Product Information

3’-Sialyllactose (sodium salt)

Item No. 16617

CAS Registry No.: 128596-80-5
Formal Name: O-(N-acetyl-α-neuraminosyl)-(2→3)-O-β-D-galactopyranosyl-(1→4)-D-glucose, monosodium salt
Synonym: 3’-N-Acetylneuraminyl-D-lactose
MF: C32H38NO19 • Na
FW: 655.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures

For long term storage, we suggest that 3’-sialyllactose (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years. 3’-Sialyllactose (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the 3’-sialyllactose (sodium salt) in the solvent of choice. 3’-Sialyllactose (sodium salt) is soluble in the organic solvent DMSO, which should be purged with an inert gas, 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 3’-sialyllactose (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 3’-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.

3’-Sialyllactose consists of the monosaccharide N-acetylneuraminic acid linked to the galactosyl subunit of lactose at the 3 position. It is an abundant oligosaccharide in the milk of many mammals, including cows and humans, particularly postpartum. 1,2 3’-Sialyllactose avidly binds several viral strains, including strains of influenza, HIV-1, reovirus, and polyomavirus. 3-6 In some cases, binding of 3’-sialyllactose to viral proteins alters viral infectivity. 3-5 3’-Sialyllactose also alters Helicobacter activity and impacts bacterial colonization of gut. 7,8

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16617

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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