Data Sheet (Cat.No.T38238)

TargetMol

2'-Deoxy-2'-fluorocytidine

Chemical Properties

CAS No. : 10212-20-1

Formula: C9H12FN3O4

Molecular Weight: 245.208

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	2'-Deoxy-2'-fluorocytidine, a nucleoside analog, is a potent inhibitor of Crimean-Congo hemorrhagic fever virus (CCHFV) replication and can act synergistically with T705 to enhance the antiviral effects on CCHFV replication[1]. It exhibits antiviral activity with EC50 values of 61 nM and 31 nM against CCHFV and CCHFV/ZsG in Huh7 cells, respectively, and has a CC50 of >50.0 μM in Huh7 cells[1]. [1]. Stephen R Welch, et al. Identification of 2'-deoxy-2'-fluorocytidine as a potent inhibitor of Crimean-Congo hemorrhagic fever virus replication using a recombinant fluorescent reporter virus. Antiviral Res. 2017 Nov;147:91-99.
Targets(IC50)	Nucleoside Antimetabolite/Analog,Influenza Virus
In vitro	2'-Deoxy-2'-fluorocytidine exhibits antiviral activity with 50% effective concentrations (EC50) of 61 nM against CCHFV and 31 nM against CCHFV/ZsG in Huh7 cells and shows a 50% cytotoxicity concentration (CC50) of >50.0 μM in Huh7 cells[1].

Solubility Information

Solubility	DMSO: 50.00 mg/mL (203.91 mM),Sonication is recommended. H2O: 5.00 mg/mL (20.39 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0781 mL	20.3907 mL	40.7814 mL
5 mM	0.8156 mL	4.0781 mL	8.1563 mL
10 mM	0.4078 mL	2.0391 mL	4.0781 mL
50 mM	0.0816 mL	0.4078 mL	0.8156 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

Stephen R Welch, et al. Identification of 2'-deoxy-2'-fluorocytidine as a potent inhibitor of Crimean-Congo hemorrhagic fever virus replication using a recombinant fluorescent reporter virus. Antiviral Res. 2017 Nov;147:91-99.