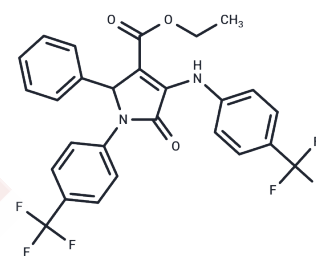


Influenza A virus-IN-1

Chemical Properties

CAS No. :	2250313-14-3
Formula:	C ₂₇ H ₂₀ F ₆ N ₂ O ₃
Molecular Weight:	534.458
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	Influenza A virus-IN-1, a dihydropyrrolidones derivative, is a highly effective inhibitor of various subtypes of influenza A virus (IAV) with IC ₅₀ values ranging from 3.11 μM to 7.13 μM. It effectively suppresses IAV replication and enhances the expression of key antiviral cytokines, such as IFN-β, and the antiviral protein MxA.
Targets(IC ₅₀)	Others, Influenza Virus
In vitro	Treatment with Influenza A virus-IN-1 (compound 5-2; concentrations ranging from 5-40 μM; for 24 hours; in MDCK cells) notably diminishes the yield of influenza viral nucleoprotein (NP) and the expression level of NP protein in a dose-dependent manner. Additionally, this compound lowers influenza hemagglutinin (HA) mRNA expression at all assessed time points. It effectively hampers Influenza A virus (IAV) replication and curtails the production of NDAPH oxidase NOX1 in MDCK cells. Western Blot analysis conducted on IAV-infected MDCK cells treated with varying concentrations (5 μM, 10 μM, 20 μM, 40 μM) for 24 hours corroborates the significant reduction in influenza viral NP yields, evidencing a dose-responsive effect.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.871 mL	9.3552 mL	18.7105 mL
5 mM	0.3742 mL	1.871 mL	3.7421 mL
10 mM	0.1871 mL	0.9355 mL	1.871 mL
50 mM	0.0374 mL	0.1871 mL	0.3742 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

Teng Liu, et al. Discovery of Dihydropyrrolidones as Novel Inhibitors Against Influenza A Virus. Eur J Med Chem. 2020 Aug 1;199:112334.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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