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Produktinformation



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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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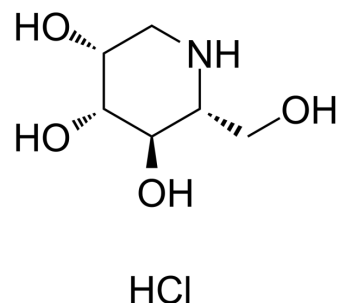
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1-Deoxymannojirimycin hydrochloride

Cat. No.:	HY-W009783
CAS No.:	73465-43-7
Molecular Formula:	C ₆ H ₁₄ ClNO ₄
Molecular Weight:	199.63
Target:	Influenza Virus; HIV
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (500.93 mM; Need ultrasonic)
DMSO : 50 mg/mL (250.46 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	5.0093 mL	25.0463 mL	50.0927 mL
	5 mM	1.0019 mL	5.0093 mL	10.0185 mL
	10 mM	0.5009 mL	2.5046 mL	5.0093 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 100 mg/mL (500.93 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 3.5 mg/mL (17.53 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 3.5 mg/mL (17.53 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 3.5 mg/mL (17.53 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

1-Deoxymannojirimycin hydrochloride is a selective class I α1,2-mannosidase inhibitor with an IC₅₀ of 20 μM. 1-Deoxymannojirimycin hydrochloride is also a N-linked glycosylation inhibitor and inhibits HIV-1 strains. 1-Deoxymannojirimycin hydrochloride has antiviral activity^{[1][2]}.

IC₅₀ & Target

IC₅₀: 20 μM (α1,2-mannosidase I)^[1]
N-linked glycosylation^[2]

REFERENCES

- [1]. F Vallee, et al. Structural Basis for Catalysis and Inhibition of N-glycan Processing Class I Alpha 1,2-mannosidases. J Biol Chem. 2000 Dec 29;275(52):41287-98.
- [2]. Jan Balzarini, et al. The alpha(1,2)-mannosidase I Inhibitor 1-deoxymannojirimycin Potentiates the Antiviral Activity of Carbohydrate-Binding Agents Against Wild-Type and Mutant HIV-1 Strains Containing Glycan Deletions in gp120. FEBS Lett. 2007 May 15;581(10):2060-4.
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Caution: Product has not been fully validated for medical applications. For research use only.

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