Effects of 2(3)-tert-butyl-4-hydroxyanisole (BHA) on in situ mitochondria of Trypanosoma cruzi

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Results obtained with in situ mitochondria or Trypanosoma cruzi showed that this protozoon had only two energy coupling sites, sites II and III that correspond to higher eukaryote mitochondria. Rotenone did not inhibit the oxygen uptake or the parasite. These results suggest that the NADH-ubiquinone segment of the respiratory chain has no activity. Studies with in situ mitochondria confirmed that BHA, an antioxidant food additive, blocks the mitochondrial electron transport chain at the succinate-cytochrome b segment being the molecular basis of this trypanocidal action. © 1992.