

# Study of the Effects of Chayotte (*Sechium Edule*) Extracts on the Plasmid pUC. 9.1 DNA

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### Abstract :

Stannous chloride ( $\text{SnCl}_2$ ) is employed as a reducing agent to obtain Technetium-99m-labelled radiopharmaceuticals in nuclear medicine kits, being injected endovenously in humans. Toxic effects of these kits were not studied, thus making it important to evaluate their impact in humans. The use of natural extracts as medicines is growing around the world. The chayotte (*Sechium edule*) is a subtropical vegetable with potent diuretic action. It is used in folk medicine due its hypotensor effect. In this study, plasmid deoxyribonucleic acid (DNA) was exposed to chayotte extracts (macerated and decoct) ( $0.1 \text{ g.mL}^{-1}$ ) in presence of stannous chloride ( $\text{SnCl}_2$ ). Samples of the plasmid DNA were analyzed through agarose gel electrophoresis. The results show that the chayotte extracts were capable of damaging the DNA in the presence and in the absence of  $\text{SnCl}_2$ . [Nature and Science. 2004;2(3):48-54].

### Key Word :

plasmidial DNA, chayotte, nuclear medicine, stannous chloride.

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