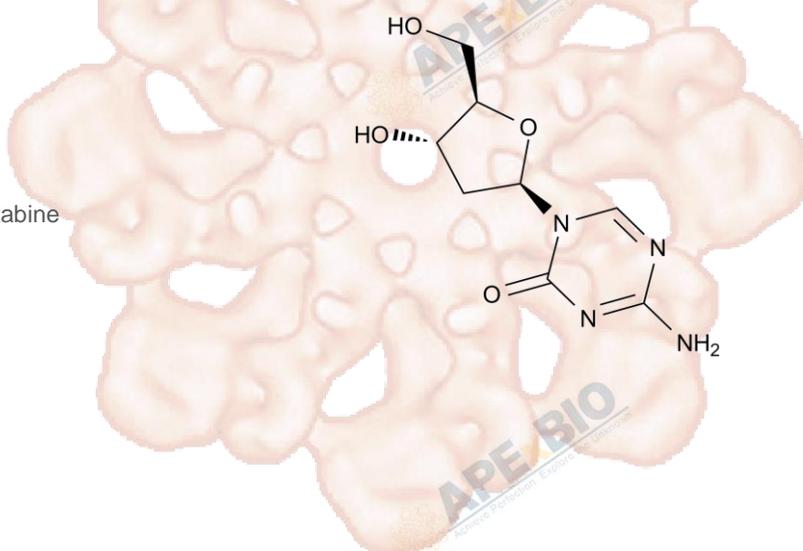


## Product Data Sheet

### Decitabine (NSC127716, 5AZA-CdR)

<b>Cat. No.:</b>	A1906
<b>CAS No.:</b>	2353-33-5
<b>Formula:</b>	C <sub>8</sub> H <sub>12</sub> N <sub>4</sub> O <sub>4</sub>
<b>M.Wt:</b>	228.08
<b>Synonyms:</b>	5-Aza-2'-deoxycytidine; Decitabine
<b>Target:</b>	Chromatin/Epigenetics
<b>Pathway:</b>	DNA Methyltransferase
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in EtOH;  $\geq 11.4$  mg/mL in DMSO;  $\geq 23.3$  mg/mL in H<sub>2</sub>O with gentle warming

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		4.3844 mL	21.9221 mL	43.8443 mL
	5 mM		0.8769 mL	4.3844 mL	8.7689 mL
	10 mM		0.4384 mL	2.1922 mL	4.3844 mL

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

Shortsummary

Deoxycytidine analog and cellular differentiation inducer

IC<sub>50</sub> & Target

In Vitro

#### Cell Viability Assay

Cell Line:	Human and murine melanoma cells (A375 and B16).
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	Decitabine 0.5 $\mu$ M added on Days 1 and 4 and images are obtained on Day 8.

	Applications:	Decitabine decreases melanoma cell line proliferation and induces morphologic changes of differentiation.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Mice bearing U2OS xenografts.
	Dosage form:	2.5 mg/kg intraperitoneally on Days 29, 31 and 33. On Day 37, mice are sacrificed.
	Applications:	Decitabine significantly reduces tumor xenograft size and lowers mitotic activity, increases the amount of apoptotic cells and bone matrix production. Decitabine also increases the expression of GADD45A, HSPA9B, PAWR, PDCD5, NFKBIA, and TNFAIP3 to $\geq 2$ -fold, which are pro-apoptotic genes [2].
	Preparation method:	Dissolved in saline (0.9% w/v NaCl).
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Alcazar O, Achberger S, Aldrich W, et al. Epigenetic regulation by decitabine of melanoma differentiation in vitro and in vivo. *Int J Cancer*, 2012, 131(1): 18-29.
- [2]. Al-Romaih K, Somers GR, Bayani J, et al. Modulation by decitabine of gene expression and growth of osteosarcoma U2OS cells in vitro and in xenografts: identification of apoptotic genes as targets for demethylation. *Cancer Cell Int*, 2007, 7: 14.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

*Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.*

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**APEX BIO Technology**

[www.apexbt.com](http://www.apexbt.com)

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: [info@apexbt.com](mailto:info@apexbt.com)

