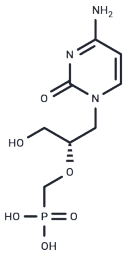
Data Sheet (Cat.No.T6244)

TargetMol

Cidofovir

Chemical Properties



CAS No. : 113852-37-2

Formula: C8H14N3O6P

Molecular Weight: 279.19

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Cidofovir ((S)-HPMPC) inhibits virus replication by specific inhibition of viral DNA synthesis.
Targets(IC50)	DNA/RNA Synthesis
In vitro	Cidofovir inhibits human cytomegalovirus (HCMV) infection in cultured cells. Cidofovir is inhibitory to CMV plaque formation even when added to the cells at 48 hr post infection with IC50 of 0.9 μg/mL for Davis and 1.6 μg/mL for AD-169 strains,respectively. [1] Cidofovir also inhibits herpes simplex virus infection. In addition, Cidofovir blocks cell fusion induced by HSV-1 in monkey kidney cells and blocks the expression of HSV-l-specific proteins and the synthesis of viral DNA. [3]
In vivo	Cidofovir (5 mg/kg/day) subcutaneously for 5 days significantly reduces average virus infectivity titer in blood, spleen, lung and salivary gland in infected guinea pigs. Cidofovir significantly reduces lymphocytosis and average tissue indexe of spleen in infected animals. [2]. Cidofovir suppresses all manifestations (skin lesions, paralysis of the hind legs, and mortality) of hairless mice infected intracutaneously with HSV-1 or HSV-2. The most remarkable feature of Cidofovir is that a single administration of the compound, even as late as 4 days after infection, conferees significant protection against HSV-1 or HSV-2 infection. [4] Cidofovir inhibits growth of the highly aggressive melanoma tumor arising from mouse melanoma B16 cells grafted subcutaneously in C57B16/J mice. [5]
Kinase Assay	EGFR kinase assays: In vitro inhibitory enzyme kinetic assays using recombinant EGFR L858R/T790M and WT protein and are performed using the ATP/NADH coupled assay system in a 96-well format. WZ4002 is added to determine its inhibitory effects.

Solubility Information

Solubility	H2O: 5 mg/mL (17.91 mM),Sonication is recommended. DMSO: < 1 mg/mL (insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5818 mL	17.909 mL	35.8179 mL
5 mM	0.7164 mL	3.5818 mL	7.1636 mL
10 mM	0.3582 mL	1.7909 mL	3.5818 mL
50 mM	0.0716 mL	0.3582 mL	0.7164 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.

Reference

Snoeck R, et al, Antimicrob Agents Chemother, 1988, 32(12), 1839-1844.
Li SB, et al. Antiviral Res, 1990, 13(5), 237-252.
Chatterjee S, et al. Antiviral Res., 1992, 19(3), 181-192.
De Clercq E, et al. Antimicrob Agents Chemother, 1991, 35(4), 701-706.
Redondo P, et al. Br J Dermatol, 2000, 143(4), 741-748.