

Certificate of Analysis

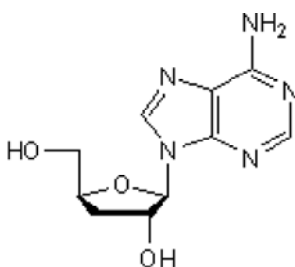
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Product Name: Cordycepin
CAS Number: 73-03-0
IUPAC Name: 3'-Deoxyadenosine

Catalog No.: 2294 **Batch No.:** 4
EC Number: 200-791-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₁₃N₅O₃
Batch Molecular Weight: 251.24
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 47.81 | 5.22 | 27.88 |
| Found | 47.64 | 5.02 | 27.79 |

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

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4

CAS Number: 73-03-0

EC Number: 200-791-4

IUPAC Name: 3'-Deoxyadenosine

Description:

Cordycepin is a nucleoside analog that acts as an anticancer and antifungal agent. Can be converted to 3'-deoxyadenosine triphosphate (3'-dATP), which inhibits ATP-dependent DNA synthesis. Inhibits growth of various tumor cells in vitro.

Physical and Chemical Properties:

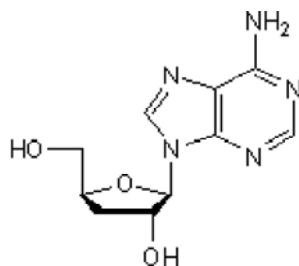
Batch Molecular Formula: C₁₀H₁₃N₅O₃

Batch Molecular Weight: 251.24

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

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:

Kodama *et al* (2000) Antileukemic activity and mechanism of action of cordycepin against terminal deoxynucleotidyl transferase-positive (TdT⁺) leukemic cells. *Biochem.Pharmacol.* **59** 273. PMID: 10609556.

Sugar and McCaffrey (1998) Antifungal activity of 3'-deoxyadenosine (cordycepin). *Antimicrob.Agents Chemother.* **42** 1424. PMID: 9624488.

Gumport and Edelhei *et al* (1976) The synthesis of 3'-dATP and its use as an inhibitor of ATP-dependent DNA synthesis in toluene-treated *Escherichia coli*. *Biochemistry* **15** 2804. PMID: 779831.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956