5-Aza-2’-deoxycytidine
DNA methyltransferase inhibitor
Catalog # met-adc-1
For research use only
Version # 16B02-MM

PRODUCT INFORMATION

Content:
10 mg of 5-Aza-2’-deoxycytidine

Storage and stability:
- 5-Aza-2’-deoxycytidine is shipped at room temperature. Store at -20°C. Solid 5-Aza-2’-deoxycytidine is stable for at least 1 year.
- Once 5-Aza-2’-deoxycytidine is solubilized prepare aliquots and store at -20°C. Solubilized 5-Aza-2’-deoxycytidine is stable up to 3 months at -20°C when properly stored.

Quality control
- Purity: ≥97% (HPLC)
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) is confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

DESCRIPTION
5-Aza-2’-deoxycytidine (also known as 5-AzadCyD, 5-Aza-CdR and decitabine) is a specific inhibitor of DNA methylation. It functions in a similar manner to aza-citidine, although 5-Aza-2’-deoxycytidine can only be incorporated into DNA strands while azacitidine can be incorporated into both DNA and RNA chains.

5-Aza-2’-deoxycytidine is a prodrug that requires activation via phosphorylation by deoxycytidine kinase. The nucleotide analog is incorporated into DNA, where it produces an irreversible inactivation of DNA methyltransferase. 5-Aza-2’-deoxycytidine was demonstrated to be a potent antineoplastic agent against leukemia and tumors in animal models.1,2


CHEMICAL PROPERTIES

CAS number: 2353-33-5
Formula: C₈H₁₂N₄O₄
Molecular weight: 228.2
Solubility: Soluble in acetic acid:water (1:1 v/v) at 50 mg/ml
Working concentration: 0.1-10 µM
Structure:

METHODS

Preparation of stock solution (50 mg/ml)
Prepare a solution of acetic acid:water (1:1 v/v), by adding 500 µl of 100% acetic acid (glacial) to 500 µl of sterile water. Mix by pipetting up and down.
- Add 200 µl of the acetic acid:water (1:1 v/v) to the vial containing 10 mg of 5-Aza-2’-deoxycytidine.
- Add 1 ml of the acetic acid:water (1:1 v/v), to the vial containing 50 mg of 5-Aza-2’-deoxycytidine.
- Mix by pipetting up and down. Once 5-Aza-2’-deoxycytidine is solubilized, the product can be used or prepare aliquots and store at -20°C.

RELATED PRODUCTS

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<td>Methyltransferase inhibitor</td>
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<td>Valproic Acid</td>
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