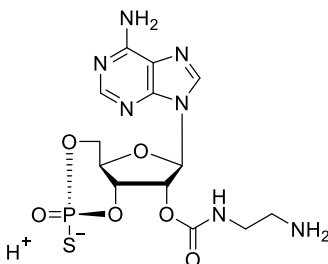


Technical Information about Rp-2'-AEC-cAMPS

Update: December 17, 2018 HGG



Abbreviation: **Rp-2'-AEC-cAMPS**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₃ H ₁₈ N ₇ O ₆ PS (Free acid)	[pending]	431.4 (Free acid)	λ _{max} 259 nm / ε 15000 / pH 7	A 119

Name: 2'- O- (2- Aminoethylcarbamoyl)adenosine- 3', 5'- cyclic monophosphorothioate, Rp- isomer (Rp-2'-AEC-cAMPS)

Description: Rp-2'-AEC-cAMPS is an analogue of the natural signal molecule cyclic AMP in which an ethyl spacer with a terminal amino group has been attached to the ribose 2'-hydroxy group by a carbamate bond. In addition, the equatorial 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:

- PDE-resistant analogue of cyclic AMP prepared to be coupled to various structures including proteins,
- ligand for immobilization to yield affinity gels,
- also suitable for conjugation with fluorescent dyes or labels.

The corresponding Sp-isomer offered as well (Sp-2'-AEC-cAMPS, Cat. No. A 095). BIOLOG also offers 2'-O-(6-Aminoethylcarbamoyl)-cAMP in which a longer hexyl spacer with a terminal amino group has been attached to the ribose 2'-hydroxy group by a carbamate bond (2'-AHC-cAMP, Cat. No. A 046). 2'-O-Monosuccinyl-cAMP which has a terminal carboxy group for reaction with amino and hydroxy group-containing structures is available as well (2'-O-MS-cAMP, Cat. No. M 011).

Specification: Crystallized or lyophilized solid. Please keep in mind that equal concentrations of the compound may look different in volume due to 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 / 259 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: Rp-2'-AEC-cAMPS is readily soluble in water or buffer. 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: Rp-2'-AEC-cAMPS is chemically rather stable. 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!

p.t.o.

References for a related structure:

Corrie J.E.; Pizza C.; Makwana, J.; King, R.W., *Protein Expr. Purif.*, **3**, 417 - 420 (1992): "Preparation and Properties of an Affinity Support for Purification of cyclic AMP Receptor Protein from *Escherichia coli*"