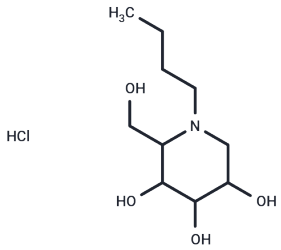
Data Sheet (Cat.No.TQ0155)

TargetMol

Miglustat hydrochloride

Chemical Properties



CAS No. :	210110-90-0
Formula:	C10H22ClNO4
Molecular Weight:	255.74
Storage:	Powder: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	Miglustat hydrochloride (N-Butyldeoxynojirimycin hydrochloride) is an inhibitor of glucosylceramide synthase and can be used for studies about Type I Gaucher disease.
Targets(IC50)	Transferase
In vivo	Consumption of a standard high-fat breakfast within 30 minutes before administration of Miglustat hydrochloride significantly reduced peak exposure but did not significantly affect the extent of systemic exposure to Miglustat hydrochloride. The Cmax decreased by 36% on average following administration with food. AUC showed a modest (14%) decrease with food, but the 90% confidence interval was within the acceptance limit of 80% to 125%. Tmax was prolonged from 2.5 (1.0-4.0) hours in the fasted state to 4.5 (1.5-8.0) hours in the fed state, whereas the apparent terminal half-life was approximately 8 hours and not affected by food[1].

Solubility Information

Solubility	H2O: 34 mg/mL (132.95 mM),Sonication is recommended. DMSO: 60 mg/mL (234.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2.5 mg/mL (9.78 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9102 mL	19.5511 mL	39.1022 mL
5 mM	0.782 mL	3.9102 mL	7.8204 mL
10 mM	0.391 mL	1.9551 mL	3.9102 mL
50 mM	0.0782 mL	0.391 mL	0.782 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

van Giersbergen, P.L. and J. Dingemanse, Influence of food intake on the pharmacokinetics of miglustat, an inhibitor of glucosylceramide synthase. J Clin Pharmacol, 2007. 47(10): p. 1277-82.
Abian, O., et al., Therapeutic strategies for Gaucher disease: miglustat (NB-DNJ) as a pharmacological chaperone for glucocerebrosidase and the different thermostability of velaglucerase alfa and imiglucerase. Mol Pharm, 2011. 8(6): p. 2390-7.