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# Characterization of a Neutral Polysaccharide Having Activity on the Reticuloendothelial System from the Rhizome of *Curcuma longa**

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A neutral polysaccharide, named ukonan D, was isolated from the rhizome of *Curcuma longa* L. It produced a single band on electrophoresis and a single peak on gel chromatography, and its molecular mass was estimated to be 28000. It showed remarkable reticuloendothelial system-potentiating activity in a carbon clearance test. Ukonan D is composed of L-arabinose : D-galactose : D-glucose : D-mannose in the molar ratio of 1 : 1 : 12 : 0.2, in addition to small amounts of peptide moiety. Methylation analysis, carbon-13 nuclear magnetic resonance and enzymic degradation studies indicated that its structural features include mainly both $\alpha$-1,5-linked L-arabino-$\beta$-3,6-branched D-galactan type and $\alpha$-4,6-branched D-glucan type structural units. The degradation with $\alpha$-amylase followed by the elimination of glucan side chains afforded the product composed of L-arabinose : D-galactose : D-glucose : D-mannose in the molar ratio of 12 : 12 : 2 : 1. From the comparison of the phagocytosis-enhancing effects of the original polysaccharide and the degradation products, it is conceivable that arabino-3,6-galactan type structure contributes to the RES activity.

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