

PRODUCT INFORMATION

1-Amino-1-deoxy-D-fructose (hydrochloride)

Item No. 30571

CAS Registry No.: 39002-30-7

Synonyms: D-Fructosamine,
D-Isoglucosamine

MF: $C_6H_{13}NO_5 \cdot HCl$

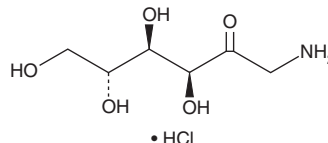
FW: 215.6

Purity: $\geq 95\%$

Supplied as: A solid

Storage: $-20^\circ C$

Stability: ≥ 4 years



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

Laboratory Procedures

1-Amino-1-deoxy-D-fructose (hydrochloride) is supplied as a solid. Aqueous solutions of 1-amino-1-deoxy-D-fructose (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 1-amino-1-deoxy-D-fructose (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

1-Amino-1-deoxy-D-fructose is an amino monosaccharide.¹ It induces site-specific DNA damage at pyrimidine residues in cell-free assays. 1-Amino-1-deoxy-D-fructose moieties have been found as a component of fructosamines, glycated serum proteins that are elevated in patients with conditions such as diabetes.^{2,3}

References

1. Nanjou, S., Fujii, S., Morita, J., *et al.* Sequence-specific alkali-labile lesions in DNA caused by D-isoglucosamine. *Biochim. Biophys. Acta* **866**(1), 44-52 (1986).
2. Danese, E., Montagnana, M., Novenne, A., *et al.* Advantages and pitfalls of fructosamine and glycated albumin in the diagnosis and treatment of diabetes. *J. Diabetes Sci. Technol.* **9**(2), 169-176 (2015).
3. Armbruster, D.A. Fructosamine: Structure, analysis, and clinical usefulness. *Clin. Chem.* **33**(12), 2153-2163 (1987).

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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