

Certificate of Analysis

Product Name: Miglustat hydrochloride

Catalog No.: 3117

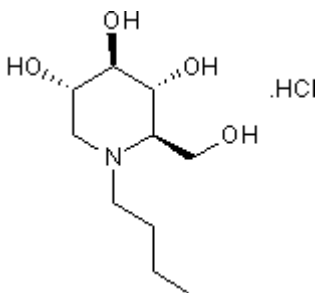
Batch No.: 4

CAS Number: 210110-90-0

IUPAC Name: (2*R*,3*R*,4*R*,5*S*)-1-Butyl-2-(hydroxymethyl)-3,4,5-piperidinetriol hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₂₁NO₄.HCl
Batch Molecular Weight: 255.74
Physical Appearance: White solid
Solubility: water to 75 mM
DMSO to 75 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.28 (Dichloromethane:Methanol:Ammonia soln. [80:18.2])
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	46.96	8.67	5.48
Found	46.59	8.76	5.5

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

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Description:

Orally active α -glucosidase I and II and ceramide-specific glycosyltransferase inhibitor. Rescues trafficking-deficient F508del-CFTR in human airway epithelial cells via inhibition of ER α -glucosidases I and II. Also has broad spectrum antiviral activity.

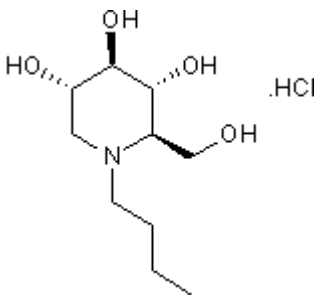
Physical and Chemical Properties:

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Storage: Desiccate at -20°C

Solubility & Usage Info:

water to 75 mM

DMSO to 75 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:

Noel et al (2008) Parallel improvements of sodium and chloride transport defects by miglustat (*n*-butyldeoxynojirimycin) in cystic fibrosis epithelial cells. *J.Pharmacol.Exp.Ther.* **325** 1016.

Dwek et al (2002) Targeting glycosylation as a therapeutic approach. *Nat.Rev.Drug Disc.* **1** 65.

Platt et al (1994) *N*-Butyldeoxynojirimycin is a novel inhibitor of glycolipid biosynthesis. *J.Biol.Chem.* **269** 8362. PMID: 8132559.

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