

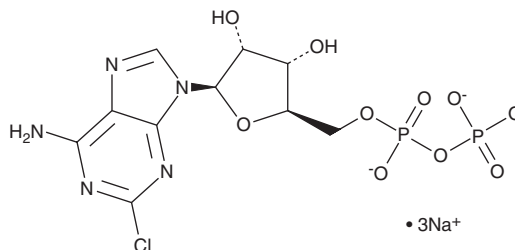
# PRODUCT INFORMATION



## 2-Chloroadenosine-5'-O-diphosphate (sodium salt)

Item No. 38447

**CAS Registry No.:** 82927-78-4  
**Formal Name:** 2-chloro-adenosine  
5'-(trihydrogen diphosphate),  
trisodium salt  
**Synonym:** 2-chloro ADP  
**MF:** C<sub>10</sub>H<sub>11</sub>ClN<sub>5</sub>O<sub>10</sub>P<sub>2</sub> • 3Na  
**FW:** 527.6  
**Purity:** ≥95%  
**Supplied as:** A solution in water  
**Storage:** -80°C  
**Stability:** ≥4 years



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

### Description

2-Chloroadenosine-5'-O-diphosphate is a derivative of the purine nucleotide adenosine 5'diphosphate (ADP; Item Nos. 16778 | 21121). It induces aggregation of, and inhibits the production of cyclic AMP (cAMP; Item No. 18820) induced by prostaglandin E<sub>2</sub> (PGE<sub>2</sub>; Item No. 14010) in, isolated human platelet-rich plasma in a concentration-dependent manner.<sup>1</sup> 2-Chloroadenosine-5'-O-diphosphate induces relaxation of precontracted isolated guinea pig taenia coli strips (pD<sub>2</sub> = 6.74).<sup>2</sup> It decreases arterial blood pressure in rats.<sup>3</sup> 2-Chloroadenosine-5'-O-diphosphate also inhibits the ATPase activity of the heat shock protein 70 (Hsp70) family member mortalin (apparent K<sub>i</sub> = 45.05 μM for the human enzyme).<sup>4</sup>

### References

1. Cusack, N.J. and Hourani, S.M. Competitive inhibition by adenosine 5'-triphosphate of the actions on human platelets of 2-chloroadenosine 5'-diphosphate, 2-azidoadenosine 5'-diphosphate and 2-methylthioadenosine 5'-diphosphate. *Br. J. Pharmacol.* **77(2)**, 329-333 (1982).
2. 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).
3. Gough, G., Maguire, M.H., and Michal, F. 2-chloroadenosine 5'-phosphate and 2-chloroadenosine 5'-diphosphate, pharmacologically active nucleotide analogs. *J. Med. Chem.* **12(3)**, 494-498 (1969).
4. Moseng, M.A., Nix, J.C., and Page, R.C. 2- and N6-functionalized adenosine-5'-diphosphate analogs for the inhibition of mortalin. *FEBS Lett.* **593(15)**, 2030-2039 (2019).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 04/14/2026

#### 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