

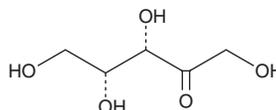
PRODUCT INFORMATION



D-Xylulose

Item No. 20830

CAS Registry No.: 551-84-8
Formal Name: D-threo-2-pentulose
MF: C₅H₁₀O₅
FW: 150.1
Purity: ≥95%
UV/Vis.: λ_{max}: 278 nm
Supplied as: A solution in water
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

D-Xylulose is supplied as a solution in water. To change the solvent, simply evaporate the water under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as methanol purged with an inert gas can be used. D-Xylulose is miscible in these solvents.

Description

D-Xylulose is a ketopentose, a monosaccharide containing five carbon atoms and a ketone functional group.¹ It is converted from xylitol in the glucuronate-xylulose pathway. D-Xylulokinase catalyzes the ATP-dependent phosphorylation of D-xylulose to produce xylulose 5-phosphate, which is linked to the pentose-phosphate pathway.²

References

1. Nagy, G. and Pohl, N.L.B. Monosaccharide identification as a first step toward *de novo* carbohydrate sequencing: Mass spectrometry strategy for the identification and differentiation of diastereomeric and enantiomeric pentose isomers. *Anal. Chem.* **87**(8), 4566-4571 (2015).
2. Bunker, D., Bulloch, E.M.M., Dickson, J.M.J., *et al.* Structure and function of human xylulokinase, an enzyme with important roles in carbohydrate metabolism. *J. Biol. Chem.* **288**(3), 1643-1652 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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