Technical Information about 2-Cl-ATP

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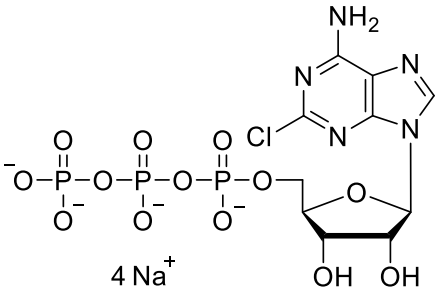

Abbreviation: **2-Cl-ATP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{10}H_{15}ClN_5O_{13}P_3$ for free acid	[49564-60-5]	541.6 for free acid	λ_{max} 262 nm / ε 14300 / pH 7	C 039

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

Description: 2-Cl-ATP is an analogue of ATP in which the hydrogen in position 2 of the nucleobase is replaced by chlorine.

Properties:

- P2Y purinoceptor agonist,
- inhibits soluble guanylate cyclase.

Specification: Sodium salt in aqueous solution (10 mM). The free acid or other salt forms are available upon request. Micro molar quantities are determined by UV at λ_{max}.

Purity: Typical analysis is better than 95% (HPLC / UV / 262 nm) at time of quality control and packing. The product is not sterile and has not been tested for endotoxins.

Solubility: 2-Cl-ATP has sufficient solubility in water. When opening the tube please make sure that no liquid is lost within the cap. A short spin-down in a bench centrifuge is recommended before use.

Stability and Storage: 2-Cl-ATP is relatively stable when stored frozen in aqueous solution (- 20°C necessary, - 80°C recommended). In order to maintain its original high quality, it is recommended to allow thawing only before using the product. If you will not use up the vial with one application, please aliquot the content of the vial in order to avoid repeated freeze/thaw cycles for the rest. When making such aliquots be sure to operate quickly and to freeze the vial again as soon as possible.

Toxicity and Safety: Since nucleoside triphosphates have multiple tasks in every organism, it is very likely that ATP 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 Reference for 2-Cl-ATP:

Ruiz-Stewart, I.; Kazerounian, S.; Pitari, G.M.; Schulz, S.; Waldman, S.A., *Eur. J. Biochem.*, **269**, 2186 - 2193 (2002): “Soluble Guanylate Cyclase is Allosterically Inhibited by Direct Interaction with 2-substituted Adenine Nucleotides”

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