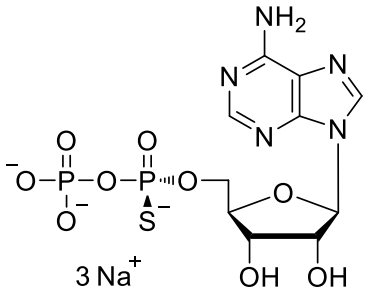
Technical Information about Sp-ADP-α-S

Inhibitor or activator of ADP binding proteins

Update: October 16, 2018 HJ



Abbreviation: **Sp-ADP-α-S**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{10}H_{15}N_5O_9P_2S$ (free acid)	[59286-20-3]	443.3 (free acid)	λ_{max} 259 nm / ε 15200 / pH7	A 038

Name: Adenosine- 5'- O- (1- thiodiphosphate), Sp- isomer

Description: Sp-ADP-α-S is an analogue of the parent nucleotide adenosine-5'-diphosphate (ADP) 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:

- **ADP analogue with increased metabolic stability**
- **Useful for characterization of ADP-responsive receptors and determination of their stereospecificity**
- **Inhibitor or activator of ADP binding proteins depending on the target receptor**

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

Purity: Typical analysis is better than 95% (HPLC / UV / 259 nm) at time of quality control and packing. However, actual purity depends on storage and transport conditions. The product is not sterile and has not been tested for endotoxins..

Stability and Storage: Sp-ADP-α-S is most stable when stored as aqueous solution in the freezer (-20° Celsius necessary, -80° recommended), however, at ambient temperature the compound slowly starts to decompose. Thus, in order to maintain its original high quality 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/thaw cycles for the rest. When making such aliquots be sure to operate quickly and to freeze the vial again as soon as possible.

Toxicity and Safety: Since diphosphates have multiple tasks in every organism, it is very likely that ADP analogues 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!

Selected References for Sp-ADP-α-S:
For an extended and updated reference list please visit our website www.biolog.de.

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