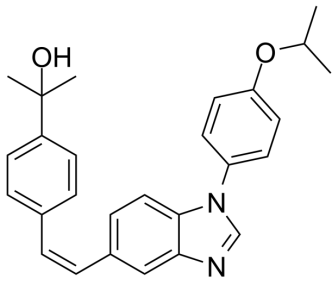
LHF-535

Cat. No.:	HY-112762
CAS No.:	1450929-77-7
Molecular Formula:	$C_{27}H_{28}N_2O_2$
Molecular Weight:	412.52
Target:	Arenavirus
Pathway:	Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 150 mg/mL (363.62 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4241 mL	12.1206 mL	24.2412 mL
	5 mM	0.4848 mL	2.4241 mL	4.8482 mL
	10 mM	0.2424 mL	1.2121 mL	2.4241 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.42 mg/mL (5.87 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.42 mg/mL (5.87 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

LHF-535 is an antiviral agent extracted from patent WO2013123215A2, Compound 38, has EC_{50}s of <1 μM, <1 μM, <1 μM, and 1-10 μM for Lassa, Machupo, Junin, and VSVg virus, respectively[1].

In Vitro

LHF-535 is a small-molecule viral entry inhibitor that targets the arenavirus envelope glycoprotein (GP). LHF-535 exhibits potent antiviral activity against a broad array of hemorrhagic fever arenaviruses. LHF-535 inhibits Lassa GP-pseudotyped lentivirus with an IC_{50} of 0.1-0.3 nM[2].

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

In Vivo

LHF-535 (3, 10 or 30 mg/kg; orally; daily; 14 days) protectes mice from a lethal challenge with Tacaribe virus and dramatically reduces viral titers in plasma, spleen, and liver[2].

An increase in survival is also observed when the first dose of LHF-535 (10 mg/kg) is delayed by 1, 2, or 3 days after infection, demonstrating that LHF-535 is efficacious as a post-exposure therapeutic in mice[2].

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

Animal Model:	IFN-α/β and-γ receptor-deficient AG129 mice[2]
Dosage:	3, 10, or 30 mg/kg/day
Administration:	Orally; daily; 14 days
Result:	Effective as a post-exposure therapeutic.

REFERENCES

[1]. Dongcheng Dai, et al. Antiviral drugs for treatment of arenavirus infection. WO2013123215A2.

[2]. Madu IG, et al. A potent Lassa virus antiviral targets an arenavirus virulence determinant. PLoS Pathog. 2018 Dec 21;14(12):e1007439.

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