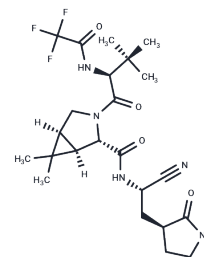


Nirmatrelvir

Chemical Properties

CAS No. :	2628280-40-8
Formula:	C ₂₃ H ₃₂ F ₃ N ₅ O ₄
Molecular Weight:	499.53
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	PF-07321332 is a potent and orally active inhibitor of SARS-CoV 3C-like protease (3CLPRO) .
Targets(IC50)	SARS-CoV
In vitro	PF-07321332 is a promising oral antiviral clinical candidate with well-established anti-SARS-CoV-2 activity in vitro.
In vivo	METHODS: To assay in vivo antiviral activity, Nirmatrelvir (20 mg/kg, 2% DMSO + 20% sulfobutylether-β-cyclodextrin in 0.9% saline) and Molnupiravir (20 mg/kg) were orally administered to SARS-CoV-2 infected K18-hACE2 transgenic mice twice daily for five days. RESULTS: In lethally infected mice, the combination of Nirmatrelvir and Molnupiravir demonstrated severe inhibition of SARS-CoV-2 replication in the lungs and brain and synergistically improved survival by up to 80%. 36% survival was achieved with Nirmatrelvir alone, and 43% with Molnupiravir alone. [3]

Solubility Information

Solubility	DMSO: 257.5 mg/mL (515.48 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 13 mg/mL (26.02 mM),Solution. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.040 mL	0.2002 mL	0.4004 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.

Reference

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