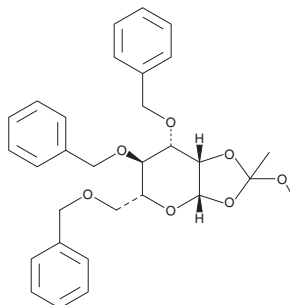


PRODUCT INFORMATION

3,4,6-Tri-O-benzyl-β-D-Mannopyranose 1,2-(methyl orthoacetate) Item No. 16405

CAS Registry No.: 16697-49-7
Formal Name: 1,2-O-(1-methoxyethylidene)-3,4,6-tris-O-(phenylmethyl)-β-D-mannopyranose
MF: C₃₀H₃₄O₇
FW: 506.6
Purity: ≥85%
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

3,4,6-Tri-O-benzyl-β-D-mannopyranose 1,2-(methyl orthoacetate) is supplied as a crystalline solid. A stock solution may be made by dissolving the 3,4,6-tri-O-benzyl-β-D-mannopyranose 1,2-(methyl orthoacetate) in the solvent of choice, which should be purged with an inert gas. 3,4,6-Tri-O-benzyl-β-D-mannopyranose 1,2-(methyl orthoacetate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 3,4,6-tri-O-benzyl-β-D-mannopyranose 1,2-(methyl orthoacetate) in these solvents is approximately 5, 10, and 15 mg/ml, respectively.

3,4,6-Tri-O-benzyl-β-D-mannopyranose 1,2-(methyl orthoacetate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3,4,6-tri-O-benzyl-β-D-mannopyranose 1,2-(methyl orthoacetate) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 3,4,6-Tri-O-benzyl-β-D-mannopyranose 1,2-(methyl orthoacetate) has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

3,4,6-Tri-O-benzyl-β-D-mannopyranose 1,2-(methyl orthoacetate) is a synthetic intermediate used in glycosylation reactions.^{1,2} Typically, the methyl orthoester protecting group is first removed by mild acid hydrolysis, producing a glycosyl donor. Removal of the O-benzyl protecting groups is performed late in the synthesis.

References

1. Marino-Albernas, J.R., Bittman, R., Peters, A., *et al.* Synthesis and growth inhibitory properties of glycosides of 1-O-hexadecyl-2-O-methyl-*sn*-glycerol, analogs of the antitumor ether lipid ET-18-OCH₃ (edelfosine). *J. Med. Chem.* **39**(17), 3241-3247 (1996).
2. Chakraborty, N. and d'Alarcao, M. An anionic inositol phosphate glycan pseudotetrasaccharide exhibits high insulin-mimetic activity in rat adipocytes. *Bioorg. Med. Chem.* **13**(24), 6732-6741 (2005).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/14/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM