Product Data Sheet

Product Name: Valaciclovir HCl
Cat. No.: GC11698

Chemical Properties

Cas. No.	124832-27-5		
Chemical Name	2-[(2-amino-6-oxo-3H-purin-9-yl)methoxy]ethyl (2S)-2-amino-3-methylbutanoate;hydrochloride		
SMILES	CC(C)C(C(=O)OCCOCN1C=NC2=C1NC(=NC2=O)N)N.Cl		
Formula	$C_{13}H_{20}N_6O_4$.HCl	M.Wt	360.8
Solubility	≥ 15.7mg/mL in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Valaciclovir HCl		

Background

Valacyclovir hydrochloride is an antiviral drug used in the management of herpes simplex, herpes zoster, and herpes B. Target: HSVValacyclovir is an antiviral drug used in the management of herpes simplex, herpes zoster, and herpes B. 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 . 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. The concentrations of acyclovir in serum and CSF were measured at steady state after 6 days of oral treatment with 1,000 mg of

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

valacyclovir three times a day. 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.

References:

[1]. Valacyclovir. New indication: for genital herpes, simpler administration. Can Fam Physician. 1999 Jul;45:1698-700, 1703-5.
[2]. Lycke J, et al. Acyclovir levels in serum and cerebrospinal fluid after oral administration of valacyclovir. Antimicrob Agents Chemother. 2003 Aug;47(8):2438-41.
[3]. Comparison of efficacies of famciclovir and valaciclovir against herpes simplex virus type 1 in a murineimmunosuppression model. Antimicrob Agents Chemother. 1995 May;39(5):1114-9.
[4]. Dhaliwal DK, Romanowski EG, Yates KA, Valacyclovir inhibits recovery of ocular HSV-1 after experimental reactivation by excimer laser keratectomy. Cornea. 1999 Nov;18(6):693-9.
[5]. Guo A, Hu P, Balimane PV, Interactions of a nonpeptidic drug, valacyclovir, with the human intestinal peptide transporter (hPEPT1) expressed in a mammalian cell line.J Pharmacol Exp Ther. 1999 Apr;289(1):448-54.