

NITD-2

## Chemical Properties

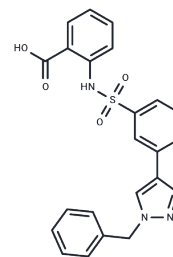
CAS No. : 1197896-79-9

Formula: C<sub>23</sub>H<sub>19</sub>N<sub>3</sub>O<sub>4</sub>S

Molecular Weight: 433.48

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	NITD-2 is a dengue virus (DENV) polymerase inhibitor, inhibits the DENV RdRp-mediated RNA elongation. NITD-2 penetrates cell membrane poorly. Dengue virus (DENV) is the most prevalent mosquito-borne viral pathogen in humans. Neither vaccine nor antiviral therapy is currently available for DENV.
Targets(IC50)	Anti-infection, DNA/RNA Synthesis
In vitro	NITD-2 demonstrated a lack of antiviral activity in cell cultures, attributable to suboptimal cellular penetration. Additionally, it inhibits de novo RNA synthesis [1].

## Solubility Information

Solubility	DMSO: 32.5 mg/mL (74.97 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (4.61 mM), Sonication is recommended. <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

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	1mg	5mg	10mg
1 mM	2.3069 mL	11.5346 mL	23.0691 mL
5 mM	0.4614 mL	2.3069 mL	4.6138 mL
10 mM	0.2307 mL	1.1535 mL	2.3069 mL
50 mM	0.0461 mL	0.2307 mL	0.4614 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.

### Reference

Pornwaratt Niyomrattanakit, et al. Inhibition of dengue virus polymerase by blocking of the RNA tunnel. J Virol. 2010 Jun;84(11):5678-86.

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