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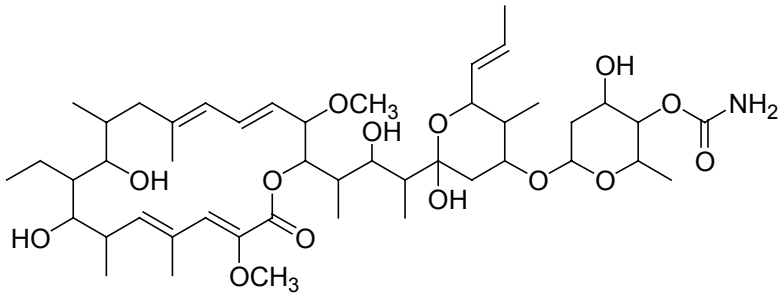
PRODUCT DATA SHEET

Concanamycin A

Code: **BIA-C1021**

Pack sizes: **0.25 mg, 1.0 mg**



Synonyms : **Folimycin, Antibiotic TAN 1323B**

Specifications

CAS #	:	**80890-47-7**
Molecular Formula	:	**$C_{46}H_{75}NO_{14}$**
Molecular Weight	:	**866.1**
Source	:	***Streptomyces* sp. MST-AS5340**
Appearance	:	**White Lyophilisate**
Purity	:	**> 99% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO**

Application Notes

Concanamycin A is the major analogue of the concanamycin complex produced by *Streptomyces* sp. It has has been shown to act as a potent and specific vacuolar-ATPase inhibitor. Concanamycin A inhibits the acidification of organelles and blocks cell surface expression of viral envelope glycoproteins without affecting their synthesis. It also interferes with intracellular protein trafficking and inhibits perforin- and Fas-based lytic pathways in cell-mediated cytotoxicity. Concanamycins are structurally related to the bafilomycins.

References

1. The V-ATPase inhibitors concanamycin A and bafilomycin A lead to Golgi swelling in tobacco BY-2 cells. Robinson D.G. et al. *Protoplasma* **2004**, 224, 255.
2. Concanamycin A, a powerful tool for characterization and estimation of contribution of perforin- and Fas-based lytic pathways in cell-mediated cytotoxicity. Kataoka T. et al. *J. Immunol.* **1996**, 156, 3678.
3. Specific inhibitors of vacuolar type H(+)-ATPases induce apoptotic cell death. Nishihara T. *et al. Biochem. Biophys. Res. Commun.* **1995**, 212, 255.
4. Folimycin (concanamycin A), a specific inhibitor of V-ATPase, blocks intracellular translocation of the glycoprotein of vesicular stomatitis virus before arrival to the Golgi apparatus. Muroi M. et al. *Cell Struct. Funct.* **1993**, 18, 139.

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