

**Product Name:** Decitabine

**Catalog No.:** 2624

**Batch No.:** 3

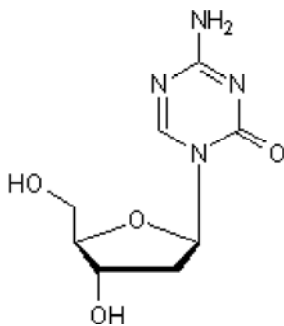
CAS Number: 2353-33-5

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:** C<sub>8</sub>H<sub>12</sub>N<sub>4</sub>O<sub>4</sub>  
**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  
**<sup>1</sup>H 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:**

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.

**Physical and Chemical Properties:**

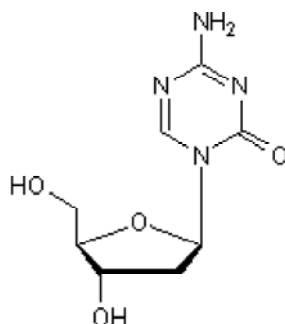
Batch Molecular Formula: C<sub>8</sub>H<sub>12</sub>N<sub>4</sub>O<sub>4</sub>

Batch Molecular Weight: 228.21

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**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.

**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.

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