

## Certificate of Analysis

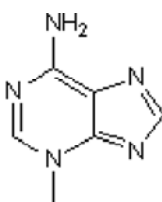
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**Product Name:** 3-Methyladenine  
**CAS Number:** 5142-23-4  
**IUPAC Name:** 3-Methyl-3*H*-purin-6-amine

**Catalog No.:** 3977      **Batch No.:** 7  
**EC Number:** 225-908-6

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>6</sub>H<sub>7</sub>N<sub>5</sub>·H<sub>2</sub>O  
**Batch Molecular Weight:** 167.17  
**Physical Appearance:** Off White solid  
**Solubility:** DMSO to 20 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	43.11	5.43	41.89
Found	42.79	5.46	42.04

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Catalog No.:** 3977

**Batch No.:** 7

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IUPAC Name: 3-Methyl-3*H*-purin-6-amine

**Description:**

Inhibitor of class III phosphatidylinositol 3-kinase (PI 3-kinase); also inhibits the autophagic sequestration of cell proteins in rat hepatocytes. Blocks apoptosis in cerebellar granule cells (CGCs) following serum and potassium deprivation.

**Physical and Chemical Properties:**

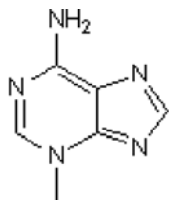
Batch Molecular Formula: C<sub>6</sub>H<sub>7</sub>N<sub>5</sub>.H<sub>2</sub>O

Batch Molecular Weight: 167.17

Physical Appearance: Off White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Canu *et al*** (2005) Role of the autophagic-lysosomal system on low potassium-induced apoptosis in cultured cerebellar granule cells. *J.Neurochem.* **92** 1228. PMID: 15715672.

**Blommaert *et al*** (1997) The phosphatidylinositol 3-kinase inhibitors wortmannin and LY294002 inhibit autophagy in isolated rat hepatocytes. *Eur.J.Biochem.* **243** 240. PMID: 9030745.

**Seglen and Gordon** (1982) 3-methyladenine: specific inhibitor of autophagic/lysosomal protein degradation in isolated rat hepatocytes. *Proc.Natl.Acad.Sci. USA* **79** 1889.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO 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.

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