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Technical Information about 2'-Fluo-AHC-cAMP

Fluorescent, PKA-inactive analogue of cyclic AMP

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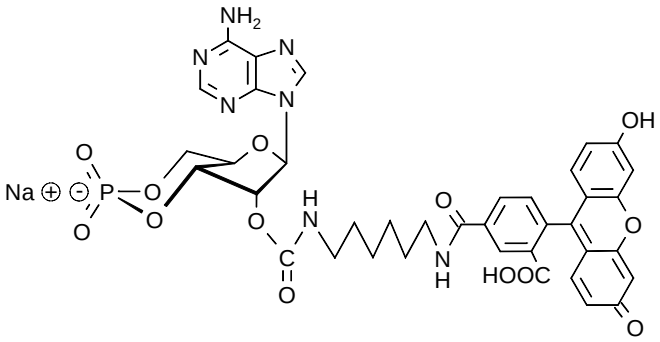

Abbreviation: **2'-Fluo-AHC-cAMP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{38}H_{35}N_7O_{13}P{\cdot}Na$	[pending]	851.7	λ_{max} ~494 nm / ε ~79000 / pH 9	F 003

Name: 2'- (6- [Fluoresceinyl]aminohexylcarbamoyl)adenosine- 3', 5'- cyclic monophosphate
syn.: FAM-cAMP

Description: 2'-Fluo-AHC-cAMP is a fluorescein-modified analogue of the parent second messenger cyclic AMP in which the dye is connected to the ribose 2'-hydroxy group via a 9-atom spacer.

Properties: Fluorescent, PKA-inactive analogue of cyclic AMP with λ_{exc} 494 nm and λ_{em} 517 nm. 2'-Fluo-AHC-cAMP can be used as a substrate in phosphodiesterase studies.

Specification: Lyophilized or crystallized sodium salt. Other salt forms are available upon request. Equal concentrations of 2'-Fluo-AHC-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/VIS at λ_{max}.

Purity: Typical analysis is better than 95% (HPLC / UV/VIS / 478 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 2'-Fluo-AHC-cAMP is soluble to at least 1 mM in water. In case higher concentrations are required it could be advisable to add some DMSO or methanol to increase solubility. 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: 2'-Fluo-AHC-cAMP is chemically rather stable 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 its 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!

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Selected Reference for 2'-Fluo-AHC-cAMP:

Schafer, P.H.; Parton, A.; Gandhi, A.K.; Capone, L.; Adams, M.; Wu, L.; Bartlett, J.B.; Loveland, M.A.; Gilhar, A.; Cheung, Y.-F.; Baillie, G.S.; Houslay, M.D.; Man, H.-W.; Muller, G.W.; Stirling, D.I., *Br. J. Pharmacol.*, **159**, 842 - 855 (2010): "Apremilast, a cAMP Phosphodiesterase-4 Inhibitor, Demonstrates Anti-inflammatory Activity *in vitro* and in a Model of Psoriasis"

For further Information compare:

Huang, W.; Zhang, Y.; Sportsman, R., *J. Biomol. Screen.*, **7**, 215 - 222 (2002): "A Fluorescence Polarization Assay for Cyclic Nucleotide Phosphodiesterases"

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