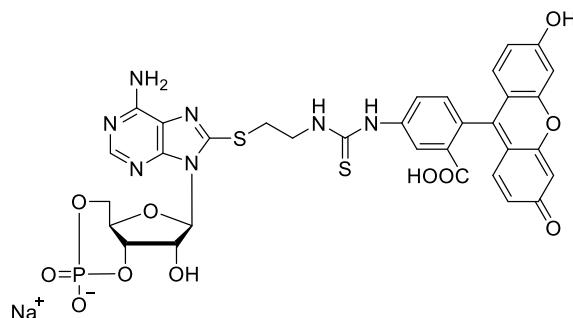


Technical Information about 8-[Fluo]-cAMP

Fluorescent analogue of cyclic AMP

Update: November 08, 2018 HU



Abbreviation: 8-[Fluo]-cAMP / 8-[Fluo]-AET-cAMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₃₃ H ₂₇ N ₇ O ₁₁ PS ₂ ·Na	[293296-57-8]	815.7	λ _{max} ~494nm / ε ~79000 / pH 9	F 002

Name: 8- (2- [Fluoresceinyl]aminoethylthio)adenosine- 3', 5'- cyclic monophosphate / syn.: 8- [[2-[(Fluoresceinylthioureido)amino]-ethyl]thio]adenosine- 3', 5'- cyclic monophosphate

Description: 8-[Fluo]-cAMP is a fluorescein-modified analogue of the parent second messenger cyclic AMP in which the dye is connected to position 8 of the cyclic nucleotide's adenine nucleobase via a 6-atom spacer.

Properties:

- Fluorescent cAMP analogue: λ_{exc} 494 nm, λ_{em} 517 nm.
- Potent activator of cAMP-dependent protein kinases and expected to activate cAMP-gated ion channels as well.
- Relatively high metabolic stability against cyclic nucleotide-responsive phosphodiesterases.

Specification: Crystallized or lyophilized sodium salt. Other salt forms of 8-[Fluo]-cAMP are available upon request. Please keep in mind that equal amounts of the compound may look different in volume depending on 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/VIS at λ_{max}. BIOLOG can offer the Rp- and Sp- isomers of the corresponding phosphorothioates as well. For other dyes coupled, please inquire.

Purity: Typical analysis is better than 95% (HPLC / UV / 280 nm). The product is not sterile and has not been tested for endotoxins.

Stability and Storage: 8-[Fluo]-cAMP has sufficient stability at room temperature and does not need special care during handling or shipment. Nevertheless, the compound should be protected from light and stored in the freezer, for longer storage periods preferably in freeze-dried form.

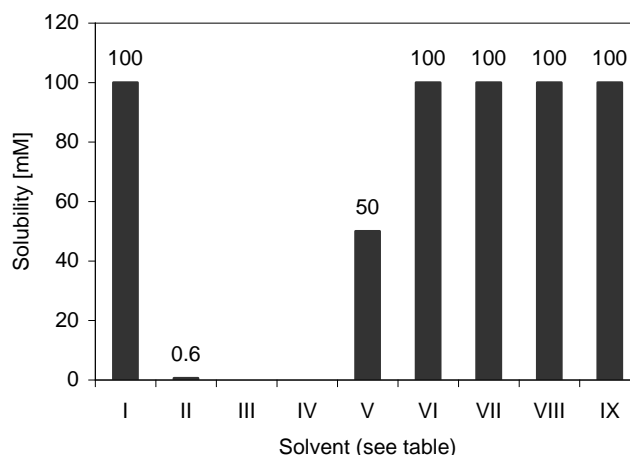
Toxicity and Safety: Since cyclic AMP has multiple tasks in every organism it is very likely that lipophilic cAMP analogues will interfere with many cell regulation processes *in vivo*. However, due to the rather small quantities to work with no health hazards have been reported. Nevertheless please 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!

Solubility: Detailed information on the solubility of 8-[Fluo]-cAMP in water and various buffers are listed in the solubility chart below. Concentrations have been determined at ambient temperature and can be considered as minimum concentrations usually obtainable, however, slight batch-to-batch variations cannot be ruled out. When opening the tube please make sure that no substance is lost within the cap. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing.

No.	Solvent	Solubility [mM]
I	H ₂ O	100
II	DMSO	0.6
III	DMF	0
IV	Ethanol 96%	0
V	Methanol	50
VI	PBS, pH 7.4	100
VII	100 mM Na ₂ HPO ₄ , pH 7.0	100
VIII	25 mM Hepes/NaOH, pH 7.2	100
IX	25 mM Tris/HCl, pH 7.4	100



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