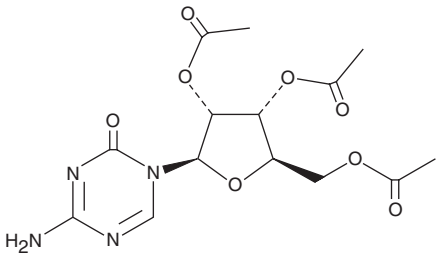
PRODUCT INFORMATION

2’,3’,5’-triacetyl-5-Azacytidine

Item No. 13373

CAS Registry No.:	10302-78-0
Formal Name:	4-amino-1-(2,3,5-tri-O-acetyl-β-D-ribofuranosyl)-1,3,5-triazin-2(1H)-one
MF:	$C_{14}H_{18}N_4O_8$
FW:	370.3
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

2’,3’,5’-triacetyl-5-Azacytidine is supplied as a crystalline solid. A stock solution may be made by dissolving the 2’,3’,5’-triacetyl-5-azacytidine in the solvent of choice, which should be purged with an inert gas. 2’,3’,5’-triacetyl-5-Azacytidine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 2’,3’,5’-triacetyl-5-azacytidine in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 2’,3’,5’-triacetyl-5-azacytidine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 2’,3’,5’-triacetyl-5-azacytidine in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

2’,3’,5’-triacetyl-5-Azacytidine is a prodrug form of the DNA methyltransferase inhibitor 5-azacytidine (Item No. 11164).[1] It decreases promoter methylation of *P15* in L1210 mouse leukemia cells when used at concentrations of 1 and 100 µM. 2’,3’,5’-triacetyl-5-Azacytidine (10 µM) reduces HIV-1 infection in, and increases the viability of, unstimulated primary human $CD4^+$ T cells.[2] It decreases gut and spleen global DNA methylation levels in mice when administered at a dose of 38 mg/kg per day for 5 consecutive days.[1]

References

1. Ziemba, A., Hayes, E., Freeman, B.B., III, *et al.* Development of an oral form of azacytidine: 2’3’5’triacetyl-5-azacytidine. *Chemother. Res. Pract.* **2011(1),** 965826 (2011).
2. Lucera, M.B., Fleissner, Z., Tabler, C.O., *et al.* HIV signaling through CD4 and CCR5 activates Rho family GTPases that are required for optimal infection of primary CD4+ T cells. *Retrovirology* **14(1),** 4 (2017).

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