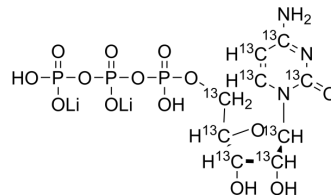


Cytidine-5'-triphosphate-¹³C₉ dilithium

Cat. No.:	HY-125818S3
Molecular Formula:	¹³ C ₉ H ₁₄ Li ₂ N ₃ O ₁₄ P ₃
Molecular Weight:	503.96
Target:	Isotope-Labeled Compounds; DNA/RNA Synthesis; Nucleoside Antimetabolite/Analog; Endogenous Metabolite
Pathway:	Others; Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Cytidine-5'-triphosphate- ¹³ C ₉ (Cytidine triphosphate- ¹³ C ₉ dilithium; 5'-CTP- ¹³ C ₉) dilithium is ¹³ C-labeled Cytidine-5'-triphosphate (HY-125818). Cytidine 5'-triphosphate (Cytidine triphosphate; 5'-CTP) is a nucleoside triphosphate and serves as a building block for nucleotides and nucleic acids, lipid biosynthesis. Cytidine triphosphate synthase can catalyze the formation of cytidine 5'-triphosphate from uridine 5'-triphosphate (UTP). Cytidine 5'-triphosphate is an essential biomolecule?in the de novo?pyrimidine biosynthetic pathway in?T. gondii.
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]. Heidy Y Narvaez-Ortiz, et al. A CTP Synthase Undergoing Stage-Specific Spatial Expression Is Essential for the Survival of the Intracellular Parasite *Toxoplasma gondii*. *Front Cell Infect Microbiol*. 2018 Mar 22;8:83.

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

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