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Technical Information about Rp-ATP-α-S

Stereoselective Analog of ATP with increased metabolic stability

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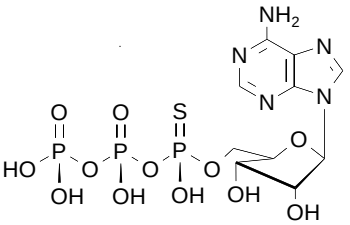

Abbreviation: **Rp-ATP-α-S**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{10}H_{16}N_5O_{12}P_3S$	[58976-49-1]	523.3 (free acid)	λ_{max} 258 nm / ε 15200 / pH7	A 039

Name: Adenosine- 5'- O- (1- thiotriphosphate), Rp- isomer

Description: Rp-ATP-α-S is the R-isomer of an analogue of adenosine triphosphate (ATP) in which a non-bridging oxygen in the α-phosphate is replaced by sulfur. The suffix "p" indicates that R/S nomenclature refers to phosphorus.

Properties:

- **Useful for inhibition or activation of ATP-responsive receptors and determination of their stereospecificity**
- **Competitive inhibitor of adenylate cyclase and substrate for ATPase reaction of gyrase**
- **higher metabolic stability towards many hydrolases**

Specification: 10 mM aqueous solution of the sodium salt. Other salts of Rp-ATP-α-S are available upon request. Micromolar quantities are determined by UV at λ_{max}. When opening the tube make sure that no liquid is lost within the cap. A short spin-down in a bench zentrifuge is recommended before use.

Purity: A purity of > 95% is guaranteed, but typical purity is better than 99% (HPLC / UV/ 258 nm) at time of quality control and packing. However, actual purity depends on storage and transport conditions. The product is not sterile.

Stability and Storage: Rp-ATP-α-S is relatively stable when stored as aqueous solution in the freezer (- 20° celsius necessary, - 80° recommended), however, at ambient temperature the compound slowly starts to decompose forming ATP and other nucleotide fragments. Thus, in order to maintain its original high quality, and especially if one want to avoid the presence of any ATP, it is recommended to allow thawing only before using the product. If you will not use up the vial with one application, please aliquot the contents of the vial in order to avoid repeated freeze/thawing cycles for the rest. When making such aliquots be sure to operate quickly and to freeze the vial again as soon as possible. Please ask for an offer to already pack these aliquots as you will need them.

Toxicity and Safety: Since adenosine triphosphate has multiple tasks in every organism, it is very likely that ATP analogs will interfere with many cell regulation processes in vivo. However, due to the rather small quantities to work with, no health hazards have been reported. Nevertheless please keep in mind, that the in vivo properties of this compound are not sufficiently characterized up to now. Avoid skin contact or ingestion and allow only trained personnel to handle the product.
Our products are designed, developed and sold for research purposes only! They are intended for in vitro and nonhuman in vivo laboratory applications. Any other use requires approval of health authorities.
Not for drug, household or related uses!

P.t.o

BIOLOG Life Science Institute, Bremen, Germany Phone: 49 (0) 421 591355 Fax: 49 (0) 421 5979713 e-mail: service@biolog.de

Selected references for Rp-ATP-α-S:
For an extended and updated reference list please visit our website (http://www.biolog.de)

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BIOLOG Life Science Institute, Bremen, Germany Phone: 49 (0) 421 591355 Fax: 49 (0) 421 5979713 e-mail: service@biolog.de