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# DATASHEET

## 5-aza-2'-deoxycytidine (Decitabine)

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### Product overview

<b>Name</b>	5-aza-2'-deoxycytidine (Decitabine)
<b>Cat No</b>	HB1356
<b>Alternative names</b>	5-Aza-CdR, 5-Aza-dC, 5-Deoxy-2'-azacytidine; Decitabine; ZdCyd; DAC
<b>Biological action</b>	Inhibitor
<b>Purity</b>	>99%
<b>Description</b>	DNA methyltransferase inhibitor

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### Biological Data

<b>Biological description</b>	DNA methyltransferase inhibitor. Prevents DNA methylation after incorporation into DNA. Enhances histone deacetylase (HDAC) inhibitor-induced apoptosis. Shows actions against atherosclerosis and cancer.
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### Solubility & Handling

<b>Storage instructions</b>	+4 °C
<b>Solubility overview</b>	Soluble in water (50mM) or DMSO (50mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

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### Chemical Data

<b>Chemical name</b>	4-Amino-1-(2-deoxy-β-D-erythro-pento furanosyl)-1,3,5-triazin-2(1H)-one
<b>Molecular Weight</b>	228.21
<b>Molecular Formula</b>	C <sub>8</sub> H <sub>12</sub> N <sub>4</sub> O <sub>4</sub>
<b>CAS Number</b>	2353-33-5
<b>PubChem identifier</b>	451668
<b>SMILES</b>	O[C@@H]1[C@@H](CO)O[C@@H](N2C=NC(N)=NC2=O)C1
<b>InChiKey</b>	XAUDJQYHKZQPEU-KVQBGUIXSA-N

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### References

#### 5-Azacytidine and 5-aza-2'-deoxycytidine as inhibitors of DNA methylation: mechanistic studies and their implications for cancer therapy.

Christman JK (2002) Oncogene 21(35)

**PubMedID** [12154409](#)

#### Inhibiting DNA Methylation by 5-Aza-2'-deoxycytidine ameliorates atherosclerosis through suppressing macrophage inflammation.

Cao Q *et al* (2014) Endocrinology 155(12)

**PubMedID** [25251587](#)

**DNA methyltransferase inhibition enhances apoptosis induced by histone deacetylase inhibitors.**

Zhu WG *et al* (2001) *Cancer Res* 61(4)

**PubMedID** [11245429](#)

**Resistance to tumor necrosis factor-related apoptosis-inducing ligand (TRAIL)-induced apoptosis in neuroblastoma cells correlates with a loss of caspase-8 expression.**

Eggert A *et al* (2001) *Cancer Res* 61(4)

**PubMedID** [11245427](#)

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