



Maackia amurensis [MAM] - unlabelled, 2mg (lyophilized, salt free)

Origin	<i>Maackia amurensis</i>
Sugar Specificity	Siaa2-3Gal
Mitogen Activity	Yes
Blood Specificity	Non-specific
Structure	<p>The amino acid sequence revealed that the molecular weight of subunit was 31,000¹⁾.</p> <p>The bonds between the subunits are disulfide (S-S) bonds. Recently, a monomeric form of MAM has been prepared and its application to flow cytometry has been reported²⁾.</p>
Feature	<p>The glycan sequence of Siaa2-3Galβ1-4GlcNAc is essential for binding to MAM, a lectin with high ability to agglutinate leukocyte purified from <i>Maackia amurensis</i> seeds.</p> <p>Furthermore, the structure of <i>N</i>-acetyllactosamine repeats have also been reported to enhance binding³⁾.</p> <p>Therefore, MAM interacts with high affinity with complex-type tri- and tetraantennary Asn-linked oligosaccharides.</p> <p>By contrast, it does not interact with Siaa2-3Galβ1-3GalNAc (mucin-type sugar chain) or α2-6-linked sialic acid⁴⁾.</p> <p>Incidentally, the lectin with erythrocyte aggregation abilities obtained from <i>Maackia amurensis</i> seeds is called MAH (or MAL II), and it binds strongly to mucin-type sugar chains⁵⁾.</p>
Storage	4°C for up to 1 year

Reference

- 1) Yamamoto, K., Konami, Y., et al., Abstracts of Japanese Carbohydrate Symposium, 16, 124 (1994)
- 2) Shibuya, N., Kaku, H., Research Report on the Development of Common Basic Technologies for Structure and Function Analysis of Glycans (1st Period) 1991-1993, 252 (1995)
- 3) Knibbs, R. N., Goldstein, I. J. et al., J. Biol. Chem., 266, 83 (1991)
- 4) Wang, W., Cummings, R. D., J. Biol. Chem., 263, 4576 (1988)
- 5) Konami, Y., Yamamoto, K., et al., Abstracts of Japanese Carbohydrate Symposium, 15, 109 (1993)

For reserach use only. Not for clinical diagnosis.



COSMO BIO CO., LTD.

[JAPAN]
TOYO EKIMAE BLDG. 2-20, TOYO 2-CHOME,
KOTO-KU. TOKYO 135-0016, JAPAN
Phone: +81-3-5632-9610
FAX: +81-3-5632-9619
URL: <https://www.cosmobio.co.jp/>



COSMO BIO USA

[Outside Japan]
2792 Loker Ave West, Suite 101
Carlsbad, CA 92010, USA
email: info@cosmobioussa.com
Phone/FAX: (+1) 760-431-4600
URL: www.cosmobioussa.com