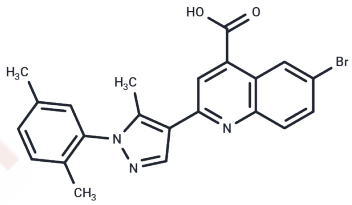
Data Sheet (Cat.No.T85904)

TargetMol

BPR3P0128

Chemical Properties



CAS No. : 1345406-09-8

Formula: C22H18BrN3O2

Molecular Weight: 436.30

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	BPR3P0128, a non-nucleoside RNA-dependent RNA polymerase (RdRp) inhibitor, is effective orally and can inhibit various SARS-CoV-2 variants. It exhibits EC 50 values of 0.62 μM for SARS-CoV-2 and 0.14 μM for HCoV-229E, demonstrating potent anti-pancoronavirus activity at submicromolar concentrations. Additionally, BPR3P0128 displays synergistic antiviral effects when used in combination with Remdesivir [1].
Targets(IC50)	SARS-CoV
In vitro	BPR3P0128, at a concentration of 10 μM over 24 hours, effectively inhibits the replication of SARS-CoV-2 and reduces cytokine expression caused by the virus in the human lung cancer cell line Calu-3 [1]. The compound demonstrates comprehensive activity against coronavirus by effectively inhibiting various SARS-CoV-2 variants, including α, β, γ, δ, and Omicron strains at concentrations of 1 μM and 10 μM [1]. When combined with Remdesivir (4 μM and 8 μM), BPR3P0128 (1 μM and 2 μM; 24 hours) exhibits synergistic antiviral activity [1]. In Vero E6 cells containing SARS-CoV-2 virus, concentrations of 10 μM significantly decreased the mRNA levels of CXCL10, IL-6, TNF-α, and INF-β as per RT-PCR analysis [1]. In Western Blot Analysis, BPR3P0128 and Remdesivir together more significantly inhibited NP expression in the same cell line [1]. Additionally, in a HEK293T cell-based RdRp reporter model, BPR3P0128 at concentrations of 0.1 μM, 1 μM, and 10 μM, alongside Remdesivir (1 μM, 10 μM, 100 μM), inhibited the activity of SARS-CoV-2 RdRp without reducing the expression level of nsp12 [1].
In vivo	Pharmacokinetic analysis: [1] Route Dose (mg/kg) Cl (mL·min/kg) t 1/2 (h) F (%) i.v. 0.01 1.3 / / p.o. 0.01 / 8.1 78.7%

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.292 mL	11.460 mL	22.920 mL
5 mM	0.4584 mL	2.292 mL	4.584 mL
10 mM	0.2292 mL	1.146 mL	2.292 mL
50 mM	0.0458 mL	0.2292 mL	0.4584 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.