

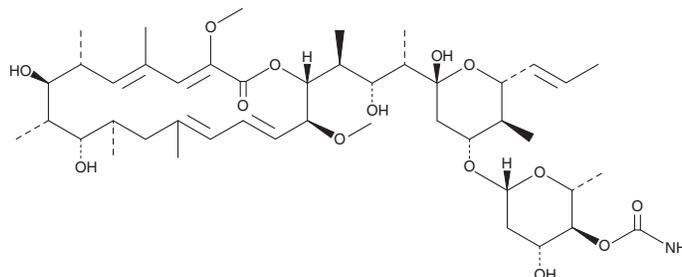
PRODUCT INFORMATION



Concanamycin B

Item No. 15502

CAS Registry No.: 81552-33-2
Formal Name: (3Z,5E,7R,8R,9S,10S,11R,13E,15E,17S,18R)-18-[[[(1S,2R,3S)-3-[[[(2R,4R,5S,6R)-4-[[4-O-(aminocarbonyl)-2,6-dideoxy-β-D-arabino-hexopyranosyl]oxy]tetrahydro-2-hydroxy-5-methyl-6-(1E)-1-propenyl-2H-pyran-2-yl]-2-hydroxy-1-methylbutyl]-8,10-dihydroxy-3,17-dimethoxy-5,7,9,11,13-pentamethyl-oxacyclooctadeca-3,5,13,15-tetraen-2-one



Synonyms: 8-deethyl-8-methyl-Concanamycin A, MCH 210

MF: C₄₅H₇₃NO₁₄

FW: 852.1

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Bacterium/*Streptomyces* sp.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Concanamycin B is supplied as a solid. A stock solution may be made by dissolving the concanamycin B in the solvent of choice, which should be purged with an inert gas. Concanamycin B is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

Description

Concanamycin B is a macrolide antibiotic originally isolated from *Streptomyces* that selectively inhibits vacuolar type H⁺-ATPases, also known as V-ATPases (IC₅₀ = 5 nM).^{1,2} In this way, it blocks the acidification of vacuolar organelles as well as early to late endosomal transport.¹⁻³ Concanamycin B interferes with bone resorption and maturation of CD8 T lymphocytes.^{2,3} It also prevents processing of major histocompatibility complex (MHC) class II precursors in human B cells, inhibiting the expression of MHC class II molecules on the cell surface.^{4,5}

References

1. Yilla, M., Tan, A., Ito, K., *et al.* *J. Biol. Chem.* **268**(25), 19092-19100 (1993).
2. Woo, J.-T., Ohba, Y., Tagami, K., *et al.* *Biol. Pharm. Bull.* **19**(2), 297-299 (1996).
3. Lee, M.H., Kataoka, T., Honjo, N., *et al.* *Immunology* **99**(2), 243-248 (2000).
4. Bénaroch, P., Yilla, M., Raposo, G., *et al.* *EMBO J.* **14**(1), 37-49 (1995).
5. Ito, K., Kobayashi, T., Moriyama, Y., *et al.* *J. Antibiot. (Tokyo)* **48**(6), 488-494 (1995).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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