

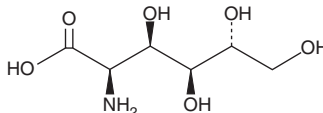
PRODUCT INFORMATION



D-Glucosaminic Acid

Item No. 44331

CAS Registry No.: 3646-68-2
Formal Name: 2-amino-2-deoxy-D-gluconic acid
Synonyms: 2-Amino-2-deoxygluconic Acid,
NSC 37779, NSC 404265
MF: $C_6H_{13}NO_6$
FW: 195.2
Purity: $\geq 98\%$
Supplied as: A 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

D-Glucosaminic acid is supplied as a solid. A stock solution may be made by dissolving the D-glucosaminic acid in the solvent of choice, which should be purged with an inert gas. D-Glucosaminic acid is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

D-Glucosaminic acid is an aldonic acid that is formed *via* oxidation of D-glucosamine (Item No. 27055).¹ It is a component of lipid A in *R. leguminosarum* LPS.² D-Glucosaminic acid complexes with chromium (III) decrease blood glucose levels in a rat model of type 2 diabetes induced by tetraoxypyrimidine.³

References

1. Wu, B., Bai, Z., Meng, X., *et al.* Efficient production of D-glucosaminic acid from D-glucosamine by *Pseudomonas putida* GNA5. *Biotechnol. Prog.* **27**(1), 32-37 (2011).
2. Bhat, U.R., Forsberg, L.S., and Carlson, R.W. Structure of lipid A component of *Rhizobium leguminosarum* bv. *phaseoli* lipopolysaccharide. Unique nonphosphorylated lipid A containing 2-amino-2-deoxygluconate, galacturonate, and glucosamine. *J. Biol. Chem.* **269**(20), 14402-14410 (1994).
3. Ou, S.-J., Chen, G., Lin, Z.-H., *et al.* Chromium(III) complexes of D-glucosaminic acid and their effect on decreasing blood sugar in vivo. *Arch. Pharm. (Weinheim)* **339**(9), 527-530 (2006).

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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