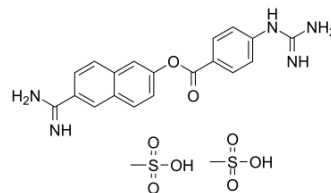


## Nafamostat mesylate

|                           |  |
|---------------------------|--|
| <b>Cat. No.:</b>          | HY-B0190A  |
| <b>CAS No.:</b>           | 82956-11-4   |
| <b>Molecular Formula:</b> | C <sub>21</sub> H <sub>25</sub> N <sub>5</sub> O <sub>8</sub> S <sub>2</sub>                   |
| <b>Molecular Weight:</b>  | 539.58   |
| <b>Target:</b>            | Ser/Thr Protease; Apoptosis; SARS-CoV  |
| <b>Pathway:</b>           | Metabolic Enzyme/Protease; Apoptosis; Anti-infection   |
| <b>Storage:</b>           | 4°C, protect from light<br>* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light) |



### SOLVENT & SOLUBILITY

|   |  |                      |             |             |             |              |
|---|--|----------------------|-------------|-------------|-------------|--------------|
| <b>In Vitro</b>   | DMSO : 50 mg/mL (92.66 mM; Need ultrasonic)  |                      |             |             |             |              |
|   | H <sub>2</sub> O : 33.33 mg/mL (61.77 mM; Need ultrasonic)   |                      |             |             |             |              |
|   | <b>Preparing Stock Solutions</b>   | <b>Solvent</b>       | <b>Mass</b> | <b>1 mg</b> | <b>5 mg</b> | <b>10 mg</b> |
|   |  | <b>Concentration</b> |             |             |             |              |
|   |  | <b>1 mM</b>          |             | 1.8533 mL   | 9.2665 mL   | 18.5329 mL   |
| <b>5 mM</b>   |  |                      | 0.3707 mL   | 1.8533 mL   | 3.7066 mL   |              |
|   | <b>10 mM</b>   |                      | 0.1853 mL   | 0.9266 mL   | 1.8533 mL   |              |
| Please refer to the solubility information to select the appropriate solvent. |  |                      |             |             |             |              |
| <b>In Vivo</b>  | 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline<br>Solubility: ≥ 2.5 mg/mL (4.63 mM); Clear solution |                      |             |             |             |              |
|   | 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)<br>Solubility: ≥ 2.5 mg/mL (4.63 mM); Clear solution            |                      |             |             |             |              |
|   | 3. Add each solvent one by one: 10% DMSO >> 90% corn oil<br>Solubility: ≥ 2.5 mg/mL (4.63 mM); Clear solution                            |                      |             |             |             |              |

### BIOLOGICAL ACTIVITY

|                                     |  |
|-------------------------------------|--|
| <b>Description</b>                  | Nafamostat mesylate, a synthetic serine protease inhibitor, is an anticoagulant. Nafamostat mesylate suppresses T cell auto-reactivity by decreasing granzyme activity and CTL cytolysis. Nafamostat mesylate blocks activation of SARS-CoV-2. <sup>[1][2][3][4]</sup> |
| <b>IC<sub>50</sub> &amp; Target</b> | Serine Protease <sup>[1][2]</sup> .<br>Granzyme <sup>[3]</sup> .   |

## CUSTOMER VALIDATION

- Cell Res. 2020 Mar;30(3):269-271.
- Nucleic Acids Res. 2020 Nov 9;gkaa969.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

- [1]. Ikehara S, et al. Effect of FUT-175, a new synthetic protease inhibitor, on the development of lupus nephritis in (NZB x NZW) F1 mice. Immunology. 1985 Aug;55(4):595-600.
- [2]. Pak K, et al. Effectiveness of FUT-175, protease inhibitor, as an anticoagulant to hemodialysis. Hinyokika Kyo. 1988 Jun;34(6):1077-81.
- [3]. 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.
- [4]. Markus Hoffmann, et al. Nafamostat Mesylate Blocks Activation of SARS-CoV-2: New Treatment Option for COVID-19. Antimicrob Agents Chemother. 2020 Jun; 64(6): e00754-20.

Caution: Product has not been fully validated for medical applications. For research use only.

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