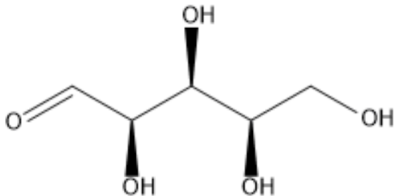


Certificate of Analysis

Catalog Number	BP16871
Product Name	Xylose

Physical and Chemical Properties

Synonyms	(+)-Xylose, D(+)-Xylose, Wood sugar
CAS No.	58-86-6
Chemical Formula	C ₅ H ₁₀ O ₅
Molecular Weight	150.13
Solubility	DMSO: 10 mM H ₂ O: Soluble
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	 <p>The chemical structure of D(+)-Xylose is shown in a Fischer projection. It consists of a five-carbon chain. The top carbon (C1) is an aldehyde group (CHO). The second carbon (C2) has a hydroxyl group (OH) on a wedge bond. The third carbon (C3) has a hydroxyl group (OH) on a dash bond. The fourth carbon (C4) has a hydroxyl group (OH) on a wedge bond. The bottom carbon (C5) is a CH₂OH group.</p>

Product Information

Description	<p>Xylose or 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 biosynthetic 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.</p>
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Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	<p>Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.</p>

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