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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

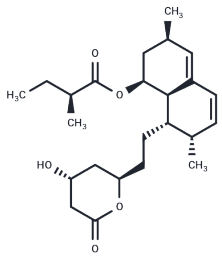
linkedin.com/company/szaboscandic

Data Sheet (Cat.No.T1207)

TargetMol

Lovastatin

Chemical Properties



CAS No. : 75330-75-5

Formula: C24H36O5

Molecular Weight: 404.54

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Lovastatin (MK-803) is an HMG-CoA reductase inhibitor (IC50=3.4 nM). Lovastatin lowers cholesterol and is commonly used as a lipid-lowering agent in the treatment of hypercholesterolemia.
Targets(IC50)	Ferroptosis,HMG-CoA Reductase,Autophagy
In vitro	**METHODS**: PEL cell lines BC3 and BCBL1 were treated with Lovastatin (3-30 μM) for 24-48 h. Cell viability was measured using Trypan blue exclusion. **RESULTS**: A dose- and time-dependent decrease in cell viability after Lovastatin treatment was observed in both PEL cell lines. [1] **METHODS**: The human breast cancer cell lines MDAMB231 and MDAMB468 were treated with Lovastatin (8 μg/mL) for 48 h. The expression levels of target proteins were detected using Western Blot. **RESULTS**: Several proteins involved in the regulation of cell proliferation and cell cycle activity present in breast cancer cells were significantly altered when exposed to Lovastatin. Changes in the expression of two cell cycle regulatory proteins, prohibitin and MCM7, which are associated with E2F activity, were also detected. [2]
In vivo	**METHODS**: To assay antitumor activity in vivo, Lovastatin (25-50 mg/kg) was administered intraperitoneally to C3(1)/TAg transgenic mice in a breast cancer model three times per week for 4-12 weeks. **RESULTS**: Four weeks of treatment with Lovastatin did inhibit precancerous mammary intraepithelial neoplasia (MIN) formation in vivo, but did not inhibit invasive carcinoma formation in a C3(1)/SV40-TAg transgenic model of mammary carcinomas. [3]
Cell Research	Hela cells are treated with lovastatin (0, 5, 10, 20, 40, 80, 160, 320 μg/mL) for 24 h. Cells treated with culture medium serves as a negative control. cell viability is measured using the MTT based colorimetric assay [2].

Solubility Information

Solubility	DMSO: 45 mg/mL (111.24 mM), Ethanol: 20.2 mg/mL (50 mM)),Heating is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4719 mL	12.3597 mL	24.7194 mL
5 mM	0.4944 mL	2.4719 mL	4.9439 mL
10 mM	0.2472 mL	1.236 mL	2.4719 mL
50 mM	0.0494 mL	0.2472 mL	0.4944 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.

Reference

Santarelli R, et al. Lovastatin reduces PEL cell survival by phosphorylating ERK1/2 that blocks the autophagic flux and engages a cross-talk with p53 to activate p2IUBMB Life. 2021 Jul;73(7):968-977.
Zeng X, Zhu S, Lu W, et