

PURIFICATION, PARTIAL CHARACTERIZATION AND ANALGESIC ACTIVITY OF THE LECTIN FROM GEORGIELLA CONFLUENS

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The red alga *Georgiella confluens* collected in Antarctic was used to the isolation of a protein with hemagglutinating activity. The isolated protein (lectin) was assayed for hemagglutinating activity and preferentially agglutinated trypsinized chicken erythrocytes. The lectin was stable over a wide range of temperature and did not exhibit divalent cation dependency. The hemagglutinating activity was inhibited by porcine stomach mucin and fetuin. The protein extract was applied to a DEAE-Sephacel-column and the retained fraction, containing hemagglutinating activity was eluted with 1.0 M NaCl, dialyzed, lyophilized and subjected to affinity chromatography on porcine stomach mucin. The active fraction was bound to the resin and eluted by addition of 0.1 M glycine buffer, pH 9,6 containing 0.15 M NaCl. The lectin of *G. confluens* is a glycoprotein (15.3% carbohydrate content) with a molecular mass of 25.5 kDa (gel filtration on Sephadex G-100). When the purified lectin was followed by SDS-PAGE, gave one single protein band with molecular mass of 21.5 kDa. The preliminary data on antinociceptive activity of the lectin were positive. Experiments conducted by writhing test in mice showed a significant reduction of the writhing numbers indicated that the lectin was potent in causing inhibitions of abdominal contractions after intraperitoneal (91%) and oral (64%) administration.

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