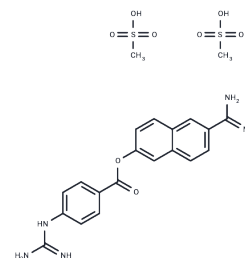


Nafamostat mesylate

Chemical Properties

CAS No. :	82956-11-4
Formula:	C ₁₉ H ₁₇ N ₅ O ₂ ·2CH ₄ O ₃ S
Molecular Weight:	539.58
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 mesylate (FUT-175), a synthetic serine protease inhibitor, has been used for the treatment of allergic disorders such as asthma, allergic rhinitis and atopic dermatitis.
Targets(IC50)	Apoptosis, Anti-infection, NF-κB, SARS-CoV, Serine Protease, TNF
In vitro	Nafamostat Mesylate inhibits both the activation of NF-κB and apoptosis induced by gemcitabine and restrains the growth of pancreatic tumors. At a dosage of 10 mg/kg, it exhibits an inhibitory effect on wounds induced by trypsin. Furthermore, at the same dosage, Nafamostat Mesylate suppresses tryptase activity in mouse skin.
In vivo	Nafamostat mesilate significantly inhibits the release of platelet β-thromboglobulin (βTG) and the release of elastase from neutrophils. It also prevents the formation of complexes between the C1 inhibitor and both prekallikrein and FXIIa. Furthermore, Nafamostat mesilate inhibits the extrinsic pathway activity mediated by the TF-F.VIIa complex, leading to the production of F.Xa, with an IC50 value of 0.1 μM.

Solubility Information

Solubility	DMSO: 121 mg/mL (224.25 mM), Sonication is recommended. H ₂ O: 54 mg/mL (100.08 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: 4 mg/mL (7.41 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

	1mg	5mg	10mg
1 mM	1.8533 mL	9.2665 mL	18.5329 mL
5 mM	0.3707 mL	1.8533 mL	3.7066 mL
10 mM	0.1853 mL	0.9266 mL	1.8533 mL
50 mM	0.0371 mL	0.1853 mL	0.3707 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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- Uchiba M, et al. *Thromb Res*, 1994, 74(2), 155-161.
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- Uwagawa T, et al. *Anticancer Res*, 2009, 29(8), 3173-3178.
- Homma S, et al. Nafamostat mesilate, a serine protease inhibitor, suppresses interferon-gamma-induced up-regulation of programmed cell death ligand 1 in human cancer cells. *Int Immunopharmacol*. 2018 Jan;54:39-45.

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