

Detection of a Lectin from *Stryphnodendron adstringens* Bark

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Introduction: *Stryphnodendron adstringens* is used in popular medicine for treating infections caused by micro-organisms. The lectins are proteins of primary metabolism which can have many biological functions, including antibacterial and antifungal activities. These activities are related to the ability to have lectins bind to cell surface carbohydrates in organisms, preventing their development. This binding with the carbohydrates is specific and reversible. **Objectives:** The aim of this work was to investigate the presence of lectin on *S. adstringens* bark. **Material and Methods:** The extract (10%, w/v) was prepared with 0.15 M NaCl (16 h at 4 °C). The extract was treated with ammonium sulphate (0-20%, 20-40%, 40-60% and 60-80%) and fractions were evaluated by protein content and hemagglutinating activity (HA) with rabbit erythrocytes. Inhibition of HA from 40-60% fraction (F40-60%) was performed with carbohydrates and glycoproteins. F-40-60% was chromatographed on a chitin column equilibrated with 0.15 M NaCl and eluted with 1.0 M acetic acid. **Results and Discussion:** The F40-60% was used to isolate the lectin since it showed the highest specific HA (SHA:183). N-acetyl-D-glucosamine inhibited the SHA of F-40-60% to 91.5 and arabinose revealed the best inhibitory capacity (SHA: 22.8). The chromatographic profile of chitin column showed a unique active protein peak (SHA, 179) after elution with 1.0 M acetic acid (1.42 mg of protein; yield: 0,8% and purification fold: 0,95). **Conclusions:** Bark from *S.adstringens* is a biomaterial that contains lectin.

Key words: Bark, lectin, *Stryphnodendron adstringens*.

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