

Isolation And Biochemical Characterization Of a Toxin From *Rhinella schneideri* Poison With Action On The Complement System.

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Studies of amphibian secretions become important due to the presence of biologically active compounds with potential for the development of new drugs. Toad poisons contain biogenic amines, indolalkylamines (bufotenin and bufotenidin), steroids (bufotoxin), peptides and proteins that exhibit a large array of effects. There are few reports showing the effect of proteins from toad poisons. The aim of this study was the isolation and biochemical characterization a toxin from *Rhinella schneideri* poison (RsP) with action on the complement system (CS). The effects of RsP and fractions were evaluated by hemolytic assay of the classical/lectin complement pathways. RsP was submitted to a dialysis and clarified by centrifugation and filtration through 0.22 µm membranes. Further, the poison was chromatographed on a CM-cellulose-52 column, followed by anionic exchange chromatography (DEAE-Sepharose) of fraction C1 and gel filtration (Sephacryl S-200) of fraction D3. Seven main subfractions were obtained and named S1 to S7. We found that fractions S2 and S7 from Sephacryl S-200 affected the CP/LP lytic activity. S2 was the most potent fraction, showing a strong effect at small concentration (0.64 µg - 67% inhibition), while S7 was less potent (28 µg - 53% inhibition).

Keywords: *Rhinella schneideri*, poison, the complement system.

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