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Product Data Sheet

□ Cat# API-835 N-Acetyl-D-glucosamine Size: 25g

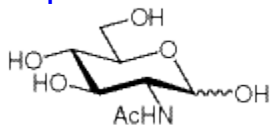
N-Acetylglucosamine (N-acetyl-D-glucosamine, or GlcNAc, or NAG) is a monosaccharide and a derivative of glucose. It is an amide between glucosamine and acetic acid.

Bacterial cell wall's peptidoglycan layer is built from alternating units of GlcNAc and N-acetylmuramic acid (MurNAc), cross-linked with oligopeptides at the lactic acid residue of MurNAc. GlcNAc is the monomeric unit of the polymer chitin, which forms the outer coverings of insects and crustaceans. It is the main component of the radulas of mollusks, the beaks of cephalopods, and a major component of the cell walls of most fungi.

Polymerized with glucuronic acid, it forms hyaluronan.

GlcNAc has been reported to be an inhibitor of elastase release from human polymorphonuclear leukocytes (range 8 - 17% inhibition), however this is much weaker than the inhibition seen with N-acetylgalactosamine (range 92 - 100%).

Properties:



Mol Wt: 221.21
Form: Powder
Purity >98%
Formula C₈H₁₅NO₆
CAS No. 7512-17-6
Synonyms 2-Acetamido-2-deoxy-D-glucopyranose

Specification

Purity(HPLC)(CAD) min. 98.0 area%
Purity(with Total Nitrogen) min. 98.0 %
Specific rotation [α]_{20/D} +39.0 to +42.0 deg(C=1, H₂O)
Solubility in Water almost transparency

Storage:

Store powder at -20°C for up to 2 years.

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder

General References:

Kamel, M; Hanafi, M; Bassiouni, M (1991). *Clinical and experimental rheumatology* **9** (1): 17-21

*This product is for research use only