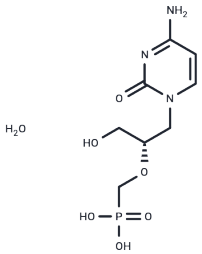
# Data Sheet (Cat.No.T8736)

TargetMol

## Cidofovir dihydrate

### Chemical Properties



CAS No. : 149394-66-1

Formula: C8H18N3O8P

Molecular Weight: 315.22

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

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|---|---|
| Description | Cidofovir dihydrate (HPMPC) is an anti-CMV drug, It can suppress CMV replication by selective inhibition of viral DNA polymerase and therefore prevention of viral replication and transcription. Cidofovir dihydrate is an injectable antiviral medication primarily used as a treatment for cytomegalovirus (CMV) retinitis- an infection of the retina of the eye in people with AIDS |
| Targets(IC50) | Apoptosis,Others,Endogenous Metabolite,DNA/RNA Synthesis,Virus Protease |
| 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

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|---|---|
| Solubility | H2O: 10 mM,Sonication is recommended.<br>DMSO: Insoluble,<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 3.1724 mL | 15.8619 mL | 31.7239 mL |
| 5 mM | 0.6345 mL | 3.1724 mL | 6.3448 mL |
| 10 mM | 0.3172 mL | 1.5862 mL | 3.1724 mL |
| 50 mM | 0.0634 mL | 0.3172 mL | 0.6345 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

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.