

Store at
-20C
#27793

Nelfinavir Mesylate

25 mg

**Orders:** 877-616-CELL (2355)
orders@cellsignal.com**Support:** 877-678-TECH (8324)**Web:** info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Background

Nelfinavir Mesylate, also known as AG-1343, is a potent antiviral inhibitor of HIV-1 protease with a K_i value of 2 nM, *in vitro* (1). This small molecule is an effective antitumor agent, known to induce endoplasmic reticulum (ER) stress, autophagy, and apoptosis *in vitro* and *in vivo* (2). Nelfinavir Mesylate has anti-microbial effects on malaria, tuberculosis, and SARS (3). It has also been used in therapies as an antifibrotic agent against pulmonary fibrosis in patients with systemic sclerosis (4). Nelfinavir Mesylate is known to reduce inflammation by activating protein phosphatase 2 (PP2) and blocking MAPK signaling in macrophages (5). Through a novel mechanism of heat shock protein 90 (HSP90) inhibition, Nelfinavir Mesylate selectively inhibits the growth of HER2-positive breast cancer cells *in vitro* (6).

Molecular Formula

 $C_{32}H_{45}N_3O_4S \cdot CH_3SO_3H$

Molecular Weight

663.9 g/mol

Purity

>98%

CAS

159989-65-8

Solubility

Soluble in DMSO at 70 mg/ml.

Storage

Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use

Nelfinavir Mesylate is supplied as a lyophilized powder. For a 10 mM stock, reconstitute 5 mg of powder in 753 μ l of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Background References

1. Patick, A.K. et al. (1996) *Antimicrob Agents Chemother* 40, 292-7.
2. Gills, J.J. et al. (2007) *Clin Cancer Res* 13, 5183-94.
3. Brüning, A. et al. (2010) *Curr Mol Pharmacol* 3, 91-7.
4. Sanchez, C.G. et al. (2018) *Arthritis Rheumatol* 70, 115-26.
5. Wallet, M.A. et al. (2012) *J Leukoc Biol* 92, 795-805.
6. Shim, J.S. et al. (2012) *J Natl Cancer Inst* 104, 1576-90.

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the

purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.