA | pARL2-REX2mDHFR-GFP (Grüiring et. al 2012) |
| REX2-BPTIwt-GFP | BPTI fwAvrII BPTI rv KpnI | synthesized gene | pARL2-REX2mDHFR-GFP (Grüiring et. al 2012) |
| REX2-BPTImut-GFP | BPTI fwAvrII BPTI rv KpnI | synthesized gene | pARL2-REX2mDHFR-GFP (Grüiring et. al 2012) |
| SBP1-BPTIwt-GFP | SBP-1fw(XhoI) SBP-1rv(AvrII) | cDNA | REX2-BPTIwt-GFP |
| MAHRP1-BPTIwt-GFP | MAHRP1 Xho fw MAHRP1 rv AvrII | cDNA | REX2-BPTIwt-GFP |
| REX3-BPTI-GFP | REX3 XhoI fw REX3 AvrII rv | cDNA | REX2-BPTIwt-GFP |
| ΔCSBP1-BPTIwt-GFP | SBP-1fw(XhoI) SBP259AvrIIrv | cDNA | REX2-BPTIwt-GFP |
| ΔCSBP1-BPTImut-GFP | SBP-1fw(XhoI) SBP259AvrIIrv | cDNA | REX2-BPTImut-GFP |
| ΔNSBP1-BPTIwt-GFP | SBP-1fw(XhoI) /SBP1 40rv (Product1a) SBP1 211fw/ SBP-259rv(AvrII)(Product1b) SBP-1fw(XhoI) /SBP259rv(AvrII) | cDNA cDNA Product1a + Product1b | REX2-BPTIwt-GFP |
| REX2+3C-BPTIwt-GFP | REX2XhoI fw REX2rvAvrII Ext C-t | synthesized gene | REX2-BPTIwt-GFP |
| PTP1-BPTI-GFP | PTP1 XhoI fw PTP1 rv AvrII | 3D7 genomic DNA | REX2-BPTIwt-GFP |
| PTP1+3C-BPTI-GFP | PTP1 XhoI fw PTP1 rv SpeI | 3D7 genomic DNA | REX2-(3C) BPTIwt-GFP |
| MSRP6mCherry | MSRP6 fw KpnI MSRP6 rv AvrII | MSRP6-GFP (Heiber et al., 2013) | REX2mCherry (Grüiring et. al 2012) |
| REX3mCherry | REX3KpnI fw REX3AvrIIrv | cDNA | REX2mCherry (Grüiring et. al 2012) |
| STEVORmCherry | STEVOR KpnI fw STEVOR AvrII rv | 3D7 genomic DNA | REX2mCherry (Grüiring et. al 2012) |
| pARL2-T2A-mCherry | pARL2 XhoI fw pARL2-2A-AvrIIrv | pARL1-GFP | pARL2 GFP-mCherry |
| SBP1-mDHFR-GFP-2A REX3mCherry | SBP-1fw(XhoI)/GFPrvSpe REX3 fw AvrII/ REX3 rv KpnI | SBP-1mDHFR-GFP cDNA | pARL2 -T2A-mCherry |
| SBP1-mDHFR-GFP-2A KAHRPmCherry | SBP-1fw(XhoI)/ GFPrvSpe KAHRPfwAvrII/ KAHRPrvKpnI | SBP-1mDHFR-GFP cDNA | pARL2 -T2A-mCherry |
| SBP1-mDHFR-GFP-2A STEVORmCherry | SBP-1fw(XhoI)/ GFPrvSpe STEVOR fw1/STEVOR fw2 AvrII STEVOR rv KpnI | SBP-1mDHFR-GFP 3D7 genomic DNA | pARL2 -T2A-mCherry |
| SBP1-mDHFR-GFP-2A MSRP6mCherry | SBP-1fw(XhoI)/ GFPrvSpe MSRP6 fw AvrII/MSRP6 rv KpnI | SBP-1mDHFR-GFP MSRP6-GFP | pARL2 -T2A-mCherry |
| REX2-GFP-mDHFR-2A KAHRPmCherry | REX2XhoI fw/ mDHFR Spe-XmaI rv KAHRP fw AvrII/ KAHRP rv KpnI | REX2GFPmDHFR cDNA | pARL2 -T2A-mCherry |
| GST-REX1 | Rex1-332fwBamH1 Rex1-596revXho1 | 3D7 genomic DNA | pGEX-6-P2 |
| GST-Aldolase | Aldolase-9-fwBamH1 Aldolase-96-revXho1 | cDNA | pGEX-6-P2 |
| GST-SBP1-N | SBP1N-131fwBamH1 SBP1N-208revXho1 | SBP-1mDHFR-GFP | pGEX-6-P2 |
| GST-SERA5 | SERA5-68fwBamH1 SERA5-184revXho1 | 3D7 genomic DNA | pGEX-6-P2 |

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|----------------------------|--|------------------------------|---------------------------|
| EXP2-3xHA integration | EXP2 Not fw/ EXP2 HA rv1 (Product 1) EXP2 Not fw/ 3xHA Sall rv2 | 3D7 genomic DNA Product 1 | pARL1-SLI |
| HSP101-3xHA integration | HSP101Not1 fw HSP101Kpn1rv | 3D7 genomic DNA | pARL1-SLI |
| SBP1-mDHFR-GFP integration | NotI-SBP1_F/AvrII-SBP1_R | 3D7 genomic DNA | pARL2 mDHFR-GFP-hDHFR-BSD |