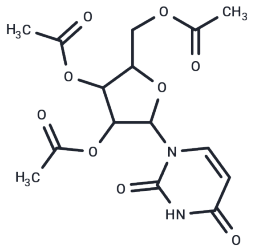
Data Sheet (Cat.No.T21327)

TargetMol

Uridine triacetate

Chemical Properties



CAS No. : 4105-38-8

Formula: C15H18N2O9

Molecular Weight: 370.31

Storage: Store at low temperature,Keep away from direct sunlight
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	Uridine triacetate (RG 2133 triacetate) (Tri-O-acetyl uridine), an orally active prodrug of uridine, is efficiently absorbed in the gut and swiftly deacetylated in the circulation to release free uridine. It is utilized in the research of 5-fluorouracil (5-FU) and capecitabine toxicity, particularly targeting early-onset cardiac or central nervous system (CNS) complications.
Targets(IC50)	Others
In vitro	Uridine triacetate inhibits [3H]uridine uptake in ENT1 and ENT2 overexpressed HeLa cells, with IC50s of 28.4 μM and 228.4 μM respectively[4].
In vivo	Uridine triacetate (2 g/kg, oral gavage, every 8 h for 15 total doses) improves survival and reduces toxicity in 5-FU overdose and DPD deficiency mice[3].

Solubility Information

Solubility	H2O: Insoluble, DMSO: 90 mg/mL (243.04 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: 3.3 mg/mL (8.91 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	2.7004 mL	13.5022 mL	27.0044 mL
5 mM	0.5401 mL	2.7004 mL	5.4009 mL
10 mM	0.270 mL	1.3502 mL	2.7004 mL
50 mM	0.054 mL	0.270 mL	0.5401 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

Ma WW, et al. Emergency use of uridine triacetate for the prevention and treatment of life-threatening 5-fluorouracil and capecitabine toxicity. Cancer. 2017 Jan 1;123(2):345-356.
Cada DJ, et al. Uridine Triacetate. Hosp Pharm. 2016 Jun;51(6):484-8.
Rolando A G Garcia, et al. Prompt treatment with uridine triacetate improves survival and reduces toxicity due to fluorouracil and capecitabine overdose or dihydropyrimidine dehydrogenase deficiency. Toxicol Appl Pharmacol. 2018 Aug 15;353:67-73.
Siennah R Miller, et al. Predicting Drug Interactions with Human Equilibrative Nucleoside Transporters 1 and 2 Using Functional Knockout Cell Lines and Bayesian Modeling. Mol Pharmacol. 2021 Feb;99(2):147-162.