

## Certificate of Analysis

**Product Name:** 1-Deoxymannojirimycin hydrochloride

**Catalog No.:** 1259

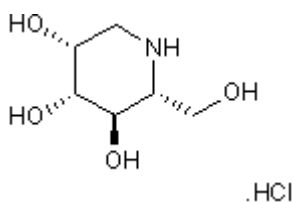
**Batch No.:** 8

**CAS Number:** 73465-43-7

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

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub>.HCl  
**Batch Molecular Weight:** 199.63  
**Physical Appearance:** White solid  
**Solubility:** water to 50 mM  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	36.1	7.07	7.02
Found	35.86	7.04	6.94

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**Description:**

Selective inhibitor of  $\alpha$ -mannosidase I.

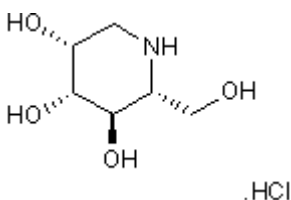
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub>.HCl

Batch Molecular Weight: 199.63

Physical Appearance: White solid

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 50 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:**

**Bischoff and Kornfeld** (1984) The effect of 1-deoxymannojirimycin on rat liver  $\alpha$ -mannosidases. *Biochem.Biophys.Res.Commun.* **125** 324. PMID: 6239623.

**Fuhrmann et al** (1984) Novel mannosidase inhibitor blocking conversion of high mannose to complex oligosaccharides. *Nature* **307** 755. PMID: 6230538.

**Bischoff et al** (1986) The use of 1-deoxymannojirimycin to evaluate the role of various  $\alpha$ -mannosidases in oligosaccharide processing in intact cells. *J.Biol.Chem.* **261** 4766. PMID: 2937779.

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel: +1 612 379 2956