# PRODUCT INFORMATION



## N-acetyl-D-Galactosamine

Item No. 31728

CAS Registry No.: 1811-31-0

Formal Name: 2-(acetylamino)-2-deoxy-D-galactose Synonyms: GalNAc, N-Acetylgalactosamine

MF: C<sub>8</sub>H<sub>15</sub>NO<sub>6</sub> FW: 221.2 **Purity:** ≥95%

Supplied as: A crystalline 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**

N-acetyl-D-Galactosamine is supplied as a crystalline solid. Aqueous solutions of N-acetyl-D-galactosamine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of N-acetyl-D-galactosamine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

#### Description

N-acetyl-D-Galactosamine (GalNAc) is an amino sugar derivative of galactose and a component of O-GalNAc glycans.<sup>1,2</sup> It is transferred from UDP-GalNAc to the hydroxy group of protein serine or threonine residues by polypeptide GalNAc transferase, forming the Tn antigen, during the first step of mucin-type O-glycosylation.<sup>2,3</sup> GalNAc has been used as a targeting moiety for liver-targeted delivery of oligonucleotides.1

#### References

- 1. Huang, Y. Preclinical and clinical advances of GalNAc-decorated nucleic acid therapeutics. Mol. Ther. Nucleic Acids 6, 116-132 (2017).
- 2. Brockhausen, I., Schachter, H., and Stanley, P. O-GalNAc glycans. Essentials of Glycobiology - NCBI Bookshelf. Varki, A., Cummings, R.D., Esko, J.D., et al. editors, 2nd edition, Harbor Laboratory Press (2009).
- 3. Bennett, E.P., Mandel, U., Clausen, H., et al. Control of mucin-type O-glycosylation: A classification of the polypeptide GalNAc-transferase gene family. Glycobiology 22(6), 736-756 (2012).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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