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Technical Information about 8-Chloro-ATP

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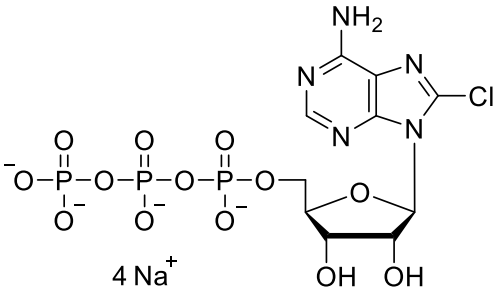

Abbreviation: **8-Cl-ATP**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{10}H_{15}ClN_5O_{13}P_3$ for free acid	[185341-71-3]	541.6 for free acid	λ_{max} 262 nm / ε 17000 / pH 7	C 018

Name: 8- Chloroadenosine- 5'- O- triphosphate

Description: 8-Cl-ATP is an analogue of ATP in which the hydrogen in position 8 of the nucleobase is replaced by chlorine.

Specification: Aqueous solution of the sodium salt (10 mM). Other salt forms of 8-Cl-ATP are available upon request. Micromolar quantities are determined by UV at λ_{max}. 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.

Purity: Typical purity is better than 95% (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.

Stability and Storage: 8-Cl-ATP is most stable when stored as aqueous solution in the freezer (-20° Celsius necessary, -80° recommended), however, at ambient temperature the compound slowly starts to decompose. Thus, 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 contents 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 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 References for 8-Cl-ATP:

Dennison, J.B.; Ayres, M.L.; Kaluarachchi, K.; Plunkett, W.; Gandhi, V., *J. Biol. Chem*., **285**, 8022 - 8030 (2010): "Intracellular Succinylation of 8-Chloroadenosine and its Effect on Fumarate Levels"

Gandhi, V.; Chen, W.; Ayres, M.; Rhie, J. K.; Madden, T. L.; Newman, R. A., *Cancer Chemother. Pharmacol*., **50**, 85 - 94 (2003): "Plasma and Cellular Pharmacology of 8-Chloro-Adenosine in Mice and Rats"

Gandhi, V.; Ayres, M.; Halgren, R. G.; Krett, N. L.; Newman, R. A.; Rosen, S. T., *Cancer Res*., **61**, 5474 - 5479 (2001): "8-Chloro-cAMP and 8-Chloro-Adenosine Act by the Same Mechanism in Multiple Myeloma Cells"

Tagliaferri, P.; Katsaros, D.; Clair, T.; Ally, S.; Tortora, G.; Neckers, L.; Rubalcava, B.; Parandoosh, Z.; Chang, Y.A.; Revankar, G.R.; Crabtree, G.W.; Robins, R.K.; Cho-Chung, Y.-S., *Cancer Res*., **48**, 1642 - 1650 (1988): "Synergistic Inhibition of Growth of Breast and Colon Human Cancer Cell Lines by Site-selective Cyclic AMP Analogs"

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