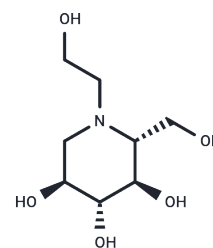


Miglitol

Chemical Properties

CAS No. :	72432-03-2
Formula:	C ₈ H ₁₇ NO ₅
Molecular Weight:	207.22
Appearance:	no data available
Storage:	store at low temperature
	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Miglitol (BAY1099) is an alpha-Glucosidase Inhibitor with antihyperglycemic activity.
Targets(IC50)	Others
In vivo	D-cycloserine (DCS) facilitates extinction of conditioned freezing to the light CS when no drug pre-exposure has occurred, but pre-exposure to DCS just prior to conditioning disrupted the facilitation of extinction effect in mice. [1] D-cycloserine (DCS) which has a high affinity for the glycine modulatory site in the NMDA receptor complex modulated memory processing in a dose-dependent manner. DCS also facilitates retention in 'senescence-accelerated mice' in which impairment of learning and memory increases with age. [2] D-cycloserine (DCS) exhibits facilitated extinction of fear but are able to reacquire fear of that conditioned stimulus (CS) in a similar manner as saline-treated control rats. DCS-treated rats exhibits generalized extinction (i.e., they are less fearful of a non-extinguished CS) in comparison to controls. [3] D-cycloserine (DCS), an antimycobacterial agent known to cross the blood-brain barrier, binds with high affinity to this glycine modulatory site, functions as a positive modulator, and facilitates performance of learning tasks in rats. DCS appears to be a potent cognitive enhancer at doses lower than those required for antibacterial activity. [4] D-cycloserine injections (3.25, 15, or 30 mg/kg) before 30 non-reinforced light exposures dose-dependently enhances extinction but does not influence fear-potentiated startle in rats that does not receive extinction training. [5]

Solubility Information

Solubility	H ₂ O: 20.7 mg/mL (99.89 mM), Sonication is recommended. DMSO: 70 mg/mL (337.81 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.8258 mL	24.1289 mL	48.2579 mL
5 mM	0.9652 mL	4.8258 mL	9.6516 mL
10 mM	0.4826 mL	2.4129 mL	4.8258 mL
50 mM	0.0965 mL	0.4826 mL	0.9652 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.

Reference

Rossi EJ, et al. FEBS J. 2006 Jun;273(12):2673-83.

Liu T, Liu R, Zhu L, et al. Development of a UHPLC-MS method for inhibitor screening against α -L-1, 3-fucosidase. Analytical and bioanalytical chemistry. 2019 Mar;411(7):1467-1477.

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