Pritelivir mesylate hydrate

Cat. No.: HY-15303B

CAS No.: 1428321-10-1

Molecular Formula: $C_{19}H_{24}N_4O_7S_3$

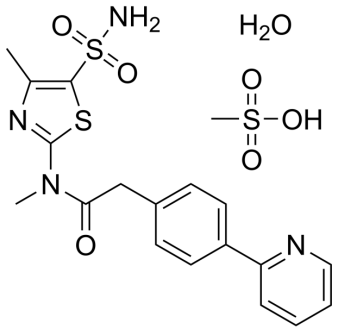
Molecular Weight: 516.61

Target: HSV

Pathway: Anti-infection

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description

Pritelivir mesylate hydrate (BAY 57-1293 mesylate hydrate), an inhibitor of the viral helicase-primase complex, exhibits antiviral activity in vitro and in animal models of herpes simplex virus (HSV) infection. Pritelivir mesylate hydrate is active against herpes simplex virus types 1 and 2 (HSV-1 and HSV-2) with the IC_{50} of 0.02 μM against HSV1-2[1].

IC_{50} & Target

HSV-1	HSV-2
0.02 μM (IC_{50})	0.02 μM (IC_{50})

In Vivo

Pritelivir is the first in a class of antiviral agents that inhibit HSV replication by targeting the viral helicase–primase enzyme complex[2].

Pritelivir (0.03-45 mg/kg) significantly increases survival. Pritelivir (0.3-30 mg/kg) reduces mortality against HSV-1, E-377. Pritelivir has potent and resistance-breaking antiviral efficacy with potential for the treatment of potentially life-threatening HSV type 1 and 2 infections, including herpes simplex encephalitis[3].

Combination therapies of Pritelivir at 0.1 or 0.3 mg/kg/dose with Acyclovir (10 mg/kg/dose) are protective when compared to the vehicle treated group against HSV-2, strain MS[3].

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

Animal Model:	Female BALB/c mice[3]
Dosage:	0.03 to 45 mg/kg
Administration:	Administered orally, twice daily at approximately 12 h intervals, for 7 days
Result:	Survival was significantly increased to 80-100% as compared to the vehicle treatment. Even the lowest dose of 0.3 mg/kg was effective in increasing survival to 53%.

CUSTOMER VALIDATION

- J Antimicrob Chemother. 2022 Sep 5;dkac297.
- Antivir Res. 2020 Nov;183:104931.

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REFERENCES

[1]. Ligat G, et al. Identification of Amino Acids Essential for Viral Replication in the HCMV Helicase-PrimaseComplex. Front Microbiol. 2018 Oct 23;9:2483.

[2]. Wald A, et al. Helicase-primase inhibitor Pritelivir for HSV-2 infection. N Engl J Med. 2014 Jan 16;370(3):201-10.

[3]. Quenelle DC, et al. Efficacy of pritelivir and acyclovir in the treatment of herpes simplex virus infections in a mouse model of herpes simplex encephalitis. Antiviral Res. 2018 Jan;149:1-6.

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