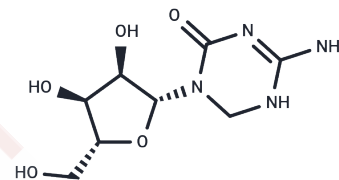


Dihydro-5-azacytidine

Chemical Properties

CAS No. :	62488-57-7
Formula:	C ₈ H ₁₄ N ₄ O ₅
Molecular Weight:	246.22
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Dihydro-5-azacytidine (DHAC) is an active nucleoside analog with anti-leukemic activity that inhibits cell growth and induces DNA hypomethylation. Dihydro-5-azacytidine is used in the study of leukemia and tumors.
Targets(IC50)	Nucleoside Antimetabolite/Analog, DNA Methyltransferase
In vitro	As a nucleoside analogue, Dihydro-5-azacytidine (DHAC) competes with cytidine triphosphate for incorporation into RNA, resulting in ribosomal degradation and defective protein synthesis [1].
In vivo	In tumor-bearing mice (injected with L1210/0 cells), receiving an LD 10 dose of Dihydro-5-azacytidine (DHAC; 1500 mg/kg) results in a peak plasma concentration of 317 μM, with biexponential elimination characterized by a half-life (t _{1/2}) of 1.03 hours (α phase) and 5 hours (β phase)[2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0614 mL	20.307 mL	40.6141 mL
5 mM	0.8123 mL	4.0614 mL	8.1228 mL
10 mM	0.4061 mL	2.0307 mL	4.0614 mL
50 mM	0.0812 mL	0.4061 mL	0.8123 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Robert A Kratzke, et al. Response to the methylation inhibitor dihydro-5-azacytidine in mesothelioma is not associated with methylation of p16INK4a: results of cancer and leukemia group B 159904. J Thorac Oncol. 2008 Apr;3(4):417-21.

W C Powell, et al. Biochemical pharmacology of 5,6-dihydro-5-azacytidine (DHAC) and DNA hypomethylation in tumor (L1210)-bearing mice. Cancer Chemother Pharmacol. 1988;21(2):117-21.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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