

Azacitidine

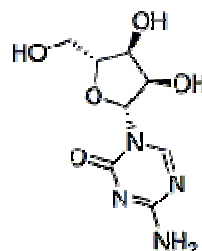
Catalog #: 27107

Lot #: 130605

Size: 50 mg

Structure:

CAS Registry #: 320-67-2



Purity: >99%

Chemical Formula: C₈H₁₂N₄O₅

Molecular Weight: 244.2

Description: Azacitidine is also known as 5-azacytidine, Mylosar, and Ladakamycin. Azacitidine and its deoxy derivative, decitabine (5-aza-2'-deoxycytidine), are used in the treatment of myelodysplastic syndrome. The azacytidine in the DNA forms a stable complex with DNA methyltransferase enzymes, preventing DNMT activity and resulting in hypomethylation of cellular DNA. Likewise, the incorporation of azacytidine into RNA leads to the disassembly of polyribosomes, defective methylation and inhibition of protein production with subsequent cytotoxicity.

Appearance: White to off-white solid

Solubility: Insoluble in acetone, ethanol, and methyl ethyl ketone. Slightly soluble in ethanol/water combination of fifty-fifty, and propylene glycol.

Biological Activity: When testing anti-tumor effects in prostate cancer the antiproliferative effect of azacitidine treatment in 22rv1 cells and PC3 cells, the IC₅₀'s were 0.5 μM and 2.5 μM respectively.

Storage/Stability: Store at or below -20 °C.

Quality Control: The purity was determined by HPLC analysis.

Reference: Vigushin DM et al. Clin Cancer Res. 2001 Apr;**7(4)**:971-6.