

| | |
|------------------|---|
| Title | The core structure of ukonan A, a phagocytosis-activating polysaccharide from the rhizome of curcuma longa, and immunological activities of degradation products |
| Sub Title | |
| Author | 権田, 良子(Gonda, Ryoko) 友田, 正司(Tomoda, Masashi) 高田, 勝利(Takada, Katsutoshi) 大原, 直子(Ohara, Naoko) 清水, 訓子(Shimizu, Noriko) |
| Publisher | 共立薬科大学 |
| Publication year | 1992 |
| Jtitle | 共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.37 (1992.) ,p.52- 52 |
| JaLC DOI | |
| Abstract | |
| Notes | 抄録 |
| Genre | Technical Report |
| URL | https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000037-0052 |

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

**The Core Structure of Ukonan A, a Phagocytosis-Activating
Polysaccharide from the Rhizome of *Curcuma longa*,
and Immunological Activities of
Degradation Products***

Ryōko GONDA, Masashi TOMODA, Katsutoshi TAKADA, Naoko ŌHARA
AND NORIKO SHIMIZU

権田良子, 友田正司, 高田勝利, 大原直子, 清水訓子

The controlled Smith degradation of ukonan A, the representative phagocytosis-activating polysaccharide isolated from the rhizome of *Curcuma longa* L., was performed. The reticuloendothelial system-potentiating, anti-complementary and alkaline phosphatase-inducing activities of ukonan A and its degradation products were investigated. Methylation analyses of both the primary and the secondary Smith degradation products indicated that the core structural features of ukonan A include a backbone chain mainly composed of β -1,3-linked D-galactose, β -1,4-linked D-xylose and α -1,2-linked L-rhamnose residues. All of the galactose units in the backbone carry side chains composed of α -L-arabino- β -D-galactosyl or β -D-galactosyl residues at position 6.

Ukonan A has a remarkable effect on each of the three kinds of immunological activities. Periodate oxidation caused pronounced decrease or disappearance of the activities, but the controlled Smith degradation product having the core structure of polysaccharide showed considerable restoration of these activities. Thus the core structure contributes to the immunological activities investigated by us, though it is conceivable that the complicated branching structure in ukonan A may increase the effects on these activities.

* 本報告は *Chem. Pharm. Bull.*, 40, 990—993 (1992) に発表.