

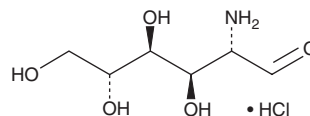
PRODUCT INFORMATION



D-Mannosamine (hydrochloride)

Item No. 36231

CAS Registry No.: 5505-63-5
Formal Name: 2-amino-2-deoxy-D-mannose, monohydrochloride
MF: C₆H₁₃NO₅ • HCl
FW: 215.6
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

D-Mannosamine (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the D-mannosamine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. D-Mannosamine (hydrochloride) is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml. D-Mannosamine (hydrochloride) is slightly soluble in ethanol and dimethyl formamide.

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 D-mannosamine (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of D-mannosamine (hydrochloride) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

D-Mannosamine is an amino monosaccharide.¹ It has been found as a component of LPS isolated from strains of *Salmonella* and *E. coli*. D-Mannosamine has been used as a starting material in the synthesis of N-azidoacetylmannosamine (ManNAz), an azido sugar that has been used as a metabolic label for glycans in cells.²

References

1. Lüderitz, O., Gmeiner, J., Kickhöfen, B., *et al.* Identification of D-mannosamine and quinovosamine in *Salmonella* and related bacteria. *J. Bacteriol.* **95**(2), 490-494 (1968).
2. Laughlin, S.T. and Bertozzi, C.R. Metabolic labeling of glycans with azido sugars and subsequent glycan-profiling and visualization via Staudinger ligation. *Nat. Protoc.* **2**(11), 2930-2944 (2007).

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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