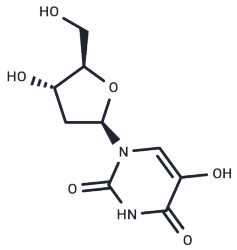
Data Sheet (Cat.No.T19152)

TargetMol

5-OHdU

Chemical Properties



CAS No. : 5168-36-5

Formula: C9H12N2O6

Molecular Weight: 244.2

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-OHdU (5-OHdU) is a major oxidation product of 2'-Deoxycytidine and can be incorporated into DNA in vitro.
Targets(IC50)	Nucleoside Antimetabolite/Analog,Endogenous Metabolite
In vitro	Translesion synthesis past 5-OHdU in 18- and 45-member oligodeoxyribonucleotides occurred, but pauses both opposite, and one nucleotide prior to, the modified base in the template is observed. The specificity of nucleotide incorporation opposite 5-OHdU in the template is sequence context-dependent. In one sequence context, dA is the principal nucleotide incorporated opposite 5-OHdU. However, in a second sequence context, dC is the predominant base incorporated opposite 5-OHdU. In that same sequence context, dC is also the predominant nucleotide incorporated opposite 5-OHdU [1].

Solubility Information

Solubility	DMSO: 30 mg/mL (122.85 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 (8.19 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	4.095 mL	20.475 mL	40.950 mL
5 mM	0.819 mL	4.095 mL	8.190 mL
10 mM	0.4095 mL	2.0475 mL	4.095 mL
50 mM	0.0819 mL	0.4095 mL	0.819 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

Purmal AA, et al. Major oxidative products of cytosine, 5-hydroxycytosine and 5-hydroxyuracil, exhibit sequence context-dependent mispairing in vitro. Nucleic Acids Res. 1994 Jan 11;22(1):72-8.