GC-78-HCl

®

MedChemExpress

Cat. No.: CAS No.: Molecular Formula: Molecular Weight: Target: Pathway:	HY-149774 3022242-53-8 C ₂₅ H ₂₅ Cl ₃ N ₄ O ₄ 551.85 SARS-CoV Anti-infection	
Pathway:	Anti-infection	HCI
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.	

Description GC-78-HCl is an orally and nonpeptidic SARS-CoV-2 M ^{PTO} inhibitor, with an IC ₅₀ of 0.19 µM for enzyme, GC-78-HCl has excellent antiviral activity and favorable pharmacokinetic properties ^[1] . IC ₅₀ & Target EC ₅₀ Tatget: SARS-CoV ^[1] EC ₅₀ : 0.40 µM (SARS-CoV-2), 0.21 ± 0.030 µM (wild-type), 0.21 ± 0.080 µM (Alpha), 0.24 ± 0.080 µM (Delta), 0.25 ± 0.060 µM (Omicron B.1) ^[1] In Vitro GC-78-HCl (huld to a control of the accuracy of these methods. They are not ornaviruses in MRC-5/Vero E6 cells ^[1] , GC-78-HCl (sub) has no inhibitory activity against Maran activity ¹³¹ . GC-78-HCl (sub) has no inhibitory activity against Maran active pains B/F/K/L and Caspase 3, indicates high target specificity toward coronavirus proteases ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. In Vivo GC-78-HCl (800 mg/kg, p.o., single dosage) has no acute toxicity in Kunning micel ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Animal Model: Sprague-Dawley rats ^[1] Dosage: 2 mg/kg Administration: Intravenous injection (i.v.) Result: With the clearance rate (CL) of 4343 mL/h/kg. With half-life (t _{1/2}) of 0.46 h. They are for firmed (fman) of 1.17 h.	BIOLOCICAL ACTIV			
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	With maximum concentration (C _{max}) of 148 ng/mL. With an area under curve (AUC _{0⊠t}) of 465 ng•h/mL.
Animal Model:	Kunming rats ^[1]
Dosage:	800 mg/kg
Administration:	Oral gavage (p.o.)
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REFERENCES

[1]. Gao S, et al. Design, Synthesis, and Biological Evaluation of Trisubstituted Piperazine Derivatives as Noncovalent Severe Acute Respiratory Syndrome Coronavirus 2 Main Protease Inhibitors with Improved Antiviral Activity and Favorable Druggability. J Med Chem. 2023 Nov 22.

Caution: Product has not been fully validated for medical applications. For research use only.

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