

Product Name: Stavudine

Catalog No.: 4990

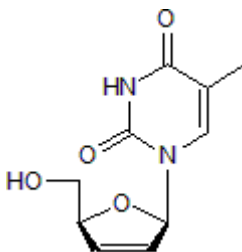
Batch No.: 1

CAS Number: 3056-17-5

IUPAC Name: 1-[(2*R*,5*S*)-2,5-Dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl-2,4(1*H*,3*H*)-pyrimidinedione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₁₂N₂O₄
Batch Molecular Weight: 224.21
Physical Appearance: White solid
Solubility: water to 100 mM
DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -44.2 (Concentration = 0.7, Solvent = Water)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.57	5.39	12.49
Found	53.52	5.45	12.67

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Description:

Nucleoside analog; antiviral that inhibits HIV replication *in vitro*.
Orally bioavailable.

Physical and Chemical Properties:

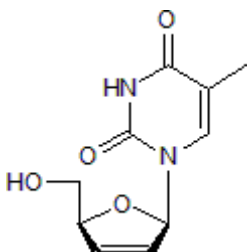
Batch Molecular Formula: C₁₀H₁₂N₂O₄

Batch Molecular Weight: 224.21

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM

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:

Baba et al (1987) Both 2',3'-dideoxythymidine and its 2',3'-unsaturated derivative (2',3'-dideoxythymidinene) are potent and selective inhibitors of human immunodeficiency virus replication *in vitro*. *Biochem.Biophys.Res.Commun.* **142** 128. PMID: 3028398.

Riddler et al (1995) Antiretroviral activity of stavudine (2',3'-didehydro-3'-deoxythymidine, D4T). *Antiviral Res.* **27** 189. PMID: 8540743.

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