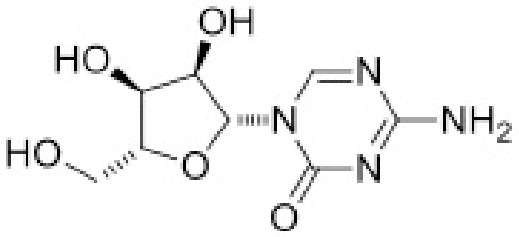
5-Azacytidine

Catalog No: 14102, 14103

Format: 250 mg, 50 mg



Chemical Properties:
MW = 244.2
$C_8H_{12}N_4O_5$
CAS 320-67-2
Physical Properties: White powder, MP = 226-232°C (dec.)
Names: 5-Azacytidine, 4-Amino-1-β-D-ribofuranosyl-1,3,5-triazin-2(1H)-oneLadakamycin; U-18496; NSC-102816; 5-AzaC

Pharmacology: Specific and potent inhibitor of DNA methyltransferase, DNMT1 (ref1). Acts as a suicide substrate for methyltransferases after incorporation into DNA (ref 1). Induces apoptosis in HCT-116 colon cancer cells which is mediated by p53 and its downstream effectors p21 (WAF1) and GADD45 (ref 2). Increases stem cell reprogramming efficiency (ref 3). Induces cardiac differentiation of human umbilical cord-derived MSCs (ref 4). Reverses drug resistance in bladder cancer cells (ref 5). Antileukemic agent (ref 6). Cell permeable.

Solubilization: May be dissolved in DMSO (25 mg/ml); Water (12 mg/ml)

Fluorescent Properties: N/A

Quality Control:
>98% (TLC); NMR (Conforms)

References:
1. C Stresemann and F Lyko *Int. J. Cancer* 2008, 123:8
2. R Schneider-Stock *et al. J. Pharmacol. Exp. Ther.* 2005, 312:525
3. TS Mikkelsen *et al. Nature* 2008 454:49
4. Q Qian *et al. Stem Cells Dev.* 2012, 21:67
5. K Ramachandran *et al. Anticancer Res.* 2011, 31:3757
6. J-PJ Issa *et al. Clin. Cancer Res.* 2009, 15:3939

For research use only.

Storage and Guarantee: Store desiccated as supplied at -20°C for up to 2 years. Store solutions at -20°C for up to 1 month. This product is guaranteed for 6 months from date of arrival.