## SUPPLEMENTAL FIGURE LEGENDS

FigS1: Alignment of the 5' (**A**) and 3' (**B**) region of the alternatively edited sequence L07 (red) with the fully edited COXIII sequence (black). Shown are the alternative start codon <u>UUG</u> in L07, the <u>AUG</u> in COXIII as well as the predicted peptide sequence and the termination codon <u>UAA</u>. Lower case denotes insertional editing event.

FigS2. Peptides used for production of AEP-1 antisera. Two peptides were synthesized based on the predicted amino acid sequence of AEP-1 (underlined sequences). Both AEP-1 and AEP-1b are unique 19 amino acid peptides with no similarity to other trypanosome proteins. The predicted amino acid sequence for AEP-1 was derived from the trypanosome mitochondrial cDNA clone L07. A schematic of this mRNA (L07 mRNA) is shown to illustrate sequence encoded by pre-edited (gray), junction (red) and edited mRNA (black).

COXIII	1 UUAUU	GAG	GAU	UGU	UUA	AAA	UUG	AAU	AuA	uuA	uuA	uuu	uuu	.u <u>Au</u>	<b>G</b> uu	uuu	Guu	uC-	0	6 GuuG	-	Auu	u
L07	UU	GAG	GAU	UGU	UUA	AAA	UUG	AAU	A–A	<b>-−</b> A	A								UU <b>UUG</b>	-			
COXIII														M	F	L	F	R		С	Ι	F	
L07 AEP-	1																		Ē	E			
	96	2																					
COXIII	uu	uuu	Auu	GCG.	Auu	uGu	uuA	uuu	uGA	uGu	luuu	AuG	luGu	uAu	GuA	uuu	GuG	uGu	G <b>uAA</b> u	uuu	Auu	GGu	Gu
L07	uu	uuu	Auu	GCG	Auu	uGu	uuA	uuu	uGA	uGu	uuu	AuG	uGu	uAu	GuA	uuu	GuG	uGu	G <mark>uAA</mark> u	iuuu	Auu	GGu(	Gu
COXIII	F	L	L	R	F	v	Y	F	D	v	L	С	v	М	Y	L	С	v	*				
L07 AEP-	1 <b>F</b>	L	L	R	F	V	Y	F	D	V	L	С	V	М	Y	L	С	V	*				

Fig S1

aa pos	1 10	20	30	40	50	60	70	80	100	
L07	LEGDFWG <mark>T</mark> PPEEEG	FG <mark>R</mark> V <mark>C</mark> F <mark>ERR</mark> FW	G <mark>E</mark> G <mark>RE</mark> G <mark>T</mark> GEE	E <mark>RTREE</mark> SWG <mark>R</mark> I	RFW <mark>RR</mark> G <mark>E</mark> AFGP	RLLL <mark>CDY</mark> GF\	/F <mark>YWY</mark> FL <mark>D</mark> LFN	LLI <mark>NT</mark> FYLF	V <mark>S</mark> GLFV <mark>N</mark> F	
L07mRNA		р	re-edited		edited					
	AEP-1b			AEP	-1					

Fig S2