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Technical Information about 2-Cl-5'-AMP

Analogue of 5'-AMP and reactive precursor for 2-modified 5'-AMP derivatives

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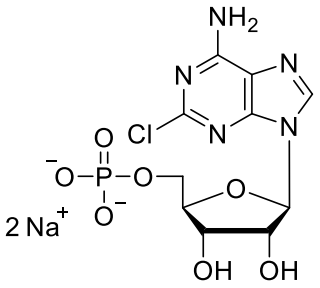

Abbreviation: **2-Cl-5'-AMP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{10}H_{13}ClN_5O_7P$ (free acid)	[81921-27-9] (disodium salt) / [21466-01-3] (free acid)	381.7 (free acid)	λ_{max} 262 nm / ε 14200 / pH 7	C 054

Name: 2- Chloroadenosine- 5'- O- monophosphate, sodium salt

Description: In 2-Cl-5'-AMP the position 2 of the adenine nucleobase of adenosine-5'-O-monophosphate has been modified by a chlorine atom.

Properties: 5'-AMP analogue for receptor mapping studies and useful as reactive starting material for 2-modified 5'-AMP derivatives.

Specification: Crystallized or lyophilized sodium salt. Other salt forms of 2-Cl-5'-AMP are 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 purity is better than 97% (HPLC / UV / 262 nm) at time of quality control and packing. However, actual purity depends on storage and transport conditions. The product is not sterile and has not been tested for endotoxins.

Solubility: 2-Cl-5'-AMP has excellent solubility in water or buffer and any concentration of interest can be achieved. 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-Cl-5'-AMP 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.

Toxicity and Safety:. Since nucleoside monophosphates have multiple tasks in every organism, it is possible that AMP 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-Cl-5'-AMP:

Cusack, N.J.; Hourani, S.M.O., *Br. J. Pharmacol.*, **76**, 221 - 227 (1982): "Adenosine 5'-Diphosphate Antagonists and Human Platelets: No Evidence that Aggregation and Inhibition of Stimulated Adenylate Cyclase are Mediated by Different Receptors"

Gough, G.; Maguire, M.H.; Michal, F., *J. Med. Chem.*, **12**, 494 - 498 (1969): "2-Chloroadenosine 5'-Phosphate and 2-Chloroadenosine 5'-Diphosphate, Pharmacologically Active Nucleotide Analogs"

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