

PRODUCT INFORMATION

8-Chloroadenosine-5'-triphosphate (sodium salt)

Item No. 38448

CAS Registry No.: 793671-47-3

Formal Name: 8-chloro-adenosine
5'-(tetrahydrogen triphosphate),
tetrasodium salt

Synonym: 8-chloro ADP

MF: $C_{10}H_{11}ClN_5O_{13}P_3 \cdot 4Na$

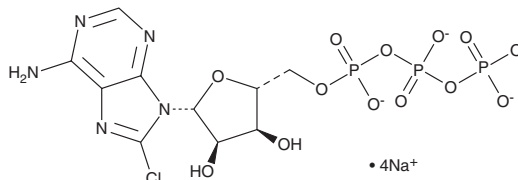
FW: 629.6

Purity: $\geq 95\%$

Supplied as: A solution in water

Storage: $-80^{\circ}C$

Stability: ≥ 2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

8-Chloroadenosine-5'-triphosphate (8-chloro ATP) is an active metabolite of the anticancer agent 8-chloro cAMP and a derivative of the nucleotide adenosine 5'-triphosphate (ATP; Item No. 14498).¹ It is formed from 8-chloro cAMP via 8-chloroadenosine (Item No. 35766) and mono- and diphosphate intermediates. 8-chloro ATP accumulates for up to 12 hours following application of 8-chloro cAMP or 8-chloroadenosine and is associated with inhibition of cell growth, decreases in endogenous ATP levels, and a reduction in RNA, but not DNA, synthesis in patient-derived multiple myeloma cells. It inhibits topoisomerase II- α -dependent relaxation of supercoiled pUC19 DNA when used at concentrations of 1.5 to 8 mM, as well as reduces topoisomerase II- α -catalyzed ATP hydrolysis by 50% at 1 mM, in K562 human myelocytic leukemia cells.²

References

1. Gandhi, V., Ayres, M., Halgren, R.G., *et al.* 8-chloro-cAMP and 8-chloro-adenosine act by the same mechanism in multiple myeloma cells. *Cancer Res.* **61**(14), 5474-5479 (2001).
2. Yang, S.-Y., Jia, X.-Z., Feng, L.-Y., *et al.* Inhibition of topoisomerase II by 8-chloro-adenosine triphosphate induces DNA double-stranded breaks in 8-chloro-adenosine-exposed human myelocytic leukemia K562 cells. *Biochem. Pharmacol.* **77**(3), 433-443 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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