

ALG-097558

## Chemical Properties

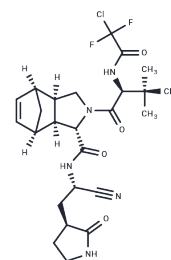
CAS No. : 2892287-29-3

Formula: C<sub>25</sub>H<sub>32</sub>ClF<sub>2</sub>N<sub>5</sub>O<sub>4</sub>

Molecular Weight: 540.00

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	ALG-097558 is an orally active 3CL protease inhibitor. It demonstrates broad antiviral activity against various SARS-CoV-2 variants and other human coronaviruses, including SARS-CoV-1, α-HCoV 229E, and β-HCoV OC43. ALG-097558 exhibits potent inhibitory effects, with an IC <sub>50</sub> of 2 nM for SARS-CoV-2 3CL protease and 6 nM for 229E 3CL protease. In a SARS-CoV-2 hamster infection model, ALG-097558 shows antiviral activity and can be used for research on viral infections.
Targets(IC <sub>50</sub> )	SARS-CoV, Virus Protease
In vitro	ALG-097558 (Compound 7) demonstrates significant inhibitory activity with an IC <sub>50</sub> of 2 nM against the SARS-CoV-2 3CL protease and 6 nM against the 229E 3CL protease. It exhibits powerful pan-coronavirus antiviral activity by strongly inhibiting human β-CoV OC43 (EC <sub>50</sub> = 8 nM), SARS-CoV-1 (EC <sub>50</sub> = 22 nM), and B.1.1.7 AS49D (EC <sub>50</sub> = 11 nM). Additionally, ALG-097558 is effective against β MERS-CoV (IC <sub>50</sub> = 59 nM), OC43 hCoV OC43 (IC <sub>50</sub> = 0.6 nM), α CoV 229E (IC <sub>50</sub> = 2.8 nM), and γ Beluga whale CoV (IC <sub>50</sub> = 1 nM) by inhibiting their 3CL protease activity. Furthermore, ALG-097558 (0-1 μM, 4 days) suppresses the replication of SARS-CoV-2 B.1.1.7 in primary human bronchial epithelial cells (HAEC) cultured at the air-liquid interface.
In vivo	When administered orally at doses of 2.5-150 mg/kg twice daily for three consecutive days, ALG-097558 (Compound 7) demonstrates antiviral activity in a SARS-CoV-2 hamster infection model when co-administered with Ritonavir.

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.8519 mL	9.2593 mL	18.5185 mL
5 mM	0.3704 mL	1.8519 mL	3.7037 mL
10 mM	0.1852 mL	0.9259 mL	1.8519 mL
50 mM	0.037 mL	0.1852 mL	0.3704 mL

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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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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