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Technical Information about 2'- Deoxy cyclic AMP

Analogue of cyclic AMP for mapping studies on cAMP- responsive binding proteins

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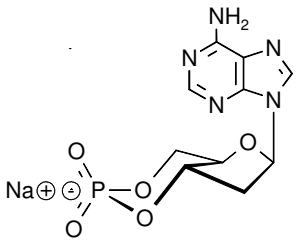

Abbreviation: **2'-dcAMP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{10}H_{11}N_5O_5P{\cdot}Na$	[93839-95-3]	335.2	λ_{max} 259 nm / ε 15000 / pH7	D 015

Name: 2'- Deoxyadenosine- 3', 5'- monophosphate; cyclic deoxyadenosine- 3', 5'- monophosphate.

Description: 2'-dcAMP is an analogue of the natural signal molecule cyclic AMP where the 2'- hydroxy group in the ribose moiety is lacking.

Properties: Due to its lacking 2'- hydroxy group 2'-dcAMP can be useful for cAMP receptor mapping studies. Receptor proteins which need e.g. hydrogen bonds to recognize cyclic AMP at the 2'- ribose part, will show considerably reduced binding affinity. 2'-dcAMP is, for example, an rather inactive control at cAMP-dependent protein kinases, for which an intact 2' OH- group is essentially required.

Specification: Lyophilized or crystallized sodium salt. The free acid or other salts of 2'-dcAMP are available upon request. Please keep in mind that equal amounts of the compound may look different in volume due to a certain sensitivity to humidity. 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.

Solubility: 2'-dcAMP is readily soluble in water or buffers. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing. When opening the tube make sure that no substance is lost within the cap.

Stability and Storage: 2'-dcAMP 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.

Toxicity and Safety: Since cyclic AMP has multiple tasks in every organism it is not unlikely that an analogue could 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.

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