

Supplemental materials

Table S1. Primers used in this study.

Purpose	Name	Sequence
Generate vector to tag endogenous TgEFP1	EFP1HA forward	ccccgcgcttctgccaccaagcttcgccaggctgt
	EFP1HA reverse	accgttctcgccagtttcacCAcCctgcaaGtgcatagaaggaa
Generate pSag1-Cas9-U6-sg1EFP1 by using Q5 mutagenesis	EFP1SG1 forward	ccaacggagagtttagagctagaaatagc
	EFP1SG1 reverse	agtcgaactcaactgacatccccatttac
Amplifying donor template for knockout clone 1	DonorKO1 forward	ggacgaagacgacgagggccttcacgcgaggaattcatggaacaa aagttgatttctgaagaag
	DonorKO1 reverse	tgcttcttctcctctgtgttctgcttttgacgcctagcggaagatccgat cttgc
Generate pSag1-Cas9-U6-sg2EFP1 by using Q5 mutagenesis	EFP1SG2 forward	ttccggctaggttttagagctagaaatagc
	EFP1SG2 reverse	gaaagaaaacaactgacatccccatttac
Amplifying donor template for knockout clone 1	DonorKO2 forward	aggccgagtgacgcacccgaaatcggaacagcgaactgaacaa aagttgatttctgaagaag
	DonorKO2 reverse	cgatattctgcgagagtcaagagtccatcttggttgagtgcggaagat ccgatcttg
Amplifying TgEFP1 gDNA to make complementing construct	TgEFP1comp WT forward	ggaggacgggaattcaaggagatggggacggcg
	TgEFP1comp WT reverse	gttcctaggggaattcaatagctgatgatacatactcgcgatatt
Deleting signal peptide from complementing construct	Δ SP forward	ccaccatgttcgcgcgcctggcgctcg
	Δ SP reverse	gcgcgaacatggtggcaggaagcgc
Generation of D97A complementation construct using Q5	D97A forward	catggagtacgcatccaacggag
	D97A reverse	aattcctcgcgatgaag
Generation of D129A complementation construct using Q5	D129A forward	ccggctagtggcatccaaccaag
	D129A reverse	aagaaagaaaacagttcgc

Targeting complementing template to Ku80 locus	KU80 forward	gtccccgggtcgctcagcacacacacacatgacgtacatcgagggga acaaaagctgggtac
	KU80 reverse	ggatagctccattgtttctgatgggaactattccgacattacattcatcctg caagtgcataagaaggaa

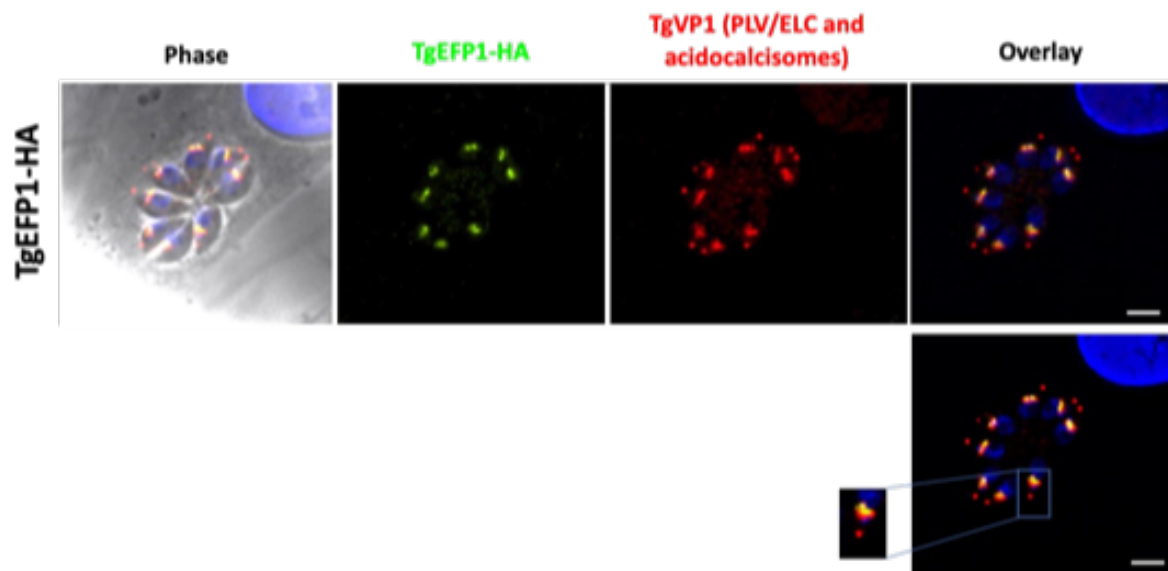


Figure S1: TgEFP1 co-localizes with TgVP1 only at the PLV/ELC and not at the acidocalcisome. Intracellular parasites stained for TgEFP1-HA (green) and TgVP1 (red). Overlay shows co-localization (yellow) of TgEFP1 and TgVP1 at the PLV/ELC. TgVP1 localization is also observed at the acidocalcisomes which is apically localized (red). Scale bars represent 2µM.