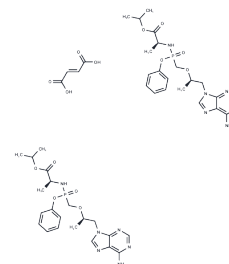


Tenofovir alafenamide hemifumarate

Chemical Properties

CAS No. : 1392275-56-7
 Formula: C₂₁H₂₉N₆O₅P·1/2C₄H₄O₄
 Molecular Weight: 534.51
 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	Tenofovir alafenamide hemifumarate (GS-7340 hemifumarate) is an oral phosphonoamidate prodrug of the HIV reverse transcriptase nucleotide inhibitor tenofovir (TFV).
Targets(IC50)	HIV Protease,Reverse Transcriptase
In vitro	Tenofovir alafenamide fumarate (TAF) is an oral phosphonoamidate prodrug of the HIV reverse transcriptase nucleotide inhibitor tenofovir (TFV).?Overexpression of CatA or liver carboxylesterase 1 (Ces1) in HEK293T cells increased intracellular TAF hydrolysis 2- and 5-fold, respectively.?Knockdown of CatA expression with RNA interference (RNAi) in HeLa cells reduced intracellular TAF metabolism 5-fold.?Additionally, the anti-HIV activity and the rate of CatA hydrolysis showed good correlation within a large set of TFV phosphonoamidate prodrugs[1].

Solubility Information

Solubility	DMSO: 50 mg/mL (93.54 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 (3.74 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8709 mL	9.3544 mL	18.7087 mL
5 mM	0.3742 mL	1.8709 mL	3.7417 mL
10 mM	0.1871 mL	0.9354 mL	1.8709 mL
50 mM	0.0374 mL	0.1871 mL	0.3742 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

Birkus G, Bam RA, Willkom M, et al. Intracellular Activation of Tenofovir Alafenamide and the Effect of Viral and Host Protease Inhibitors[J]. Antimicrob Agents Chemother. 2015 Oct 26;60(1):316-22.

Callebaut C, Stepan G, Tian Y, et al. In Vitro Virology Profile of Tenofovir Alafenamide, a Novel Oral Prodrug of Tenofovir with Improved Antiviral Activity Compared to Tenofovir Disoproxil Fumarate[J]. Antimicrobial Agents and Chemotherapy, 2015:AAC.01152-15.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only. Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481