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A Reticuloendothelial System-Activating Glycan from the Barks of *Eucommia ulmoides**

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From the hot water extract of the barks of *Eucommia ulmoides*, a glycan, named eucomman B, has been isolated by treatment with cetyltrimethylammonium bromide followed by fractionation on DEAE-Sephadex A-25 and chromatography on Sephacryl S-300 columns. The glycan gave a single band on PAGE, and a single peak on gel chromatography, which gave a value of 4.6×10^4 for its molecular mass.

Eucomman B is composed of L-arabinose: D-galactose: L-rhamnose: D-galacturonic acid in the molar ratio of 10:5:24:24, in addition to small amounts of peptide moiety. The glycan showed significant reticuloendothelial system-potentiating activity in a carbon clearance test.

Chemical and spectroscopic studies established that the minimal unit of the polysaccharide is composed of two terminal α -L-arabinofuranose, seven α -1,5-linked L-arabinofuranose, one α -1,3-linked L-arabinopyranose, two terminal β -D-galactopyranose, two β -1,3-linked D-galactopyranose, one β -1,6-linked D-galactopyranose, one terminal α -L-rhamnopyranose, twenty α -1,2-linked L-rhamnopyranose, three α -2,4-branched L-rhamnopyranose, twenty-two α -1,4-linked D-galactopyranosyluronic acid and two α -3,4-branched D-galactopyranosyluronic acid residues. Thus the glycan possesses mainly α -1,2-linked L-rhamno- α -1,4-linked D-galacturonan structure.

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