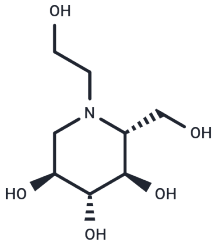
# Data Sheet (Cat.No.T1529)

TargetMol

## Miglitol

### Chemical Properties



CAS No. : 72432-03-2

Formula: C8H17NO5

Molecular Weight: 207.22

Storage: Store at low temperature
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 | Miglitol (BAY1099) is an alpha-Glucosidase Inhibitor with antihyperglycemic activity. |
| Targets(IC50) | Others,AMPK,glycosidase,ROS |
| 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 andmemory 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 learningtasks 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 | H2O: 20.7 mg/mL (99.89 mM),Sonication is recommended.<br>DMSO: 71.43 mg/mL (344.71 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+90% Saline: 10 mg/mL (48.26 mM),Solution.<br>*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 | 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.

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

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