

Product Data Sheet

Product Name: Xylose- 13 C 2

Cat. No.: GC80495

Chemical Properties

Cas. No. 201741-00-6

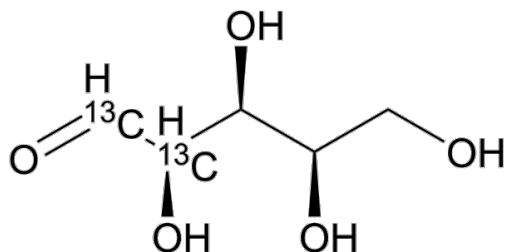
Formula $C_{313}C_2H_{10}O_5$ M.Wt 152.12

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Xylose- 13 C 2 (D-(+)-Xylose- 13 C 2) is the 13 C-labeled Xylose. Xylose (D-(+)-Xylose) is a natural pentose sugar that is catalyzed by xylose isomerase to form xylulose, which is a key step in the anaerobic ethanol fermentation of Xylose. Xylose can be used by microorganisms to produce fuels, chemicals, and bulk industrial enzymes. Xylose provides the substances and energy for cells, as a carbon source for the biosynthesis of high-value chemicals and biofuel. Xylose can be used to fully explore lignocellulose resources and provide a new direction for microbia fermentation [1] [2] [3] [4].

In Vitro, Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into

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Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs.

References:

- [1]. Zhao Z, et al. Biochemical routes for uptake and conversion of xylose by microorganisms. *Biotechnol Biofuels*. 2020 Feb 1;13:21.
- [2]. 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.
- [3]. 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.
- [4]. Pengfei Li, et al. Construction of efficient xylose utilizing *Pichia pastoris* for industrial enzyme production. *Microbial Cell Factories* February 2015, 14:22.

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