

Certificate of Analysis

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Product Name: ATPyS tetralithium salt

Catalog No.: 4080

Batch No.: 28

CAS Number: 93839-89-5

EC Number: 298-862-8

IUPAC Name: Adenosine-5'-(γ-thio)-triphosphate tetralithium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₁₂Li₄N₅O₁₂P₃S

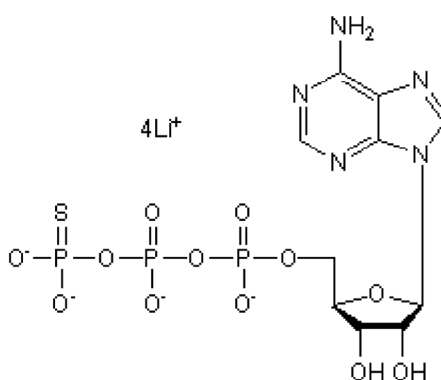
Batch Molecular Weight: 546.98

Physical Appearance: White solid

Solubility: water to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 87.4% purity

Mass Spectrum: Consistent with structure

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

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Product Name: ATPγS tetralithium salt

CAS Number: 93839-89-5

IUPAC Name: Adenosine-5'-(γ-thio)-triphosphate tetralithium salt

Catalog No.: 4080

Batch No.: 28

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Description:

ATPγS tetralithium salt is a P2 purinergic receptor agonist. Nonhydrolyzable analog of ATP (Cat. No. 3245).

Physical and Chemical Properties:

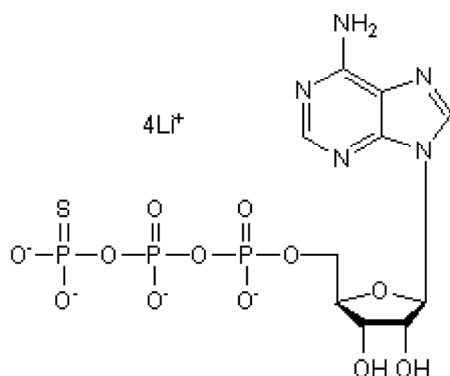
Batch Molecular Formula: C₁₀H₁₂Li₄N₅O₁₂P₃S

Batch Molecular Weight: 546.98

Physical Appearance: White solid

Minimum Purity: ≥85%

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°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:

Peck and Herschlag (2003) Adenosine 5'-O-(3-thio)triphosphate (ATPγS) is a substrate for the nucleotide hydrolysis and RNA unwinding activities of eukaryotic translation initiation factor eIF4A. *RNA* **9** 1180. PMID: 13130132.

Evans et al (1995) Pharmacological characterization of heterologously expressed ATP-gated cation channels (P2X purinoceptors). *Mol.Pharmacol.* **48** 178. PMID: 7544432.

Chrysogelos et al (1983) The structure of recA protein-DNA filaments. 2 recA protein monomers unwind 17 base pairs of DNA by 11.5 degrees/base pair in the presence of adenosine 5'-O-(3-thiotriphosphate). *J.Biol.Chem.* **258** 12624. PMID: 6313668.

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