

Two casein kinase 1 isoforms are differentially expressed in *Trypanosoma cruzi*

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The cDNAs for two casein kinase 1 (CK1) homologues, TcCK1.1 and TcCK1.2, have been isolated from *Trypanosoma cruzi*. Both isoforms showed strong identity with other known CK1s. Their corresponding genes encode proteins of 312- and 330-amino acid residues with apparent molecular weights of 16 and 37 kDa, respectively. TcCK1.1 is a two-copy gene while TcCK1.2 is tandemly repeated, an arrangement not yet found in any other CK1. TcCK1.1 has been overexpressed in *Escherichia coli* and the recombinant protein exhibited properties characteristic of the CK1 family. Northern blot indicated that both TcCK1s are expressed differentially during the life stages of the parasite: the isoform TcCK1.1 shows low levels of mRNA expression in epimastigotes and increased expression in trypomastigotes while TcCK1.2 presents an augmented expression in amastigotes as compared with the other two life stages of the parasite. The CK1-like activity of amastigotes and trypomastigotes is significantly higher than tha