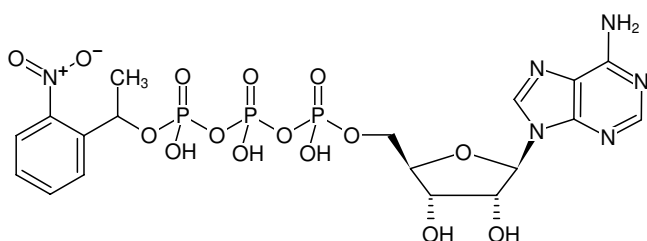




NPE-caged-ATP

Adenosine-5'-triphosphate, P³-(1-(2-nitrophenyl)-ethyl)-ester, Sodium salt

Cat. No.	Amount
NU-301S	150 µl (10 mM)
NU-301L	5 x 150 µl (10 mM)



Structural formula of NPE-caged-ATP

For general laboratory use.

Shipping: shipped on gel packs

Storage Conditions: store at -20 °C

Additional Storage Conditions: store dark

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

Shelf Life: 12 months after date of delivery

Molecular Formula: C₁₈H₂₃N₆O₁₅P₃ (free acid)

Molecular Weight: 656.33 g/mol (free acid)

Exact Mass: 656.04 g/mol (free acid)

CAS#: 67030-27-7

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} 260 nm, ε 18.0 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)

Applications:

Determination of quantum yield and irradiation conditions^[1, 2, 3]

Time resolved solid state NMR^[4]

Ligand for purinergic receptors:

The nucleotide can be transported extra- or intracellular in a protected form to the target. After activation by well-defined conditions the liberated ATP can interact with P2X- and P2Y-receptors. Interacting subreceptor types and corresponding references are listed in Data sheet #NU-1010.

Agonistic ligand, mainly for nucleoside receptor A₁
Nucleoside-triphosphates can be converted by different membrane-bound phosphatases into nucleosides acting as nucleoside receptor ligands. The caged form is protected during uptake and transport in animal experiments and can be well-directed released through activation at the target tissue.

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