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DATASHEET

5-Azacytidine

Product overview

Name	5-Azacytidine
Cat No	HB1374
Alternative names	5-AzadCyD; NSC 102816; azaCyd; 5-AZC
Biological action	Inhibitor
Purity	>98%
Description	DNA methyltransferase inhibitor. Improves stem cell reprogramming efficiency and induces differentiation of MSCs into cardiomyocytes.

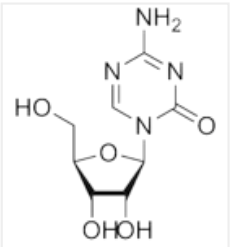
Biological Data

Biological description	DNA methyltransferase inhibitor. Causes hypomethylation. Inhibits Wnt-β-catenin signaling pathway and improves stem cell reprogramming efficiency and induces differentiation of Mesenchymal Stem cells (MSCs) into cardiomyocytes. Shows anti-viral, anti-proliferative and anti-cancer actions.

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in water (50mM) or DMSO (100mM)
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-β-D-ribofuranosyl-1,3,5-tr iazin-2(1*H*)-one
Molecular Weight	244.2
Chemical structure	
Molecular Formula	$C_8H_{12}N_4O_5$
CAS Number	320-67-2
PubChem identifier	9444
SMILES	O[C@@H]1[C@H](O)[C@@H](CO)O[C@H]1N2C(N=C(N)N=C2)=O
InChiKey	NMUSYJAQQFHJEW-KVTDHHQDSA-N

References

5-Azacytidine suppresses the proliferation of pancreatic cancer cells by inhibiting the Wnt/β-catenin signaling pathway.

Zhang H *et al* (2014) Genet Mol Res 13(3)

PubMedID 25061731

5-azacytidine reduces methylation, promotes differentiation and induces tumor regression in a patient-derived IDH1 mutant glioma xenograft.

Borodovsky A *et al* (2013) Oncotarget 4(10)
PubMedID 24077805

5-Azacytidine can induce lethal mutagenesis in human immunodeficiency virus type 1.

Dapp MJ *et al* (2009) J Virol 83(22)
PubMedID 19726509