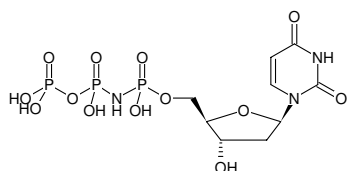


**dUpNHpp**

(dUMPNPP)

2'-Deoxyuridine-5'-[(α,β)-imido]triphosphate, Sodium salt

Cat. No.	Amount
NU-903S	50 μ l (10 mM)
NU-903L	5 x 50 μ l (10 mM)



Structural formula of dUpNHpp

For research use only!**Shipping:** shipped on blue ice**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:** C₉H₁₆N₃O₁₃P₃ (free acid)**Molecular Weight:** 467.15 g/mol (free acid)**Exact Mass:** 466.99 g/mol (free acid)**CAS#:** 170428-86-1**Purity:** \geq 95 % (HPLC)**Form:** clear aqueous solution**Concentration:** 10 mM - 11 mM**pH:** 7.5 \pm 0.5**Spectroscopic Properties:** λ_{\max} 262 nm, ϵ 10.2 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)**Applications:**X-ray analysis of vaccinia virus dUTPase^[1]X-ray analysis of DNA-polymerase β ^[2]Kinetic of dUTPase^[3]Inhibition of dUTPase^[4]**Specific Ligands:**Vaccine virus dUTPase^[1]DNA-polymerase β ^[2]**Selected References:**[1] Samal *et al.* (2007) Structures of vaccinia virus dUTPase and its nucleotide complexes. *Acta crystallographica Section D* **D63**:571.[2] Batra *et al.* (2006) Magnesium-induced assembly of a complex DNA polymerase catalytic complex. *Structure* **14**:757.[3] Tóth *et al.* (2007) Kinetic Mechanism of Human dUTPase, an Essential Nucleotide Pyrophosphatase Enzyme. *The journal of biological chemistry* **282** (46):33572.[4] Persson *et al.* (1996) Synthesis of 2'-deoxyuridine 5'-(α,β -imido)triphosphate: A substrate analogue and potent inhibitor of dUTPase. *Bioorgan. Med. Chem.* **4** (4):553.Xia *et al.* (2011) Structural insights into complete metal ion coordination from ternary complexes of B family RB69 DNA polymerase. *Biochemistry*. **50** (42): 9114.Badalucco *et al.* (2011) Crystallization of Chlorella deoxyuridine triphosphatase. *Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun.* **67** (Pt 12): 1599.Pecsi *et al.* (2010) Aromatic stacking between nucleobase and enzyme promotes phosphate ester hydrolysis in dUTPase. *Nucleic Acids Res.* **38** (20):7179.Siggaard *et al.* (2009) Concerted bifunctionality of the dCTP deaminase-dUTPase from *Methanocaldococcus jannaschii*: A structural and pre-steady state kinetic analysis. *Archives of Biochemistry and Biophysics* **490** (1):42.Varga *et al.* (2008) Active site of mycobacterial dUTPase: Structural characteristics and a built-in sensor. *Biochemical and Biophysical Research Communications* **373**:8.Vertessy *et al.* (2007) Flexible segments modulate co-folding of dUTPase and nucleocapsid proteins. *Nucleic Acids Research* **35** (2):495.