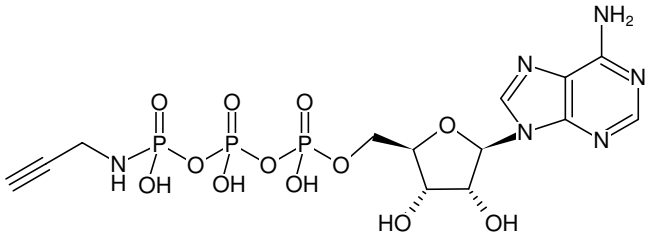
DATA SHEET

Jena Bioscience

γ-[(Propargyl)-imido]-ATP

Adenosine-5'-[γ-(propargyl)-imido]triphosphate, Sodium salt

Cat. No.	Amount
CLK-T11-1	1 mg



Structural formula of γ-[(Propargyl)-imido]-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: $C_{13}H_{19}N_6O_{12}P_3$ (free acid)

Molecular Weight: 544.24 g/mol (free acid)

Exact Mass: 544.03 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

Form: solid

Color: white to off-white

Solubility: 10 mM Tris-HCl pH 7.5

Spectroscopic Properties: λ_{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-[(Propargyl)-imido]-ATP (compound 1[1]) has been successfully used instead of γ-^{32}P-modified ATP to phosphorylate GST-tagged recombinant p27kip1 with protein kinase cdk2.

The phosphorylated, alkyne-modified protein substrate can subsequently be labeled with azides of biotin or fluorescent dyes via Cu(I)- catalyzed 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.

Please note: This compound contains a phosphoramide linkage which is hydrolyzed at pH <7.
For preparation of a 10 mM solution use 100 mM buffer (for example: bicarbonate, borate, phosphate and Tris) to prevent degradation at acidic pH.

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.