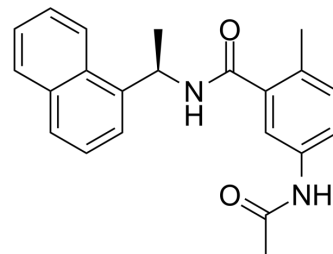


PLpro inhibitor

Cat. No.:	HY-17542		
CAS No.:	1093070-14-4		
Molecular Formula:	C ₂₂ H ₂₂ N ₂ O ₂		
Molecular Weight:	346.42		
Target:	SARS-CoV		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (288.67 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.8867 mL	14.4333 mL	28.8667 mL
		5 mM	0.5773 mL	2.8867 mL	5.7733 mL
10 mM		0.2887 mL	1.4433 mL	2.8867 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (7.22 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (7.22 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	PLpro inhibitor is a potent inhibitor of papain-like protease (PLpro) with an IC ₅₀ of 2.6 μM ^[1] . PLpro inhibitor inhibits SARS-CoV-2 PLpro with an IC ₅₀ of 5.0 μM and an EC ₅₀ of 21.0 μM ^[2] .
IC₅₀ & Target	IC ₅₀ : 2.6 μM (Papain-like protease (PLpro)) ^[1] ; 5.0 μM (SARS-CoV-2 PLpro) ^[2] EC ₅₀ : 21.0 μM (SARS-CoV-2 PLpro) ^[2]
In Vitro	PLpro inhibitor is a potent inhibitor against the papain-like protease (PLpro) from the coronavirus that causes severe acute respiratory syndrome (SARS-CoV). PLpro inhibitor was found to have IC ₅₀ value of 2.6 μM. PLpro inhibitor display significant antiviral activity with EC ₅₀ values of 13.1 μM, without toxicity up to the highest concentration tested. Notably, the increasing antiviral potency correlates with the in vitro inhibition of PLpro, suggesting that the compounds work directly on the

enzyme in cells^{[1][3]}.

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

CUSTOMER VALIDATION

- Nucleic Acids Res. 2021 Jan 8;49(D1):D11113-D11121.
- Cell Rep. 2021 May 18;35(7):109133.
- ACS Infect Dis. 2020 Aug 14;6(8):2099-2109.
- Sci Rep. 2021 Mar 8;11(1):5433.
- bioRxiv. 2020 Jul.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Ratia, K., et al., A noncovalent class of papain-like protease/deubiquitinase inhibitors blocks SARS virus replication. Proc Natl Acad Sci U S A, 2008. 105(42): p. 16119-24.

[2]. <http://www.google.com/patents/WO2010022355A1cl=en>

[3]. Brendan T Freitas, et al. Characterization and Noncovalent Inhibition of the Deubiquitinase and delSGylase Activity of SARS-CoV-2 Papain-Like Protease. ACS Infect Dis. 2020 May 19.

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

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