

Simvastatin acid ammonium

Chemical Properties

CAS No. : 139893-43-9

Formula: C₂₅H₄₃NO₆

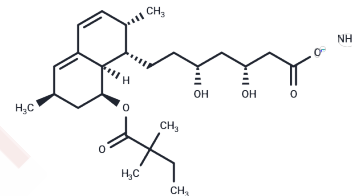
Molecular Weight: 453.61

Storage:

Keep away from direct sunlight, Keep away from moisture, 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	Simvastatin acid ammonium (Tenvastatin ammonium) is an HMG-CoA reductase (HMGCR) inhibitor that reduces cholesterol production by competitively inhibiting HMG-CoA reductase (3-hydroxy-methylglutaryl coenzyme).
Targets(IC50)	Reactive Oxygen Species, HMG-CoA Reductase, ROS
In vitro	Simvastatin acid ammonium (0.1-20 μM, treated for 24 h) significantly inhibited ROS production in indolephenol sulfate-treated hCM cells, with reductions ranging from 8.9% to 43%. In addition, 0.1-20 μM Simvastatin acid ammonium, treated for 24 hours, also affected the expression level of OATP3A1 protein in hCM and OATP3A1-expressing HEK293 cells. [2]

Solubility Information

Solubility	DMSO: 7.46 mg/mL (16.45 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 0.75 mg/mL (1.65 mM), Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.2 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	2.2045 mL	11.0227 mL	22.0454 mL
5 mM	0.4409 mL	2.2045 mL	4.4091 mL
10 mM	0.2205 mL	1.1023 mL	2.2045 mL
50 mM	0.0441 mL	0.2205 mL	0.4409 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

Oliveira EF, et al. HMG-CoA Reductase inhibitors: an updated review of patents of novel compounds and formulations (2011-2015). *Expert Opin Ther Pat.* 2016 Nov;26(11):1257-1272.

Atilano-Roque A, et al. Characterization of simvastatin acid uptake by organic anion transporting polypeptide 3A1 (OATP3A1) and influence of drug-drug interaction. *Toxicol In Vitro.* 2017 Dec;45(Pt 1):158-165.

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