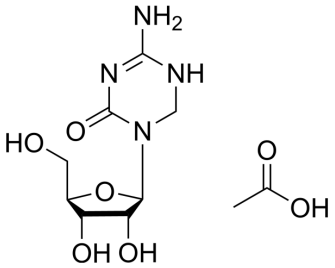
Dihydro-5-azacytidine acetate

Cat. No.:	HY-106689A
CAS No.:	2470972-18-8
Molecular Formula:	$C_{10}H_{18}N_4O_7$
Molecular Weight:	306.27
Target:	Nucleoside Antimetabolite/Analog; DNA Methyltransferase
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dihydro-5-azacytidine acetate (DHAC), the nucleoside analog, is incorporated into DNA and inhibits DNA methylation. Dihydro-5-azacytidine acetate has an antitumor activity[1][2].
In Vitro	Methylation studies show that an LD_{10} dose of [3H]DHAC results in a 25.06% hypomethylation of DNA in L1210/0 cells and a 46.32% hypomethylation in a deoxycytidine kinase mutant cell line L1210/dCK(-), compared with their respective controls[2]. Dihydro-5-azacytidine (DHAC) competes with cytidine triphosphate for incorporation into RNA, leading to ribosomal degradation and defective protein synthesis[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	In tumor-bearing mice (injected with L1210/0 cells), after an LD_{10} dose of Dihydro-5-azacytidine (DHAC; 1500 mg/kg), the plasma peak concentration achieved is 317 μM and is eliminated biexponentially, with a $t_{1/2}$ α of 1.03 h and a $t_{1/2}$ β of 5 h[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. 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.

[2]. 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.

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