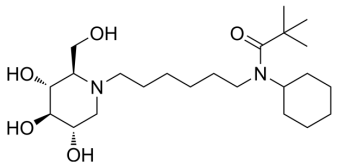
IHVR-17028

Cat. No.:	HY-139663
CAS No.:	1428247-78-2
Molecular Formula:	$C_{23}H_{44}N_2O_5$
Molecular Weight:	429
Target:	Glucosidase
Pathway:	Metabolic Enzyme/Protease
Storage:	Pure form -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description

IHVR-17028 is a potent and broad-spectrum antiviral agent. IHVR-17028 exhibits antiviral activity against BVDV, TCRV and DENV with EC_{50} values of 0.4 μM, 0.26 μM, 0.3 μM, respectively. IHVR-17028 is a potent ER α-glucosidase I inhibitor with an IC_{50} of 0.24 μM. IHVR-17028 can be used for infectious diseases research[1][2].

In Vitro

In virus yield reduction assays, IHVR-17028 inhibits viral activities with EC50 values of 0.4 μM, 0.26 μM, 0.3 μM for bovine viral diarrhea virus (BVDV) (NADL strain), tacaribe virus (TCRV) (11573 strain), DENV (serotype 2, New Guinea C), respectively. And in MTT assays, IHVR-17028 exhibits IC_{50} values of all >500 μM in?MDBK, Huh7.5 or BHK cells[1].

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

In Vivo

In Pharmacokinetic analysis in rats, IHVR17028 (oral gavage; 75 mg/kg) shows a C_{max}?value of 0.18 μg/ml; the Tmax value is 1.56 hours; and the F% value is 12% after PO administration, the $T_{1/2}$ value is 0.88 hour after iv. adminstration[1].

IHVR-17028 (oral gavage; 25-50 mg/kg; treatment 1 day prior to virus challenging) exhibits significant protection in mouse model of lethal MARV infection[1].

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

Animal Model:	BALB/c mice are challenged with 1,000 PFU mouse adapted MARV via IP injection[1]
Dosage:	50 mg/kg
Administration:	Treatment 1 day prior to virus challenging
Result:	Exhibited protection in mouse when the treatment is initiated 1 day prior to virus challenging.

Animal Model:	C57B1/6 mice challenged with 1,000 PFU mouse adapted EBOV[1]
Dosage:	25 mg/kg
Administration:	Twice daily at 12 h interval; starting 4 h post infection for 10 days
Result:	Inhibited EBOV infection in mice.

REFERENCES

[1]. Jinhong Chang, et al. Small molecule inhibitors of ER α-glucosidases are active against multiple hemorrhagic fever viruses.Antiviral Res. 2013 Jun;98(3):432-40.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA