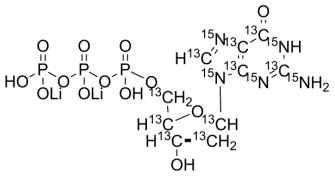
dGTP-$^{13}C_{10}$,$^{15}N_5$ dilithium

Cat. No.:	HY-138616S4
Molecular Formula:	$^{13}C_{10}H_{14}Li_2{}^{15}N_5O_{13}P_3$
Molecular Weight:	533.94
Target:	Isotope-Labeled Compounds; DNA/RNA Synthesis; Nucleoside Antimetabolite/Analog
Pathway:	Others; Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	dGTP-$^{13}C_{10}$,$^{15}N_5$ (2'-Deoxyguanosine-5'-triphosphate-$^{13}C_{10}$,$^{15}N_5$) dilithium is ^{13}C and ^{15}N-labeled dGTP (HY-138616). dGTP (2'-Deoxyguanosine-5'-triphosphate), a guanosine nucleotide, can be used in deoxyribonucleic acid synthesis. Guanosine nucleotides (GDP, GTP, dGDP, and dGTP) are highly susceptible to oxidative damage to 8-oxo-GDP (8-O-GDP), 8-O-dGTP, 8-O-GTP, and 8-O-dGTP.
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]. Kapoor I, et al. Nucleoside Diphosphate Kinase Escalates A-to-C Mutations in MutT-Deficient Strains of Escherichia coli. J Bacteriol. 2019;202(1):e00567-19. Published 2019 Dec 6.

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