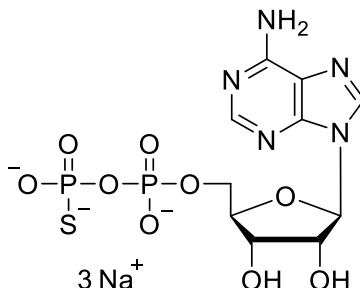


Technical Information about ADP-β-S

Update: October 16, 2018 HU



Abbreviation: ADP-β-S

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₀ H ₁₅ N ₅ O ₉ P ₂ S (free acid)	[35094-45-2]	443.3 (free acid)	λ _{max} 259 nm / ε 15200 / pH 7	A 121

Name: Adenosine- 5'- O- (2- thiodiphosphate)

Description: ADP-β-S is an analogue of adenosine-5'-O-diphosphate (ADP) in which one of the non-bridging oxygens in the β-phosphate is replaced by sulphur.

Properties: ADP-β-S is a modulator of ADP binding proteins with increased metabolic stability. It is useful for characterization of ADP-responsive receptors and determination of their stereospecificity.

Specification: Aqueous solution of the sodium salt (10 mM). Other salt forms of ADP-β-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 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.

Stability and Storage: ADP-β-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. For stability reasons it is essential that the pH value of the product solution never drops below 7 which can be achieved by addition of a suitable buffer (pH 7 - 9).

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 ADP-β-S:

Saïag, B.; Hillaire-Buys, D.; Chapal, J.; Petit, P.; Pape, D.; Rault, B.; Allain, H.; Loubatières-Mariani, M.M., *Br. J. Pharmacol.*, **118**, 804 - 810 (1996): "Study of the Mechanisms Involved in Adenosine-5'-O-(2-thiodiphosphate) Induced Relaxation of Rat Thoracic Aorta and Pancreatic Vascular Bed"

Palea, S.; Corsi, M.; Pietra, C.; Artibani, W.; Calpista, A.; Gaviraghi, G.; Trist, D.G., *J. Pharmacol. Exp. Ther.*, **269**, 193 - 197 (1994): "ADP beta S Induces Contraction of the Human Isolated Urinary Bladder Through a Purinoceptor Subtype Different from P2X and P2Y"

Bertrand, G.; Chapal, J.; Puech, R.; Loubatières-Mariani, M.M., *Br. J. Pharmacol.*, **102**, 627 - 630 (1991): "Adenosine-5'-O-(2-thiodiphosphate) is a Potent Agonist at P2 Purinoceptors Mediating Insulin Secretion from Perfused Rat Pancreas"