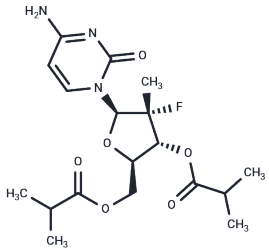
Data Sheet (Cat.No.T16710)

TargetMol

Mericitabine

Chemical Properties



CAS No. : 940908-79-2

Formula: C18H26FN3O6

Molecular Weight: 399.41

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	Mericitabine (R-7128) is a nucleoside HCV NS5B polymerase inhibitor. It acts as an RNA chain terminator and prevents the elongation of RNA transcripts during replication.
Targets(IC50)	HCV Protease
In vitro	PSI-6130 is converted through phosphorylation by cellular kinases to an active 5′-triphosphate metabolite, which inhibits the NS5B RNA polymerase of HCV. Mericitabine is an oral cytidine nucleoside analog prodrug that exhibits strong antiviral effectiveness against the HCV polymerase across all HCV genotypes. Mericitabine is a first-in-class nucleoside polymerase inhibitor (NPI), which requires intracellular uptake and phosphorylation to two active triphosphates. Mericitabine, a cytidine analogue, is an oral prodrug of PSI-6130. PSI-6130 has an EC90 value of 4.6±2 μM in the HCV replicon assay. Mericitabine displays high specificity for HCV, minimal cytotoxicity, and does not affect mitochondrial DNA. Mericitabine shows a relatively good safety profile and significant potency against HCV-1 [2][3].

Solubility Information

Solubility	DMSO: 100 mg/mL (250.37 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: 4 mg/mL (10.01 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	2.5037 mL	12.5185 mL	25.0369 mL
5 mM	0.5007 mL	2.5037 mL	5.0074 mL
10 mM	0.2504 mL	1.2518 mL	2.5037 mL
50 mM	0.0501 mL	0.2504 mL	0.5007 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

Le Pogam S, et al. Characterization of HCV quasispecies dynamics upon short term dual-therapy with the HCV NS5B nucleoside polymerase inhibitor mericitabine and the NS3/4 protease inhibitor danoprevir. Antimicrob Agents Chemother. 2012 Nov;56(11):5494-5

Soriano V, et al. Directly acting antivirals against hepatitis C virus. J Antimicrob Chemother. 2011 Aug;66(8):1673-86

Guedj J, et al. Hepatitis C viral kinetics with the nucleoside polymerase inhibitor mericitabine (RG7128). Hepatology. 2012 Apr;55(4):1030-7.