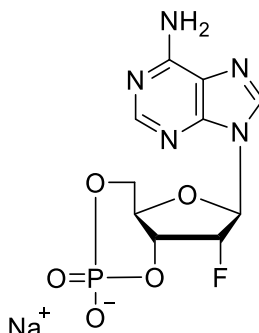


Technical Information about 2'-F-dcAMP

Update: January 19, 2018 AI



Abbreviation: 2'-F-dcAMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₀ H ₁₀ FN ₅ O ₅ P·Na	[81356-81-2]	353.2	λ _{max} 259 nm / ε 15000 / pH 7	D 073

Name: 2'- Deoxy- 2'- fluoroadenosine- 3', 5'- cyclic monophosphate, sodium salt

Description: 2'-F-dcAMP is an analogue of the natural signal molecule cyclic AMP in which the ribose 2'-hydroxyl group is replaced by fluorine.

Properties: 2'-F-dcAMP is a protein kinase A-inactive analogue of cAMP with modified 2'-moiety for cAMP receptor mapping studies.

Specification: Crystallized or lyophilized sodium salt. Other salt forms of 2'-F-dcAMP may be available upon request. 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.

Stability and Storage: 2'-F-dcAMP has sufficient stability at room temperature 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.

Solubility: 2'-F-dcAMP is soluble to ≥ 32 mM in water. 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 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 2'-F-dcAMP:

Schwede, F.; Bertinetti, D.; Langerijs, C.N.; Hadders, M.A.; Wienk, H.; Ellenbroek, J.H.; de Koning, E.J.; Bos, J.L.; Herberg, F.W.; Genieser, H.G.; Janssen, R.A.; Rehmann, H., *PLoS Biol.*, **13**(1):e1002038 (2015): "Structure-guided Design of Selective Epac1 and Epac2 Agonists"

Ikehara, M., *Heterocycles*, **21**, 75 - 90 (1984): "2'-Substituted 2'-Deoxypurinenucleotides - Their Conformation and Properties"