

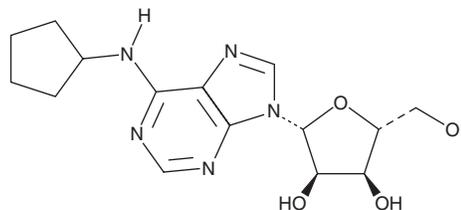
# PRODUCT INFORMATION



## N<sup>6</sup>-Cyclopentyladenosine

Item No. 21448

**CAS Registry No.:** 41552-82-3  
**Formal Name:** N-cyclopentyl-adenosine  
**Synonyms:** CPA, UK 80882  
**MF:** C<sub>15</sub>H<sub>21</sub>N<sub>5</sub>O<sub>4</sub>  
**FW:** 335.4  
**Purity:** ≥98%  
**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

N<sup>6</sup>-Cyclopentyladenosine is supplied as a solid. A stock solution may be made by dissolving the N<sup>6</sup>-cyclopentyladenosine in the solvent of choice. N<sup>6</sup>-Cyclopentyladenosine is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. The solubility of N<sup>6</sup>-cyclopentyladenosine in DMSO is approximately 100 mM and approximately 25 mM in ethanol (warmed).

### Description

N<sup>6</sup>-Cyclopentyladenosine is a selective agonist at adenosine 1 receptors (A<sub>1</sub>Rs) (K<sub>s</sub> = 2.3, 790, and 43 nM for A<sub>1</sub>R, A<sub>2</sub>R, and A<sub>3</sub>R receptors, respectively, in transfected CHO cells).<sup>1,2</sup> When microinjected into the rat brainstem, it increases blood pressure and heart rate.<sup>3</sup> It is effective for pain in normal and nerve-injured rats and shows anticonvulsant activity in a rat model of generalized seizures.<sup>4,5</sup>

### References

1. Klotz, K.-N. Adenosine receptors and their ligands. *Naunyn-Schmiedeberg's Arch. Pharmacol.* **362(4)**, 382-391 (2000).
2. Klotz, K.-N., Hessling, J., Hegler, J., *et al.* Comparative pharmacology of human adenosine receptor subtypes - characterization of stably transfected receptors in CHO cells. *Naunyn-Schmiedeberg's Arch. Pharmacol.* **357(1)**, 1-9 (1998).
3. Barraco, R.A., el-Ridi, M.R., Ergene, E., *et al.* Adenosine receptor subtypes in the brainstem mediate distinct cardiovascular response patterns. *Brain Res. Bull.* **26(1)**, 59-84 (1991).
4. Gong, Q.-J., Li, Y.-Y., Xin, W.-J., *et al.* Differential effects of adenosine A<sub>1</sub> receptor on pain-related behavior in normal and nerve-injured rats. *Brain Res.* **1361**, 23-30 (2010).
5. Jaishree, J., Kumaresan, S., Sudha, S., *et al.* Individual and combined effects of N<sup>6</sup>-cyclopentyladenosine, flunarizine and diazepam on aminophylline-induced recurrent generalized seizures in mice. *Pol. J. Pharmacol.* **55(4)**, 559-564 (2003).

#### 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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