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:** C_{30}H_{34}O_{7}

**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. 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
