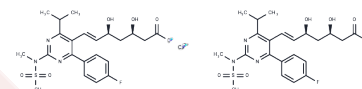


Rosuvastatin calcium

Chemical Properties

CAS No. :	147098-20-2
Formula:	2(C ₂₂ H ₂₇ FN ₃ O ₆ S)Ca
Molecular Weight:	1001.14
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Rosuvastatin calcium (ZD4522) , a selective and competitive inhibitor of hepatic hydroxymethyl-glutaryl coenzyme A (HMG-CoA) reductase, has antilipidemic activity.
Targets(IC50)	Antibacterial,HMG-CoA Reductase,Autophagy,Potassium Channel
In vitro	In streptozotocin-induced diabetic rats, daily administration of Rosuvastatin (20 mg/kg) significantly reduces the content of very low-density lipoprotein (VLDL) within the body. Similarly, in male beagles with normal cholesterol levels, Rosuvastatin (3 mg/kg) effectively lowers the concentration of cholesterol in the plasma.
In vivo	In isolated rat hepatocytes (IC ₅₀ =1.12 nM), Rosuvastatin acts as a high-affinity substrate for OATP-C, inhibiting cholesterol synthesis. Additionally, in endothelial cells, Rosuvastatin suppresses the expression and protein levels of ICAM-1, MCP-1, IL-8, IL-6, and COX-2 mRNA by inhibiting the c-Jun N-terminal kinase and nuclear factor-kB.

Solubility Information

Solubility	DMSO: 123 mg/mL (122.86 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 (4 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	0.9989 mL	4.9943 mL	9.9886 mL
5 mM	0.1998 mL	0.9989 mL	1.9977 mL
10 mM	0.0999 mL	0.4994 mL	0.9989 mL
50 mM	0.020 mL	0.0999 mL	0.1998 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

Watanabe M, et al. *Bioorg Med Chem*, 1997, 5(2), 437-444.

Tan X D, Luo C F, Liang S Y. Antihyperlipidemic drug rosuvastatin suppressed tumor progression and potentiated chemosensitivity by downregulating CCNA2 in lung adenocarcinoma. *Journal of Chemotherapy*.2024: 1-13.

Kowal-Chwast A, Gabor-Worwa E, Gaud N, et al. Novel method of measurement of in vitro drug uptake in OATP1B3 overexpressing cells in the presence of dextran. *Pharmacological Reports*.2024: 1-16.

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