

THE WATER SOLUBLE POLYSACCHARIDE ISOLATED
FROM LITSEA GLUTINOSA (LAURACEAE)

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Litsea glutinosa Lour (Lauraceae), (Sinh. Bomi, Bombi) is found in the low hill country areas of Sri Lanka. The mucilaginous bark of the tree is used as a demulcent and mild astringent for diarrhoea and dysentery (Jayaweera, 1981).

The water soluble polysaccharide isolated from the bark was composed of D-xylose and L-arabinose in the molar ratio 1.0 : 3.4. Methylation analysis combined with GC-MS showed a high proportion of non-reducing terminal arabinofuranosyl residues (45%) and fully substituted xylosyl residues (26%) suggesting the presence of a highly branched arabinoxylan. ^1H - and ^{13}C - NMR spectral data indicated the presence of α -L- and β -L-arabinofuranosyl, and β -D-xylopyranosyl residues (Bock and Thogersen, 1982). Partially depolymerised samples of the polysaccharide were prepared using mild acid hydrolysis and separated by gel filtration. Methylation analysis and NMR spectral data of the degraded polysaccharide samples suggested that the polysaccharide was composed of a backbone of 1,4, -linked β -D-xylopyranosyl residues carrying probably single unit side chains of terminal arabinofuranosyl residues at C-3 and longer side chains of 1,3-linked arabinofuranosyl residues at C-2.

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