## **CMP-Sialic acid sodium salt**

| Cat. No.:          | HY-112942A                   |
|--------------------|------------------------------|
| CAS No.:           | 1007117-62-5                 |
| Molecular Formula: | $C_{20H_{30}N_{4}NaO_{16}P}$ |
| Molecular Weight:  | 636.43                       |
| Target:            | Endogenous Metabolite        |
| Pathway:           | Metabolic Enzyme/Protease    |
| Storage:           | -80°C                        |

## **SOLVENT & SOLUBILITY**

|                              | Solvent Mass<br>Concentration | 1 mg      | 5 mg      | 10 mg      |
|------------------------------|-------------------------------|-----------|-----------|------------|
| Preparing<br>Stock Solutions | 1 mM                          | 1.5713 mL | 7.8563 mL | 15.7126 mL |
|                              | 5 mM                          | 0.3143 mL | 1.5713 mL | 3.1425 mL  |
|                              | 10 mM                         | 0.1571 mL | 0.7856 mL | 1.5713 mL  |

| BIOLOGICAL ACTIV          |  |  |  |  |
|---------------------------|--|--|--|--|
| Description               | CMP-Sialic acid (CMP-Neu5Ac) sodium salt is an allosteric inhibitor of UDP-GlcNAc 2-epimerase. CMP-Sialic acid sodium salt provides a substrate for Golgi sialyltransferases. CMP-Sialic acid sodium salt is an important sugar nucleotide for biosynthesis of sialic acid and its conjugates <sup>[1]</sup> . |  |  |  |
| IC <sub>50</sub> & Target | Human Endogenous Metabolite  |  |  |  |
| In Vitro                  | CMP-Sialic acid sodium salt (22.5 μM, 45 min) can be used as a CMAH substrate to detect the formation of Neu5Gc in platelet<br>lysates <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only.   |  |  |  |

## REFERENCES

[1]. Mercado CP, et al. A serotonin-induced N-glycan switch regulates platelet aggregation. Sci Rep. 2013 Sep 30;3:2795.

[2]. Münster AK, et al. Mammalian cytidine 5'-monophosphate N-acetylneuraminic acid synthetase: a nuclear protein with evolutionarily conserved structural motifs. Proc Natl Acad Sci U S A. 1998 Aug 4;95(16):9140-5.





[3]. Jing Song, et al. Reassembled Biosynthetic Pathway for a Large-scale Synthesis of CMP-Neu5Ac. Mar Drugs. 2003 Dec; 1(4): 34-45.

## Caution: Product has not been fully validated for medical applications. For research use only.

 Tel: 609-228-6898
 Fax: 609-228-5909
 E-mail: tech@MedChemExpress.com

 Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA