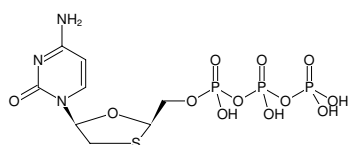


**3TCTP**

Lamivudine triphosphate, Sodium Salt (L-Isomer)
 2', 3'-Dideoxy-3'-thia-cytidine-5'-triphosphate, Sodium salt (L isomer)

Cat. No.	Amount
NU-1606S	5 µl (10 mM)
NU-1606L	5 x 5 µl (10 mM)



Structural formula of 3TCTP

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: C₈H₁₄N₃O₁₂P₃S (free acid)

Molecular Weight: 469.19 g/mol (free acid)

Exact Mass: 468.95 g/mol (free acid)

CAS#: 143188-53-8

Purity: ≥ 95 % (HPLC)

Form: solution in water

Color: colorless to slightly yellow

Concentration: 10 mM - 11 mM

pH: 7.5 ± 0.5

Spectroscopic Properties: λ_{abs} 270 nm, ε 9.5 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)

Applications:

Monitoring in mononuclear cells by ion-pair LC and MS^[1]

Influence on incorporation efficiency^[2]

Inhibition of DNA/RNA-dependent DNA-polymerase^[3]

Selected References:

[1] Coulier *et al.* (2008) Simultaneous determination of endogenous deoxynucleotides and phosphorylated nucleoside reverse transcriptase inhibitors in peripheral blood mononuclear cells using ion-pair liquid chromatography coupled to mass spectrometry. *Proteomics Clin. Appl.* **2**:1557.

[2] Lim *et al.* (2001) Differential incorporation and removal of antiviral deoxynucleotides by human DNA polymerase γ . *J. Biol. Chem.* **276** (26):23616.

[3] Hart *et al.* (1992) Effects of (-)-2-deoxy-3-thiacytidine (3TC) 5-triphosphate on human immunodeficiency virus reverse transcriptase and mammalian DNA polymerases alpha, beta and gamma. *Antimicrobial Agents and Chemotherapy* **36** (8):1688.

Boyer *et al.* (2001) YADD mutants of human immunodeficiency virus type 1 and Moloney murine leukemia virus reverse transcriptase are resistant to lamivudine triphosphate (3TCTP) in vitro. *J. Virol.* **75**:6321.

Feng *et al.* (1999) Mechanistic studies comparing the incorporation of (+) and (-) isomers of 3TCTP by HIV-1 reverse transcriptase. *Biochemistry* **38**:55.

Kewn *et al.* (2002) Development of enzymatic assays for quantification of intracellular lamivudine and carbovir triphosphate levels in peripheral blood mononuclear cells from human immunodeficiency virus-infected patients. *Antimicrob. Agents Chemother.* **46**:135.