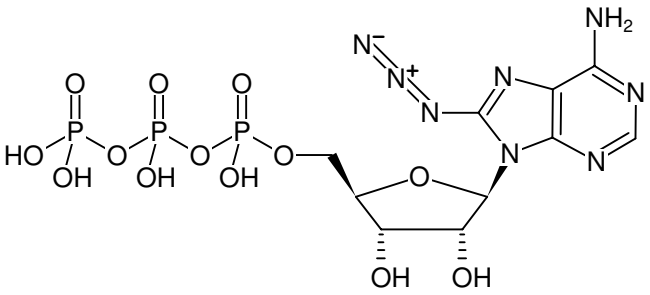
DATA SHEET

Jena Bioscience

8-Azido-ATP

8-Azido-adenosine-5'-triphosphate, Sodium salt

Cat. No.	Amount
NU-155S	500 µl (10 mM)
NU-155L	5 x 500 µl (10 mM)



Structural formula of 8-Azido-ATP

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: $C_{10}H_{15}N_8O_{13}P_3$ (free acid)

Molecular Weight: 548.19 g/mol (free acid)

Exact Mass: 548.00 g/mol (free acid)

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} 281 nm, ε 13.3 L mmol^{-1} cm^{-1} (Tris-HCl pH 7.5)

Applications:
Incorporation into RNA by **3'-End Labeling** with yeast Poly(A) Polymerase(yPAP)[1]

Identification of protein ATP-binding sites[2]

The resulting azide-functionalized RNA can subsequently be processed via Cu(I)-free (azide-DBCO) or Cu(I)-catalyzed (azide-alkyne) click chemistry that offers the choice
- to introduce a Biotin group for subsequent purification tasks (via DBCO-functionalized Biotin or Alkynes of Biotin, respectively)
- to introduce fluorescent group for subsequent microscopic imaging (DBCO-functionalized fluorescent dyes or Alkynes of fluorescent dyes, respectively)
- to crosslink the RNA to azide- or alkyne functionalized biomolecules e.g.proteins

Selected References:

[1] Chen *et al.* (2004) Chain Termination and Inhibition of *Saccharomyces cerevisiae* Poly (A) Polymerase by C-8-modified ATP analogs. *J. Biol. Chem.* **279 (39)**:40405.

[2] Olcott *et al.* (1998) Localization and Characterization of Two Nucleotide-binding Sites on the Anaerobic Ribonucleotide Reductase from Bacteriophage T4. *J. Biol. Chem.* **273 (38)**:24853.