

PURIFICATION AND CHARACTERIZATION OF *MYRACRODRUON URUNDEUVA* (AROEIRA-DO-SERTÃO) LEAF LECTIN

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Myracrodruon urundeuva (aroeira-do-sertão, Anacardiaceae family) leaves have demonstrated febrifuge, antiinflammatory and antirheumatic properties. Lectins constitute a heterogeneous group of proteins from nonimmune origin, differing from each other with respect to their molecular structures, carbohydrate-binding specificities and biological activity. Chitin-binding lectins have biological activities against fungi and insects. A thermostable lectin was previously identified in leaf saline extract. The aim of this work was to isolate and characterize *M. urundeuva* leaf lectin (MurLL). Saline extract (10%, w/v) was treated with ammonium sulphate. The 60-80% fraction (F60-80%) containing active lectin was chromatographed on chitin column equilibrated with 0.15 M NaCl; MurLL was eluted with 1.0 M acetic acid. The effect of cations on F60-80% hemmagglutinating activity (HA) was evaluated using MgCl₂ and CaCl₂. MurLL was characterized by evaluation of its activity in distinct pH values and presence of glycoproteins. Polyacrylamide gel (7.5%) electrophoresis (PAGE) for native acidic or basic proteins was performed. The high specific HA (SHA) of F60-80% with human (types A and O) and rabbit erythrocytes (22,339) was diminished with Ca²⁺ (349) but not affected by Mg²⁺. The chromatographic profile showed an unique active protein (3.77 mg) peak eluted with acetic acid. MurLL SHA (533) was stimulated in pH 3.0 (4,266) and decreased in pH 12.0 (133). HA of MurLL was mainly inhibited by asialofetuin. An unique protein band was detected in PAGE for basic proteins. Biological properties of homogeneous MurLL are in progress.

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Key words: leaf lectin, aroeira, *Myracrodruon urundeuva*.