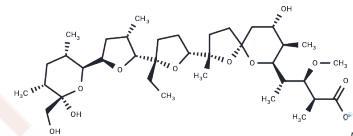


Monensin sodium salt

Chemical Properties

CAS No. :	22373-78-0
Formula:	C ₃₆ H ₆₁ NaO ₁₁
Molecular Weight:	692.85
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Monensin sodium is an antiprotozoal agent produced by <i>Streptomyces cinnamonensis</i> . Monensin sodium salt (Monensin A sodium salt) causes a marked enlargement of the MVBs and regulates exosome secretion
Targets(IC50)	Antibacterial,Antibiotic,Sodium Channel
In vitro	Monensin sodium salt (Coban), isolated from <i>Streptomyces cinnamonensis</i> , is a well-known representative of naturally polyether ionophore antibiotics. Monensin is an ionophore related to the crown ethers with a preference to form complexes with monovalent cations such as: Li ⁺ , Na ⁺ , K ⁺ , Rb ⁺ , Ag ⁺ , and Tl ⁺ . [1] Monensin A is able to transport these cations across lipid membranes of cells, playing an important role as an Na ⁺ /H ⁺ antiporter. It blocks intracellular protein transport, and exhibits antibiotic, antimalarial, and other biological activities. [2] The antibacterial properties of monensin and its derivatives are a result of their ability to transport metal cations through cellular and subcellular membranes. [3]
In vivo	LD50: Mice 335 mg/kg (i.g.) [4]; Rats 36.5 mg/kg (i.g.); Chickens 185 mg/kg (i.g.). [5]

Solubility Information

Solubility	Ethanol: 12.5 mg/mL (18.04 mM),Sonication is recommended. DMSO: < 1 mg/mL (insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4433 mL	7.2166 mL	14.4331 mL
5 mM	0.2887 mL	1.4433 mL	2.8866 mL
10 mM	0.1443 mL	0.7217 mL	1.4433 mL
50 mM	0.0289 mL	0.1443 mL	0.2887 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

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