

Data Sheet (Cat.No.TP1072)

Valinomycin

Chemical Properties

CAS No.: 2001-95-8

Formula: C54H90N6O18

Molecular Weight: 1111.32

Appearance: N/A

Storage: 0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description Valinomycin is a dodecadepsipeptide antibiotic, which is obtained from several Streptomyces strains.

 $Valino mycin functions \ as \ a \ potassium-specific \ transporter \ and \ promotes \ the \ movement \ of \ K+ \ through \ lipid$

membranes. Excessive K+ efflux is an ionic mechanism underlying apoptosis.

Solubility Information

Solubility DMSO: 50 mg/mL (44.99 mM)
Ethanol: 50 mg/mL (44.99 mM)

(< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9 mL	4.499 mL	8.998 mL
5 mM	0.18 mL	0.9 mL	1.8 mL
10 mM	0.09 mL	0.45 mL	0.9 mL
50 mM	0.018 mL	0.09 mL	0.18 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Daniele RP, et al. A potassium ionophore (valinomycin) inhibits lymphocyte proliferation by its effects on the cell membrane. Proc Natl Acad Sci U S A. 1976 Oct;73(10):3599-602.

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