

Certificate of Analysis

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Product Name: 1-Deazaadenosine

Catalog No.: 4488

Batch No.: 1

CAS Number: 14432-09-8

IUPAC Name: 3-β-D-Ribofuranosyl-3*H*-imidazo[4,5-*b*]pyridin-7-amine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₄N₄O₄·¼H₂O

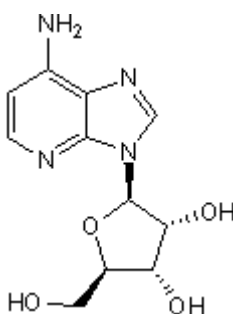
Batch Molecular Weight: 270.75

Physical Appearance: White solid

Solubility: DMSO to 25 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.33 (Ethyl acetate:Methanol [19:1])

HPLC: Shows 98.9% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	48.8	5.4	20.69
Found	48.76	5.3	20.54

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

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Description:

Inhibitor of adenosine deaminase ($K_i = 0.66 \mu\text{M}$). Demonstrates antitumor activity in a range of leukemia cell lines.

Physical and Chemical Properties:

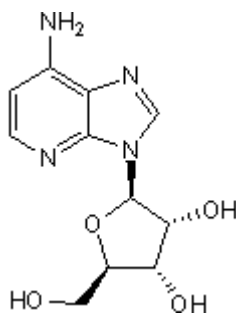
Batch Molecular Formula: $\text{C}_{11}\text{H}_{14}\text{N}_4\text{O}_4 \cdot \frac{1}{4}\text{H}_2\text{O}$

Batch Molecular Weight: 270.75

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Cristalli et al (1987) Improved synthesis and antitumor activity of 1-deazaadenosine. *J.Med.Chem.* **30** 1686. PMID: 3625714.

Cristalli et al (1993) Adenosine deaminase inhibitors: Structure-activity relationships in 1-deazaadenosine and erythro-9-(2-hydroxy-3-nonyl)adenine analogues. *Drug Dev.Res.* **28** 253.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 25 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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