CMP-beta-D-N-Acetylneuraminic Acid, Sodium

Catalog No: BM-3063716
Lot No: XXXXX
Cas No: 3063-71-6
MDL No: MFCD00151579
Formula: $C_{20}H_{30}N_4O_{16}P{\cdot}Na$
MW: 636.43
Purity: ≥ 95.0%
Supplied as: solid, white to off-white powder
Stability: store at -20°C, dry storage, tightly closed container

Background

CMP-Neu5Ac is a modified form of N-acetylneuraminic acid (sialic acid) where it is linked to the nucleotide cytidine-5'-monophosphate (CMP). In vertebrates, it is synthesized in the nucleus through the enzymatic action of CMP-sialic acid synthetases, using CTP and Neu5Ac as precursors. Sialyltransferases are responsible for transferring Neu5Ac from CMP-sialic acid to various acceptor substrates, typically located at the terminal positions of the oligosaccharide component of glycoproteins or glycolipids. The presence of sialic acid-containing glycans on the cell surface plays a critical role in cell interactions and contributes to processes such as infection, inflammation, and cancer.

Synonyms: CMP-β-D-N-Acetylneuraminic Acid, Cytidin-5′-Monophospho-β-D-N-Acetylneuraminic Acid sodium salt, CMP-Neu5Ac, CMP-NANA, CMP-NAN.

Usage

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