

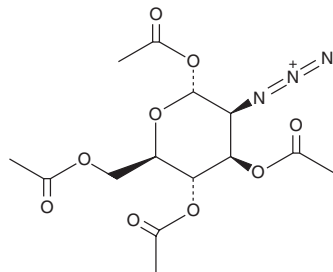
# PRODUCT INFORMATION



## 1,3,4,6-Tetra-O-acetyl-2-azido-2-deoxy- $\alpha$ -D-Mannopyranose

Item No. 30542

**CAS Registry No.:** 68733-20-0  
**Formal Name:** 2-azido-2-deoxy- $\alpha$ -D-mannopyranose,  
1,3,4,6-tetraacetate  
**MF:** C<sub>14</sub>H<sub>19</sub>N<sub>3</sub>O<sub>9</sub>  
**FW:** 373.3  
**Purity:**  $\geq$ 95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

1,3,4,6-Tetra-O-acetyl-2-azido-2-deoxy- $\alpha$ -D-mannopyranose is supplied as a solid. A stock solution may be made by dissolving the 1,3,4,6-tetra-O-acetyl-2-azido-2-deoxy- $\alpha$ -D-mannopyranose in the solvent of choice, which should be purged with an inert gas. 1,3,4,6-Tetra-O-acetyl-2-azido-2-deoxy- $\alpha$ -D-mannopyranose is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of 1,3,4,6-tetra-O-acetyl-2-azido-2-deoxy- $\alpha$ -D-mannopyranose in these solvents is approximately 15 and 30 mg/ml, respectively.

1,3,4,6-Tetra-O-acetyl-2-azido-2-deoxy- $\alpha$ -D-mannopyranose is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 1,3,4,6-tetra-O-acetyl-2-azido-2-deoxy- $\alpha$ -D-mannopyranose should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 1,3,4,6-Tetra-O-acetyl-2-azido-2-deoxy- $\alpha$ -D-mannopyranose has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

1,3,4,6-Tetra-O-acetyl-2-azido-2-deoxy- $\alpha$ -D-mannopyranose is an analog of N-acetylmannosamine (ManNAc) and a building block.<sup>1,2</sup> It has been used as a precursor in the synthesis of differently substituted trimers of the group A *N. meningitidis* capsular polysaccharide repeating unit for use in immunological experiments.<sup>2</sup> It has also been used in the synthesis of fluorescent probes for lysosomal labeling.<sup>3</sup>

### References

1. Saxon, E., Luchansky, S.J., Hang, H.C., *et al.* Investigating cellular metabolism of synthetic azidosugars with the Staudinger ligation. *J. Am. Chem. Soc.* **124**(50), 14893-14902 (2002).
2. Slättegård, R., Teodorovic, P., Kinfe, H.H., *et al.* Synthesis of structures corresponding to the capsular polysaccharide of *Neisseria meningitidis* group A. *Org. Biomol. Chem.* **3**(20), 3782-3787 (2005).
3. Yapici, N.B., Bi, Y., Li, P., *et al.* Highly stable and sensitive fluorescent probes (LysoProbes) for lysosomal labeling and tracking. *Sci. Rep.* **5**, 8576 (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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