Product Data Sheet

Cytidine 5'-monophosphate-d₁₂ dilithium

Cat. No.: HY-W009162S2 Molecular Formula: $C_9D_{12}Li_2N_3O_8P$

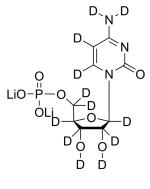
Molecular Weight: 347.14

Target: Isotope-Labeled Compounds; Endogenous Metabolite

Pathway: Others; Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.



BIOLOGICAL ACTIVITY

Description	Cytidine 5'-monophosphate- d_{12} (5'-Cytidylic acid- d_{12} dilithium; 5'-CMP- d_{12}) dilithium is deuterium labeled Cytidine 5'-monophosphate (HY-W009162). Cytidine 5'-monophosphate (5'-Cytidylic acid) is a nucleotide which is used as a monomer in RNA. Cytidine 5'-monophosphate consists of the nucleobase cytosine, the pentose sugar ribose, and the phosphate group.
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. Hernández AG, et, al. The determination of acid-soluble nucleotides in milk by improved enzymic methods: a comparison with the ion-exchange column chromatography procedure. J Sci Food Agric. 1981 Nov;32(11):1123-31.

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

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