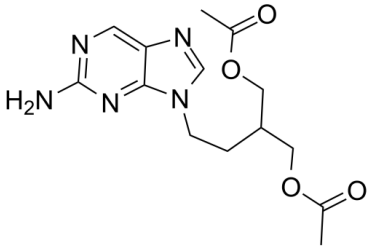
Data Sheet

Product Name:	Famciclovir
Cat. No.:	CS-1357
CAS No.:	104227-87-4
Molecular Formula:	C14H19N5O4
Molecular Weight:	321.33
Target:	HSV
Pathway:	Anti-infection
Solubility:	H2O : 50 mg/mL (155.60 mM; Need ultrasonic); DMSO : ≥ 100 mg/mL (311.21 mM)



BIOLOGICAL ACTIVITY:

Famciclovir(BRL 42810) is a guanine analogue antiviral drug used for the treatment of various herpesvirus infections. IC50 Value: Refer to penciclovir Target: HSV Famciclovir is the diacetyl 6-deoxy analog of the active antiviral compound penciclovir with potential use in the treatment of infections caused by the herpes family of viruses [1]. Famciclovir, a synthetic acyclic guanine derivative, is a prodrug which, after oral administration, is rapidly metabolised to the highly bioavailable antiviral compound penciclovir [2]. in vitro: Famciclovir induced rapid, dose-dependent suppression of viral replication and reduction in alanine aminotransferase (ALT), with greatest efficacy in the 500-mg tid treatment group. HBV DNA reduction was maintained throughout the treatment period. ALT also steadily declined during the treatment period [3]. in vivo: In rat, following dosing at 40 mg/kg, famciclovir was rapidly and extensively metabolized to the active antiviral compound penciclovir, which reached peak concentrations in the plasma (mean 3.5 micrograms/ml) at 0.5 h [4]. Necrotic hepatitis was significantly ($p < 0.01$) reduced by treatment with FCV, VACV and ACV at a dose of 50 mg/kg per day divided into 3 doses. No significant effect was achieved with BVDU at 200 mg/kg per day. Treatment with FCV at 50 mg/kg per day, ACV at 100 mg/kg per day, and VACV at 200 mg/kg per day significantly ($p < 0.001$) decreased mortality in mice [5]. Clinical trial: Famciclovir Pediatric Formulation In Children 1 to 12 Years Of Age With Herpes Simplex Infection. Phage3

References:

[1]. Harrell AW, Wheeler SM, Pennick M, Evidence that famciclovir (BRL 42810) and its associated metabolites do not inhibit the 6 beta-hydroxylation of testosterone in human liver microsomes. Drug Metab Dispos. 1993 Jan-Feb;21(1):18-23.

[2]. Perry CM, Wagstaff AJ. Famciclovir. A review of its pharmacological properties and therapeutic efficacy in herpesvirus infections. Drugs. 1995 Aug;50(2):396-415.

[3]. Trépo C, Jezek P, Atkinson G, Famciclovir in chronic hepatitis B: results of a dose-finding study. J Hepatol. 2000 Jun;32(6):1011-8.

[4]. Filer CW, Ramji JV, Allen GD, Metabolic and pharmacokinetic studies following oral administration of famciclovir to the rat and dog. Xenobiotica. 1995 May;25(5):477-90.

[5]. Wutzler P, Ulbricht A, F?rber I. Antiviral efficacies of famciclovir, valaciclovir, and brivudin in disseminated herpes simplex virus type 1 infection in mice. Intervirology. 1997;40(1):15-21.

CAIndexNames:

1,3-Propanediol, 2-[2-(2-amino-9H-purin-9-yl)ethyl]-, 1,3-diacetate

SMILES:

NC1=NC=C2N=CN(CCC(COC(C)=O)COC(C)=O)C2=N1

Caution: Product has not been fully validated for medical applications. For research use only.

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