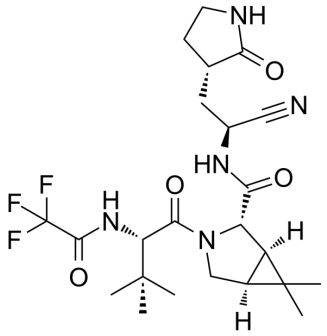
PF-07321332

Cat. No.:	HY-138687
CAS No.:	2628280-40-8
Molecular Formula:	$C_{23}H_{32}F_3N_5O_4$
Molecular Weight:	499.53
Target:	SARS-CoV
Pathway:	Anti-infection
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 140 mg/mL (280.26 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0019 mL	10.0094 mL	20.0188 mL
	5 mM	0.4004 mL	2.0019 mL	4.0038 mL
	10 mM	0.2002 mL	1.0009 mL	2.0019 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: ≥ 3.5 mg/mL (7.01 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 3.5 mg/mL (7.01 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 3.5 mg/mL (7.01 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

PF-07321332 is a potent and orally active SARS-CoV 3C-like protease ($3CL^{PRO}$) inhibitor . PF-07321332 targets to the SARS-CoV-2 virus and can be used for COVID-19 reseacrch[1].

IC_{50} & Target

IC50: $3CL^{PRO}$[1]

In Vitro

$3CL^{PRO}$ is responsible for cleaving polyproteins 1a and 1ab of SARS-CoV-2.1. Without the activity of the SARS-CoV-2 $3CL^{PRO}$, nonstructural proteins (including proteases) cannot be released to perform their functions, inhibiting viral replication[1].

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

REFERENCES

[1]. KoenVandyck, et al. Considerations for the Discovery and Development of 3-Chymotrypsin-Like Cysteine Protease Inhibitors Targeting SARS-CoV-2 Infection. Current Opinion in Virology Available online 27 April 2021

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