

Nelfinavir

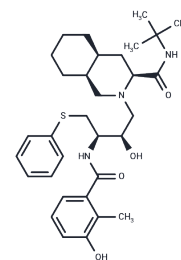
Chemical Properties

CAS No. : 159989-64-7

Formula: C₃₂H₄₅N₃O₄S

Molecular Weight: 567.78

Storage: Store at low temperature, Keep away from direct sunlight, Store under nitrogen
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	Nelfinavir (AG1341) is an antiretroviral drug used in the treatment of the human immunodeficiency virus (HIV) (K _i =2 nM). Nelfinavir is a broad-spectrum, anticancer agent.
Targets(IC ₅₀)	HIV Protease
In vitro	Nelfinavir decreased the viability of a panel of drug-resistant breast cancer cell lines and inhibited the growth of NSCLC xenografts that was associated with induction of ER stress, autophagy, and apoptosis. Nelfinavir is a lead HIV protease inhibitor with pleiotropic effects in cancer cells[1]

Solubility Information

Solubility	DMSO: 100 mg/mL (176.12 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (7.04 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7612 mL	8.8062 mL	17.6125 mL
5 mM	0.3522 mL	1.7612 mL	3.5225 mL
10 mM	0.1761 mL	0.8806 mL	1.7612 mL
50 mM	0.0352 mL	0.1761 mL	0.3522 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Gills J . Nelfinavir, a lead HIV protease inhibitor, is a broad-spectrum, anticancer agent that induces endoplasmic reticulum stress, autophagy, and apoptosis in vitro and in vivo[J]. Clin Cancer Res, 2007, 13(17):5183.

Liu Y, Ouyang L, Jiang S, et al.PPP2R1A silencing suppresses LUAD progression by sensitizing cells to nelfinavir-induced apoptosis and pyroptosis.Cancer Cell International.2024, 24(1): 1-13.

Mondal D , Liu K , Hamblin M , et al. Nelfinavir Suppresses Insulin Signaling and Nitric Oxide Production by Human Aortic Endothelial Cells: Protective Effects of Thiazolidinediones[J]. ochsner journal, 2013, 13(1):76.

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