Xylose

Cat. No.: HY-N0537

CAS No.: 58-86-6

Molecular Formula: $C_5H_{10}O_5$

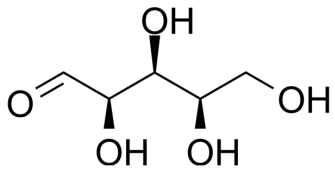
Molecular Weight: 150.13

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

H_2O : ≥ 50 mg/mL (333.04 mM)

DMSO : 50 mg/mL (333.04 mM; Need ultrasonic)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
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

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (666.09 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (16.65 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (16.65 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (16.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

D-(+)-xylose (Xylose) is a natural compound that is catalyzed by xylose isomerase to form xylulose, which is a key step in the anaerobic ethanol fermentation of xylose.

IC_{50} & Target	Human Endogenous Metabolite

CUSTOMER VALIDATION

- ACS Appl Mater Interfaces. 2019 Mar 20;11(11):10554-10558.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Wang XX, et al. The implementation of high fermentative 2,3-butanediol production from xylose by simultaneous additions of yeast extract, Na2EDTA, and acetic acid. N Biotechnol. 2015 Aug 3.

[2]. Bingyin Peng, et al. Bacterial xylose isomerases from the mammal gut Bacteroidetes cluster function in Saccharomyces cerevisiae for effective xylose fermentation. Microbial Cell FactoriesMay, 2015, 14:70.

[3]. Pengfei Li, et al. Construction of efficient xylose utilizing Pichia pastoris for industrial enzyme production. Microbial Cell FactoriesFebruary 2015, 14:22.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA