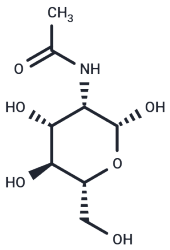
Data Sheet (Cat.No.T4725)

TargetMol

Cyclic N-Acetyl-D-mannosamine

Chemical Properties



CAS No. : 7772-94-3

Formula: C8H15NO6

Molecular Weight: 221.21

Storage: Store under nitrogen,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	Cyclic N-Acetyl-D-mannosamine is a monosaccharide used as a precursor in the chemical or enzymatic synthesis of neuraminic acid found in glycolipids and glycoproteins.N-Acetyl-D-mannosamine is a specific substrate for the synthesis of n -acetylneuraminic acid, an essential precursor for bacterial podoplanar polysialic acid (PA).N-Acetyl-D-mannosamine is used in the synthesis of sialic acid. mannosamine is used in the synthesis of sialic acid. It is also an intermediate in the synthesis of many carbohydrate-derived bioactive compound families and drug candidates.N-Acetyl-D-mannosamine is used in the study of cognitive disorders and aging.
Targets(IC50)	Endogenous Metabolite

Solubility Information

Solubility	H2O: 5 mg/mL (22.6 mM),Sonication is recommended. DMSO: 255 mg/mL (1152.75 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 mg/mL (9.04 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	4.5206 mL	22.603 mL	45.2059 mL
5 mM	0.9041 mL	4.5206 mL	9.0412 mL
10 mM	0.4521 mL	2.2603 mL	4.5206 mL
50 mM	0.0904 mL	0.4521 mL	0.9041 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

Sreekumar A, et al.Metabolomic profiles delineate potential role for sarcosine in prostate cancer progression. Nature. 2009 Feb 12;457(7231):910-4. doi: 10.1038/nature07762.