PHYSICOCHEMICAL AND BIOLOGICAL PROPERTIES OF A *GLYCINE WIGHTII* GALACTOSE-BINDING LECTIN

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Most characterized lectins were isolated from *Leguminosae* seeds. In this paper, the physicochemical and biological properties of a *Glycine wightii* (*Leguminosae-Papilionoideae*) galactose-binding lectin is described. The lectin was isolated by affinity chromatography of a NaCl 0.15 M seed extract, on guar gum matrix. After elution of the non-retained fraction, the lectin fraction was eluted with 0.1 M, pH 2.6 glycine-HCl buffer, containing 0.15 M NaCl. Only this fraction showed hemagglutinating activity (trypsin treated group A1 human erythrocytes). By SDS-PAGE a single band (Mr of 45 kDa) was found. The lectin is a glycoprotein (1.49 %) and showed to be thermo labile, loosing all the hemagglutinating activity at 40^{o}C, by 15 min. Its secondary structure was evaluated by circular dicroism and a predominance of beta-sheet was found. By isoelectric focusing several bands were found between pI 6.35 and 7.0, suggesting the presence of isoforms. When the purified lectin and the crude extract were intraperitoneally administered to mouse, no toxicity was found. The crude extract induced the leukocyte immigration in rats, and the polymorphonuclear neutrophils were predominant (70%), with levels similar to carragennan. Modulators drugs inhibited the leukocyte immigration in levels lower than the observed for the negative control, while 80% of inhibition occurred when the lectin was administered in the presence of D-galactose. The lectin induced rat paw edema in Wistar rats with a peak between 2 and 3 h after the injection.

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