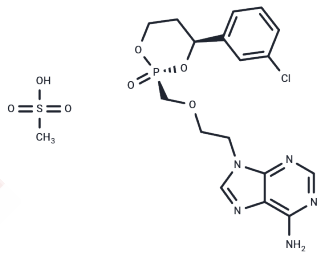
Data Sheet (Cat.No.T19526)

TargetMol

Pradefovir mesylate

Chemical Properties



CAS No. :	625095-61-6
Formula:	C18H23ClN5O7PS
Molecular Weight:	519.9
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	Pradefovir mesylate (Hepavir B) is converted to 9-(2-phosphonylmethoxyethyl)adenine (PMEA) in human liver microsomes with Km of 60 μM.
Targets(IC50)	Cytochromes P450
In vitro	Pradefovir was converted to PMEA in human liver microsomes with a K(m) of 60 microM, a maximum rate of metabolism of 228 pmol/min/mg protein, and an intrinsic clearance of about 359 ml/min.?Addition of ketoconazole and monoclonal antibody 3A4 significantly inhibits the conversion of pradefovir to PMEA in human liver microsomes, suggesting the predominant role of CYP3A4 in the metabolic activation of pradefovir.? Pradefovir at 0.2, 2, and 20 microM was neither a direct inhibitor nor a mechanism-based inhibitor of CYP3A4, CYP2D6, CYP2C9, CYP2C19, CYP2E1, and CYP1A2 in human liver microsomes.
In vivo	In rats, the liver was the site of metabolic activation of pradefovir, whereas the small intestine did not play a significant role in the metabolic conversion of pradefovir to PMEA.?Daily oral dosing (300 mg/kg) to rats for 8 days showed that pradefovir was not an inducer of P450 enzymes in rats[1].?

Solubility Information

Solubility	H2O: 120 mg/mL (230.81 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9234 mL	9.6172 mL	19.2345 mL
5 mM	0.3847 mL	1.9234 mL	3.8469 mL
10 mM	0.1923 mL	0.9617 mL	1.9234 mL
50 mM	0.0385 mL	0.1923 mL	0.3847 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

Lin CC, et al. Metabolic activation of Pradefovir by CYP3A4 and its potential as an inhibitor or inducer. Antimicrob Agents Chemother. 2006 Sep;50(9):2926-31.

Zhang Y, Shen L, Zhan Y, Xiao QQ, Yang J. Development and Validation of a Sensitive LC-MS-MS Method for the Determination of Adefovir in Human Serum and Urine: Application to a Clinical Pharmacokinetic Study. J Chromatogr Sci. 2016 Apr;54(4):507-15.