

## Tables

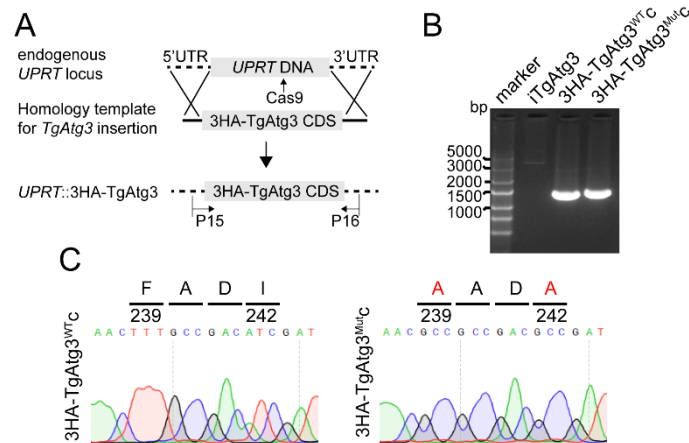
**Table S1. Primers used in this study**

Primer name	Sequence	product sizes (bp)
P1	CGTCTGTCTTCAACCAGATCTATGACGAAGCCTCAAGAGACAC	1416
P2	AGCTCCACCGCGGTGGCGGCCGCGCATGCCATTACTACACATCAGA	
P3	TCTCGTTTCGCTCAAAGTGTG	P3/P4 : 1775 P3/P5 : 1715 P6/P4 : 1744
P4	CCTTCCTTTGGTGGATCAGTC	
P5	CTGCAAGGCGATTAAGTTGG	
P6	GAAACATCGTGAGGCTGGTAC	
P7	GACCTGGCCATGGCCATGCATTACCCGTACGACGTCCCGGACTACGCTTAT CCCTATGATGTGCCCGATTATGCGTATCCTTACGATGTTCCAGATGCTGCAG CAATGACGAAGCCTCAAGAGACACC	
P8	TGAGCACAACGGTGATTAATTAATACTTCTCGTTTTTTGACTGCGG	1281
P9	GGCGAATTGGGTACCGGGCCCGTGCCTAGTATCGAAAGCTGTAG	971
P10	GACGTCGTACGGGTAATGCATTTTAGAAGCCCTGTGGACAG	
P11	AAAAACGAGAAGTAGTTAATTAAGTCTCTAGTTTTTTTGGACAGACCG	889
P12	AGTGACACCGCGGTGGCGGCCGAGAGAAGTTGTGTGCTAGAGGTTTC	
P13	GTGCCTAGTATCGAAAGCTGTAG	3173
P14	AGAGAAGTTGTGTGCTAGAGGTTTC	
P15	GCGATTCCCGTATTGGTC	1492
P16	GTTCTGCGGATGGTGAG	
P17	CTGCTTTCGTCTGTCTTC	P17/P18 : 1554 P19/P18 : 1556 P19/P20 : 1565
P18	CAAATGGCTATGTTGCGC	
P19	CAAACCCAGATATTCGCC	
P20	TACGACTCACTATAGGGC	
P21	GTATCCCAACGAAATTCGGTTCATCTGC	
P22	TTTGCCCGAATGCGGTGT	9681
P23	AGTTTCACCTCTGCCCCGA	124
P24	CTACGCCTTTCCACTGCCA	
P25	CATCTGCGAAAAAGCTCCCC	195
P26	GCCTTCGGTGCCGTATTTTC	
P27	ATGTTCCGTGGTTCGCATGT	104
P28	TTCATGTTGTTGGGAATCCAC	

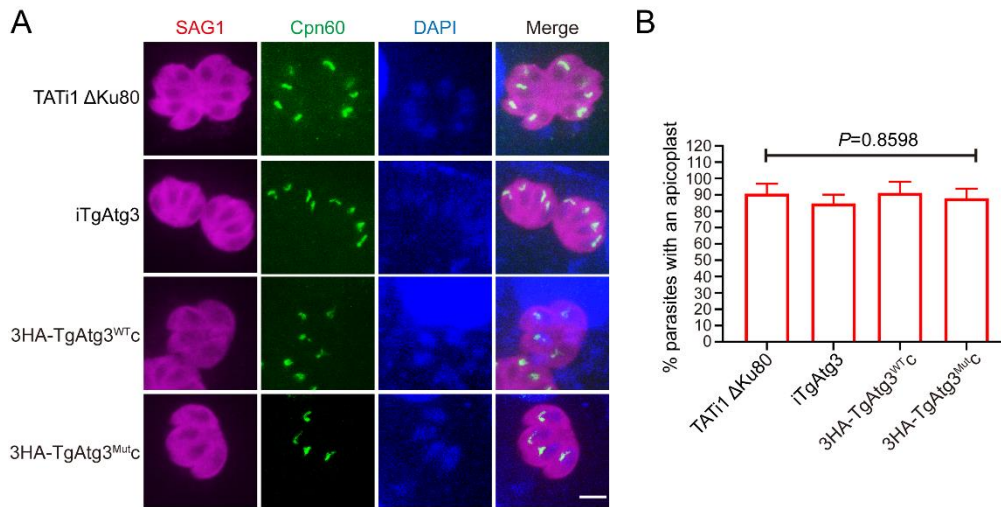
**Table S2. The antibodies used throughout this study are indicated.**

<b>Antibodies</b>	<b>Dilutions</b>	<b>Sources</b>
Rabbit anti-TgAtg8	1:500 for WB and IFA	Laboratory-prepared
Rabbit anti-TgAtg3	1:1000 for WB; 1:200 for IFA	Laboratory-prepared
Mouse anti-Tg $\beta$ Tubulin	1:1000 for WB	Laboratory-prepared
Mouse anti-TgCpn60	1:200 for IFA	Laboratory-prepared
Mouse anti-TgSAG1	1:2000 for WB and IFA	Abcam, ab8313
Rabbit anti-HA	1:2000 for WB; 1:1000 for IFA	Cell Signalling Technology, 3724S
Goat anti-rabbit IgG (H+L), HRP-Labelled	1:5000 for WB	Biosharp, BL003A
Goat anti-mouse IgG (H+L), HRP-Labelled	1:5000 for WB	Biosharp, BL001A
Goat anti-mouse Alexa Fluor 488	1:1000 for IFA	YEAST, 33106ES60
Goat anti-rabbit Alexa Fluor 546	1:1000 for IFA	YEAST, 33112ES60

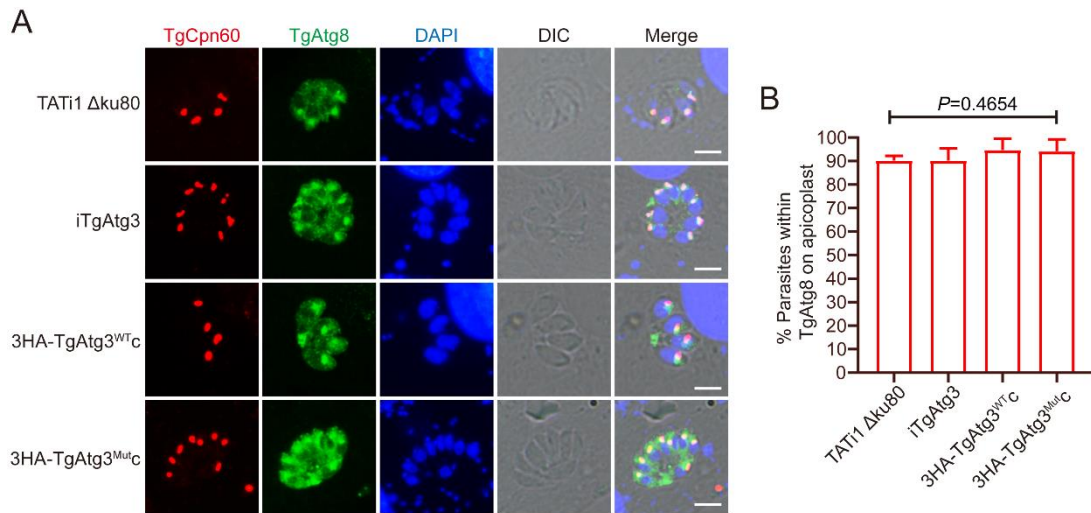
## Figures



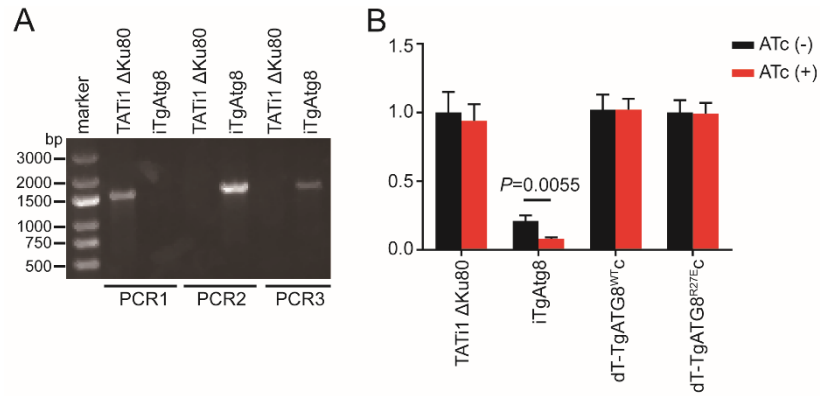
**FIG S1** Validation of two *TgAtg3* complemented lines. (A) Schematic representation of generation of the  $3\text{HA-TgAtg3}^{\text{WTc}}$  and  $3\text{HA-TgAtg3}^{\text{Mutc}}$  complemented cell lines by replacement of the endogenous *UPRT* locus. P15 and P16 represent the primer binding sites in the complemented lines (B) Clone derived from the stable FUDR-resistant population was detected for the recombined loci by using diagnostic PCR. *iTgAtg3* line is used as control. (C) Sequencing validation of the PCR products from panel A.



**FIG S2** TgAtg8-TgAtg3 interaction regulates apicoplast inheritance. (A) IFA assay for detection of the apicoplast marker TgCpn60 in HFFs infected with each line in the absence of ATc for 48 h. Scale = 5 $\mu$ m. (B) Quantification of the percentages of tachyzoites with an apicoplast in the absence of ATc for 48 h. Data are means  $\pm$  SEM from three biologic replicates, each with at least 200 parasites per line counted. Statistical analysis was done using one-way ANOVA.



**FIG S3** TgAtg8-TgAtg3 interaction regulates TgAtg8 apicoplast localization. (A) IFA was performed to observe TgAtg8 localization in the absence of ATc for 48 hours. Scale = 5 $\mu$ m. (B) The number of apicoplast-bearing parasites that displayed the presence of TgAtg8 on apicoplast. Data are means  $\pm$  SEM from two biologic replicates. Statistical analysis was done using one-way ANOVA.



**FIG S4** Generation of iTgAtg8 and complemented lines. (A) Clone derived from a stable pyrimethamine-resistant population was detected for the endogenous and recombined loci by using diagnostic PCR. TATI1  $\Delta$ Ku80 line is used as control. (B) RT-qPCR analyses of *TgAtg8* transcriptional level in each line preceded or not by 48 hours of induction with ATc to regulate expression.