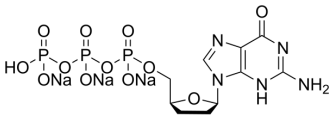
ddGTP trisodium

Cat. No.:	HY-134103A
Molecular Formula:	$C_{10}H_{13}N_5Na_3O_{12}P_3$
Molecular Weight:	557.13
Target:	DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage
Storage:	Solution, -20°C, 2 years



BIOLOGICAL ACTIVITY

Description	ddGTP (2′,3′-Dideoxyguanosine 5′-triphosphate) trisodium is one of 2',3'-dideoxyribonucleoside 5'-triphosphates (ddNTPs) that acts as chain-elongating inhibitor of DNA polymerase for DNA sequencing. ddGTP trisodium acts as an inhibitor or a substrate for DNA polymerase α[1][2][3].
In Vitro	ddGTP trisodium inhibits the formation of both negative and positive DNA strands[1].ddGTP trisodium inhibits DNA polymerase α activity in the presence of Mn^{2+} at low concentrations (<1 μM) [2]. ddGTP trisodium competitively inhibits the incorporation of [3H]dGTP into the DNA[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Debyser Z, et al. Kinetics of inhibition of endogenous human immunodeficiency virus type 1 reverse transcription by 2',3'-dideoxynucleoside 5'-triphosphate, tetrahydroimidazo-[4,5,1-jk][1,4]-benzodiazepin-2(1H)-thion e, and 1-[(2-hydroxyethoxy)methyl]-6-(phenylthio)thymine derivatives. J Biol Chem. 1992 Jun 15;267(17):11769-76.

[2]. Ono K, et al. Utilization of 2',3'-dideoxyguanosine 5'-triphosphate as an inhibitor and substrate for DNA polymerase alpha. Biomed Pharmacother. 1990;44(2):115-21.

[3]. Z G Chidgeavadze, et al. 3'-Fluoro-2',3'-dideoxyribonucleoside 5'-triphosphates: terminators of DNA synthesis. FEBS Lett. 1985 Apr 22;183(2):275-8.

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