

Ouabain-Insensitive Na⁺-ATPase Activity in *Trypanosoma cruzi* Epimastigotes

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In the present paper, the presence of a ouabain-insensitive Na⁺-stimulated, Mg²⁺-dependent ATPase activity in *T. cruzi* epimastigotes CL14 clone and Y strain was investigated. The increase in Na⁺ concentration (from 5 to 170 mM), in the presence of 2 mM ouabain, increases the ATPase activity in a saturable manner along a rectangular hyperbola. The V_{\max} was 18.0 ± 1.0 and 21.1 ± 1.1 nmoles Pi x mg⁻¹ x min⁻¹ and the half-activation value (K_{50}) for Na⁺ was 34.3 ± 5.8 mM and 37.7 ± 5.3 in CL14 clone and in Y strain, respectively. The Na⁺-stimulated ATPase activity was inhibited by 5-[aminosulfonyl]-4-chloro-2-[(2-furanylmethyl)-amino] benzoic acid (furosemide) in a dose-dependent manner. The half-inhibition value (I_{50}) was 0.22 ± 0.03 and 0.24 ± 0.07 mM, and the Hill number (n) was 0.99 ± 0.2 and 2.16 ± 0.29 for CL14 clone and Y strain, respectively. These data indicate that both cell types express the ouabain-insensitive Na⁺-ATPase activity, which might be considered the biochemical expression of the second Na⁺ pump.

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