

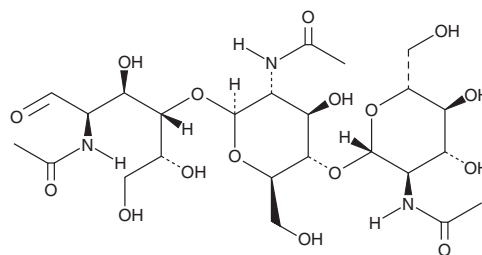
PRODUCT INFORMATION



N,N',N''-Triacetylchitotriose

Item No. 20759

CAS Registry No.: 38864-21-0
Formal Name: O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-
O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→4)-
2-(acetylamino)-2-deoxy-D-glucose
Synonyms: Tri-N-acetyl-Chitotriose, Tri-N-acetyl-D-Glucosamine
MF: C₂₄H₄₁N₃O₁₆
FW: 627.6
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

N,N',N''-Triacetylchitotriose is supplied as a crystalline solid. A stock solution may be made by dissolving the N,N',N''-triacetylchitotriose in the solvent of choice, which should be purged with an inert gas. N,N',N''-Triacetylchitotriose is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of N,N',N''-triacetylchitotriose in these solvents is approximately 15 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 N,N',N''-triacetylchitotriose can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of N,N',N''-triacetylchitotriose in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

N,N',N''-Triacetylchitotriose is a triose oligosaccharide derived from chitin, consisting of three N-acetylglucosamine units. It has been shown to scavenge reactive oxygen species and to protect DNA from oxidative damage.^{1,2}

References

1. Salgaonkar, N., Prakash, D.Y., Nawani, N.N., *et al.* Comparative studies on ability of N-acetylated chitoooligosaccharides to scavenge reactive oxygen species and protect DNA from oxidative damage. *Indian J. of Biotechnol.* **14**(2), 186-192 (2015).
2. Hao, C., Gao, G., Zhang, Y., *et al.* Acetylated chitosan oligosaccharides act as antagonists against glutamate-induced PC12 cell death via Bcl-2/Bax signal pathway. *Mar. Drugs* **13**(3), 1267-1289 (2015).

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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