Penciclovir sodium

Cat. No.: HY-107739

CAS No.: 97845-62-0

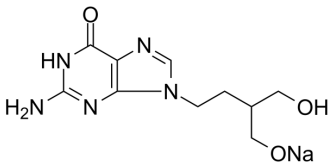
Molecular Formula: $C_{10}H_{14}N_5NaO_3$

Molecular Weight: 275.24

Target: HSV

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Penciclovir (VSA 671) sodium is a potent and selective anti-herpesvirus agent with EC_{50} values of 0.5, 0.8 μg/ml for HSV-1 (HFEM), HSV-2 (MS), respectively. Penciclovir sodium shows anti-herpesvirus activity with no-toxic. Penciclovir sodium preventes mortality in mouse[1][2].

IC_{50} & Target

HSV-1	HSV-2
0.5 μg/mL (EC50)	0.8 μg/mL (EC50)

In Vitro

Penciclovir sodium (0-100 μg/ml) shows anti-herpesvirus activity with EC_{50}s of 0.5, 0.8, 2.4, 52, 100, 1.2, 1.6, 0.9, >100 μg/ml for HSV-1 (HFEM), HSV-2 (MS), VZV (Ellen), CMV (AD-169), BHV-1 (Oxford 1964), BHV-2 (New York 1), EHV-1(Quai Hals), FHV-1 (B927), SVV, respectively[1].

Penciclovir sodium (0-100 μg/ml) shows no-toxic to uninfected human cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

Cell Line:	MRC-5,WISH, Flow 4000, Flow 12000, RPMI 2650, WI-38, WI-38 VA13, Hs68, HEp-2, RD, SCC-13,Primary cells
Concentration:	0-100 μg/ml
Incubation Time:	
Result:	Showed no-toxic with IC_{50}s of >100, >100, 100, >100, 60, >100, >100, >100, >100, >100, >100, >100 for MRC-5,WISH, Flow 4000, Flow 12000, RPMI 2650, WI-38, WI-38 VA13, Hs68, HEp-2, RD, SCC-13,Primary cells, respectively.

In Vivo

Penciclovir sodium (100 mg/kg; s.c.; daily for 5 days) preventes mortality in mouse[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Three-week-old female Balb/c mice[2]
Dosage:	100 mg/kg
Administration:	S.c.; daily for 5 days

Result:	Reduced virus titres in the respiratory organs of both w/t- and PR3-infected mice.

CUSTOMER VALIDATION

- Microchem J. 2021, 106587.

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REFERENCES

[1]. M.R. Boyd, et al. Penciclovir: a review of its spectrum of activity, selectivity, and cross-resistance pattern. Antiviral Chemistry and Chemotherapy, 1993, (1): 3-11.

[2]. de la Fuente R, et al. The acyclic nucleoside analogue penciclovir is a potent inhibitor of equine herpesvirus type 1 (EHV-1) in tissue culture and in a murine model. Antiviral Res. 1992 May;18(1):77-89.

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