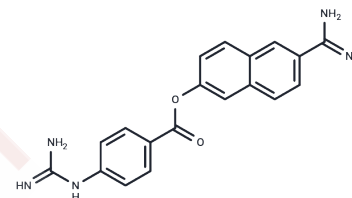


Nafamostat

Chemical Properties

CAS No. : 81525-10-2
 Formula: C₁₉H₁₇N₅O₂
 Molecular Weight: 347.37
 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	Nafamostat is a synthetic serine protease inhibitor and an anticoagulant used in haemodialysis. It induces apoptosis by upregulating TNFR1 expression, inhibits NF-κB activity by blocking IκBα phosphorylation, and can also inhibit SARS-CoV-2 and COVID-19.
Targets(IC50)	Apoptosis, Anti-infection, NF-κB, SARS-CoV, Serine Protease, TNF
In vitro	Nafamostat (10-80 μg/mL, 3-48 h) treatment of MDAPanc-28 cells can inhibit NF-κB activity by blocking IκBα phosphorylation, and when the concentration reaches 80 μg/mL and the treatment time is 24-48 h, it can induce apoptosis of MDAPanc-28 cells by upregulating the expression of tumor necrosis factor receptor 1 (TNFR1). [1]
In vivo	Nafamostat (10 mg/kg, intraperitoneal injection, once a day, 18 days) was used to treat A129 mice infected with Zika virus (ZIKV), and it was found that Nafamostat has a good antiviral effect in vivo. [3]

Solubility Information

Solubility	DMSO: 4 mg/mL (11.52 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8788 mL	14.3939 mL	28.7877 mL
5 mM	0.5758 mL	2.8788 mL	5.7575 mL
10 mM	0.2879 mL	1.4394 mL	2.8788 mL
50 mM	0.0576 mL	0.2879 mL	0.5758 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

Uwagawa T, et al. Mechanisms of synthetic serine protease inhibitor (FUT-175)-mediated cell death [J]. *Cancer: Interdisciplinary International Journal of the American Cancer Society*, 2007, 109(10): 2142-2153.

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Sawada M, et al. Prevention of neointimal formation by a serine protease inhibitor, FUT-175, after carotid balloon injury in rats [J]. *Stroke*, 1999, 30(3): 644-650.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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