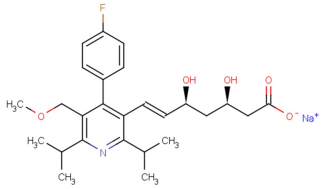
Data Sheet (Cat.No.T10767)

TargetMol
A DRUG SCREENING EXPERT

Cerivastatin sodium

Chemical Properties



CAS No.:	143201-11-0
Formula:	C26H33FNNaO5
Molecular Weight:	481.53
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Cerivastatin sodium is a synthetic lipid-lowering agent and a highly potent and orally active HMG-CoA reductase inhibitor (Ki: 1.3 nM). It also inhibits the proliferation and invasiveness of MDA-MB-231 cells, mainly by RhoA inhibition.
Targets(IC_{50})	HMG-CoA reductase(ki): ki:1.3 nM/L
In vitro	Cerivastatin (5-50 ng/mL; 3 days; MDA-MB-231 cells) treatment induces a dose-dependent decrease in cell proliferation of MDA-MB-231 cells (up to 40% inhibition at 25 ng/mL). Cerivastatin (10-25 ng/mL; 18 hours) inhibits invasion of MDA-MB-231 cells through Matrigel. Cerivastatin (25 ng/mL; 18-36 hours) delocalizes RhoA and Ras from the membrane to the cytosol and induces morphological changes. Cerivastatin (25 ng/mL; 18-36 hours; MDA-MB-231 cells) treatment induces an arrest of the cell cycle in G 1/S phase after 36 h treatment. This arrest is not observed for a shorter incubation time (18 h). Cerivastatin (25 ng/mL; 18 hours; MDA-MB-231 cells) treatment induces a marked increase in the level of p21Waf1/Cip1. Cerivastatin (25 ng/mL; 12 hours; MDA-MB-231 cells) treatment increases the p21 transcript in MDA-MB-231 cells. Cerivastatin (25 ng/mL; 4-36 hours) induces inactivation of NFκB, in a RhoA inhibition-dependent manner, resulting in a decrease in urokinase and metalloproteinase-9 expression, and concomitantly increases IκB [1].
In vivo	Cerivastatin is well absorbed, reaching maximal plasma levels in 1-3 hours following oral dosing. In the circulation, Cerivastatin is highly bound to plasma proteins (99.5%), with an elimination half-life of 2-4 hours. Cerivastatin is metabolized predominantly in the liver to three polar metabolites. Plasma concentrations of all metabolites are substantially lower than those of the parent drug. Elimination of metabolites is via the urine (20-25%) and feces (66-73%), while essentially no parent compound is excreted [2].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.077 mL	10.384 mL	20.767 mL
5 mM	0.415 mL	2.077 mL	4.153 mL
10 mM	0.208 mL	1.038 mL	2.077 mL
50 mM	0.042 mL	0.208 mL	0.415 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Denoyelle C, et al. Cerivastatin, an inhibitor of HMG-CoA reductase, inhibits the signaling pathways involved in the invasiveness and metastatic properties of highly invasive breast cancer cell lines: an in vitro study. Carcinogenesis. 2001 Aug;22(8):1139-48.
2. Stein E, et al. Cerivastatin, a New Potent Synthetic HMG Co-A Reductase Inhibitor: Effect of 0.2 mg Daily in Subjects With Primary Hypercholesterolemia. J Cardiovasc Pharmacol Ther. 1997 Jan;2(1):7-16.
3. Furberg CD, et al. Withdrawal of cerivastatin from the world market. Curr Control Trials Cardiovasc Med. 2001;2(5):205-207.

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