DATA SHEET

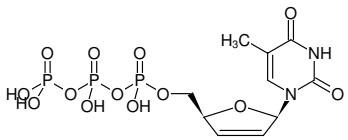
Jena Bioscience

d4TTP

Stavudine triphosphate, Sodium Salt

2',3'-Didehydro-2',3'-dideoxythymidine-5'-triphosphate, Sodium salt

Cat. No.	Amount
NU-1604S	10 µl (100 mM)
NU-1604L	5 x 10 µl (100 mM)



Structural formula of d4TTP

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: $C_{10}H_{15}N_2O_{13}P_3$ (free acid)

Molecular Weight: 464.15 g/mol (free acid)

Exact Mass: 463.98 g/mol (free acid)

CAS#: 611-60-9

Purity: ≥ 95 % (HPLC)

Form: solution in water

Color: colorless to slightly yellow

Concentration: 100 mM - 110 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{max} 266 nm, ε 10.1 L $mmol^{-1}$ cm^{-1} (Tris-HCl pH 7.5)

Selected References:

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.

Ray *et al.* (2002) Insights into the molecular mechanism of inhibition and drug resistance for HIV-1 RT with carbovir triphosphate. *Biochemistry* **41**:5150.

Hoggard *et al.* (2000) Correlation between intracellular pharmacological activation of nucleoside analogues and HIV suppression in vitro. *Antivir. Chem. Chemother.* **11**:353.

Vaccaro *et al.* (2000) Mechanism of inhibition of the human immunodeficiency virus type 1 reverse transcriptase by d4TTP: an equivalent incorporation efficiency relative to the natural substrate dTTP. *Antimicrob. Agents. Chemother.* **44**:217.

Ueno *et al.* (1997) Comparative enzymatic study of HIV-1 reverse transcriptase resistant to 2',3'-dideoxynucleotide analogs using the single-nucleotide incorporation assay. *Biochemistry* **36**:1092.

Im *et al.* (1993) Identification of the amino acid in the human immunodeficiency virus type 1 reverse transcriptase involved in the pyrophosphate binding of antiviral nucleoside triphosphate analogs and phosphonoformate. Implications for multiple drug resistance. *Biochem. Pharmacol.* **46**:2307.

Huang *et al.* (1992) Selective action of 2',3'-didehydro-2',3'-dideoxythymidine triphosphate on human immunodeficiency virus reverse transcriptase and human DNA polymerases. *J. Biol. Chem.* **267**:2817.