

Certificate of Analysis

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Product Name: Pentostatin

Catalog No.: 2033

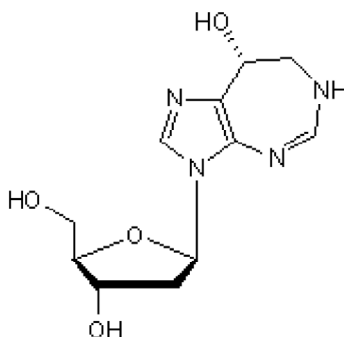
Batch No.: 3

CAS Number: 53910-25-1

IUPAC Name: (8*R*)-3-(2-Deoxy-β-D-*erythro*-pentofuranosyl)-3,4,7,8-tetrahydroimidazo[4,5-*d*][1,3]diazepin-8-ol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₆N₄O₄
Batch Molecular Weight: 268.27
Physical Appearance: White solid
Solubility: water to 100 mM
DMSO to 75 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +70.8 (Concentration = 1, Solvent = Water)
Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	49.25	6.01	20.88
Found	49.16	6.05	21.07

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

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Description:

Pentostatin is an irreversible inhibitor of adenosine deaminase ($K_i = 2.5 \text{ pM}$). Anticancer agent.

Physical and Chemical Properties:

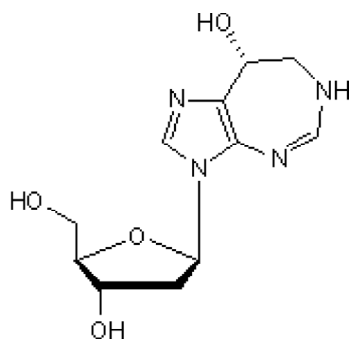
Batch Molecular Formula: $C_{11}H_{16}N_4O_4$

Batch Molecular Weight: 268.27

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

water to 100 mM

DMSO to 75 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Nabhan *et al* (2004) Purine nucleoside analogues and combination therapies in B-cell chronic lymphocytic leukemia: dawn of a new era. *Leukemia Res.* **28** 429.

Klohs and Kraker (1992) Pentostatin: future directions. *Pharmacol.Rev.* **44** 459. PMID: 1480666.

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