

Title	Anti-complementary and hypoglycemic activities of the glycans from seeds of malva verticillata
Sub Title	
Author	友田, 正司(Tomododa, Masashi) 清水, 訓子(Shimizu, Noriko) 権田, 良子(Gonda, Ryoko) 金成, 美枝子(Kanari, Mieko) 山田, 陽城(Yamada, Haruki) ヒキノ, ヒロシ(Hikino, Hiroshi)
Publisher	共立薬科大学
Publication year	1990
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.35 (1990. ) ,p.36- 36
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	<a href="https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000035-0036">https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000035-0036</a>

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## Anti-complementary and Hypoglycemic Activities of the Glycans from Seeds of *Malva verticillata*\*

Masashi TOMODA, Noriko SHIMIZU, Ryōko GONDA, Mieko KANARI,  
Haruki YAMADA\*\* and Hiroshi HIKINO\*\*\*

友田正司, 清水訓子, 権田良子, 金成美枝子, 山田陽城\*\*, ヒキノヒロシ\*\*\*

Seven polysaccharides and peptidoglycans obtained from the seeds of *Malva verticillata* were tested for anti-complementary activity. Remarkable activities were observed for MVS-I and MVS-IIA. The former is mainly composed of  $\beta$ -1,3-linked D-glucan and of  $\alpha$ -1,5-linked L-arabino- $\beta$ -3,6-branched D-galactan, and the latter is essentially  $\alpha$ -1,5-linked L-arabino- $\beta$ -3,6-branched D-galactan. Further, considerable activities were observed for MVS-IIIA and MVS-IVA. Both glycans possess arabino-3,6-galactan moieties accompanying  $\alpha$ -1,3-linked L-arabinopyranosyl,  $\beta$ -1,4-linked D-xylosyl, and  $\alpha$ -1,4-linked D-galacturonic acid units.

In addition, the major neutral polysaccharide (MVS-I), the major peptidoglycan (MVS-V), and the polysaccharide-rich fraction (MVS-V-CH) obtained from MVS-V were tested for hypoglycemic activity. MVS-I especially showed remarkable activity. From the viewpoint of structural features, the latter belongs to pectic substances.

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\* 本報告は *Planta Medica*, 56, 168—170 (1990) に発表.

\*\* 北里研究所東医総研

\*\*\* 東北大学薬学部