

Certificate of Analysis

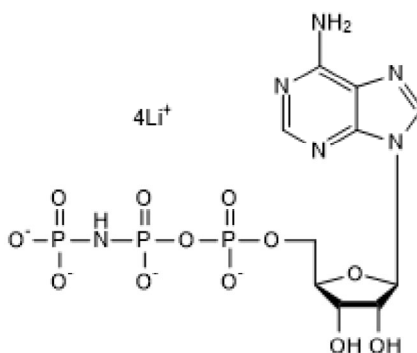
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Product Name: AMP PNP
CAS Number: 72957-42-7
IUPAC Name: Adenosine-5'-[(β,γ)-imido]triphosphate tetralithium salt

Catalog No.: 6086 **Batch No.:** 15

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Weight: 529.93
Physical Appearance: White solid
Solubility: water to 50 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 93.1% purity
Mass Spectrum: Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel: +1 612 379 2956

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Description:

AMP PNP is a non-hydrolyzable AMP analog. K_{ir6} (K_{ATP}) channel blocker. Inhibits fast axonal transport and stabilizes the interaction of membranous organelles with microtubules.

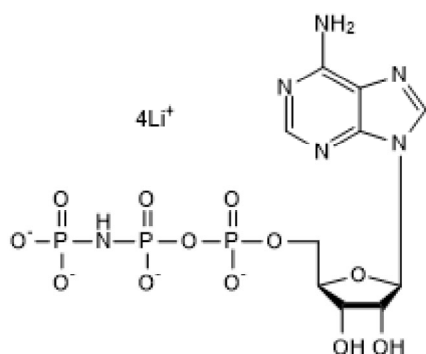
Physical and Chemical Properties:

Batch Molecular Weight: 529.93

Physical Appearance: White solid

Minimum Purity: $\geq 90\%$

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 50 mM

CAUTION - This product has been shown to undergo decomposition when dissolved in aqueous solution. The rate of decomposition can be minimized by making sure the pH of the solution remains basic (pH 7.5-10) and that solutions are used on the day of preparation.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a $45-60^{\circ}\text{C}$ water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Hehl and Neumcke (1994) K_{ATP} channels of mouse skeletal muscle: mechanism of channel blockage by AMP-PNP. *Eur.Biophys.J.* **23** 231. PMID: 7805625.

Brady (1985) A novel brain ATPase with properties expected for the fast axonal transport motor. *Nature* **317** 73. PMID: 2412134.

Yount et al (1971) Adenylyl imidodiphosphate, an adenosine triphosphate analog containing a P-N-P linkage. *Biochemistry* **10** 2484. PMID: 4326768.

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