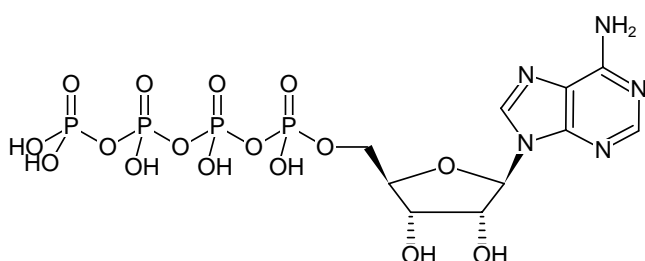


**AP₄**

(Adenosine-5'-tetrphosphate)
Adenosine-5'-tetrphosphate, Sodium salt

Cat. No.	Amount
NU-1102S	100 µl (10 mM)
NU-1102L	5 x 100 µl (10 mM)

Structural formula of AP₄**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:** C₁₀H₁₇N₅O₁₆P₄ (free acid)**Molecular Weight:** 587.16 g/mol (free acid)**CAS#:** 1062-98-2**Purity:** ≥ 95 % (HPLC)**Form:** clear aqueous solution**Concentration:** 10 mM - 11 mM**pH:** 7.5 ± 0.5**Spectroscopic Properties:** λ_{max} 259 nm; ε 15.1 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.0)**Selected References:**

Winward *et al.* (2010) Oxidation of the diphosphoinositol polyphosphate phosphohydrolase-like Nudix hydrolase Aps from *Drosophila melanogaster* induces thermolability—A possible regulatory switch? *Int. J. Biochem. Cell. Biol.* **42** (7):1174.

Safrany *et al.* (2007) Characterisation of a bis (5'-nucleosyl)-tetrphosphatase (asymmetrical) from *Drosophila melanogaster*. *Int. J. Biochem. Cell Biol.* **39** (5):943.

Chang *et al.* (2005) Nitric Oxide-dependent Allosteric Inhibitory Role of a Second Nucleotide Binding Site in Soluble Guanylyl Cyclase. *J. Biol. Chem.* **280** (12):11513.

Stitt *et al.* (2005) Catalytic Cooperativity among Subunits of *Escherichia coli* Transcription Termination Factor Rho. *J. Biol. Chem.* **280** (14):13292.

Abdelghany *et al.* (2001) Cloning, characterisation and crystallisation of a diadenosine 5',5''-P-1,P-4-tetrphosphate pyrophosphohydrolase from *Caenorhabditis elegans*. *BBA-Protein Struct. M.* **1550** (1):27.

Sun *et al.* (2001) Folate-binding triggers the activation of folylpolyglutamate synthetase. *J. Mol. Biol.* **310** (5):1067.

Gomez-Villafuertes *et al.* (2000) Adenosine 5'-tetrphosphate (Ap (4)), a new agonist on rat midbrain synaptic terminal P2 receptors. *Neuropharmacology* **39** (12):2381.

Bouhss *et al.* (1999) Formation of adenosine 5'-tetrphosphate from the acyl phosphate intermediate: a difference between the MurC and

MurD synthetases of *Escherichia coli*. *FEBS Lett.* **453** (1-2):15.

Cartwright *et al.* (1999) The *Saccharomyces cerevisiae* YOR163w gene encodes a diadenosine 5',5''-P-1,P-6-hexaphosphate (Ap (6)A) hydrolase member of the MutT motif (nudix hydrolase) family. *J. Biol. Chem.* **274** (13):8604.

Pintor *et al.* (1998) Effect of adenosine 5'-tetrphosphate on P2x receptors in rat brain synaptic terminals. *J. Neurochem.* **71**:S25 Suppl.1.

Kulakovskaya *et al.* (1997) Adenosine-5'-tetrphosphate and guanosine-5'-tetrphosphate: New substrates of the cytosolic exopolyphosphatase of the yeast *Saccharomyces cerevisiae*. *Biochemistry-Moscow* **62** (9):1051.

Mukai (1992) Alternative synthesis of Guanosine 5'-diphosphate 3'-diphosphate and Adenosine 5'-diphosphate 3'-diphosphate from adenosine 5'-tetrphosphate by *Streptomyces* ATP nucleotide 3'-Pyrophosphokinase catalysis. *Biosci. Biotech. Bioch.* **56** (11):1876.

Ostas *et al.* (1990) Purification to homogeneity of rat-liver dinucleoside tetraphosphatase by affinity elution with Adenosine 5'- tetraphosphate. *J. Biochem. Bioph. Meth.* **21** (1):25.

Winandde *et al.* (1967) Interactions of Adenosine tetraphosphate with Myosin and Actomyosin. *Eur. J. Biochem.* **1** (1):29.

Small *et al.* (1966) Studies on occurrence and biosynthesis of Adenosine tetraphosphate. *Biochemistry-US* **5** (1):26.



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(Adenosine-5'-tetrphosphate)

Adenosine-5'-tetrphosphate, Sodium salt

Liebecq *et al.* (1961) Enzymatic dephosphorylation of Adenosine tetraphosphate. *Nature* **189** (476):661.