Product datasheet

ATP-γ-S ab138911

1 References

Overview

Product name ATP-γ-S
Description Kinase substrate
Biological description Substrate and inhibitor of ATP-dependent enzyme systems. Hydrolyzed very slowly by phosphatases and most ATPases. Once thiophosphorylated, proteins are resistant to protein phosphatases. P2 purinergic receptor agonist.
Purity > 80%
General notes Kinase reaction reagent to be used with ab92570 rabbit monoclonal to thiophosphate ester for the identification of direct kinase substrates as mentioned in Allen JJ et al. Nat Methods 4:511-6 (2007).

After the kinase of interest has accepted ATP-γ-S, \( p \)-Nitrobenzyl mesylate (ab138910) can be used to alkylate the thiophospholyation site on the substrates. A thio phosphate ester rabbit monoclonal antibody (ab92570) is introduced to identify the tagged substrates.

It is suggested to add 100 ng of ATP-γ-S to a 30 µL kinase buffer. See Allen JJ et al. Nat Methods 4:511-6 (2007); Supp. Material.

Properties

Chemical name Adenosine 5’-(3-thiotriphosphate) tetralithium salt
Molecular weight 546.98
Chemical structure

![Chemical structure image]

Molecular formula \( \text{C}_{10}\text{H}_{12}\text{Li}_{4}\text{N}_{6}\text{O}_{12}\text{P}_{3}\text{S} \)
CAS Number 93839-89-5
PubChem identifier 5311341
Storage instructions Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview Soluble in water
Handling
This product is supplied in one (or more) pack size which is freeze dried. Therefore the contents may not be readily visible, as they can coat the bottom or walls of the vial. Please see our FAQs and information page for more details on handling.

Unstable; make up solutions fresh and use immediately.

Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.

SMILES
\[[Li^+],[Li^+],[Li^+],[Li^+]\].C1=NC2=C(C(=N1)N)N=CN2[C@H]3[C@@H][C@@H](O3)COP(=O)([O-])OP(=O)([O-])OP(=S)([O-])OP(=O)([O-])O

Source
Synthetic

Applications
Our Abpromise guarantee covers the use of ab138911 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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