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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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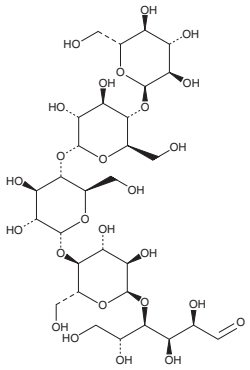
PRODUCT INFORMATION

Maltopentaose

Item No. 28456



CAS Registry No.:	34620-76-3
Formal Name:	O-α-D-glucopyranosyl-(1→4)-O-α-D-glucopyranosyl-(1→4)-O-α-D-glucopyranosyl-(1→4)-O-α-D-glucopyranosyl-(1→4)-D-glucose
MF:	$C_{30}H_{52}O_{26}$
FW:	828.7
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years
Item Origin:	Plant/Barley

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

Laboratory Procedures

Maltopentaose is supplied as a crystalline solid. A stock solution may be made by dissolving the maltopentaose in the solvent of choice, which should be purged with an inert gas. Maltopentaose is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of maltopentaose in these solvents is approximately 20 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of maltopentaose can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of maltopentaose in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Maltopentaose is an oligosaccharide comprised of five α-1,4-linked glucose molecules.[1] It increases the α-amylase synthesis rate in *B. stearothermophilus* when used at a concentration of 1 mM. Maltopentaose has been used as a substrate for porcine pancreatic α-amylase (PPA) to study various inhibitors of PPA.[2]

References

1. Welker, N.E. and Campbell, L.L. Induction of α-amylase of *Bacillus stearothermophilus* by maltodextrins. *J. Bacteriol.* **86(4)**, 687-691 (1963).
2. Desseaux, V., Koukiekolo, R., Moreau, Y., *et al.* Mechanism of porcine pancreatic α-amylase: Inhibition of amylose and maltopentaose hydrolysis by various inhibitors. *Biologia* **57(Suppl 11),** 163-170 (2002).

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