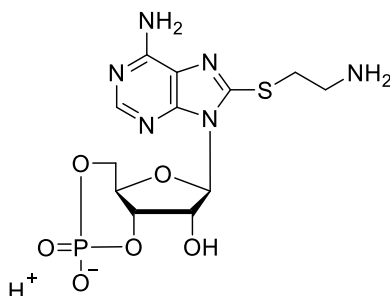


Technical Information about 8-AET-cAMP

Update: December 21, 2018 HGG



Abbreviation: 8-AET-cAMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₂ H ₁₇ N ₆ O ₆ PS (Free acid)	[53546-96-6]	404.3 (Free acid)	λ_{\max} 279 nm / ϵ 17000 / pH 7	A 141

Name: 8- (2- Aminoethylthio)adenosine- 3', 5'- cyclic monophosphate (8-AET-cAMP)

Description: 8-AET-cAMP is an analogue of the natural signal molecule cyclic AMP where the hydrogen in position 8 of the nucleobase is replaced by an aminoethylthio group.

Properties:

- **Activator of protein kinase A (PKA), supposed to be site selective for site B of PKA**
- **suitable for immobilization as a ligand for affinity chromatography and, e.g. , for binding of fluorescent dyes,**
- **increased metabolic stability towards cyclic nucleotide-responsive phosphodiesterases.**

The free terminal amino group of 8-AET-cAMP is suitable for coupling to gels for affinity chromatography and for binding of various labels, e.g. fluorescent dyes. 8-AET-cAMP is available also immobilized to agarose (Cat. No. A 193).

Specification: Crystallized or lyophilized solid. Equal concentrations of 8-AET-cAMP can appear very 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 / 273 nm). The product is not sterile and has not been tested for endotoxins.

Stability and Storage: 8-AET-cAMP is chemically stable under conditions of biological systems and media. Nevertheless, we recommend that the compound should be stored in the freezer, for longer storage periods preferably in freeze-dried form.

Solubility: 8-AET-cAMP has only very limited solubility in water and coupling reactions are usually performed in DMSO. 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.

Toxicity and Safety: Since cyclic AMP has multiple tasks in every organism, it is possible 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 8-AET-cAMP:

Laukens K., Roef L., Witters E., Slegers H.van Onckelen H., *FEBS Lett.*, **508**, 75 - 79 (2001): "Cyclic AMP Affinity Purification and ESI-OTOF MS-MS Identification of Cytosolic Glyceraldehyde 3-phosphate Dehydrogenase and Two Nucleoside Diphosphate Kinase Isoforms from Tobacco BY-2 Cells"

Grivennikov I. A.; Petukhov S. P.; Bulargina T. V.; Gulyaev N. N.; Severin E. S., *Biokhimiya*, **49**, 1395 - 1406 (1984): "cAMP-dependent Protein Kinase from Pigeon Breast Muscle. Isolation of the Regulatory Subunit by the Method of Affinity Chromatography and Study of the Topography of the cAMP-Binding Site Using cAMP Analogs"