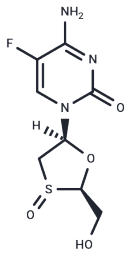
Data Sheet (Cat.No.T11189)

TargetMol

Emtricitabine S-oxide

Chemical Properties



CAS No. : 152128-77-3

Formula: C8H10FN3O4S

Molecular Weight: 263.25

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	Emtricitabine, a potent nucleoside reverse transcriptase inhibitor, is employed for managing HIV infection. Emtricitabine S-oxide, also known as Emtricitabine sulfoxide, represents a significant degradation byproduct of Emtricitabine.
Targets(IC50)	HIV Protease,Reverse Transcriptase
In vitro	Emtricitabine, an antiretroviral agent, undergoes degradation under various stress conditions–acidic, basic, and oxidative–resulting in over 51%, 13%, and 53% degradation respectively, and yielding three major degradation products (Degradant-I to Degradant-III). This process aligns with ICH guidelines to elucidate degradation pathways and identify degradation products of emtricitabine.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7987 mL	18.9934 mL	37.9867 mL
5 mM	0.7597 mL	3.7987 mL	7.5973 mL
10 mM	0.3799 mL	1.8993 mL	3.7987 mL
50 mM	0.076 mL	0.3799 mL	0.7597 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

A Prakash, et al. Forced degradation study of emtricitabine for evaluation of genotoxic impurity in active pharmaceutical ingredient's (API) shelf life. World Journal of Pharmacy and Pharmaceutical Sciences (2015), 4(7), 1909-1919.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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