**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, Nafamastat  
**MF:** C19H17N5O2 • 2CH3SO3H  
**Purity:** ≥ 98%  
**UV/Vis.:** $\lambda_{\text{max}}$: 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**