

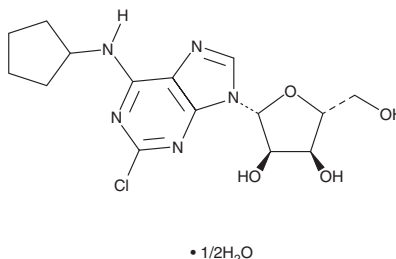
PRODUCT INFORMATION



2-chloro-N⁶-Cyclopentyladenosine (hydrate)

Item No. 28731

CAS Registry No.: 1217443-91-8
Formal Name: 2-chloro-N-cyclopentyl-adenosine, hemihydrate
Synonym: CCPA
MF: C₁₅H₂₀ClN₅O₄ • 0.5H₂O
FW: 378.8
Purity: ≥98%
UV/Vis.: λ_{max}: 217, 275 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

2-chloro-N⁶-Cyclopentyladenosine (hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the 2-chloro-N⁶-cyclopentyladenosine (hydrate) in the solvent of choice, which should be purged with an inert gas. 2-chloro-N⁶-Cyclopentyladenosine (hydrate) is soluble in the organic solvent DMSO. 2-chloro-N⁶-Cyclopentyladenosine (hydrate) is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

2-chloro-N⁶-Cyclopentyladenosine is an adenosine receptor agonist.¹ It binds selectively to adenosine A₁ receptors over A_{2A} and A₃ receptors with K_i values of 0.83, 2,300 and 42 nM, respectively, for the human recombinant receptors expressed in CHO cells. 2-chloro-N⁶-Cyclopentyladenosine decreases heart rate in isolated rat atria (EC₅₀ = 8.2 nM) but does not affect vasodilation in bovine coronary arteries.² It inhibits convulsions induced by isoniazid (Item No. 20378) and pentylenetetrazole (Item No. 18682) in mice when administered at a dose of 8.3 μmol/kg.³

References

1. Cristalli, G., Camaioni, E., Costanzi, S., *et al.* Characterization of potent ligands at human recombinant adenosine receptors. *Drug Develop. Res.* **45**(3-4), 176-181 (1998).
2. Monopoli, A., Conti, A., Dionisotti, S., *et al.* Pharmacology of the highly selective A₁ adenosine receptor agonist 2-chloro-N⁶-cyclopentyladenosine. *Arzneimittelforschung* **44**(12), 1305-1312 (1994).
3. Concas, A., Santoro, G., Mascia, M.P., *et al.* Anticonvulsant doses of 2-chloro-N⁶-cyclopentyladenosine, an adenosine A₁ receptor agonist, reduce GABAergic transmission in different areas of the mouse brain. *J. Pharmacol. Exp. Ther.* **267**(2), 844-851 (1993).

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, 03/07/2023

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