

Valacyclovir

Catalog No: tcsc1356



Available Sizes

Size: 10mg

Size: 50mg



Specifications

CAS No:

124832-26-4

Formula:

$C_{13}H_{20}N_6O_4$

Pathway:

Anti-infection

Target:

HSV

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

Valaciclovir

Observed Molecular Weight:

324.34

Product Description

Valacyclovir is an antiviral drug used in the management of herpes simplex, herpes zoster, and herpes B.

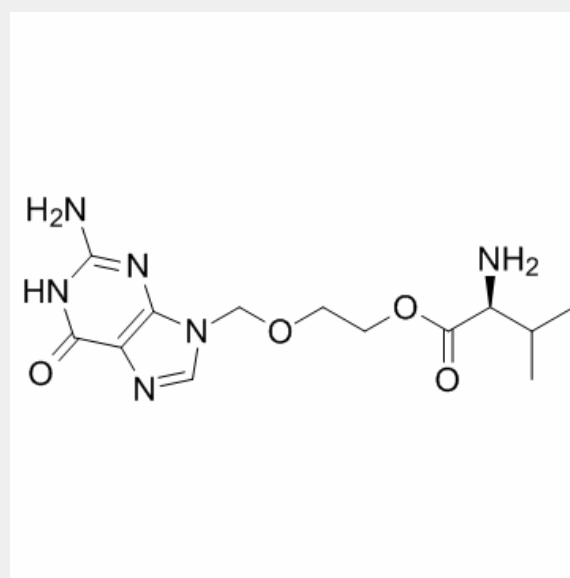
IC50 Value: 2.9 microg/ml (for HSV-1 W)[4].

Target: HSV infection

in vitro: VACV uptake was concentration dependent and saturable with a Michaelis-Menten constant and maximum velocity of 1.64 +/- 0.06 mM and 23.34 +/- 0.36 nmol/mg protein/5 min, respectively. A very similar Km value was obtained in hPEPT1/CHO cells and in rat and rabbit tissues and Caco-2 cells, suggesting that hPEPT1 dominates the intestinal transport properties of VACV in vitro [5].

in vivo: For treatment of a first episode of genital herpes, a large comparative trial has shown that valacyclovir (1 g twice a day) is as effective as acyclovir (200 mg five times a day) when given for 10 days. For treating recurrences, two trials show that valacyclovir is as effective as acyclovir (200 mg five times a day) with a treatment period of 5 days. A daily dose of 1 g of valacyclovir is as effective as 2 g daily. Valacyclovir can be administered once a day[1]. The concentrations of acyclovir in serum and CSF were measured at steady state after 6 days of oral treatment with 1,000 mg of valacyclovir three times a day [2]. EC50 values of PE and AC in 3T3 cells were 0.02 and 0.01 ug/ml, while values in BHK cells were 0.2 and 0.03 ug/ml. Treatment of infected immunosuppressed mice and FA and VA (b.i.d., 5.5 days) reduced the proportion with erythema from 100% to 24% and 38%, and eliminated ear paralysis, ear lesions (vesicles, etc) and death. Virus was absent from ear and brainstem by day 6, but reappeared after discontinuation in mice treated with VA [3].

Clinical trial: Evaluation of Valaciclovir in Patients with Chickenpox. Phage3



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