

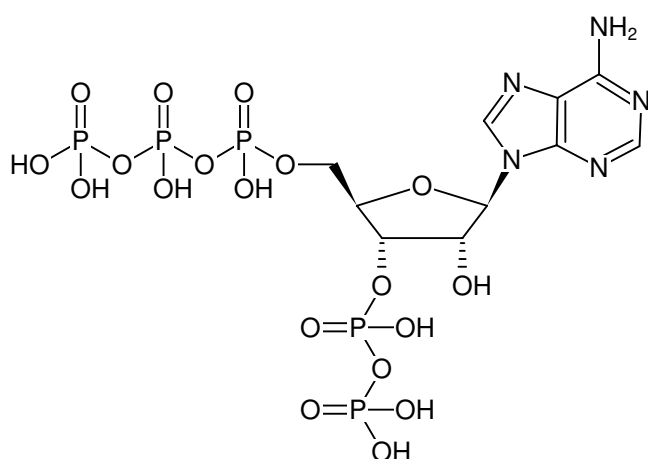


Adenosine-3',5'-pentaphosphate

3',5'-pppApp

Adenosine-3'-diphosphate-5'-triphosphate, Lithium salt

Cat. No.	Amount
NU-543S	10 µl (100 mM)
NU-543L	5 x 10 µl (100 mM)



Structural formula of Adenosine-3',5'-pentaphosphate

For general laboratory use.

Please centrifuge briefly before opening (volume ≤2 ml).

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: C₁₀H₁₈N₅O₁₉P₅ (free acid)

Molecular Weight: 667.14 g/mol (free acid)

Exact Mass: 666.93 g/mol (free acid)

Purity: ≥ 90 % (HPLC)

Form: solution in water

Color: colorless to slightly yellow

Concentration: 100 mM - 110 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{max} 259 nm, ε 15.1 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)

Related Products:

ppApp, #NU-542
pppGpp, #NU-885
ppGpp, #NU-884

Selected References:

Ahmad *et al.* (2019) An interbacterial toxin inhibits target cell growth by synthesizing (p)ppApp. *Nature* **575**: 674.

Jimmy *et al.* (2020) A widespread toxin-antitoxin system exploiting growth control via alarmone signaling. *Proc. Natl. Acad. Sci. U.S.A.* **117**: 10500.

Anderson *et al.* (2021) Regulatory Themes and Variations by the Stress-Signaling Nucleotide Alarmone (p)ppGpp in Bacteria. *Annu Rev Genet.* **55**: 115.

Chau *et al.* (2021) Emerging and divergent roles of pyrophosphorylated nucleotides in bacterial physiology and pathogenesis. *PLOS Pathogens* **17**(5): e1009532.

Steinchen *et al.* (2021) Dual Role of a (p)ppGpp-and (p)ppApp-degrading Enzyme in Biofilm Formation and Interbacterial Antagonism. *Molecular Microbiology* **115**(6): 1339.