Rupintrivir

Cat. No.: HY-106161

CAS No.: 223537-30-2

Molecular Formula: $C_{31}H_{39}FN_4O_7$

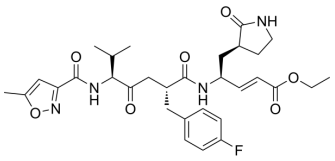
Molecular Weight: 598.66

Target: Enterovirus; Virus Protease

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (83.52 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6704 mL	8.3520 mL	16.7040 mL
	5 mM	0.3341 mL	1.6704 mL	3.3408 mL
	10 mM	0.1670 mL	0.8352 mL	1.6704 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.67 mg/mL (2.79 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Rupintrivirvr (AG7088), an antiviral agent, is a potent, selective and irreversible inhibitor of human rhinovirus (HRV) 3C protease. Rupintrivirvr inhibits replication of a panel of 48 different HRV serotypes in H1-HeLA and MRC-5 cell protection assays, with a mean EC_{50} of 0.023 μM. Rupintrivirvr shows immune-modulatory effect[1][2].

In Vitro

In H1-HeLa and MRC-5 cell protection assays, Rupintrivirvr (AG7088) inhibited the replication of all HRV serotypes (48 of 48) tested with a mean 50% effective concentration (EC_{50}) of 0.023 μM (range, 0.003 to 0.081 μM) and a mean EC_{90} of 0.082 μM (range, 0.018 to 0.261 μM) as well as that of related picornaviruses including coxsackieviruses A21 and B3, enterovirus 70, and echovirus 11[1].

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

In Vivo

Rupintrivirvr (AG7088) reduces RV-induced TH-2 cytokine IL-4 in precision-cut lung slices (PCLS) of HDM-sensitized mice ex vivo[2].

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

CUSTOMER VALIDATION

- Viruses. 2020 Jun 10;12(6):628.
- Arch Virol. 2021 Oct 4.
- Patent. US20210308117A1.
- Research Square Preprint. 2021 Mar.

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REFERENCES

[1]. Patick AK, et al. In vitro antiviral activity of AG7088, a potent inhibitor of human rhinovirus 3C protease. Antimicrob Agents Chemother. 1999 Oct;43(10):2444-50.

[2]. Danov O, et al. Rupintrivir reduces RV-induced TH-2 cytokine IL-4 in precision-cut lung slices (PCLS) of HDM-sensitized mice ex vivo. Respir Res. 2019 Oct 22;20(1):228.

[3]. Dragovich PS, et al. Structure-based design, synthesis, and biological evaluation of irreversible human rhinovirus 3C protease inhibitors. 3. Structure-activity studies of ketomethylene-containing peptidomimetics. J Med Chem. 1999 Apr 8;42(7):1203-12.

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