

STRUCTURAL CHARACTERIZATION OF A HETEROGALACTAN, ISOLATED FROM THE EDIBLE MUSHROOM *FLAMMULINA VELUTIPES*

Smiderle, F.R., Carbonero, E.R., Gorin, P.A.J., Iacomini, M.

Departamento de Bioquímica e Biologia Molecular, Universidade Federal do Paraná, Curitiba, PR, Brazil.

Many basidiomycetes have become a subject of interest, due to their nutritional value and pharmacological properties. Mushrooms are considered to be healthy because they are poor in calories and in fat, but rich in proteins, minerals and dietary fiber. They were found to be medically active in several therapies, mostly related with active polysaccharides. Nevertheless, scientific studies on their biological properties are still very meager. Based on the increased consumption of mushrooms by the population, a chemical investigation was carried out on the basidiomycete *Flammulina velutipes* (Curt. ex Fr.) Sing. Dried and milled fungi was submitted to hot aqueous extraction and the extract obtained was treated with excess ethanol, and the resulting precipitate was submitted to purification via freeze-thawing, precipitation with Fehling solution, and ultrafiltrations with various membranes. The eluted fraction (M_r 30 kDa) was composed of Galp, Fucp, and Manp (GC-MS). ^{13}C -NMR and ^1H (obs.) ^{13}C HMQC indicated an anomeric region contained signals (C-1/H-1) at δ 102.9/5.19; 102.0/5.16; 98.8/5.05 corresponding, sequentially, to non-reducing end of α -D-Manp, 3-O-substituted α -L-Fucp, and 2-O-substituted α -D-Galp units. Along with methylation analysis, these data show a structure with a main chain composed of 6-O-substituted Galp units, highly substituted at O-2 by 3-O-D-mannopyranosyl-L-fucopyranosyl, α -D-mannopyranosyl, and in a minor proportion, α -L-fucopyranosyl groups. Supported by CAPES, CNPq and, Fundação Araucária - PRONEX.
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