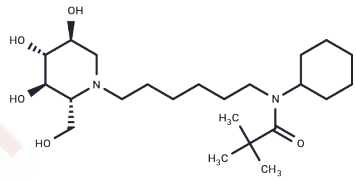
Data Sheet (Cat.No.T38894)

TargetMol

IHVR-17028

Chemical Properties



CAS No. : 1428247-78-2

Formula: C23H44N2O5

Molecular Weight: 428.61

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

Actual storage temperature shall be subject to the COA.

Biological Description

Description	IHVR-17028 is a potent broad-spectrum ERα-glucosidase I (α-glucosidase I) inhibitor with IC50 of 0.24 μM and antiviral activity. IHVR-17028 inhibited BVDV, TCRV and DENV, and EC50 values were 0.4 μM, 0.26 μM and 0.3 μM, respectively. IHVR-17028 can be used to study infectious diseases.
Targets(IC50)	Glucosidase,glycosidase,Influenza Virus
In vitro	IHVR-17028 demonstrates potent antiviral activity against bovine viral diarrhea virus (BVDV) (NADL strain), tacaribe virus (TCRV) (11573 strain), and DENV (serotype 2, New Guinea C) with EC50 values of 0.4 μM, 0.26 μM, and 0.3 μM, respectively, in virus yield reduction assays. Furthermore, IHVR-17028 exhibits high cell viability with IC50 values exceeding 500 μM in MDBK, Huh7.5, and BHK cells, as determined by MTT assays.[1]
In vivo	In rats, during pharmacokinetic analysis, IHVR17028 (75 mg/kg, oral gavage) demonstrates a C max value of 0.18 μg/ml. The T max value is 1.56 hours, and after PO administration, the F% value is 12%. The T 1/2 value is 0.88 hours after iv administration [1]. In a mouse model of lethal MARV infection, IHVR-17028 treatment (25-50 mg/kg, oral gavage) one day before virus challenging exhibits significant protection.[1]

Solubility Information

Solubility	DMSO: 30 mg/mL (69.99 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (11.67 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3331 mL	11.6656 mL	23.3312 mL
5 mM	0.4666 mL	2.3331 mL	4.6662 mL
10 mM	0.2333 mL	1.1666 mL	2.3331 mL
50 mM	0.0467 mL	0.2333 mL	0.4666 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Chang J, et al. Small molecule inhibitors of ER α-glucosidases are active against multiple hemorrhagic fever viruses. Antiviral Res. 2013;98(3):432-440.
Du Y, et al. Design and synthesis of N-alkyldeoxynojirimycin derivatives with improved metabolic stability as inhibitors of BVDV and Tacaribe virus. Bioorg Med Chem Lett. 2013;23(14):4258-4262.