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An Acidic Polysaccharide Having Activity on the Reticuloendothelial System from the Root of *Astragalus mongholicus**

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The hot water extract of the root of *Astragalus mongholicus* was treated with cetyltrimethylammonium bromide. The supernatant obtained was successively purified by ethanol precipitation, ion-exchange, affinity and gel chromatographies on DEAE-Sephadex A-25, Con A-Sepharose and Toyopearl HW-60F columns. An acidic polysaccharide, designated as AMon-S, obtained was homogeneous on electrophoresis and gel chromatography, and its molecular mass was estimated to be 76,000. It is composed of L-arabinose : D-galactose : D-galacturonic acid : D-glucuronic acid in the molar ratio of 18 : 18 : 1 : 1, in addition to small amounts of O-acetyl groups and a peptide moiety. A part of the hexuronic acid residues exist as the methyl esters.

Chemical and spectroscopic studies elucidated that the minimal unit of polysaccharide is composed of nine terminal α -L-arabinofuranose, nine α -1,5-linked L-arabinofuranose, one terminal β -D-galactopyranose, five β -1,3-linked D-galactopyranose, one β -1,4-linked D-galactopyranose, one β -1,6-linked D-galactopyranose, ten β -3,6-branched D-galactopyranose, one α -1,4-linked D-galactopyranosyluronic acid and terminal β -D-glucopyranosyluronic acid residues. Thus AMon-S has mainly α -L-arabino- β -3,6-D-galactan type structure.

AMon-S showed significant reticuloendothelial system-potentiating activity in a carbon clearance test.

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