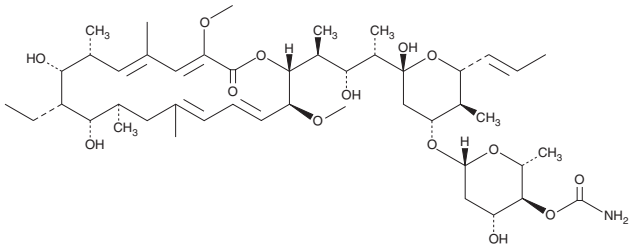
PRODUCT INFORMATION

Concanamycin A

Item No. 11050

CAS Registry No.: 80890-47-7
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-propen-1-yl-2H-pyran-2-yl]-2-hydroxy-1-methylbutyl]-9-ethyl-8,10-dihydroxy-3,17-dimethoxy-5,7,11,13-tetramethyl-oxacyclooctadeca-3,5,13,15-tetraen-2-one
Synonyms: Antibiotic X 4357B, NSC 674620, X 4357B
MF: $C_{46}H_{75}NO_{14}$
FW: 866.1
Purity: ≥95%
Supplied as: A solution in acetonitrile
Storage: -20°C
Stability: ≥2 years
Item Origin: *Streptomyces* sp.



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

Laboratory Procedures

Concanamycin A is supplied as a solution in acetonitrile. To change the solvent, simply evaporate the acetonitrile under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as methanol and DMSO, purged with an inert gas, can be used.

Description

Concanamycin A is a plecomacrolide antibiotic produced by *Streptomyces* that blocks lysosomal acidification through selective inhibition of the vacuolar H^+-ATPase (V-ATPase; EC_{50}s = 2.1-2.3 µM).[1-3] Concanamycin A blocks cell surface expression of viral glycoproteins without affecting their synthesis and, at 0.8 µM, prevents entry of influenza virus into cells.[4]

References

1. Sobota, J.A., Bäck, N., Eipper, B.A., *et al.* Inhibitors of the V_0 subunit of the vacuolar H^+-ATPase prevent segregation of lysosomal- and secretory-pathway proteins. *J. Cell. Sci.* **122(19)**, 3542-3553 (2009).
2. Johnson, R.M., Allen, C., Melman, S.D., *et al.* Identification of inhibitors of V-ATPase pumps in yeast by HTS flow cytometry. *Anal. Biochem.* **398(2),** 203-211 (2010).
3. Dröse, S., and Altendorf, K. Bafilomycins and concanamycins as inhibitors of V-ATPases and P-ATPases. *J. Exp. Biol.* **200(Pt 1)**, 1-8 (1997).
4. Guinea, R., and Carrasco, L. Requirement for vacuolar proton-ATPase activity during entry of influenza virus into cells. *J. Virol.* **69(4)**, 2306-2312 (1995).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM