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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

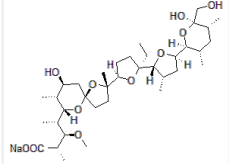
Biological description	Monensin is an ionophore and protein transport inhibitor which facilitates the transmembrane exchange of sodium ions for protons. Monensin disrupts the trans-Golgi transport of proteins by interacting with Golgi membrane Na^+ / H^+ transport. It also neutralizes acidic intracellular 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]-9-hydroxy-2,8-dimethyl-1,6-dioxaspiro[4.5]dec-7-yl]-3-methoxy-2-methylpentanoic acid sodium salt
Molecular Weight	692.86
Chemical structure	

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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)O1OC[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)O)O5</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)O)O5
InChiKey	XOIQMTLWECTKJL-FBZUZRIGSA-M
MDL number	MFCD00077826

References

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