Product Data Sheet

Product Name: 2',3',5'-triacetyl-5-Azacytidine
Cat. No.: GC12775

Chemical Properties

Cas. No.	10302-78-0		
Chemical Name	4-amino-1-(2,3,5-tri-O-acetyl-β-D-ribofuranosyl)-1,3,5-triazin-2(1H)-one		
SMILES	O=C1N([C@@H]2O[C@H](COC(C)=O)[C@@H](OC(C)=O)[C@H]2OC(C)=O)C=NC(N)=N1		
Formula	$C_{14}H_{18}N_4O_8$	M.Wt	370.3
Solubility	≤30mg/ml in ethanol;30mg/ml in DMSO;30mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	2',3',5'-triacetyl-5-Azacytidine		

Background

2',3',5'-triacetyl-5-Azacytidine (TAC) is the lead prodrug form of 5-azacytidine which may be rapidly absorbed after oral administration [1]. 5-Azacytidine is an inhibitor of DNA methyltransferase [2].

The DNA methyltransferase belongs to a family of enzymes involved in catalyzing the transfer of a methyl group to DNA. DNA methylation has been implicated in regulating gene expression in normal and malignant cells [2].

In vivo: In CD-1 mice, oral administration of TAC for five days per week for 2 weeks didn’t result in animal deaths and weight loss, but induced changes in hematological parameters, lymph nodes, bone marrow, and duodenal epithelium. TAC inhibited global DNA methylation in the spleen and gut. In an in vivo L1210 leukemia model, TAC exhibited antineoplastic activity [1].

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

References:
[1] Ziemba A, Ramirez M C, Freeman B, et al. Abstract# 3369: Development of oral demethylating agents for the treatment of myelodysplastic syndrome[J]. 2009.
[2] Brueckner B, Boy R G, Siedlecki P, et al. Epigenetic reactivation of tumor suppressor genes by a novel small-molecule inhibitor of human DNA methyltransferases[J]. Cancer research, 2005, 65(14): 6305-6311.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA