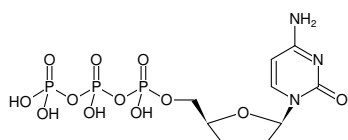


**ddCTP**

2',3'-Dideoxycytidine-5'-triphosphate, Lithium salt

Cat. No.	Amount
NU-1016S	100 µl (1 µmol)
NU-1016L	5 x 100 µl (5 µmol)



Structural formula of ddCTP

**For general laboratory use.****Shipping:** shipped on gel packs**Storage Conditions:** store at -20 °C

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

**Shelf Life:** 12 months after date of delivery**Molecular Formula:** C<sub>9</sub>H<sub>16</sub>N<sub>3</sub>O<sub>12</sub>P<sub>3</sub> (free acid)**Molecular Weight:** 451.16 g/mol (free acid)**Exact Mass:** 450.99 g/mol (free acid)**CAS#:** 66004-77-1**Purity:** ≥ 98 % (HPLC)**Form:** solution in water**Color:** colorless to slightly yellow**Concentration:** 10 mM - 11 mM**pH:** 7.5 ±0.5**Spectroscopic Properties:** λ<sub>max</sub> 271 nm, ε 8.9 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.5)**Applications:**SNP: multiplexing by minisequencing<sup>[1]</sup>Multiplexed detection of alternatively spliced transcripts<sup>[2]</sup>Effect on reverse transcriptase of HIV-1<sup>[3]</sup>Molecular dynamic calculations of DNA-polymerase beta-ddCTP complex<sup>[4]</sup>Crystal structure with DNA- polymerase-<sup>[5]</sup>**Selected References:**

[1] Gronlund *et al.* (2011) Direct detection of single-nucleotide polymorphisms in bacterial DNA by SNPtrap. *Preparative Biochemistry and Biotechnology* **41**:166.

[2] Milani *et al.* (2006) Detection of alternatively spliced transcripts in leukemia cell lines by minisequencing on microarrays. *Clinica Chimica (Washington)* **52**:202.

[3] Anderson (2001) The molecular basis of inhibition and toxicity of modified cytosine analogues targetting HIV-1 reverse transcriptase. *Antiviral Chemistry and Chemotherapy* **12**:13.

[4] Rittenhouse *et al.* (2003) Characterization of the active site of DNA polymerase beta by molecular dynamics and quantum chemical calculation. *Proteins: Structure, Function and Genetics* **53**:667.

[5] Li *et al.* (2001) Crystal structures of ddATP-, ddTTP-, ddCTP-, and ddGTP-trapped ternary complex of KlenTaq1: insights into nucleotide incorporation selectivity. *Protein Science* **10**:1225.

Sanger *et al.* (1977) DNA sequencing with chain-terminating inhibitors. *Proc. Natl. Acad. Sci. USA* **74**:5463.