Data Sheet (Cat.No.T4825)

TargetMol

D-(+)-Xylose

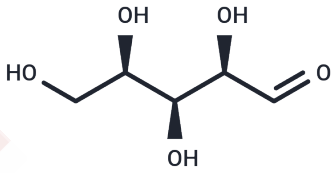
Chemical Properties

CAS No. : 58-86-6

Formula: C5H10O5

Molecular Weight: 150.13

Storage: 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	D-(+)-Xylose (Wood sugar) is an aldopentose - a monosaccharide containing five carbon atoms and an aldehyde functional group. It has chemical formula C5H10O5 and is 40% as sweet as sucrose. Xylose is also found in mucopolysaccharides of connective tissue and sometimes in the urine. Xylose is the first sugar added to serine or threonine residues during proteoglycan type O-glycosylation. Therefore xylose is involved in the biosythetic pathways of most anionic polysaccharides such as heparan sulphate and chondroitin sulphate. In medicine, xylose is used to test for malabsorption by administering a xylose solution to the patient after fasting. If xylose is detected in the blood and/or urine within the next few hours, it has been absorbed by the intestines. Xylose is said to be one of eight sugars which are essential for human nutrition, the others being galactose, glucose, mannose, N-acetylglucosamine, N-acetylgalactosamine, fucose, and sialic acid. . Xylose in the urine is a biomarker for the consumption of apples and other fruits.
Targets(IC50)	Endogenous Metabolite

Solubility Information

Solubility	DMSO: 250 mg/mL (1665.22 mM),Sonication is recommended. H2O: Soluble, (< 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 (13.32 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	6.6609 mL	33.3045 mL	66.6089 mL
5 mM	1.3322 mL	6.6609 mL	13.3218 mL
10 mM	0.6661 mL	3.3304 mL	6.6609 mL
50 mM	0.1332 mL	0.6661 mL	1.3322 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

Shoemaker J D , Elliott W H . Automated screening of urine samples for carbohydrates, organic and amino acids after treatment with urease.[J]. J Chromatogr, 1991, 562(1-2):125-138.