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DATASHEET

5-aza-2'-deoxycytidine (Decitabine)

Product overview

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

Biological Data

Biological description	DNA methyltransferase inhibitor. Prevents DNA methylation after incorporation into DNA. Enhances histone deacetylase (HDAC) inhibitor-induced apoptosis. Shows actions against atherosclerosis and cancer.

Solubility & Handling

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

Chemical Data

Chemical name	4-Amino-1-(2-deoxy-β-D-*erythro*-pento furanosyl)-1,3,5-triazin-2(1*H*)-one
Molecular Weight	228.21
Molecular Formula	$C_8H_{12}N_4O_4$
CAS Number	2353-33-5
PubChem identifier	451668
SMILES	O[C@@H]1[C@@H](CO)O[C@@H](N2C=NC(N)=NC2=O)C1
InChiKey	XAUDJQYHKZQPEU-KVQBGUIXSA-N

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

Cao Q *et al* (2014) Endocrinology 155(12)
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DNA methyltransferase inhibition enhances apoptosis induced by histone deacetylase inhibitors.

Zhu WG *et al* (2001) Cancer Res 61(4)
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Resistance to tumor necrosis factor-related apoptosis-inducing ligand (TRAIL)-induced apoptosis in neuroblastoma cells correlates with a loss of caspase-8 expression.

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