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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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EIDD-2749

Cat. No.: HY-146246

CAS No.: 1613589-24-4

Molecular Formula: $C_9H_{11}FN_2O_6$

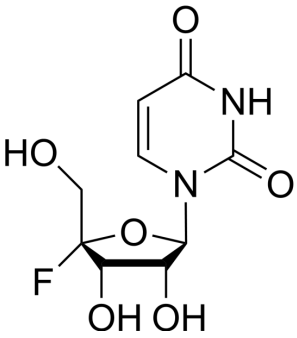
Molecular Weight: 262.19

Target: RSV; SARS-CoV; HCV

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

H_2O : 62.5 mg/mL (238.38 mM; Need ultrasonic)
DMSO : 25 mg/mL (95.35 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.8140 mL	19.0701 mL	38.1403 mL
	5 mM	0.7628 mL	3.8140 mL	7.6281 mL
	10 mM	0.3814 mL	1.9070 mL	3.8140 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: ≥ 25 mg/mL (95.35 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (9.54 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.54 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

EIDD-2749 (4'-Fluorouridine) is an orally active RdRp inhibitor. EIDD-2749 effectively blocks the replication of RSV and SARS-CoV-2. EIDD-2749 also exhibits activity against HCV and lymphocytic choriomeningitis virus (LCMV). EIDD-2749 is a promising oral therapeutic candidate for COVID-19 and is also suitable for research on other RNA viruses[1][2][3].

IC_{50} & Target

RdRp, RSV,SARS-CoV-2, HCV, COVID-19, LCMV[1][2][3].

In Vitro	EIDD-2749 induces a delayed stalling of phosphodiester bond formation by RSV and SARS-CoV-2 RdRP[1]. EIDD-2749 is rapidly anabolizes, metabolically stable, and potently antiviral in disease-relevant well-differentiated HAE cultures[1]. EIDD-2749 shows a ≥17-fold increase in anti-RSV potency relative to that on HEp-2 cells; however, the low cytotoxicity levels remains unchanged (CC_{50} 169 mM), resulting in a high SI (SI = EC_{50}/CC_{50}) of ≥1877[1]. EIDD-2749 inhibits SARS-CoV-2 with an EC_{50} value of 0.2-0.6 M[2]. EIDD-2749 has an EC_{50} of 1.86 μM in theVero E6 cell line, cytotoxicity with a CC_{50} of 380 μM, and stability in human plasma[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	EIDD-2749 (0.2, 1, 5 mg/kg; p.o.; single daily for 4 days) shows good orally efficacious in RSV infection mice model in a dose-dependent manner[1]. EIDD-2749 shows high efficacious to SARS-CoV-2 infection and is effective with a single daily dose versus molnupiravir administered twice daily in vivo[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Balb/cJ mice (RSV infection model)[1].
Dosage:	0.2, 1, 5 mg/kg
Administration:	Oral administration; single daily for 4 days
Result:	Resulted in a statistically significant reduction in lung virus load.

REFERENCES

[1]. Sourimant J, et al. 4'-Fluorouridine is an oral antiviral that blocks respiratory syncytial virus and SARS-CoV-2 replication. Science. 2022 Jan 14;375(6577):161-167.

[2]. Abas AH, et al. 4’-fluorouridine and its derivatives as potential COVID-19 oral drugs: a review [version 1; peer review: 1 approved with reservations, 1 not approved]. F1000Research 2022, 11:410.

[3]. George R. Painter, et al. 4'-halogen containing nucleotide and nucleoside therapeutic compositions and uses related thereto. Patent WO2019173602A1.

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