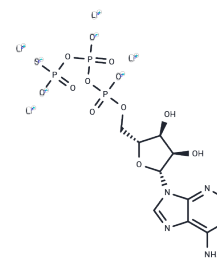


## ATPyS tetralithium salt

## Chemical Properties

CAS No. :	93839-89-5
Formula:	C10H12Li4N5O12P3S
Molecular Weight:	546.98
Storage:	Store at low temperature Powder: -20°C for 3 years <i>Actual storage temperature shall be subject to the COA.</i>



## Biological Description

Description	ATPyS tetralithium salt is a good substrate for RNA-stimulated nucleotide hydrolysis and RNA unwinding activity of eIF4A.
Targets(IC50)	P2Y Receptor,PERK
In vitro	ATPyS tetralithium salt enhances intrinsic fluorescence and induces aggregation, thereby increasing spinach Rubisco activating enzyme activity. The concentration dependence of the ATPyS tetralithium salt effect is S-shaped, but at pH 8, the half-saturation requirement of ATPyS tetralithium salt (12 μM) is consistent with that measured indirectly using the fluorescent probe 1-anilinolyl-8-sulfonate. The binding affinities (6 μM) are not much different. [2]
In vivo	<b>METHODS:</b> A mouse model of ALI induced by intratracheal administration of endotoxin/lipopolysaccharide (LPS) and cultured lung ECs was used and treated with ATPyS tetralithium salt (50-100 μM final blood concentration). <b>RESULTS</b> ATPyS tetralithium salt attenuated the inflammatory response, reduced the accumulation of cells (48%, P < 0.01) and proteins (57%, P < 0.01) in bronchoalveolar lavage fluid, and reduced neutrophil infiltration and Evans blue albumin dye extravasation into lung tissue. [3]

## Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble) H2O: 100 mg/mL (182.82 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.66 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.8282 mL	9.1411 mL	18.2822 mL
5 mM	0.3656 mL	1.8282 mL	3.6564 mL
10 mM	0.1828 mL	0.9141 mL	1.8282 mL
50 mM	0.0366 mL	0.1828 mL	0.3656 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Matthew L Peck, et al. Adenosine 5'-O-(3-thio)triphosphate (ATP $\gamma$ S) is a substrate for the nucleotide hydrolysis and RNA unwinding activities of eukaryotic translation initiation factor eIF4A. *RNA*. 2003 Oct;9(10):1180-7.

Z Y Wang, et al. Mg<sup>2+</sup> and ATP or adenosine 5'-[gamma-thio]-triphosphate (ATP  $\gamma$  S) enhances intrinsic fluorescence and induces aggregation which increases the activity of spinach Rubisco activase. *Biochim Biophys Acta*. 1993 Sep 3;1202(1):47-55.

Irina A Kolosova, et al. Protective effect of purinergic agonist ATP $\gamma$ S against acute lung injury. *Am J Physiol Lung Cell Mol Physiol*. 2008 Feb;294(2):L319-24.

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