Product Name: Cytarabine
Catalog No.: 4520
Batch No.: 2
CAS Number: 147-94-4
EC Number: 205-705-9
IUPAC Name: 4-Amino-1-β-D-arabinofuranosyl-2(1H)-pyrimidinone

1. PHYSICAL AND CHEMICAL PROPERTIES

   Batch Molecular Formula: C₉H₁₃N₃O₅
   Batch Molecular Weight: 243.22
   Physical Appearance: White solid
   Solubility:
   - water to 100 mM
   - DMSO to 50 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 = +159.8 (Concentration = 0.5, Solvent = Water)
   Microanalysis:

   Theoretical: Carbon 44.45, Hydrogen 5.39, Nitrogen 17.28
   Found: Carbon 44.48, Hydrogen 5.36, Nitrogen 17.31

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
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Description:
Cytarabine is a nucleoside analog of deoxycytidine; inhibits DNA replication by incorporating into DNA (IC₅₀ = 0.04 μM in L1210 and CEM cell lines). Displays no inhibitory effects on RNA synthesis. Causes S phase cell cycle arrest in ML-1 cell lines; cytotoxic in L5817Y leukemia cells. Antineoplastic and antileukemic agent.

Physical and Chemical Properties:
Batch Molecular Formula: C₇H₇N₃O₅
Batch Molecular Weight: 243.22
Physical Appearance: White solid
Minimum Purity: ≥98%

Storage: Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:
waters to 100 mM
DMSO to 50 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: