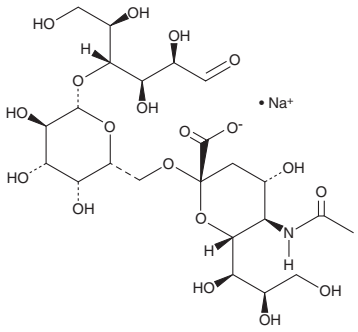
PRODUCT INFORMATION

6'-Sialyllactose (sodium salt)

Item No. 17866

CAS Registry No.: 157574-76-0
Formal Name: O-(N-acetyl-α-neuraminosyl)-(2→6)-O-β-D-galactopyranosyl-(1→4)-D-glucose, monosodium salt
Synonym: 6'-N-Acetylneuraminyl-D-lactose
MF: $C_{23}H_{38}NO_{19} \bullet Na$
FW: 655.5
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

6'-Sialyllactose (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the 6'-sialyllactose (sodium salt) in the solvent of choice, which should be purged with an inert gas. 6'-Sialyllactose (sodium salt) is soluble in the organic solvent DMSO, at a concentration of approximately 5 mg/ml.

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 6'-sialyllactose (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 6'-sialyllactose (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

6'-Sialyllactose consists of the monosaccharide N-acetylneuraminic acid (Item No. 16091) linked to the galactosyl subunit of lactose at the 6 position. This connection is at the 3 position in the related compound, 3'-sialyllactose (Item No. 16617). Both are major milk oligosaccharides that avidly bind several viral strains, including strains of influenza, HIV-1, reovirus, and polyomavirus.[1-6] These compounds can be used to differentiate and characterize the binding domains of viruses that recognize N-acetylneuraminic acid-capped cell surface receptors. They are also used as analytical reference standards for quantification in samples such as milk or colostrum.

References

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2. Sprenger, N. and Duncan, P.I. *Adv. Nutr.* **3(3)**, 392S-397S (2012).
3. Iskarpatyoti, J.A., Morse, E.A., McClung, R.P., *et al*. *Virology* **433(2)**, 489-497 (2012).
4. Neu, U., Khan, Z.M., Schuch, B., *et al*. *PLoS Pathog.* **9(10)**, 1-10 (2013).
5. Rosa Borges, A., Wieczorek, L., Johnson, B., *et al*. *Virology* **408(1)**, 80-88 (2010).
6. Wu, W. and Air, G.M. . *Virology* **325(2)**, 340-350 (2004).

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