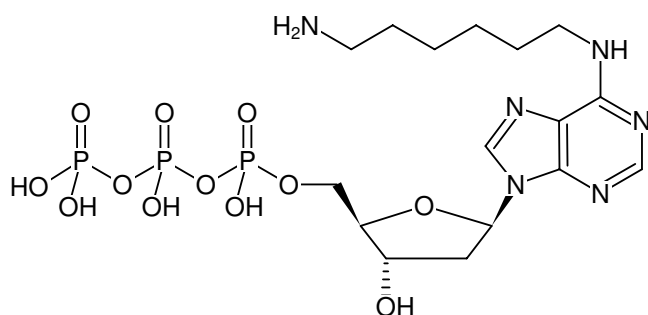



N⁶-(6-Aminoethyl)-dATP

 N⁶-(6-Aminoethyl)-2'-deoxyadenosine-5'-triphosphate, Sodium salt

Cat. No.	Amount
NU-835S	30 µl (10 mM)
NU-835L	5 x 30 µl (10 mM)


 Structural formula of N⁶-(6-Aminoethyl)-dATP

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: C₁₆H₂₉N₆O₁₂P₃ (free acid)

Molecular Weight: 590.36 g/mol (free acid)

Exact Mass: 590.11 g/mol (free acid)

CAS#: 106519-33-9

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_{max} 266 nm, ε 16.2 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)

Applications:

 Agonistic ligand, mainly for nucleoside receptor A₁. Nucleoside-triphosphates can be converted by different membrane-bound phosphatases into nucleosides acting as nucleoside receptor ligands. In some cases nucleoside phosphates act also directly on nucleoside receptors.

Selected References:

- Sirci *et al.* (2012) Ligand-, structure- and pharmacophore-based molecular fingerprints: a case study on adenosine A₁, A_{2A}, A_{2B}, and A₃ receptor antagonists. *J. Comput. Aided Mol. Des.* **26**:1247.
- Volonte *et al.* (2009) Membrane components and purinergic signalling: the purinome, a complex interplay among ligands, degrading enzymes, receptors and transporters. *FEBS J.* **276**:318.
- Yegutkin (2008) Nucleotide and nucleoside converting enzymes: Important modulators of purinergic signalling cascade. *Biochim. Biophys. Acta* **1783**:673.
- Joshi *et al.* (2005) Purine derivatives as ligands for A₃ adenosine receptors. *Current Topics in Medicinal Chemistry* **5**:1275.
- Hess (2001) Recent advantages in adenosine receptor antagonist research. *Expert Opin. Ther. Patents* **11** (10):1533.
- Jacobson (2001) Probing adenosine and P₂ receptors: design of novel purines and nonpurines as selective ligands. *Drug Development Res.* **52**:178.
- Jacobson *et al.* (2001) Ribose modified nucleosides and nucleotides as ligands for purine receptors. *Nucleosides, Nucleotides & Nucleic Acids* **20** (4):333.
- Van Galen *et al.* (1994) A binding site model and structure-activity relationships for rat A₃ adenosine receptor. *Molecular Pharmacology* **45**:1101.
- Gebeyehu *et al.* (1987) Novel biotinylated nucleotide-analogs for labeling and colorimetric detection of DNA. *Nucleic Acids Res.* **15**:4513.