Certificate of Analysis

Product Name: N^6-Cyclohexyladenosine
Catalog No.: 6863 **Batch No.:** 2
CAS Number: 36396-99-3
IUPAC Name: *N*-Cyclohexyladenosine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{23}N_5O_4.¼H_2O$

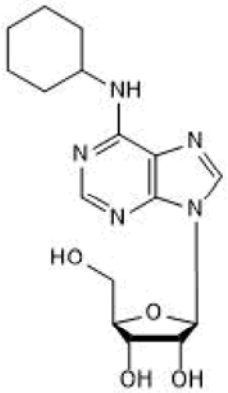
Batch Molecular Weight: 353.88

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.3	6.69	19.79
Found	54.43	6.57	19.77

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Product Information

Product Name: ***N*^{6}-Cyclohexyladenosine**

Catalog No.: 6863 **Batch No.: 2**

CAS Number: 36396-99-3

IUPAC Name: *N*-Cyclohexyladenosine

Description:

N^6-Cyclohexyladenosine is a high affinity adenosine A_1 receptor agonist (K_d values are 0.7 and 6 nM for bovine and guinea pig brain membranes, respectively). Reduces light-induced circadian phase delays. Exhibits protective effect in lysolecithin-induced demyelination model. When administered prior to ischemia, improves functional recovery of heart in a mouse model of ischemia-reperfusion injury. Induces hypothermia following icv administration in mice.

Physical and Chemical Properties:

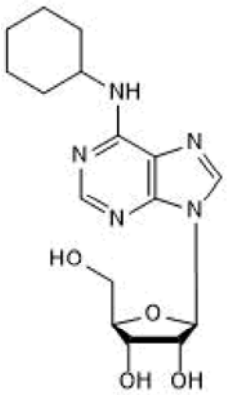
Batch Molecular Formula: $C_{16}H_{23}N_5O_4.¼H_2O$

Batch Molecular Weight: 353.88

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Futatsuki *et al* (2018) Involvement of orexin neurons in fasting- and central adenosine-induced hypothermia. Sci.Rep. ***8*** 2717. PMID: 29426934.

Shao *et al* (2017) Adenosine A_1 receptor activation increases myocardial protein *S*-nitrosothiols and elicits protection from ischemia-reperfusion injury in male and female hearts. PLoS One ***12*** e0177315. PMID: 28493997.

Asghari *et al* (2013) Adenosine A_1 receptor agonist, *N*^{6}-cyclohexyladenosine, protects myelin and induces remyelination in an experimental model of rat optic chiasm demyelination; electrophysiological and histopathological studies. J.Neurol.Sci. ***325*** 22. PMID: 23260322.