Product Data Sheet

Deoxythymidine-5'-triphosphate-13C₁₀ dilithium

Cat. No.: HY-138615S2 $\label{eq:molecular} \mbox{Molecular Formula:} \qquad {}^{13}\mbox{C}_{10}\mbox{H}_{15}\mbox{Li}_2\mbox{N}_2\mbox{O}_{14}\mbox{P}_3$

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	Deoxythymidine-5'-triphosphate- 13 C $_{10}$ (dTTP- 13 C $_{10}$) dilithium is 13 C-labeled Deoxythymidine-5'-triphosphate (HY-138615). Deoxythymidine-5'-triphosphate (dTTP) is one of the four nucleoside triphosphates. Deoxythymidine-5'-triphosphate (dTTP) is used in the synthesis of DNA.
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]. Tattersall MH, et al. Deoxyribonucleoside triphosphates in human cells: changes in disease and following exposure to drugs. Eur J Clin Invest. 1975;5(2):191-202.

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

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