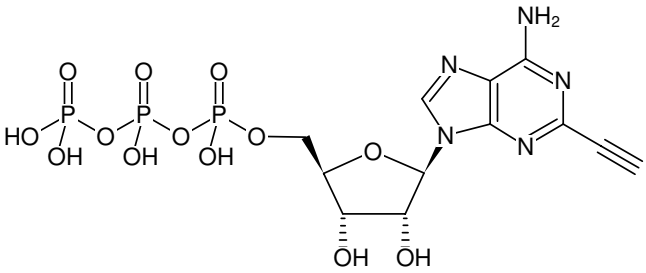
DATA SHEET

Jena Bioscience

2-Ethynyl-ATP (2-EATP)

2-Ethynyl-adenosine-5'-triphosphate, Sodium salt

Cat. No.	Amount
CLK-NU-004S	100 µl (10 mM)
CLK-NU-004L	5 x 100 µl (10 mM)



Structural formula of 2-Ethynyl-ATP (2-EATP)

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: $C_{12}H_{16}N_5O_{13}P_3$

Molecular Weight: 531.20 g/mol

Exact Mass: 531.00 g/mol

Purity: ≥ 90 % (HPLC), contains approx. 6 % 2-Ethynyl-ADP

Form: solution in 100 mM Tris-HCl

Color: colorless to slightly yellow

Concentration: 10 mM - 11 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{max} 265 nm, ε 10.6 L mmol^{-1} cm^{-1} (Tris-HCl pH 7.5)

Applications:
in vitro polyadenylation of RNA[1]

Description:
2-Ethynyl-labeled adenosine triphosphate (2-EATP) is suitable for *in vitro* polyadenylation of RNA with recombinant poly(A) polymerase[1].

The resulting Alkyne-functionalized RNA can subsequently be processed via Cu(I)-catalyzed Azide-Alkyne click chemistry (CUAAC) that offers the choice

- to introduce a Biotin group for subsequent purification tasks (via Azides of Biotin)
- to introduce fluorescent group for subsequent microscopic imaging (via Azides of fluorescent dyes)
- to crosslink the RNA to azide-functionalized biomolecules e.g.proteins

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:
5-Ethynyl-adenosine (5-EA), #CLK-N005
Copper (II)-Sulphate ($CuSO_4$), #CLK-MI004
Tris(3-hydroxypropyltriazolylmethyl)amine (THPTA), #CLK-1010
Sodium Ascorbate (Na-Ascorbate), #CLK-MI005

Selected References:

[1] Curanovic *et al.* (2013) Global profiling of stimulus-induced polyadenylation in cells using a poly (A) trap. *Nat. Chem. Biol.* **9**:671.

[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.