A PARTIALLY 3-*O*-METHYLATED (1→6)-LINKED FUCOGALACTAN FROM THE PORTOBELLO MUSHROOM (*AGARICUS BISPORUS*)

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Portobello is the market name used for the over-mature stage of *Agaricus bisporus*, which has opened veil and exposed brown gills. This mushroom is becoming popular due to its good taste and reasonable price. Also, mushrooms are sources of biologically active molecules, which can have immunological, hypoglycemic and antitumoral activities. To study polysaccharides from the Portobello mushroom, its fruiting body was extracted with water at 25ºC, the extract being purified via successive freeze-thawing, precipitation with Fehling solution and ultrafiltration through a membrane of 1000 and 500 kDa M_r cut-off (Millipore-regenerated cellulose). The retained fraction (RF) showed homogeneity by HPSEC. The monosaccharide composition (by GC-MS) revealed fucose, galactose and 3-*O*-methylgalactose (10, 74 and 16%, respectively). The presence of an O-monomethyl monosaccharide was confirmed by the presence of the ions at *m/z* 130 and 190 after reduction (NaB^2H_4) and acetylation. ^1H and ^{13}C NMR, HMQC, COSY suggested a structure with a main chain of (1? 6)-substituted a-D-galactopyranosyl residues and its 3-*O*-methyl derivated, some of which were substituted at O-2 with side chains of a-fucopyranosyl units. Similar structures have been found in some basidiomycetes, but the presence of methyl groups has not.

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