

N,N',N''-Triacetylchitotriose

Chemical Properties

CAS No. :	38864-21-0
Formula:	C ₂₄ H ₄₁ N ₃ O ₁₆
Molecular Weight:	627.59
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	N,N',N''-Triacetylchitotriose is a chiral compound generated through acetylation of chitin. N,N',N''-Triacetylchitotriose has been identified as an antigen for monoclonal antibodies and serves as a model system for investigations involving enzymatic hydrolysis of chitin. N,N',N''-Triacetylchitotriose is utilized to investigate the catalytic mechanisms of chitinase enzymes involved in degradation of the polysaccharide chitin. N,N',N''-Triacetylchitotriose additionally demonstrates bioactive properties, including lectin inhibition and mannose receptor binding. N,N',N''-Triacetylchitotriose is therefore valuable for glycobiology, immunochemistry, and enzymology-related research.
Targets(IC50)	Antibacterial
In vitro	N,N',N''-Triacetylchitotriose (0.4 mM, 37°C) reduces the equilibrium fusion percentage by 15% and decreases the fusion rate between lysozyme-covalently bound liposomes and white erythrocyte ghosts at pH 5.0[1].

Solubility Information

Solubility	DMSO: 1.6 mg/mL (2.55 mM),Sonication is recommended. H ₂ O: 4 mg/mL (6.37 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5934 mL	7.967 mL	15.934 mL
5 mM	0.3187 mL	1.5934 mL	3.1868 mL
10 mM	0.1593 mL	0.7967 mL	1.5934 mL
50 mM	0.0319 mL	0.1593 mL	0.3187 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

T Arvinte, et al. Lysozyme-induced fusion of liposomes with erythrocyte ghosts at acidic pH. Proc Natl Acad Sci U S A. 1986 Feb;83(4):962-6.

Arvinte T, et al. Lysozyme-induced fusion of liposomes with erythrocyte ghosts at acidic pH. Proc Natl Acad Sci U S A. 1986 Feb;83(4):962-6.

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