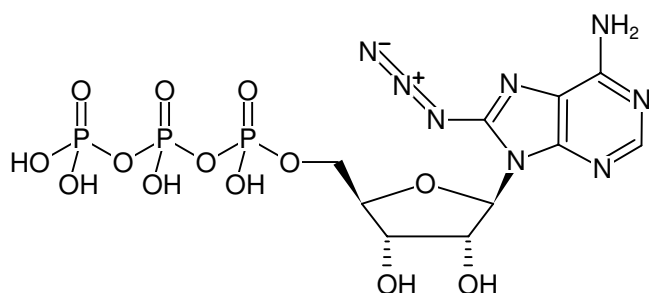


**8-Azido-ATP**

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 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:** C₁₀H₁₅N₈O₁₃P₃ (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.

[3] Zayas *et al.* (2015) Strain Promoted Click Chemistry of 2- or 8-Azidopurine and 5-Azidopyrimidine Nucleosides and 8-Azidoadenosine Triphosphate with Cyclooctynes. Application to Living Cell Fluorescent Imaging. *Bioconjug Chem.* **26** (8):1519-32.