

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

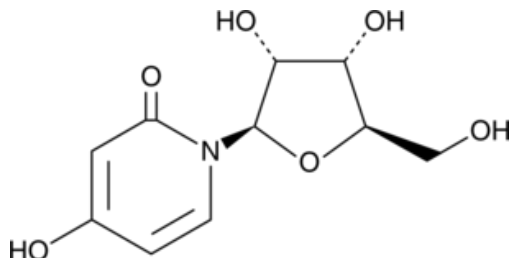
Formula C10H13NO6 M.Wt 243.2

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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