

PRODUCT INFORMATION

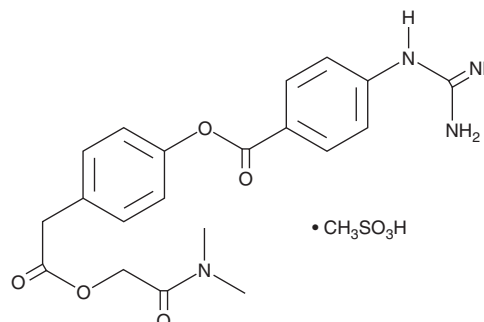


Camostat (mesylate)

Item No. 16018

CAS Registry No.: 59721-29-8
Formal Name: 4-[[4-[(aminoiminomethyl)amino]benzoyl]oxy]-benzeneacetic acid, 2-(dimethylamino)-2-oxoethyl ester, monomethanesulfonate

Synonyms: Foipan, FOY 305
MF: C₂₀H₂₂N₄O₅ • CH₃SO₃H
FW: 494.5
Purity: ≥98%
UV/Vis.: λ_{max}: 264 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

Camostat (mesylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the camostat (mesylate) in the solvent of choice, which should be purged with an inert gas. Camostat (mesylate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of camostat (mesylate) in these solvents is approximately 25 mg/ml.

Description

Camostat is a protease inhibitor.^{1,2} It inhibits trypsin ($K_i = 1$ nM), as well as various inflammatory proteases, including plasmin, kallikrein, and thrombin. Camostat (50 μM) inhibits entry of vesicular stomatitis virus (VSV) particles pseudotyped with severe acute respiratory syndrome coronavirus (SARS-CoV) and SARS-CoV-2 spike glycoprotein in Calu-3 cells and primary human lung epithelial cells.³ It reduces the number of SARS-CoV-2 genomic equivalents, a marker of infection, in Calu-3 cells. Camostat inhibits sodium channel function in human airway epithelial cells ($IC_{50} = 50$ nM) and enhances mucociliary clearance in sheep.¹ Dietary administration of camostat (1 mg/kg) inhibits the production of TNF-α and chemokine (C-C motif) ligand 2 (CCL2) by monocytes, as well as proliferation of pancreatic stellate cells in a rat model of pancreatic fibrosis.²

References

1. Coote, K., Atherton-Watson, H.C., Sugar, R., *et al.* Camostat attenuates airway epithelial sodium channel function in vivo through the inhibition of a channel-activating protease. *J. Pharmacol. Exp. Ther.* **329**(2), 764-774 (2009).
2. Gibo, J., Ito, T., Kawabe, K., *et al.* Camostat mesilate attenuates pancreatic fibrosis via inhibition of monocytes and pancreatic stellate cells activity. *Lab Invest.* **85**(1), 75-89 (2005).
3. Hoffmann, M., Kleine-Weber, H., Schroeder, S., *et al.* SARS-CoV-2 cell entry depends on ACE2 and TMPRSS2 and is blocked by clinically proven protease inhibitor. *Cell* **181**, 1-10 (2020).

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.

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