

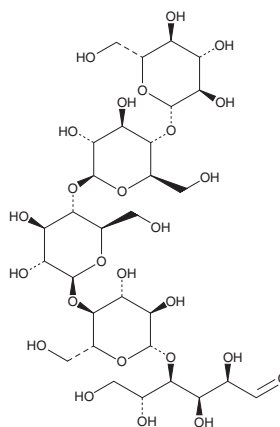
PRODUCT INFORMATION



D-(+)-Cellopentaose

Item No. 35300

CAS Registry No.: 2240-27-9
Formal Name: O-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranosyl-(1→4)-O-β-D-glucopyranosyl-(1→4)-D-glucose
Synonym: β-D-Cellopentaose
MF: C₃₀H₅₂O₂₆
FW: 828.7
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

D-(+)-Cellopentaose is supplied as a solid. A stock solution may be made by dissolving the D-(+)-Cellopentaose in the solvent of choice, which should be purged with an inert gas.

D-(+)-Cellopentaose is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

D-(+)-Cellopentaose is an oligosaccharide derived from cellulose.¹ It has been used as a synthetic acceptor co-substrate to characterize the binding domains and enzyme kinetics of the *E. coli* pEtN transferase BcsG found in *E. coli* biofilms.² D-(+)-Cellopentaose has also been used as a substrate for a synthetic receptor designed to solubilize polysaccharides for use in tissue engineering and biological applications.³

References

1. Wolfrom, M.L. and Dacons, J.C. The polymer-homologous series of oligosaccharides from cellulose. *J. AM. Chem. Soc.* **74(21)**, 5331-5333 (1952).
2. Anderson, A.C., Burnett, A.J.N., Constable, S., *et al.* A mechanistic basis for phosphoethanolamine modification of the cellulose biofilm matrix in *Escherichia coli*. *Biochemistry* **60(47)**, 3659-3669 (2021).
3. Mooibroek, T.J., Casas-Solvas, J.M., Harniman, R.L., *et al.* A threading receptor for polysaccharides. *Nat. Chem.* **8(1)**, 69-74 (2016).

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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