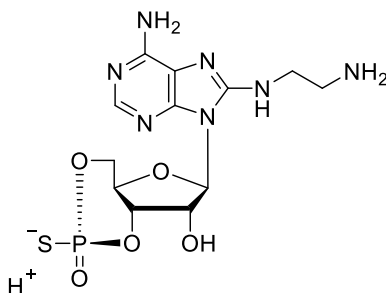


Technical Information about Sp-8-AEA-cAMPS

Update: August 21, 2018 HJ



Abbreviation: Sp-8-AEA-cAMPS

| Formula | CAS No. | Molecular Weight | UV | BIOLOG Cat. No. |
|--|---------------|------------------|---|-----------------|
| C ₁₂ H ₁₈ N ₇ O ₅ PS | [221904-84-3] | 403.4 | λ_{\max} 273 nm / ϵ 17000 / pH 7 | A 094 |

Name: 8- (2- Aminoethylamino)adenosine- 3', 5'- cyclic monophosphorothioate, Sp- isomer

Description: Sp-8-AEA-cAMPS is an analogue of the natural signal molecule cyclic AMP in which the hydrogen in position 8 of the heterocyclic nucleobase is substituted by ethylene diamine. In addition, the axial one of the two exocyclic oxygen atoms in the cyclic phosphate moiety is replaced by sulfur. The suffix "p" indicates that R/S nomenclature refers to phosphorus.

Properties: The phosphodiesterase-resistant Sp-8-AEA-cAMPS can be used as a ligand for affinity chromatography of cAMP and cGMP binding proteins and is also suitable for modification with fluorophores and other markers. This ligand is also available with a longer spacer (Sp-8-AHA-cAMPS, Cat. No. A 071) or already immobilized to agarose gel (Sp-8-AEA-cAMPS-Agarose, Cat. No. A 008).

Specification: Crystallized or lyophilized solid. 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 98% (HPLC / UV / 273 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: Sp-8-AEA-cAMPS is soluble in water (≥ 11 mM). 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: Sp-8-AEA-cAMPS 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: Since cyclic AMP has multiple tasks in every organism, it is very likely that cAMP 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-8-AEA-cAMPS:

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Hanke, S.E.; Bertinetti, D.; Badel, A.; Schweinsberg, S.; Genieser, H.-G.; Herberg, F.W., *N. Biotechnol.*, Epub ahead of print (2010): "Cyclic Nucleotides as Affinity Tools: Phosphorothioate cAMP Analogues Address Specific PKA Subproteomes"

Bertinetti, D.; Schweinsberg, S.; Hanke, S.E.; Schwede, F.; Bertinetti, O.; Drewianka, S.; Genieser, H.-G.; Herberg, F.W., *BMC Chem. Biol.*, **9**: 3 (2009): "Chemical Tools Selectively Target Components of the PKA System"