Supplemental data:

Table S1. Primer sequences used in the RNAi vector construction and probes for Northern blot analysis: All sequences are described in the 5'to 3' directions. Underlined regions are the restriction sites for the enzyme XhoI in the sequence 8F and HindIII in the sequence 9R. In sequence names 'F' stands for forward primer and 'R' stands for reverse primer.

Primers for RNAi vector construction	Primers for probe preparation used in Northern blot analysis
TbCen1: 8F GGCTCGAGTGTGCGCTTAAGGGGACACCAC 9R GGAAGCTTGTCCAAGTCGAATAACTGGAACGCC	TbCen1: 10F GGGGAAAATCTCGTTTGCAAACCTG 11R AGCGACAGGTGAACGACACGGAAG
	TbCen2: 18F GAAGTGCGCCGCTTGATCGC 19R GGTACAAATATACATACACG
	TbCen3: 12F AAGAGGAGGTCTTGCGCATG 13R GATGATAGCAGTAGAACTCGC
	TbCen4: 14F CTTCGACAGGTTGGCGCGTCC 15R TCACGCAGAAAGAGCGGCTGC
	TbCen5: 16F CTTCCCGAATTTGAGGCGATTC 17R TGTTTGTGTGCTACCGGTGC

Table S2. Primer sequences for plasmid construction to ectopically express TbCen1 protein in the parasite: All are described in 5'to 3' directions. Single underlined regions are the restriction sites for the enzyme HindIII in the sequence 28F and AflII in the sequence 29R. Double underlined in sequence 28F denotes 26 nucleotides upstream of Luciferase orf from the vector pLew100 which was added upstream of the centrin genes. In sequence names 'F' stands for forward primer and 'R' stands for reverse primer.

28F	GGAAGCTTGGAATTCCTTTGTGTTACATTCTTGAATGGCGGCGCTTACTGATGAACAGATCCG
29R	GGCTTAAGTTTGCCACGCATCTGCATCATGACGC

Table S3 The pair wise amino acid similarity for the centrin sequences. This was calculated using MacVector 7.2.2 program

	TbCen1	LdCen1	LmCen1	CrCen1	MmCen4	HsCen1	MmCen1	HsCen2	MmCen2	TbCen2	LmCen2	TbCen3	LmCen3	CDC31	HsCen3	MmCen3	TbCen5	LmCen5	TbCen4	LmCen4
TbCen1	100																			
LdCen1	97	100																		
LmCen1	97	100	100																	
CrCen1	58	59	59	100																
MmCen4	57	59	59	83	100															
HsCen1	58	60	60	83	86	100														
MmCen1	57	59	59	82	83	93	100													
HsCen2	59	61	61	83	85	95	95	100												
MmCen2	58	59	59	83	85	95	95	98	100											
TbCen2	53	54	54	67	68	70	68	71	71	100										
LmCen2	57	56	56	68	66	68	69	71	71	73	100									
TbCen3	51	51	51	60	60	61	60	61	61	60	55	100								
LmCen3	50	50	50	61	60	62	61	62	63	61	58	89	100							
CDC31	51	52	52	58	60	62	61	62	63	55	54	59	61	100						
HsCen3	51	53	53	67	68	70	69	70	70	59	59	71	68	70	100					
MmCen3	51	53	53	67	68	69	69	70	70	58	59	71	67	69	99	100				
TbCen5	44	44	44	55	49	51	50	50	50	46	46	45	48	44	48	48	100			
LmCen5	35	34	34	44	46	47	45	45	46	41	41	41	42	39	40	39	60	100		
TbCen4	47	48	48	57	57	56	55	56	55	46	48	50	49	50	53	53	43	34	100	
LmCen4	46	46	46	58	55	56	55	57	57	48	48	48	49	51	54	53	41	35	78	100

FIGURE LEGENDS

Figure S1. Western blots showing the expression of TbCen1. Lanes 1 and 2 show the expressed proteins using anti-HA antibody on the lysate from TbCen-HA transgenic cells. Lane 3 shows the specific cross-reactivity of anti-LdCen1 antibody on the lysate of parasite. In each well 20 μg of total extracted proteins were loaded.

Figure S2. Western blot showing the unaffected expression level of Fla1 protein using anti-Fla1 antibody in TbCen1 depleted cells. In each well 20 μg of total extracted proteins were loaded. Ponceau S staining shows equal amount of proteins were loaded on to gel.

Supplemental data

Figure S1

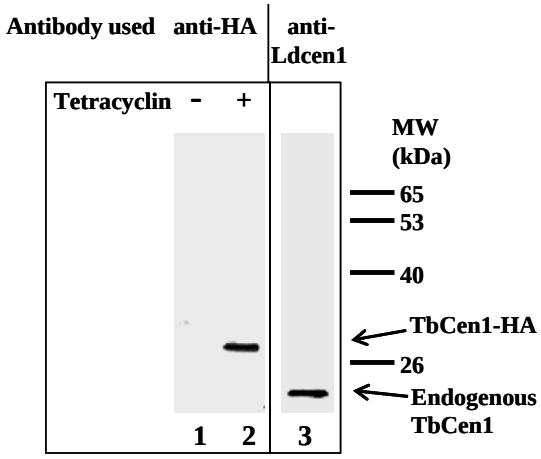

Figure S2