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## DATASHEET

DPCPX

### Product overview

<b>Name</b>	DPCPX
<b>Cat No</b>	HB2094
<b>Biological action</b>	Antagonist
<b>Purity</b>	>98%
<b>Description</b>	Potent, selective A <sub>1</sub> receptor inverse agonist

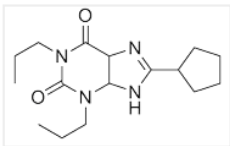
### Biological Data

<b>Biological description</b>	DPCPX is a potent and selective A <sub>1</sub> adenosine receptor inverse agonist (K <sub>i</sub> values are 0.45 and 300 nM for A <sub>1</sub> and A <sub>2A</sub> receptors, respectively). Active and blocks induction of long term depression (LTD).
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### Solubility & Handling

<b>Storage instructions</b>	Room temperature
<b>Solubility overview</b>	Soluble in DMSO (5 mM) and in ethanol (10 mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	8-Cyclopentyl-1,3-dipropylxanthine
<b>Molecular Weight</b>	304.39
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>16</sub> H <sub>24</sub> N <sub>4</sub> O <sub>2</sub>
<b>CAS Number</b>	102146-07-6
<b>PubChem identifier</b>	1329
<b>SMILES</b>	CCCN1C2=C(C(=O)N(C1=O)CCC)NC(=N2)C3CCCC3
<b>Source</b>	Synthetic
<b>InChi</b>	InChI=1S/C16H24N4O2/c1-3-9-19-14-12(15(21)20(10-4-2)16(19)22)17-13(18-14)11-7-5-6-8-11/h11 H,3-10H2,1-2H3,(H,17,18)
<b>InChiKey</b>	FFBDFADSZUINTG-UHFFFAOYSA-N
<b>MDL number</b>	MFC00055117
<b>Appearance</b>	White solid

### References

**Effects of 1,3-dipropyl-8-cyclopentylxanthine (DPCPX), a highly selective adenosine receptor antagonist, on force of contraction in guinea-pig atrial and ventricular cardiac preparations.**

von der Leyen et al (1989) Naunyn Schmiedebergs Arch Pharmacol. 340(2)

PubMedID

2554151

**8-Cyclopentyl-1,3-dipropylxanthine (DPCPX)--a selective high affinity antagonist radioligand for A1 adenosine receptors.**

Lohse et al (1987) Naunyn Schmiedebergs Arch Pharmacol. 336(2)

PubMedID

2825043

**Caffeine, adenosine receptors, and synaptic plasticity.**

Costenla et al (2010) J Alzheimers Dis 1

PubMedID

20182030

**Activation of receptors negatively coupled to adenylate cyclase is required for induction of long-term synaptic depression at Schaffer collateral-CA1 synapses.**

Santschi et al (2006) J Neurobiol 66(3)

PubMedID

16329119

**ZM241385, DPCPX, MRS1706 are inverse agonists with different relative intrinsic efficacies on constitutively active mutants of the human adenosine A2B receptor.**

Li et al (2007) J Pharmacol Exp Ther. 320(2)

PubMedID

17077318

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