

**Table S2. Oligonucleotide sequences used for this study.** List of the oligonucleotides used for cloning, qRT-PCR, and TREAT analysis.

**Cloning Oligonucleotides**

Name	Sequence
FWD pLEW100	5'-GCT GCA CGC GCC TTC GAG-3'
pLEW Transfer EcoRI	5'-CGC GAA TCC CTG CTG TGC CAT CAG ATT ACT CC-3'
For TbrGG2 HindIII	5'-GGA AGC TTA TGA AGC GCA CAC CTG TT-3'
Rev TbrGG2 XbaI	5'-GTC TAG ACA CCT TCT GAC TGG CAT C-3'
QC 8x His TbrGG2 TEVmyc	5'-CTG AAA ATA CAA ATT CTC GTG ATG GTG ATG GTG GTG ATG ATG TCT AGA CAC CTT CTG-3'
rQC 8x His TbrGG2 TEVmyc	5'-CAG AAG GTG TCT AGA CAT CAT CAC CAC CAT CAC CAT CAC GAG AAT TTG TAT TTT CAG-3'
For PhyH RNAi BamHI	5'-ATA GAG GAT CCG TTC TTG CGA GGT CAG TTG C-3'
Rev PhyH RNAi HindIII	5'-ATG AAA AGC TTT CCA CCG TAA CGG GTG G-3'
FWD pLEW100	5'-GCT GCA CGC GCC TTC GAG-3'
pLEW Transfer BclI	5'-CGC TGA TCA CTG CTG TGC CAT CAG ATT ACT CC-3'
PhyH for HindIII	5'-TAA CAA AGC TTA TGC GAT CCG GTC GCA AA-3'
PhyH rev BamHI	5'-ATA TAG GAT CCC GCC TCC TCT TCG GAT GG-3'
PhyH new for BamHI	5'-TAA CAG GAT CCA TGC GAT CCG GTC GCA AAC TCG GTT GTT TT-3'
PhyH rev add His stop XbaI	5'-GTG TTC TAG ATT AGT GGT GAT GGT GAT GAT GTG CTC CAG CGC CAC CCG CCT CCT CTT CGG ATG G-3'
For PhyH NdeI	5'-TAA TCT CAT ATG CGA TCC GGT CGC AAA C-3'
Rev PhyH BamHI	5'-TAC ATA GGA TCC TTA CGC CTC CTC TTC GGA TGG-3'

**Notes**

Used to transfer the TEV-2xmyc tag from pLEW100-TEV-2xmyc to pC-puro to create pC-TEV2xmyc  
 Used to transfer the TEV-2xmyc tag from pLEW100-TEV-2xmyc to pC-puro to create pC-TEV2xmyc  
 Used to clone the TbrGG2 ORF into pC-TEV2xmyc vector (Ammerman *et al* 2012 NAR)  
 Used to clone the TbrGG2 ORF into pC-TEV2xmyc vector (Ammerman *et al* 2012 NAR)  
 Used to insert 8xHis tag in the pC-TEV2myc vector using site directed mutagenesis  
 Used to insert 8xHis tag in the pC-TEV2myc vector using site directed mutagenesis  
 Used to clone portion on MRB7260 ORF into p2T7-177 for RNAi  
 Used to clone portion on MRB7260 ORF into p2T7-177 for RNAi  
 Used to transfer the MHT-tag from pLEW79 and place into pHD1034  
 Used to transfer the MHT-tag from pLEW79 and place into pHD1034  
 Used to clone MRB7260 ORF into pHD1034 to express MTH-tagged protein in *T.brucei*  
 Used to clone MRB7260 ORF into pHD1034 to express MTH-tagged protein in *T.brucei*  
 Used to clone MRB7260 ORF into pMal-2C  
 Used to clone MRB7260 ORF into pMal-2C and add 3' 6x-HIS tag  
 Used to clone MRB7260 ORF into pGADT7 and pGBKT7 for Yeast Two-Hybrid  
 Used to clone MRB7260 ORF into pGADT7 and pGBKT7 for Yeast Two-Hybrid

**qRT-PCR Oligonucleotides\***

Name	Sequence
18S rRNA qPCR fwd	5'-CGG AAT GGC ACC ACA AGA-3'
18S rRNA qPCR rev	5'-TGG TAA AGT TCC CCG TGT TGA-3'
qPCR For PhyH	5'ATG GTA ATC GCT CAT TGG AT-3'
qPCR Rev PhyH	5'-CGC CTG GAA TTT AGT CGT AT-3'
A6 qPCR RIP For	5'-TTA TTA AAG TAA AAG AGG AAT TTT GG-3'
A6 qPCR RIP Rev	5'-CCC TCT CAA AAC CTT TCT CC-3'
RPS12 qPCR RIP For	5'-ACA CTT TTG ATA ACA AAC TAA AGT AAA AA-3'
RPS12 qPCR RIP Rev	5'-AAC GGC TCT TTC TCT CCA G-3'
For COIII RIP qPCR	5'-GGA TTG TTT AAA ATT GAA TAA AAA GG-3'
Rev COIII RIP qPCR	5'-AAC TCT TCC AAA ACC CTC CT-3'
gA6 [747] For	5'-ATA AAT ACA ACA ATA TAA TAA CTG TCG-3'
gA6 [747] Rev	5'-AAA AAT TTA ATC TCA TAT TCA ACC T-3'
gA6 [770] For	5'-TAT AAC TCC GAT AAC GAA TCA G-3'
gA6 [770] Rev	5'-AAA ATA ATT ATC ATA TCA CTG TCA A-3'
For gA6 alt int (774-822)qPCR	5'-ATA CTA TAA CTC CAA TGA CGA AA-3'
Rev gA6 alt int (774-822)qPCR	5'-AAA AAT TAT CAT ATC ACT GTA AAA CTG-3'
For gA6 640-689 qPCR	5'-ATA TAT AAA TAA CTG TAG TAT GGT G-3'
Rev gA6 640-689 qPCR	5'-AAA ATA TAT CTA TCA AAC TCA TCT-3'
gCOIII [141] For	5'-ATA TAT TAC CAA ACA ATA GAC G-3'
gCOIII [141] Rev	5'-AAA ATT AAA TCA TCT ATT AGA ATC TAC-3'
gRPS12 [203] For	5'-ATA TAT ATA ATG ACG TAA CTG AGT TAA TG-3'
gRPS12 [203] Rev	5'-AAA AAT ATT ATC TCT CTC ATT GCC-3'
gRPS12 [309] For	5'-AAA TAT AAC ATA TCT TAT ATC TGA AT-3'
gRPS12 [309] Rev	5'-AAA AAA TTC ACA TAT TAC AAG TTA-3'
gRPS12 [267] For	5'-CAA TAC GTG TAT GAT ATT TTA TAC-3'
gRPS12 [267] Rev	5'-AAA AAT TTC ACT GAT CTA CC-3'
gCyB[32] For	5'-AAA ATA ATA GGG ATT TAT GAT G-3'
gCyB[32] Rev	5'-AAA ATA TCC ACA GCA TAT C-3'

\*sequence and designation of gRNA correspond to Koslowsky 2014 NAR

**TREAT Oligonucleotides**

RPS12 Fwd	5'-TCG TCG GCA GCG TCA GAT GTG TAT AAG AGA CAG CTA ATA CAC TTT TGA TAA CAA AC-3'
RPS12 Rev	5'-GTC TCG TGG GCT CCG AGA TGT GTA TAA GAG ACA GAA AAA CAT ATC TTA TAT CTA AA-3'

**Notes**

Used for normalization  
 Used for normalization  
 Amplifies 3' end of MRB7260 ORF  
 Amplifies 3' end of MRB7260 ORF  
 Detects pre-edited A6 mRNA at the 5'end  
 Detects pre-edited A6 mRNA at the 5'end  
 Detects pre-edited RPS12 mRNA at the 5'end  
 Detects pre-edited RPS12 mRNA at the 5'end  
 Detects pre-edited COIII mRNA at the 5'end  
 Detects pre-edited COIII mRNA at the 5'end  
 Detects gRNA#2 of A6 "gA6 (747-789)"  
 Detects gRNA#2 of A6 "gA6 (747-789)"  
 Detects initiating A6 gRNA "gA6 (770-822)"  
 Detects initiating A6 gRNA "gA6 (770-822)"  
 Detects alternative initiating A6 gRNA "gA6 (774-822)"  
 Detects alternative initiating A6 gRNA "gA6 (774-822)"  
 Detects an internal A6 gRNA "gA6 (640-689)"  
 Detects an internal A6 gRNA "gA6 (640-689)"  
 Detects a gRNA in the 5' region of COIII "gCOIII (141-185)"  
 Detects a gRNA in the 5' region of COIII "gCOIII (141-185)"  
 Detects internal gRNA of RPS12 "gRPS12 (203-246)"  
 Detects internal gRNA of RPS12 "gRPS12 (203-246)"  
 Detects initiating RPS12 gRNA "gRPS12 (309-349)"  
 Detects initiating RPS12 gRNA "gRPS12 (309-349)"  
 Detects gRNA#2 of RPS12 "gRPS12 (267-322)"  
 Detects gRNA#2 of RPS12 "gRPS12 (267-322)"  
 Detects major gRNA class 32 of CyB  
 Detects major gRNA class 32 of CyB