

#	Amplicon	Template	Dir.	Sequence
P1	PfCen1	NF54 cDNA	F	cgaccgggatgtaccATGAGCAGAAAAATCAAAC TATG
P2	PfCen1	NF54 cDNA	R	ttctctcttactcctaggAAATAAGTTGGTCTTTTCAT AATTC
P3	PfCen2	NF54 cDNA	F	cgaccgggatgtaccATGACCGATAACACAGCTG
P4	PfCen2	NF54 cDNA	R	ttctctcttactcctaggTAAGAAGCTTTTTTGGTCAT TATTG
P5	PfCen4	NF54 cDNA	F	cgaccgggatgtaccATGAACACAATGTTAATTAAG G
P6	PfCen4	NF54 cDNA	R	ttctctcttactcctaggTGAATCTGAATCAACATCAC
P7	Halo+Linker	p238-actin- chromobody-halo*	F	gaaaagaccaacttattctcctaggCCAACCACTGAGGATCT GT
P8	Halo+Linker	p238-actin- chromobody-halo*	R	ccctcgaggaaactcctgcaggtctggacatTTAACCGGAAATC TCCAGAGTAGAC
P9	PfHsp70 5' UTR	NF54 gDNA	F	cactatagaatactcgcgccgcCGCATAAATATCTGGTG AAATACAAAC
P10	PfHsp70 5' UTR	NF54 gDNA	R	atgtatgctatacgaagtatgaaCCTTTTGCCTAGCCAAT TTTTTC
P11	hDHFR+GG GS linker	pARL-Cen3-GFP	F	cttctatagcatacattatacgaagtatATGCATGGTTCGCTA AAC
P12	hDHFR+GG GS linker	pARL-Cen3-GFP	R	aatctattataaataaatggatccacctccaccATCATTCTTCTCA TATACTTC
P13	hDHFR+GG GS linker	pARL-Cen3-GFP	R	TCTTCTCCCTTAGATACGG
P14	mCherry	p3xNLS-mCherry- hsp86-BSD	F	gaatgatgtggaggtggatccGTATCTAAGGGAGAAGA G
P15	mCherry	p3xNLS-mCherry- hsp86-BSD	R	gtataatgtatgctatacgaagtatgctgacttaTGTAGAGTGTCT ACCTTC
P16	GFP	pARL-Cen3-GFP	F	gtatagcatacattatacgaagtatacgcgtATGGTTAGTAAAG GAGAAGAACTTTTC
P17	GFP	pARL-Cen3-GFP	R	ctattataaataaatgctcgagTTATTTGTATAGTTCATCC ATG
P18	PbDHFR 3'UTR	PbANKA gDNA	F	gtagacactctacataagtcgacGATATGGCAGCTTAATGT TC
P19	PbDHFR 3'UTR	PbANKA gDNA	R	atgctatacgaagtat G ATATCGAAATTGAAGG
P20	PfHsp86 5'UTR	NF54 gDNA	F	cactatagaatactcgcgccgcGGGAATTCCTTATAAGA TCTTTC
P21	PfHsp86 5'UTR	NF54 gDNA	R	atgtatgctatacgaagtATTTTATTCGAAATGTGGGAA G
P22	Cen1	pARL-Cen1-GFP	F	acattatacgaagtatacgcgtATGAGCAGAAAAATCAA AC
P23	ΔN-PfCen1	pARL-Cen1-GFP	F	acattatacgaagtatacgcgtATGGAATTAATGAAGAA CAAAAATTAG
P24	GFP-T2A	pSLI-TGD_PfSlp-GFP <sub>42</sub>	F	acattatacgaagtatacgcgtATGAGTAAAGGAGAAGAA CTTTTC
P25	GFP-T2A	pSLI-TGD_PfSlp-GFP <sub>42</sub>	R	agtttgatttttctgctTGGTCTGGATTTTCTTCTAC
P26	PfCen1	pFIO+ PfCen1-GFP	F	AGCAGAAAAAATCAAACCTATG
P27	PfCen1	pFIO+ PfCen1-GFP	R	Ctattataaataaatgctcgag TTA AAATAAGTTGGTCTTTTTTCATAATTC
P28	HsCen2	human cDNA	F	actttaagaaggagatataccATGGCTCCAACCTTAAGA AGG
P29	HsCen2	human cDNA	R	agtgggtgggtgggtgggtgccATAGAGGCTGGTCTTTTT CATG
P30	PfCen1 (E. coli)	oligo 6	F	actttaagaaggagatataccATGTCTCGTAAAAACCAAA CC
P31	PfCen1 (E. coli)	oligo 6	R	agtgggtgggtgggtgggtgccGAATAAGTTAGTTTTTTTT ATAATGCG

P32	$\Delta$ N-PfCen1 (E. coli)	oligo 6	F	ttaagaaggagatataccatgGAGCTGAATGAGGAACAA AAG
P33	PfCen1 (E. coli)	oligo 6	R	ttctcctttactcctaggGAATAAGTTAGTTTTTTTCATA ATGCG
P34	PfCen2 (E. coli)	oligo 7	F	actttaagaaggagatataccATGACAGATAAACTGCC
P35	PfCen2 (E. coli)	oligo 7	R	agtgggtggtggtggtggtgcccCAGGAACTTTTCTTGGT C
P36	GFP	pARL-Cen3-GFP	F	CCTAGGAGTAAAGGAGAAGAAC
P37	GFP	pARL-Cen3-GFP	R	agtgggtggtggtggtggtgcccTTTGTATAGTTCATCCATG CC
P38	PfCen3 (E. coli)	oligo 8	F	ttaagaggagaaagatccATGATTAACCGTAAGAGC
P39	PfCen3 (E. coli)	oligo 8	R	gtggtgatgatggtgATATAAGGATGTCTGCTTC
P40	PfCen4 (E. coli)	oligo 9	F	ttaagaggagaaagatccATGAATACTATGCTGATCA AAG
P41	PfCen4 (E. coli)	oligo 9	R	gtggtgatgatggtgAGAGTCGCTGTCAACGTC
P42	PfCen1 (E. coli)	oligo 6	F	aacctgtatttcagggcATGTCTCGTAAAAACCAAACC
P43	PfCen2 (E. coli)	oligo 7	F	aacctgtatttcagggcATGACAGATAAACTGCC
P44	PfCen3 (E. coli)	oligo 8	F	aacctgtatttcagggcATGATTAACCGTAAGAGCG
P45	PfCen4 (E. coli)	oligo 9	F	aacctgtatttcagggcATGAATACTATGCTGATCAAA G
P46	pZE13d ORF		R	CAGCTAATTAAGCTTGGCTGCAG

**S1 Table. Primers used in this study.** All primers used for amplification of the various construct fragments used for molecular cloning as described above are listed here. Homology regions for Gibson Assembly are in lowercase, PCR binding sequences are capitalized. \* Kindly provided by Dr. Friedrich Frischknecht.