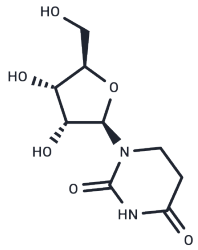
Data Sheet (Cat.No.T19146)

TargetMol

5,6-Dihydrouridine

Chemical Properties



CAS No. : 5627-05-4

Formula: C9H14N2O6

Molecular Weight: 246.22

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	5,6-Dihydrouridine, a modified base, is located in conserved positions within the D-loop of tRNA in Eukaryota, Bacteria, and some Archaea.
Targets(IC50)	Endogenous Metabolite
In vitro	5,6-Dihydrouridine (Dihydrouridine) is a posttranscriptionally modified nucleoside, resulting from the reduction of uridine (U) and can be further altered to 5-methyldihydrouridine (m5D). It is identified in six positions within the 'D-loop' of tRNA (16, 17, 20a, 20b) and in position 47 of the variable loop.

Solubility Information

Solubility	H2O: 90 mg/mL (365.53 mM),Sonication is recommended. DMSO: 32.1 mg/mL (130.37 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.12 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0614 mL	20.307 mL	40.6141 mL
5 mM	0.8123 mL	4.0614 mL	8.1228 mL
10 mM	0.4061 mL	2.0307 mL	4.0614 mL
50 mM	0.0812 mL	0.4061 mL	0.8123 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

Kasprzak JM, et al. Molecular evolution of dihydrouridine synthases. BMC Bioinformatics. 2012 Jun 28;13:153.
Cohen RM, et al Cytidine deaminase from Escherichia coli. Purification, properties and inhibition by the potential transition state analog 3,4,5,6-tetrahydrouridine. J Biol Chem. 1971;246(24):7561-7565.