PZ-55 **A NON-PHENOLIC METHOD OF DNA PURIFICATION FROM SMALL BLOOD SAMPLES AND OTHER BIOLOGICAL SOURCES WHICH IS SUITABLE FOR PCR AND RESTRICTION ENZYMES ASSAYS**

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We describe a non-phenolic method for isolating high molecular weight DNA that is rapid, simple and suitable for processing a large number of samples. The method consists of disrupting cells, denaturing and precipitating proteins with SDS/ammonium acetate and recovering nucleic acids from the supernatant with isopropanol. The extraction efficiency is comparable to the classical phenol-chloroform method. The purified DNA is free of inhibitors for all DNA modification and restriction enzymes tested so far. It is also suitable for the polymerase chain reaction (PCR). The method was tested successfully with cells of *Plasmodium falciparum*, *Babesia bovis*, *Babesia bigemina*, human and bovine blood, *Bradyrhizobium japonicum* and other organisms.

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PZ-56 **PROTEOLYTIC ACTIVITIES IN CELL EXTRACTS OF TRYPANOSOMATIDS ISOLATED FROM PLANTS AND PHYTOPHAGOUS BUGS.**

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Proteolytic activities present in cell extracts of culture forms of Trypanosoma cruzi was demonstrated on 5 different substrates:azocazein,azoalbumin,Leu-NA, BANA and CTN (Itow & Camargo,1977).These activities were also detected in other genera of the family Trypanosomatidae. Action on substrates Leu-NA and BANA was present in all trypanosomatids tested while caseinolytic activities were only detected in the genera Trypanosoma and Leishmania. The action of cell extracts of trypanosomatids isolated from plants and phytophagous bugs collected in the state of Paraná was studied utilizing substrates Leu-NA,BANA,Azocasein and azoalbumin.It was observed that enzymic activities on Leu-NA,present in all genera early tested (Camargo et al,1978) could be not detected in the strains 268T and 270T,isolated from Lycopersicum esculentum in 1989 but it was present in strains 9T and 15T,isolated from the same plant in 1983,as well as in the strain 252M,isolated from naturally infected Zea mays grains.On the other hand,in the strain 163M,isolated from artificially infected maize grains by naturally infected phytophagous bugs(Jankevicius et al,1989)no intracellular proteolytic activity could be detected on the 4 substrates tested.In the strains 268T and 270T from Solanaceae,the action on BANA were the only enzymic activity detected,showing significative differences with 9T,15T,412U(from Bixa orellana) and 415G(from Leptoglossus sp) strains,which presents enzymic profile similar to all genera early studied. All experiments were conducted using Trypanosoma cruzi as positive control,as it presents proteolytic activities against all substrates tested.

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