

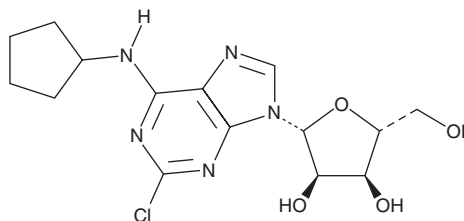
PRODUCT INFORMATION



2-chloro-N⁶-Cyclopentyladenosine

Item No. 36477

CAS Registry No.: 37739-05-2
Formal Name: 2-chloro-N-cyclopentyl-adenosine
Synonym: CCPA
MF: C₁₅H₂₀ClN₅O₄
FW: 369.8
Purity: ≥98%
UV/Vis.: λ_{max}: 216, 275 nm
Supplied as: A 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 is supplied as a solid. A stock solution may be made by dissolving the 2-chloro-N⁶-cyclopentyladenosine in the solvent of choice, which should be purged with an inert gas. 2-chloro-N⁶-Cyclopentyladenosine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 2-chloro-N⁶-cyclopentyladenosine in DMF is approximately 5 mg/ml and approximately 1 mg/ml in ethanol and DMSO.

Description

2-chloro-N⁶-Cyclopentyladenosine is an adenosine A₁ receptor antagonist.¹ It selectively binds to adenosine A₁ over adenosine A₂ receptors (K_is = 0.4 and 3,900 nM, respectively) and inhibits forskolin-induced adenylyl cyclase activity in rat fat cell membranes, which endogenously express adenosine A₁ receptors (IC₅₀ = 33 nM). 2-chloro-N⁶-Cyclopentyladenosine (0.25 and 0.5 mg/kg) increases the electroconvulsive threshold in a mouse model of seizures induced by maximal electroshock (MES).² It reduces infarct size in a rabbit model of coronary artery occlusion-induced myocardial infarction when administered at a dose of 0.125 mg/kg.³

References

1. Lohse, M.J., Klotz, K.N., Schwabe, U., *et al.* 2-Chloro-N⁶-cyclopentyladenosine: A highly selective agonist at A₁ adenosine receptors. *Naunyn Schmiedeberg's Arch Pharmacol.* **337**(6), 687-689 (1988).
2. Łuszczki, J.J., Kozicka, M., Świader, M.J., *et al.* 2-Chloro-N⁶-cyclopentyladenosine enhances the anticonvulsant action of carbamazepine in the mouse maximal electroshock-induced seizure model. *Pharmacol. Rep.* **57**(6), 787-794 (2005).
3. Tsuchida, A., Liu, G.S., Wilborn, W.H., *et al.* Pretreatment with the adenosine A₁ selective agonist, 2-chloro-N⁶-cyclopentyladenosine (CCPA), causes a sustained limitation of infarct size in rabbits. *Cardiovasc Res.* **27**(4), 652-656 (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.

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