

Certificate of Analysis

Product Name: 8-Chloroadenosine

Catalog No.: 4436

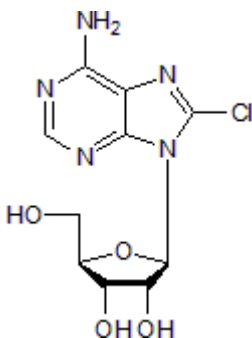
Batch No.: 2

CAS Number: 34408-14-5

IUPAC Name: 6-Amino-8-chloropurine riboside

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₁₂ClN₅O₄·H₂O
Batch Molecular Weight: 319.71
Physical Appearance: White solid
Solubility: water to 20 mM with gentle warming
DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	37.57	4.41	21.91
Found	37.74	4.23	21.76

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

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Description:

Nucleoside analog; metabolized in vivo to 8-Chloro-ATP. Incorporates into RNA during transcription and inhibits RNA synthesis. Exhibits cytotoxicity in MM.1S, RPMI-8226 and U266 cancer cell lines; induces G₂/M cell cycle arrest and mitotic catastrophe in A549 and H1299 cells.

Physical and Chemical Properties:

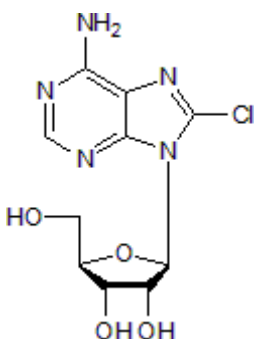
Batch Molecular Formula: C₁₀H₁₂ClN₅O₄·H₂O

Batch Molecular Weight: 319.71

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 20 mM with gentle warming
DMSO to 100 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:

Zhang et al (2004) Exposure of human lung cancer cells to 8-chloro-adenosine induces G₂/M arrest and mitotic catastrophe. *Neoplasia* **6** 802. PMID: 15720807.

Gu et al (2006) 8-Chloro-adenosine inhibits growth at least partly by interfering with actin polymerization in cultured human lung cancer cells *Biochem.Pharmacol.* **72** 541. PMID: 16844099.

Cervantes-Gomez et al (2011) ATP analog enhances the actions of a heat shock protein 90 inhibitor in multiple myeloma cells. *J.Pharmacol.Exp.Ther.* **339** 545. PMID: 21821695.

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