

Product Name: Decitabine

Catalog No.: 2624

Batch No.: 3

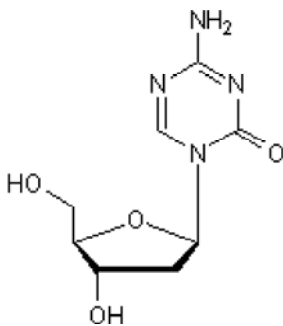
CAS Number: 2353-33-5

EC Number: 219-089-4

IUPAC Name: 4-Amino-1-(2-deoxy-β-D-erythro-pentofuranosyl)-1,3,5-triazin-2(1H)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₁₂N₄O₄
Batch Molecular Weight: 228.21
Physical Appearance: White solid
Solubility: water to 50 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

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 42.1 | 5.3 | 24.55 |
| Found | 41.98 | 5.32 | 24.41 |

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

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Description:

Decitabine is a cytosine analog that once incorporated into DNA acts as a suicide substrate for DNA methyltransferase. Inhibits DNA methyltransferase and results in DNA hypomethylation and activation of silent genes. Chemotherapeutic agent; suppresses growth of human tumor cell lines. Demethylates differentiation-related genes; reverses embryonic stem cell differentiation. For more information about how Decitabine may be used, see our protocol: Highly Efficient Generation of CiPSCs from MEFs Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

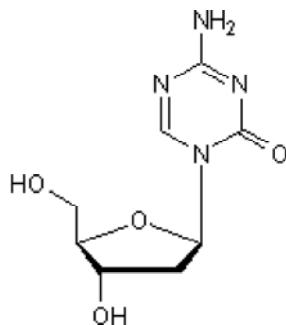
Batch Molecular Formula: C₈H₁₂N₄O₄

Batch Molecular Weight: 228.21

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



References:

Momparler (2005) Pharmacology of 5-aza-2'-deoxycytidine (decitabine). *Semin.Hematol.* **42** (Suppl 2) S9. PMID: 16015507.

Bender et al (1998) Inhibition of DNA methylation by 5-aza-2'-deoxycytidine suppresses the growth of human tumour cell lines. *Cancer Res.* **58** 95. PMID: 9426064.

Jackson-Grusby et al (1997) Mutagenicity of 5-aza-2'-deoxycytidine is mediated by the mammalian DNA methyltransferase. *Proc.Natl.Acad.Sci.USA* **94** 4681.

Storage: Store at +4°C

Solubility & Usage Info:

water to 50 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. 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.

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