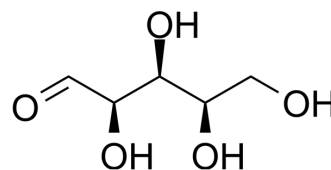


Xylose

Cat. No.:	HY-N0537		
CAS No.:	58-86-6		
Molecular Formula:	C ₅ H 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

H₂O : ≥ 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

- Add each solvent one by one: PBS
Solubility: 100 mg/mL (666.09 mM); Clear solution; Need ultrasonic
- 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
- 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
- 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.

CUSTOMER VALIDATION

- Sci Adv. 2023 Feb 17;9(7):eade4770.
- 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 Factories* May, 2015, 14:70.
- [3]. Pengfei Li, et al. Construction of efficient xylose utilizing *Pichia pastoris* for industrial enzyme production. *Microbial Cell Factories* February 2015, 14:22.

Caution: Product has not been fully validated for medical applications. For research use only.

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