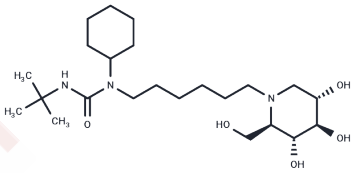
Data Sheet (Cat.No.T15554)

TargetMol

IHVR-19029

Chemical Properties



CAS No. : 1447464-73-4

Formula: C23H45N3O5

Molecular Weight: 443.62

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	IHVR-19029 is an effective endoplasmic reticulum (ER) α-glucosidases I and II inhibitor (IC50: 0.48 μM for ER a-glucosidase I). IHVR-19029 efficiently blocks the replication of several hemorrhagic fever viruses, such as Ebola virus, Dengue virus, and Rift Valley fever virus.
Targets(IC50)	Others
In vitro	The combination of IHVR-19029 and Favipiravir synergistically inhibits the replication of Yellow fever and Ebola viruses in cultured cells[4]. IHVR-19029 efficiently inhibits Bovine viral diarrhea virus (BVDV), Tacaribe virus (TCRV) and Dengue virus (DENV) (EC50s: 0.25, 0.74, and 1.25 μM, respectively)[2].
In vivo	IHVR-19029 (75/5/5 mg/kg; p.o./i.m./i.p.) shows AUC values of 945/1839/983 μg*h/mL, Cmax values of 0.26/1.23/1.33 μg/ml, Tmax values of 2.1/0.1/0.17 hours, and F values of 4.6/ 71/133%, respectively. IHVR-19029 (5 mg/kg; i.v.) has AUC, C0, T1/2, CL and (Vd: 1383 μg*h/mL, 1.79 μg/mL, 1.2 hours, 3.49 L/h/kg, and 3.0 L/kg, respectively).HVR-19029 (25-75 mg/kg; I.p.; twice daily for 10 days) inhibits EBOV and MARV infection in mice[2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2542 mL	11.2709 mL	22.5418 mL
5 mM	0.4508 mL	2.2542 mL	4.5084 mL
10 mM	0.2254 mL	1.1271 mL	2.2542 mL
50 mM	0.0451 mL	0.2254 mL	0.4508 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Bray M, et al. Meeting report: 31st International Conference on Antiviral Research. Antiviral Res. 2018 Oct;158:88-102.

Jin hong Chang, et al. Small molecule inhibitors of ER α-glucosidases are active against multiple hemorrhagic fever viruses. Antiviral Research. Volume 98, Issue 3, June 2013, Pages 432-440.

Ester Prodrugs of IHVR-19029 with Enhanced Oral Exposure and Prevention of Gastrointestinal Glucosidase Interaction.ACS Med Chem Lett. 2017 Jan 17;8(2):157-162.

Ma J, et al. Enhancing the antiviral potency of ER α-glucosidase inhibitor IHVR-19029 against hemorrhagic fever viruses in vitro and in vivo. Antiviral Res. 2018 Feb;150:112-122.

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