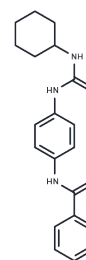


DS-22-inf-021

## Chemical Properties

CAS No. : 945170-74-1  
Formula: C<sub>20</sub>H<sub>23</sub>N<sub>3</sub>O<sub>2</sub>  
Molecular Weight: 337.42  
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	DS-22-inf-021, a neuraminidase (NA) inhibitor, exhibits antiviral activity against influenza viruses [1].
Targets(IC50)	Influenza Virus
In vitro	DS-22-inf-021 inhibits the neuraminidase (NA) activity of IBV (B/Samara/32/2018 Yamagata lineage) and oseltamivir-resistant IAV A/Vladivostok/2/2009 (H1N1 pdm09) carrying the H275Y mutation, with IC <sub>50</sub> values of 9.1 μM and 14.7 μM, respectively [1]. Additionally, DS-22-inf-021 (0.5-50 μM, 10 hours) demonstrates antiviral activity in MDCK cells infected with both IAV and IBV strains [1].
In vivo	DS-22-inf-021 administered at doses ranging from 20-100 mg/kg via intraperitoneal injection twice daily for five days significantly enhanced survival rates in mice infected with IAV and IBV [1]. The study involved eight-week-old female BALB/c mice nasally inoculated with five 50% lethal doses of IAV and IBV, using a 50 μL volume [1]. Doses included 20, 50, and 100 mg/kg. Administration occurred two hours post-infection via intraperitoneal injection. At the highest dose of 100 mg/kg, survival rates reached 85%. Notably, for the B/Samara/32/2018 strain, the mice treated with 100 mg/kg of DS-22-inf-021 exhibited a 100% survival rate.

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.9637 mL	14.8183 mL	29.6367 mL
5 mM	0.5927 mL	2.9637 mL	5.9273 mL
10 mM	0.2964 mL	1.4818 mL	2.9637 mL
50 mM	0.0593 mL	0.2964 mL	0.5927 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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