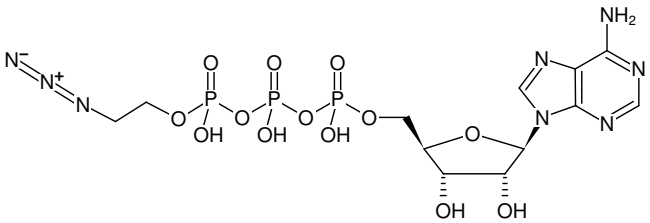
DATA SHEET

Jena Bioscience

# γ-(2-Azidoethyl)-ATP

γ-(2-Azidoethyl)-adenosine-5'-triphosphate, Sodium salt

| Cat. No. | Amount |
|---|---|
| NU-1701S | 100 µl (10 mM) |
| NU-1701L | 5 x 100 µl (10 mM) |



Structural formula of γ-(2-Azidoethyl)-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:** $C_{12}H_{19}N_8O_{13}P_3$ (free acid)

**Molecular Weight:** 576.25 g/mol (free acid)

**Exact Mass:** 576.03 g/mol (free acid)

**Purity:** ≥ 95 % (HPLC)

**Form:** clear aqueous solution

**Concentration:** 10 mM - 11 mM

**pH:** 7.5 ±0.5

**Spectroscopic Properties:** $\lambda_{max}$ 259 nm, ε 15.3 L mmol$^{-1}$ cm$^{-1}$ (Tris-HCl pH 7.5)

**Applications:**
*in vitro* phosphorylation of recombinant proteins[1]

**Description:**
Lee *et al.*[1] reported a non-radioactive version of *in vitro* phosphorylation were γ-[2-Azidoethyl]-ATP (compound 8[1]) has been successfully used instead of γ-$^{32}$P-modified ATP to phosphorylate GST-tagged recombinant p27kip1 with protein kinase cdk2.

The phosphorylated, azide-modified protein substrate can subsequently be labeled with Alkynes of biotin or fluorescent dyes via Cu(I)- catalyzed Click-Chemistry or DBCO-containing biotin or fluorescent dyes via Cu(I)-free Click-Chemistry.

Presolski *et al.*[2] and Hong *et al.*[3] provide a general protocol for Cu(I)-catalyzed click chemistry reactions that may be used as a starting point for the set up and optimization of individual assays.

**Related Products:**
γ-[(Propargyl)-imido]-ATP, #CLK-T11, compound 1[1]
γ-[2-Azidoethyl]-ATP, #NU-1701, compound 8[1]
Copper (II)-Sulphate ($CuSO_4$), #CLK-MI004
Tris(3-hydroxypropyltriazolylmethyl)amine (THPTA), #CLK-1010
Sodium Ascorbate (Na-Ascorbate), #CLK-MI005

**Selected References:**

[1] Lee *et al.* (2009) Synthesis and reactivity of novel γ-phosphate modified ATP analogues. *Bioorg Med Chem Lett.* **19**:3804.

[2] Presolski *et al.* (2011) Copper-Catalyzed Azide-Alkyne Click Chemistry for Bioconjugation. *Current Protocols in Chemical Biology* **3**:153.

[3] Hong *et al.* (2011) Analysis and Optimization of Copper-Catalyzed Azide-Alkyne Cycloaddition for Bioconjugation. *Angew. Chem. Int. Ed.* **48**:9879.