HCVcc-IN-1

Cat. No.: HY-151581

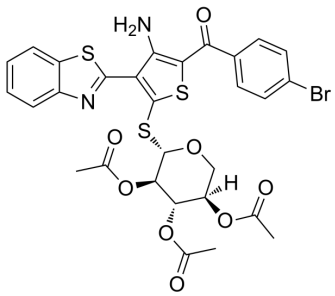
Molecular Formula: $C_{29}H_{25}BrN_2O_8S_3$

Molecular Weight: 705.62

Target: Virus Protease

Pathway: Anti-infection

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



BIOLOGICAL ACTIVITY

Description

HCVcc-IN-1 is a benzothiazole-2-thiophene S-glycoside derivative with low toxic and antiviral activity[1].

In Vitro

HCVcc-IN-1 (compound 8c) (0.1, 1, 10, and 100 μg/mL; 1 h) shows antiviral activities against a variety of viruses such as coxsackievirus B4 (CBV4), hepatitis A virus HM 175 (HAV), hepatitis C genotype 4 (HCVcc), adenovirus type 7 (HAdV7), and herpes simplex virus 1 (HSV-1) with viral reduction rates of 86.7%, 66.7%, 23.3%, 66.7%, and 36.7%, respectively[1].

HCVcc-IN-1 (0.57-2.0 μg/mL; 1 h) inhibits various virus with IC_{50} of 0.57 μg/mL (herpes simplex virus), 0.71 μg/mL (HCVcc genotype virus), and 0.69 μg/mL (coxsackievirus B4), respectively; or with CC_{50} of 2.0 μg/mL (herpes simplex virus), 1.7 μg/mL (HCVcc genotype virus), and 1.7 μg/mL (coxsackievirus B4), respectively[1].

HCVcc-IN-1 (5.16-7.23 μg/mL) inhibits hepatitis C virus NS3/4A and HSV-USP7 protease enzyme with IC_{50}s of 5.16 μg/mL and 7.23 μg/mL[1].

HCVcc-IN-1 (0.01 mM; 24 h) has low cytotoxicity against FRHK-4, Hep2, BGM, Vero, and Huh 7.5 cell lines[1].

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

Cell Cytotoxicity Assay[1]

Cell Line:	FRHK-4, Hep2, BGM, Vero, and Huh 7.5 cell lines
Concentration:	100 μg/mL
Incubation Time:	24 hours
Result:	Showed nontoxic under the doses of 100 μg/mL against FRHK-4, Hep2, BGM, Vero, and Huh 7.5 cells, respectively.

REFERENCES

[1]. Azzam et al. Novel Thiophene Thioglycosides Substituted with the Benzothiazole Moiety: Synthesis, Characterization, Antiviral and Anticancer Evaluations, and NS3/4A and USP7 Enzyme Inhibitions. ACS Omega. 2022 Sep 29;7(40):35656-35667.

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

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