# PRODUCT INFORMATION

## 2-Chloroadenosine 5-triphosphate (sodium salt)

*Item No. 34978*

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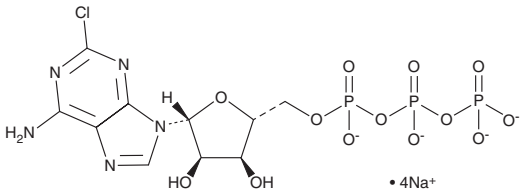
| **CAS Registry No.:** | 301334-89-4 |
| **Formal Name:** | 2-chloro-adenosine 5′-(tetrahydrogen triphosphate), tetrasodium salt |
| **Synonyms:** | 2-chloro ATP |
| **MF:** | $C_{10}H_{11}ClN_5O_{13}P_3$ • 4Na |
| **FW:** | 629.6 |
| **Purity:** | ≥95% |
| **Supplied as:** | A solution in water |
| **Storage:** | -80°C |
| **Stability:** | ≥2 years |




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

### Description

2-Chloroadenosine 5-triphosphate (2-chloro ATP) is an adenine nucleotide and analog of ATP (Item No. 14498).[1,2] It is an antagonist of the purinergic $P2Y_1$ receptor, inhibiting intracellular calcium mobilization induced by ADP (Item No. 21121) in Jurkat cells expressing the human receptor ($K_i$ = 2.3 µM).[3] 2-chloro ATP is an agonist of purinergic P2X receptors, inducing inward currents in HEK293 cells expressing the human bladder smooth muscle or rat PC12 forms of the receptor ($EC_{50}$s = 0.5 and 2.5 µM, respectively).[4] It induces relaxation of precontracted isolated guinea pig taenia caeci strips in a concentration-dependent manner.[1] It has been used to study the substrate specificity of cyclic nucleotide-dependent protein kinases, such as protein kinase A (PKA) and PKG.[2]

### References


1. Satchell, G. and Maguire, M.H. Inhibitory effects of adenine nucleotide analogs on the isolated guinea-pig taenia coli. *J. Pharmacol. Exp. Ther.* **195(3)**, 540-548 (1975).
2. Flockhart, D.A., Freist, W., Hoppe, J.O., *et al.* ATP analog specificity of CAMP-dependent protein kinase, cGMP-dependent protein kinase, and phosphorylase kinase *Eur. J. Biochem.* **140(2)**, 289-295 (1984).
3. Hechler, B., Vigne, P., Léon, C., *et al.* ATP derivatives are antagonists of the P2Y1 receptor: Similarities to the platelet ADP receptor. *Mol. Pharmacol.* **53(4)**, 727-733 (1997).
4. Evans, R.J., Lewis, C., Buell, G., *et al.* Pharmacological characterization of heterologously expressed ATP-gated cation channels (P2x purinoceptors). *Mol. Pharmacol.* **48(2)**, 178-183 (1995).



**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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