Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Cidofovir

Catalog No: tcsc1669

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
113852-37-2

Formula:
$C_8H_{14}N_3O_6P$

Pathway:
Anti-infection

Target:
CMV

Purity / Grade:
>98%

Solubility:
H2O : 6.4 mg/mL (22.92 mM; Need warming)

Alternative Names:
GS 0504;HPMPC;(S)-HPMPC

Observed Molecular Weight:
279.19

Product Description

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Cidofovir is an anti-CMV drug which can suppress CMV replication by selective inhibition of viral DNA polymerase and therefore prevention of viral replication and transcription.

IC50 Value:

Target: CMV DNA polymerase

in vitro: The minimum concentrations of (S)-HPMPC required to inhibit CMV plaque formation by 50% was microgram/ml. The selectivity indices of (S)-HPMPC, as determined by the ratio of the 50% inhibitory concentration for cell growth to the 50% inhibitory concentration for plaque formation for CMV (AD-169 strain), was 1,500 [1]. The time course of uptake of HPMPC into Vero cells was linear between 10 and 75 min and proportional to the concentration in the medium from 10(-6) to 10(-2) M. HPMPC uptake was temperature sensitive and the rate of uptake was considerably lower at 27 degrees than at 37 degrees and almost totally inhibited at 4 degrees [2].

in vivo: Levels of cidofovirin serum following intravenous infusion were dose proportional over the dose range of 1.0 to 10.0 mg/kg of body weight and declined biexponentially with an overall mean +/- standard deviation terminal half-life of 2.6 +/- 1.2 h (n = 25). Approximately 90% of the intravenous dose was recovered unchanged in the urine in 24 h. The overall mean +/- standard deviation total clearance of the drug from serum (148 +/- 25 ml/h/kg; n = 25) approximated renal clearance (129 +/- 42 ml/h/kg; n = 25), which was significantly higher (P
Toxicity: Patients receiving 0.5 or 1.5 mg/kg twice weekly experienced no serious toxicity. The first two patients who received 5 mg/kg twice weekly developed glycosuria and 2+ proteinuria. Subsequent patients received concomitant probenecid to attempt to ameliorate renal toxicity [4].

Clinical trial: FDA approved drug