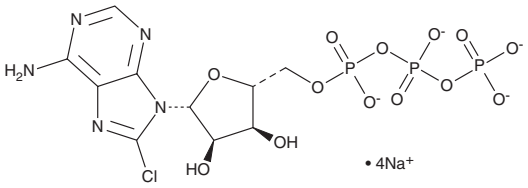
PRODUCT INFORMATION

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: $C_{10}H_{11}ClN_5O_{13}P_3 \bullet 4Na$
FW: 629.6
Purity: ≥95%
Supplied as: A solution in water
Storage: -80°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).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM