



ISOLATION AND PARTIAL ANALYSIS OF A POLYSACCHARIDE-PROTEIN COMPLEX FROM *LACTARIUS DELICIOSUS*

L. X. KE¹, X. T. YANG² AND S. C. JONG³

¹ College of Life Science, Anhui Normal University, Wuhu 241000, China. E-mail: keyan@mail.ahnu.edu.cn

² Research Institute of Microbiology and Immunology, Shanghai Teachers University, Shanghai 200234, China.

³ ATCC, 10801 University Boulevard, Manassas, Virginia 20110-2209, U.S.A. E-mail: sjong@atcc.org

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ABSTRACT

A crude polysaccharide-protein complex from *Lactarius deliciosus* fruit bodies (LDP) was extracted with hot water, precipitated, and washed with 95% ethanol. After protein removal according to the Sevag method, LDP was dialyzed against running tap water and distilled water, and further purified by Sephadex G-100 column chromatography. Gas chromatography showed that LDP is composed of glucose, galactose, mannose, and arabinose in a molar ratio of 100:14.9:6.23:1.97. According to Gel Permeation Chromatography-HPLC results, the molecular weight is 642kDa. An IR spectrum revealed coinciding polysaccharide and peptide absorption peaks, while a ¹H-NMR spectrum indicated the main chain has a β-pyranoglycoside linkage. Amino acid analysis detected the presence of 17 kinds of amino acids.

Key words: *Lactarius deliciosus*, mushroom, polysaccharide-protein complex, polysaccharide composition, polysaccharide structure, isolation.
