

Purification and characterization of a β -like DNA polymerase from *Trypanosoma cruzi*

Venegas, Juan

Solari, Aldo

A DNA polymerase was purified to near homogeneity from *Trypanosoma cruzi* epimastigotes. This preparation had a major polypeptide of 50 kDa and a minor band of 45 kDa. SDS-PAGE studies and a novel colorimetric activity gel technique demonstrated that the 50-kDa polypeptide chain is the catalytic subunit of this *T. cruzi* DNA polymerase. Western blot analysis of different purification stage fractions strongly suggests that this 50-kDa protein is the intact catalytic subunit and does not correspond to a degradation product from a larger one. This *T. cruzi* DNA polymerase is insensitive to aphidicolin, butylphenyldeoxyguanosine triphosphate, berenil, ethidium bromide and N-ethylmaleimide, but is markedly inhibited by the dideoxythymidine triphosphate analogue. Studies with different DNA templates showed that the DNA polymerase prefers activated DNA as substrate and that it cannot elongate oligoriboadenylate primers. The data presented in this paper are consistent with the hypothesis that thi