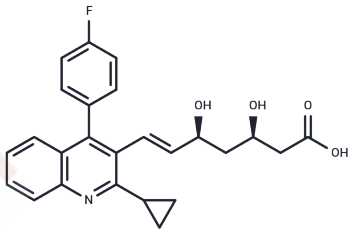
Data Sheet (Cat.No.T7072)

TargetMol

Pitavastatin

Chemical Properties



CAS No. : 147511-69-1

Formula: C25H24FNO4

Molecular Weight: 421.46

Storage: Store at low temperature
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	Pitavastatin (NK-104) is a potent inhibitor of hydroxymethylglutaryl-CoA (HMG-CoA) reductase, effectively inhibiting cholesterol synthesis from acetic acid in HepG2 cells with an IC50 of 5.8 nM. It also induces hepatocyte low-density lipoprotein-cholesterol (LDL-C) receptors and exhibits therapeutic activities such as anti-atherosclerotic, anti-asthmatic, anti-osteoarthritis, antineoplastic, neuroprotective, hepatoprotective, and reno-protective effects.
Targets(IC50)	Apoptosis,Mitophagy,HMG-CoA Reductase,Autophagy
In vitro	Pitavastatin inhibits the growth of a panel of ovarian cancer cells, including those likely representing HGSOC, with IC50 values of 0.4-5 μM in monolayers and 0.6-4 μM in spheroids [4]. At 1 μM for 48 hours, Pitavastatin induces apoptosis in Ovcar-8 and Ovcar-3 cells, increasing the activity of caspases-3, -7, -8, and -9, and results in PARP cleavage in Ovcar-8 cells, as evidenced by Western Blot analysis [1, 4].
In vivo	In 4-week-old female NCR Nu/Nu nude mice bearing Ovcar-4 tumors, Pitavastatin (administered at a dose of 59 mg/kg; orally (p.o.); twice daily for 28 days) is able to significantly induce tumor regression[4].

Solubility Information

Solubility	DMSO: 33.13 mg/mL (78.61 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: 3.3 mg/mL (7.83 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3727 mL	11.8635 mL	23.727 mL
5 mM	0.4745 mL	2.3727 mL	4.7454 mL
10 mM	0.2373 mL	1.1864 mL	2.3727 mL
50 mM	0.0475 mL	0.2373 mL	0.4745 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

Morikawa S, et al. Relative induction of mRNA for HMG CoA reductase and LDL receptor by five different HMG-CoA reductase inhibitors in cultured human cells. J Atheroscler Thromb. 2000;7(3):138-44.
Katsuki S, et al. Nanoparticle-mediated delivery of pitavastatin inhibits atherosclerotic plaque destabilization/rupture in mice by regulating the recruitment of inflammatory monocytes. Circulation. 2014 Feb 25;129(8):896-906.
Tajiri K, et al. Pitavastatin regulates helper T-cell differentiation and ameliorates autoimmune myocarditis in mice. Cardiovasc Drugs Ther. 2013 Oct;27(5):413-24.
Hamano T, et al. Pitavastatin decreases tau levels via the inactivation of Rho/ROCK. Neurobiol Aging. 2012 Oct;33 (10):2306-20.