

PRODUCT INFORMATION

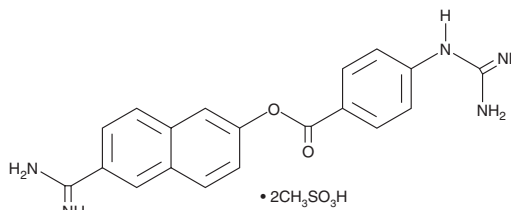


Nafamostat (mesylate)

Item No. 14837

CAS Registry No.: 82956-11-4
Formal Name: 4-[(aminoiminomethyl)amino]-6-(aminoiminomethyl)-2-naphthalenyl ester-benzoic acid, dimethanesulfonate

Synonyms: Coahibitor, FUT 175, Nafamostat
MF: C₁₉H₁₇N₅O₂ • 2CH₃SO₃H
FW: 539.6
Purity: ≥98%
UV/Vis.: λ_{max}: 243 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Nafamostat (mesylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the nafamostat (mesylate) in the solvent of choice, which should be purged with an inert gas. Nafamostat (mesylate) is soluble in the organic solvent DMSO at a concentration of 1 mg/ml.

Nafamostat (mesylate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, nafamostat (mesylate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Nafamostat (mesylate) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Nafamostat is a serine protease inhibitor that is capable of inhibiting trypsin (a digestive system protease; K_i = 15 nM), tryptase (a mast cell protease; K_i = 95.3 pM), and additional proteases in the coagulation cascade including thrombin (K_i = 0.84 μM).¹ In a mouse model of allergic asthma, a dose of 300 mg/kg nafamostat mesylate has been shown to inhibit serine proteolytic activity, to decrease circulating levels of eosinophils and lymphocytes in bronchoalveolar lavage fluid, and to reduce interleukin-13 and eotaxin production associated with antigen-induced airway eosinophilia and goblet cell hyperplasia.²

References

1. Mori, S., Itoh, Y., Shinohata, R., *et al.* Nafamostat mesilate is an extremely potent inhibitor of human tryptase. *J. Pharmacol. Sci.* **92(4)**, 420-423 (2003).
2. Ishizaki, M., Tanaka, H., Kajiwara, D., *et al.* Nafamostat mesilate, a potent serine protease inhibitor, inhibits airway eosinophilic inflammation and airway epithelial remodeling in a murine model of allergic asthma. *J. Pharmacol. Sci.* **108(3)**, 355-363 (2008).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM