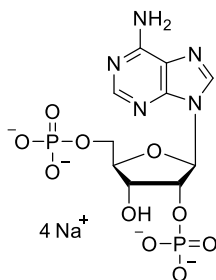


Technical Information about pA-2'-p / 2'-pAp

Update: January 26, 2024 ss



Abbreviation: pA-2'-p

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₀ H ₁₅ N ₅ O ₁₀ P ₂ (free acid)	[154146-84-6] (x Na ⁺) / [108347-94-0] (2 Na ⁺)	427.2 (free acid)	λ _{max} 259 nm / ε 15000 / pH 7	A 449

Name: Adenosine- 2', 5'- O- bisphosphate, sodium salt

Syn.: 2'-PAP / 2'- phosphoadenosine 5'- phosphate / adenosine- 2', 5'- diphosphate

Description: In pA-2'-p phosphate groups are attached to both the ribose 2' position and the ribose 5' position of adenosine.

Properties: pA-2'-p is an inhibitor of P2Y₁ (Boyer et al. 1996) and exhibits non-selective antagonism at recombinant and human platelet P2X₁ receptors (Toth-Zsamboki et al. 2001). It inhibits ADP-induced platelet shape change and aggregation but does not affect ADP-induced inhibition of adenylyl cyclase (Hechler et al. 1998).

Specification: Crystallized or lyophilized sodium salt. For other salt forms or analogues of pA-2'-p please inquire. Please keep in mind that equal concentrations of the compound may look different in volume due to high sensitivity of the lyophilized form to humidity. The compound can even contract to small volume droplets. Normally the product is located in the conical bottom of the tube. Micromolar quantities are determined by UV at λ_{max}.

Purity: Typical analysis is better than 95% (HPLC / UV / 259 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: pA-2'-p is soluble in water (≥ 27 mM, limits have not been determined). Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing. When opening the tube please make sure that no substance is lost within the cap.

Stability and Storage: pA-2'-p is chemically rather stable and does not need special care during handling or shipment. Nevertheless, we recommend that the compound should be stored in the freezer, for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: 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 pA-2'-p:

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Gu, Y. J.; Xia, Z. X., *Proteins*, **39**, 37 - 46 (2000): "Crystal Structures of the Complexes of Trichosanthin with Four Substrate Analogs and Catalytic Mechanism of RNA N-glycosidase"

Boyer, J. L.; Romero-Avila, T., Schachter, J. B.; Harden, T.K., *Mol. Pharmacol.*, **50**, 1323 -1329 (1996): "Identification of Competitive Antagonists of the P2Y₁ Receptor"

Hechler, B.; Léon, C.; Vial, C.; Vigne, P.; Frelin, C.; Cazenave, J. P.; Gachet, C., *Blood*, **92**, 152 - 159 (1998): "The P2Y₁ Receptor is Necessary for Adenosine 5'-diphosphate-Induced Platelet Aggregation"