# PRODUCT INFORMATION

## N-acetyl-D-Lactosamine

*Item No. 21043*

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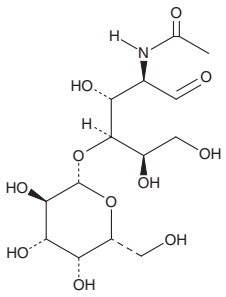
| **CAS Registry No.:** | 32181-59-2 |
| **Formal Name:** | 2-(acetylamino)-2-deoxy-4-O-β-D-galactopyranosyl-D-glucose |
| **Synonym:** | LacNAc |
| **MF:** | $C_{14}H_{25}NO_{11}$ |
| **FW:** | 383.4 |
| **Purity:** | ≥90% |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |



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

### Laboratory Procedures

N-acetyl-D-Lactosamine is supplied as a crystalline solid. A stock solution may be made by dissolving the N-acetyl-D-lactosamine in the solvent of choice, which should be purged with an inert gas. N-acetyl-D-Lactosamine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of N-acetyl-D-lactosamine in these solvents is approximately 30 and 0.5 mg/ml, respectively. N-acetyl-D-Lactosamine is slightly soluble in ethanol.

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 N-acetyl-D-lactosamine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of N-acetyl-D-lactosamine 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-Lactosamine is a disaccharide consisting of galactose and N-acetylglucose. It occurs naturally as a structural element in a variety of glycoconjugates.[1] N-acetyl-D-Lactosamine is used to characterize lectins.[2]

### References


1. Kiwamoto, T., Brummet, M.E., Wu, F., *et al.* Mice deficient in the St3gal3 gene product α2,3 sialyltransferase (ST3Gal-III) exhibit enhanced allergic eosinophilic airway inflammation. *J. Allergy Clin. Immunol.* **133(1)**, 240-247 (2014).
2. Kaus, K., Lary, J.W., Cole, J.L., *et al.* Glycan specificity of the *Vibrio vulnificus* hemolysin lectin outlines evolutionary history of membrane targeting by a toxin family. *J. Mol. Biol.* **426(15)**, 2800-2812 (2014).





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