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An Acidic Polysaccharide Having Immunological Activities from the Rhizome of *Cnidium officinale**

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An acidic polysaccharide, designated as cnidirhan AG, was isolated from the rhizomes of *Cnidium officinale* MAKINO. It was homogeneous on electrophoresis and gel chromatography, and its molecular mass was estimated to be 5.1×10^4 . It showed pronounced reticuloendothelial system-potentiating activity in a carbon clearance test, and had a remarkable effect on both anti-complementary and alkaline phosphatase-inducing activities. It is composed of L-arabinose : D-galactose : D-glucuronic acid in the molar ratio of 2 : 6 : 1, in addition to small amounts of O-acetyl groups. Methylation analysis, carbon-13 nuclear magnetic resonance, controlled Smith degradation and limited acid hydrolysis indicated that the core structural features of cnidirhan AG include a backbone chain composed of β -1,3-linked D-galactose residues. Some of the galactose units in the backbone carry β -D-galactosyl side chains at position 6. Both α -L-arabinosyl arabinose side chains and terminal β -D-glucuronic acid residues are linked to the core galactan units.

Cnidirhan AG can be classified under a novel structural type of acidic arabino-3,6-galactan having high immunological activity.

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