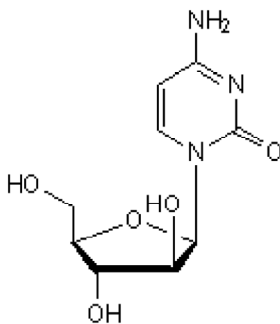


Product Name: Cytarabine
CAS Number: 147-94-4
IUPAC Name: 4-Amino-1-β-D-arabinofuranosyl-2(1*H*)-pyrimidinone

Catalog No.: 4520 **Batch No.:** 6
EC Number: 205-705-9

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 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +155.8 (Concentration = 0.5, Solvent = Water)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	44.45	5.39	17.28
Found	44.36	5.42	17.13

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

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IUPAC Name: 4-Amino-1-β-D-arabinofuranosyl-2(1H)-pyrimidinone

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:

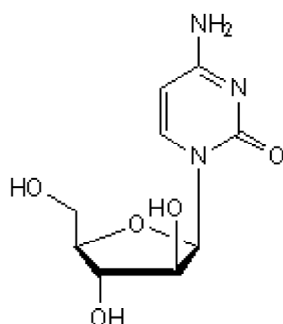
Batch Molecular Formula: C₉H₁₃N₃O₅.

Batch Molecular Weight: 243.22

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Sampath et al (2006) Pharmacodynamics of cytar. alone and in combination with 7-hydroxystaurosporine (UCN-01) in AML blasts in vitro and during a clinical trial. *Blood*. **107** 2517. PMID: 16293603.

Breistøl et al (1999) Antitumor activity of P-4055 (elaidic acid-cytarabine) compared to cytar. in metastatic and s.c. human tumor xenograft models. *Cancer Res*. **59** 2944. PMID: 10383159.

Yang et al (1986) Effect of cytar. upon metabolism of phospholipids in leukemia L5178Y cells. *Acta Pharmacol. Sin*. **7** 368. PMID: 2954403.

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:

water 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.

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