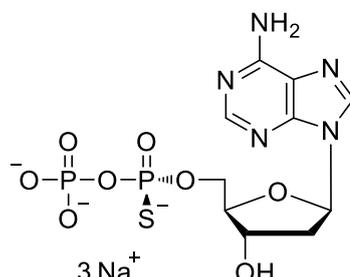


## Technical Information about Sp-dADP- $\alpha$ -S

Inhibitor or activator of dADP binding proteins

Update: May 12, 2023 ss



**Abbreviation:** Sp-dADP- $\alpha$ -S

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>10</sub> H <sub>15</sub> N <sub>5</sub> O <sub>8</sub> P <sub>2</sub> S (free acid)	[pending]	427.3 (free acid)	$\lambda_{\max}$ 259 nm / $\epsilon$ 15200 / pH7	D 005

**Name:** 2'-Deoxyadenosine- 5'- O- (1- thiodiphosphate), Sp-isomer ( Sp-dADP- $\alpha$ -S )

**Description:** Sp-dADP- $\alpha$ -S is an analogue of the parent nucleotide 2'-deoxyadenosine- 5'- diphosphate (dADP) in which a non-bridging oxygen in the  $\alpha$ -phosphate is replaced by sulfur. The suffix "p" indicates that R/S nomenclature refers to phosphorus.

### Properties:

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

**Specification:** 10 mM aqueous solution of the sodium salt. Please keep in mind that equal amounts of the compound may look different in volume depending on humidity. Micromolar quantities are determined by UV at 259 nm. Other salt forms of Sp-dADP- $\alpha$ -S are available upon request.

**Purity:** Typical purity 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.

**Solubility:** Sp-dADP- $\alpha$ -S has excellent solubility in water or buffer. When opening the tube make sure that no substance is lost within the cap. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing.

**Stability and Storage:** Sp-dADP- $\alpha$ -S is relatively stable when stored in aqueous solution in the freezer (- 20° Celsius necessary, - 70° Celsius recommended).

**Toxicity and Safety:** Since ADP analogs have multiple tasks in every organism it is possible that 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 compounds 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!**

### References for Sp-dADP- $\alpha$ -S:

Marlier, J.F.; Bryant, F.R.; Benkovic, S.J., *Biochemistry*, **20**, 2212 - 2219 (1981): "Stereochemical and Kinetic Investigation of <sup>32</sup>P-Labeled Inorganic Phosphate Exchange Reaction Catalyzed by Primer-Independent and Primer-Dependent Polynucleotide Phosphorylase from *Micrococcus luteus*"