DATA SHEET

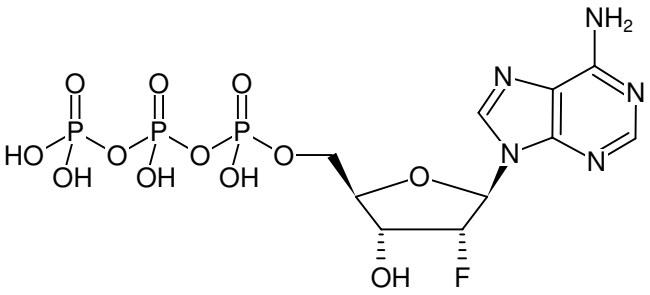
Jena Bioscience

2'-Fluoro-dATP

(2'F-dATP)

2'-Fluoro-2'-deoxyadenosine-5'-triphosphate, Sodium salt

Cat. No.	Amount
NU-151S	50 µl (100 mM)
NU-151L	5 x 50 µl (100 mM)



Structural formula of 2'-Fluoro-dATP

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: $C_{10}H_{15}N_5O_{12}P_3F$ (free acid)

Molecular Weight: 509.17 g/mol (free acid)

Exact Mass: 508.99 g/mol (free acid)

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} 259 nm, ε 15.4 L mmol^{-1} cm^{-1} (Tris-HCl pH 7.0)

Applications:
Substrate for ATP-requiring enzymes[1]

NMR-studies with F19[1]

Insertion sensitive NMR reporter group in RNA[2]

Inhibition of human DNA topoisomerases[3]

Related Products:
HighYield T73M Aptamer Synthesis Kit (2'F-dATP), #RNT-301

Selected References:

[1] Stockman (2008) 2-Fluoro-ATP as a versatile tool for 19F NMR-based activity screening. *J. Am. Chem. Soc.* **130 (18)**:5870.

[2] Scott *et al.* (2004) Enzymatic synthesis of 19F NMR studies of 2-fluoroadenine-substituted RNA. *J. Am. Chem. Soc.* **126 (38)**:11776.

[3] Liu *et al.* (1989) Interaction of several nucleoside triphosphate analogs and 10-hydroxycamptothecin with human DNA topoisomerases. *Cancer Research* **49 (6)**:1366.

Cho *et al.* (2003) Use of nucleotide analogs by class I and class II CCA-adding enzymes (tRNA nucleotidyltransferase): deciphering the basis for nucleotide selection. *RNA* **9 (8)**:970.

Rhie *et al.* (2003) Characterization of 2'-fluoro-RNA aptamers that bind preferentially to disease-associated conformations of prion protein and inhibit conversion. *J. Biol. Chem.* **278 (41)**:39697.

Sun *et al.* (2000) Catalytic nucleic acids: from lab to applications. *Pharmacol. Rev.* **52 (3)**:325.

Jayasena (1999) Aptamers: an emerging class of molecules that rival antibodies in diagnostics. *Clin. Chem.* **45 (9)**:1628.

Ono *et al.* (1997) 2'-Fluoro modified nucleic acids: polymerase-directed synthesis, properties and stability to analysis by matrix-assisted laser desorption/ionization mass spectrometry. *Nucleic Acids Res.* **25 (22)**:4581.