Product Data Sheet

Product Name: Miglustat
Cat. No.: GC12631

Chemical Properties

Cas. No.	72599-27-0		
Chemical Name	(2R,3R,4R,5S)-1-butyl-2-(hydroxymethyl)piperidine-3,4,5-triol		
SMILES	CCCCN1CC(C(C(C1CO)O)O)O		
Formula	$C_{10}H_{21}NO_4$	M.Wt	219.28
Solubility	44 mg/mL (200.66 mM) in DMSO,22 mg/mL (100.33 mM) in Ethanol, 44 mg/mL (200.66 mM) inWater	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Miglustat		

Background

Miglustat(OGT918) is an inhibitor of glucosylceramide synthase, primarily to treat Type I Gaucher disease (GD1).Target: OthersMiglustat is an inhibitor of the ceramide-specific glycosyltransferase, which catalyzes the first step of glycosphingolipid biosynthesis and is currently approved for the oral treatment of type 1 GD [1]. Consumption of a standard high-fat breakfast within 30 minutes before administration of miglustat significantly reduced peak exposure but did not significantly affect the extent of systemic exposure to miglustat. The peak plasma concentration (C(max)) decreased by 36% on average following administration with food. Area under the plasma concentration-time curve (AUC(0-infinity)) showed a modest (14%) decrease with food, but the 90% confidence interval was within the acceptance limit of 80% to 125%. The median (min-max) time to C(max) (t(max)) 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

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hours and not affected by food [2].

References:

[1]. 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.
[2]. 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.