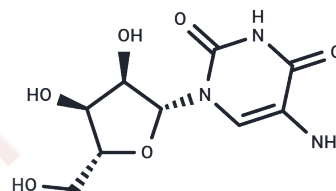


5-Aminouridine

Chemical Properties

CAS No. : 2149-76-0
 Formula: C₉H₁₃N₃O₆
 Molecular Weight: 259.22
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	5-Aminouridine (4-Chloro-2-isopropyl-5-methylphenol(chlorothymol)) modifies nucleobases and is incorporated into the target DNA. 5-Aminouridine inhibits the growth of tumors, viruses, and fungi.
Targets(IC50)	Nucleoside Antimetabolite/Analog,Antifungal,Influenza Virus
In vitro	5-Aminouridine inhibits the incorporation of carbamyl aspartate into pyrimidines of both RNA and DNA in rat liver and [32P]phosphate into phospholipids and RNA nucleotides of rat liver slices and hepatoma[1]. 5-Aminouridine must exhibit a low potential to be oxidized by Os(bpy) ₃ ³⁺ . The modified nucleobase is inserted into the target DNA by direct synthesis using modified phosphoramidites[4].
In vivo	5-Aminouridine inhibits the incorporation of carbamoylaspartate into pyrimidines in living rat RNA and DNA, and the incorporation of [32P]phosphate into phospholipids and RNA nucleotides in rat liver slices and liver cancers [1].

Solubility Information

Solubility	DMSO: 55 mg/mL (212.17 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8577 mL	19.2886 mL	38.5773 mL
5 mM	0.7715 mL	3.8577 mL	7.7155 mL
10 mM	0.3858 mL	1.9289 mL	3.8577 mL
50 mM	0.0772 mL	0.3858 mL	0.7715 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Smith DA, et al. Studies on 5-aminouridine. *Biochim Biophys Acta*. 1966 May 19;119(2):221-8.

SARAN, et al. Molecular Orbital Studies on Nucleoside Antibiotics VIII. Conformation of 5-Substituted Uridines. *Quantum Biology Symposium 13*, 121-131 (1986).

ROBERTS M, et al. Antimetabolite activity of uridine and cytidine derivatives. *J Biol Chem*. 1952 Feb;194(2):695-701.

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