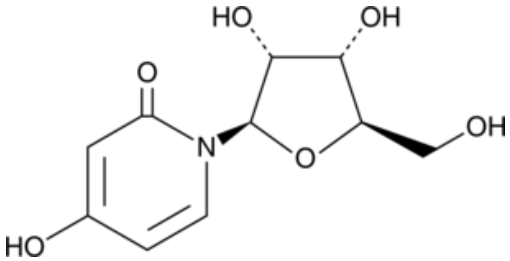
Product Data Sheet

Product Name: 3-Deazauridine
Cat. No.: GC42260

Chemical Properties

Cas. No.	23205-42-7		
Chemical Name	4-hydroxy-1-β-D-ribofuranosyl-2(1H)-pyridinone		
SMILES	O=C(C=C(O)C=C1)N1[C@H]2[C@H](O)[C@H](O)[C@@H](CO)O2		
Formula	C10H13NO6	M.Wt	243.2
Solubility	10mg/mL in DMSO, 16mg/mL in DMF	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C 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			

Background

3-Deazauridine is a nucleoside analog. [1] It is converted intracellularly to 3-deazauridine triphosphate, which competitively inhibits cytidine triphosphate synthetase thereby inhibiting biosynthesis of the nucleic acid cytidine 5'-triphosphate (CTP). 3-Deazauridine inhibits the growth of L1210 leukemia cells when used at a concentration of 6 µM and dose-dependently reduces mortality in a mouse model of leukemia.[2] It also enhances the incorporation of decitabine into DNA in HL-60 myeloid and MOLT-3 lymphoid leukemia cells when used at a concentration of 20 µM. 3-Deazauridine (100 or 150 mg/kg), when combined with decitabine, reduces mortality in an L1210 leukemia mouse model.[3]

Caution: Product has not been fully validated for medical applications. For research use only.
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Reference:
[1]. Moriconi, W.J., Slavik, M., and Taylor, S. 3-Deazauridine (NSC 126849): An interesting modulator of biochemical response. Invest New Drugs 4(1), 67-84 (1986).
[2]. Bloch, A., Dutschman, G., Currie, B.L., et al. Preparation and biological activity of various 3-deazapyrimidines and related nucleosides. J. Med. Chem. 16(3), 294-297 (1973).
[3]. Raynal, N.J.-M., Momparler, L.F., Rivard, G.E., et al. 3-Deazauridine enhances the antileukemic action of 5-aza-2'-deoxycytidine and targets drug-resistance due to deficiency in deoxycytidine kinase. Leuk. Res. 35(1), 110-118 (2011).

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