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Technical Information about 2-Chloro-cAMP

Site selective activator of cAMP-depending protein kinase

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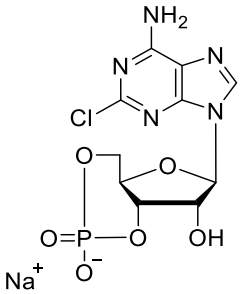

Abbreviation: **2-Cl-cAMP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{10}H_{10}ClN_5O_6P{\cdot}Na$	[39023-65-9]	385.6	λ_{max} 262 nm / ε 14300 / pH7	C 020

Name: 2-Chloroadenosine- 3', 5'- cyclic monophosphate (2-Cl-cAMP)

Description: 2-Cl-cAMP is an analog of the natural signal molecule cyclic AMP in which the hydrogen in position 2 of the heterocyclic nucleobase has been replaced by a chlorine atom.

Properties: 2-Cl-cAMP is a potent, site selective stimulator of cAMP-dependent protein kinases with high affinity for the B sites A of both, PKA type I and II. In addition, it can be used as starting material for cyclic nucleotides, modified in position of the adenine nucleobase.

Specification: Lyophilized or crystallized sodium salt. The free acid or other salts of 2-Cl-cAMP 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/ 262nm). The product is not sterile.

Solubility: 2-Cl-cAMP 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-Cl-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.

Toxicity and Safety: Since cyclic AMP has multiple tasks in every organism, it is very likely that lipophilic cAMP analogs 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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