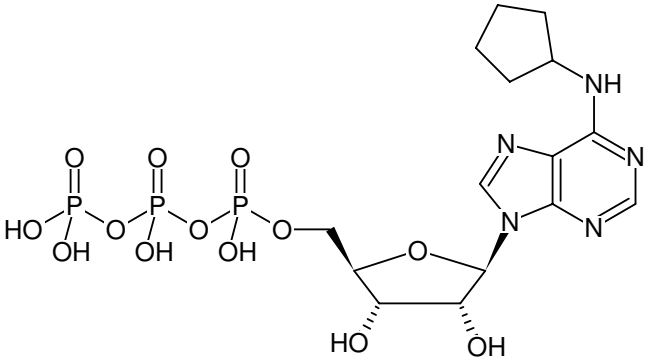
DATA SHEET

Jena Bioscience

N^6-Cyclopentyl-ATP

N^6-Cyclopentyladenosine-5'-O-triphosphate, Sodium salt

Cat. No.	Amount
NU-878S	250 µl (10 mM)
NU-878L	5 x 250 µl (10 mM)



Structural formula of N^6-Cyclopentyl-ATP

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: $C_{15}H_{24}N_5O_{13}P_3$ (free acid)

Molecular Weight: 575.30 g/mol (free acid)

Exact Mass: 575.06 g/mol (free acid)

CAS#: 189822-11-5

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} 270 nm, ε 19.9 L $mmol^{-1}$ cm^{-1} (Tris-HCl pH 7.5)

Applications:
Agonistic ligand, mainly for nucleoside receptor A_1, with less affinity to A_{2A} and A_3
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, A2A, A2B, 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.