

Certificate of Analysis

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Product Name: 1-Deoxynojirimycin

Catalog No.: 1258

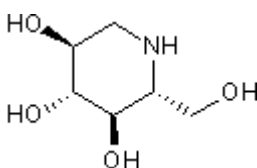
Batch No.: 4

CAS Number: 19130-96-2

IUPAC Name: (2R,3R,4R,5S)-2-(Hydroxymethyl)-3,4,5-piperidinetriol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆H₁₃NO₄
Batch Molecular Weight: 163.17
Physical Appearance: White solid
Solubility: water to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +45 (Concentration = 1, Solvent = Water)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	44.16	8.03	8.58
Found	44.19	8.01	8.5

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: (2R,3R,4R,5S)-2-(Hydroxymethyl)-3,4,5-piperidinetriol

Description:

Inhibitor of glucosidase I ($K_i = 2.1$ mM) and II ($K_i = 7$ mM).

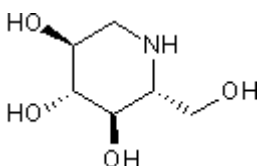
Physical and Chemical Properties:

Batch Molecular Formula: $C_6H_{13}NO_4$

Batch Molecular Weight: 163.17

Physical Appearance: White solid

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

water to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Fuhrmann et al (1985) Inhibitors of oligosaccharide processing. *Biochim.Biophys.Acta* **825** 95. PMID: 3159432.

Bause et al (1989) Purification and characterization of trimming glucosidase I from pig liver. *Eur.J.Biochem.* **183** 661. PMID: 2673780.

Hentges and Bause (1997) Affinity purification and characterization of glucosidase II from pig liver. *Biol.Chem.* **378** 1031. PMID: 9348113.

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