

Product Data Sheet

Product Name: Miglitol-d4

Cat. No.: GC47675

Chemical Properties

Cas. No. 2714473-10-4

SMILES OC([2H])([2H])C([2H])([2H])N1C[C@H](O)[C@@H](O)[C@H](O)[C@H]1CO

Formula C₈H₁₃D₄NO₅

M.Wt 211.3

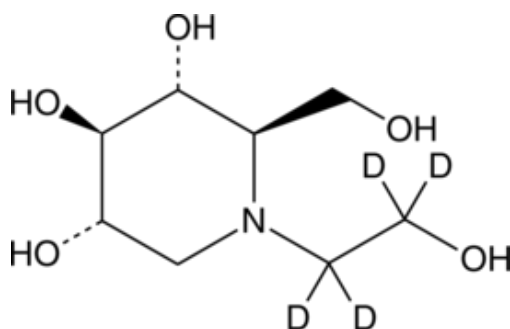
Solubility DMSO: soluble, Water: soluble

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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



Background

Miglitol-d₄ is intended for use as an internal standard for the quantification of miglitol by GC- or LC-MS. Miglitol is an inhibitor of α -glucosidases (IC_{50} s = 0.35, 0.11, 1.3, and 1.2 μ M for human lysosomal α -glucosidase and rat sucrase, maltase, and isomaltase, respectively).¹ It is selective for human α - over β -glucosidase (IC_{50} = 84 μ M). Miglitol (10 mg/kg) decreases blood glucose levels in sucrose-loaded Goto-Kakizaki (GK) type 2 diabetic rats.² Dietary administration of miglitol (40 mg/100 g diet) for 8 weeks decreases changes in HbA1c levels compared with control rats fed a normal diet. Formulations containing miglitol have been used in the treatment of type 2 diabetes.

1. Kuriyama, C., Kamiyama, O., Ikeda, K., et al. In vitro inhibition of glycogen-degrading enzymes and glycosidases by six-membered sugar mimics and their evaluation in cell cultures. *Bioorg. Med.*

Caution: Product has not been fully validated for medical applications. For research use only.

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Chem.16(15)7330-7336(2008) 2.Goda, T., Suruga, K., Komori, A., et al.Effects of miglitol, an α -glucosidase inhibitor, on glycaemic status and histopathological changes in islets in non-obese, non-insulin-dependent diabetic Goto-Kakizaki ratsBr. J. Nutr.98(4)702-710(2007)

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