

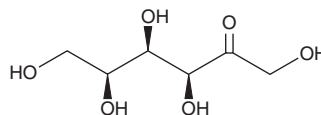
PRODUCT INFORMATION



L-(-)-Sorbitose

Item No. 26812

CAS Registry No.: 87-79-6
Formal Name: L-sorbitose
Synonym: NSC 97195
MF: C₆H₁₂O₆
FW: 180.2
Purity: ≥95%
Supplied as: A crystalline 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

L-(-)-Sorbitose is supplied as a crystalline solid. A stock solution may be made by dissolving the L-(-)-sorbitose in the solvent of choice, which should be purged with an inert gas. L-(-)-Sorbitose is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of L-(-)-sorbitose in these solvents is approximately 0.3, 30, and 20 mg/ml, respectively.

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 L-(-)-sorbitose can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of L-(-)-sorbitose in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

L-(-)-Sorbitose is a monosaccharide and an intermediate in the biosynthesis of L-ascorbic acid (Item No. 14656) in bacteria.^{1,2} It is formed *via* dehydrogenation of D-sorbitol by D-sorbitol dehydrogenase (SLDH).² L-(-)-Sorbitose has commonly been used as a starting material in the commercial biosynthesis of L-ascorbic acid.

References

1. Kang, J.-P., Kim, Y.-J., Nguyen, N.-L., *et al.* *Phycococcus ginsengisoli* sp. nov., isolated from cultivated ginseng soil. *Int. J. Syst. Evol. Microbiol.* **66(12)**, 5320-5327 (2016).
2. Saito, Y., Ishii, Y., Hayashi, H., *et al.* Cloning of genes coding for L-sorbitose and L-sorbitone dehydrogenases from *Gluconobacter oxydans* and microbial production of 2-keto-L-gulonate, a precursor of L-ascorbic acid, in a recombinant *G. oxydans* strain. *Appl. Environ. Microbiol.* **63(2)**, 454-460 (1997).

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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