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DATASHEET

Monensin sodium salt

Product overview

Name	Monensin sodium salt
Cat No	HB4882
Alternative names	Monensin A, NSC 343257, MONA, MonH, Monensic acid
Biological action	Inhibitor
Purity	>98%
Description	Protein transport inhibitor. Commonly used in cytokine staining.

Biological Data

Biological description

Monensin is an ionophore and protein transport inhibitor which facilitates the transmembrane exchange of sodium ions for protons.

Monensin disrupts the trans-Golgi transport of proteins by interacting with Golgi membrane Na^+ / H^+ transport. It also neutralizes acidic intracellular compartments and disrupts the Golgi apparatus structure and slows down and reduces the process of endocytosis.

Uses

Monensin is commonly used for intracellular staining of cytokines for flow cytometry by inducing an accumulation of cytokines in the golgi complex. Monensin also shows antibiotic action and induces apoptosis.

Brefeldin A (BFA) also [available](#).

Additionally shows inhibitor activity towards some Coronaviruses (CoVs) (e.g. (MERS-CoV)).

Solubility & Handling

Storage instructions

-20 °C

Solubility overview

Soluble in ethanol (100mM)

Important

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

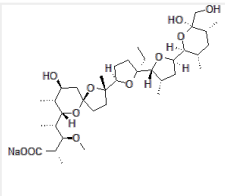
Chemical name

4-[2-[5-Ethyl-5-[5-[6-hydroxy-6-(hydroxymethyl)-3,5-dimethyloxan-2-yl]-3-methyloxolan-2-yl]oxolan-2-yl]-

Molecular Weight

9-hydroxy-2,8-dimethyl-1,6-dioxaspiro[4.5]dec-7-yl]-3-methoxy-2-methylpentanoic acid sodium salt

Chemical structure



Molecular Formula	C ₃₆ H ₆₁ NaO ₁₁
CAS Number	22373-78-0
PubChem identifier	23667299
SMILES	<chem>C[C@@H]([C@@H](OC)[C@@H](C(O[Na])=O)C)[C@]1([H])[C@H](C)[C@@H](O)C[C@]2(CC[C@]([C@]3([H])O[C@@]([C@@]4([H])[C@@H](C)C[C@@]([C@]5([H])[C@@H](C)C[C@@H](C)[C@@](CO)(O)O5)([H])O4)(CC)CC3)(C)O2)O1</chem>
InChi	OC[C@]1(O)O[C@@H]([C@@H](C)C[C@H]1C)[C@H]2C[C@H](C)[C@@H](O2)[C@]3(CC)CC[C@@H](O3)[C@]5(C)CC[C@]4(C)[C@H](O)C[C@](C)(O4)[C@@H](C)[C@@H](OC)C(C)C(=O)O5
InChiKey	XOIQMTLWECKJL-FBZUZRIGSA-M
MDL number	MFCD00077826

References

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