Trypanosoma cruzi Epimastigotes Express the Ouabain- and Vanadate-Sensitive (Na^++K^+)ATPase Activity

Celso Caruso-Neves[a], Marcelo Einicker-Lamas[b], Carlos Chagas[a], Mecia Maria Oliveira[b], Adalberto Vieyra[c] and Aníbal Gil Lopes[a]

[a] Laboratório de Fisiologia Renal
[b] Laboratório de Biomembranas, Instituto de Biofísica Carlos Chagas Filho
[c] Departamento de Bioquímica Médica, Instituto de Ciências Biomédicas, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil

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The presence of (Na^++K^+)ATPase activity in CL14 clone and NIH NTY strain of *Trypanosoma cruzi* epimastigotes is demonstrated. A Na^+ plus K^+ stimulated ATPase activity is found in both strains. The optimal Na^+/K^+ ratio is 5:1 and 9:1 in CL14 clone and NIH NTY strain, respectively. In both strains, vanadate completely inhibits the ouabain-sensitive ATPase activity indicating that it belongs to the P-type (E_1/E_2) family of ion-transporting ATPases. The I_{50} for vanadate is 0.66 ± 0.04 and 0.04 ± 0.02 μM in CL14 clone and NIH NTY strain, respectively. These data indicate that both strains of *T. cruzi* epimastigotes express the ouabain- and vanadate-sensitive (Na^++K^+)ATPase activity. On the other hand, the discrepancy between the parameters analyzed for the inhibitors suggests that they express different isoforms of this enzyme.

Reprint requests to Aníbal Gil Lopes. Fax: 55(21)280-8193. E-mail: agilopes@chagas.biof.ufrj.br