



LKT Laboratories, Inc.

Rosuvastatin Calcium

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Product Information

Product ID R5974

CAS No. 147098-20-2

Chemical Name (S-((R*,S*-(E)))- 7-(4-(4-fluorophenyl)-6-(1-methylethyl)-2-(methyl(methylsulfonyl) amino)-5-pyrimidinyl)-3,5-dihydroxy-6-heptenoic acid, calcium salt (2:1)

Synonym

Formula $2C_{27}H_{28}FN_3O_6S \text{ Ca}^{2+}$

Formula Wt. 1001.14

Melting Point 156-160°C dec° mp

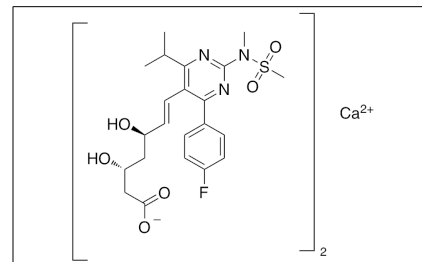
Purity ≥98%

Solubility Slightly soluble in water, marginally soluble in ethanol, soluble in DMSO (100mg/mL), DMF

Store Temp Ambient

Ship Temp Ambient

Description Rosuvastatin is an inhibitor of HMG-CoA reductase that decreases serum LDL and VLDL and is used to treat atherosclerosis in clinical settings. In addition to anti-atherosclerotic benefit, rosuvastatin also exhibits anti-inflammatory, cardioprotective, and anti-platelet activities. In animal models, rosuvastatin decreases levels of plasma lipids and angiotensin II (ATII) by inhibiting expression of the angiotensin II type 1 (AT1) receptor and p-ERK1/2 and upregulating scavenger receptor B1. Separately, rosuvastatin downregulates ERK, p38MAPK, matrix metalloproteinases 2 and 9 (MMP2/9), and PAI expression, inhibiting migration and proliferation of vascular smooth muscle cells. This compound also downregulates expression of the nucleotide-binding oligomerization domain-like receptor protein 3 (NLRP3) inflammasome, inhibiting cardiac remodeling and dysfunction in animal models of diabetic cardiomyopathy. Additionally, rosuvastatin inhibits activation of NADPH oxidase and PKC, decreasing platelet recruitment and activation in vitro and ex vivo.



Bulk quantities available upon request

Product ID	Size
R5974	25 mg
R5974	100 mg
R5974	250 mg

References Li Y, Wang Q, Zhou J, et al. Rosuvastatin attenuates atherosclerosis in rats via activation of scavenger receptor class B type I. *Eur J Pharmacol.* 2013 Dec 10;723C:23-28. [Epub ahead of print]. PMID: 24333476.

Luo B, Li B, Wang W, et al. Rosuvastatin Alleviates Diabetic Cardiomyopathy by Inhibiting NLRP3 Inflammasome and MAPK Pathways in a Type 2 Diabetes Rat Model. *Cardiovasc Drugs Ther.* 2013 Nov 20. [Epub ahead of print]. PMID: 24254031.

Gan J, Li P, Wang Z, et al. Rosuvastatin suppresses platelet-derived growth factor-BB-induced vascular smooth muscle cell proliferation and migration via the MAPK signaling pathway. *Exp Ther Med.* 2013 Oct;6(4):899-903. PMID: 24137286.

Hu X, Sun A, Xie X, et al. Rosuvastatin changes cytokine expressions in ischemic territory and preserves heart function after acute myocardial infarction in rats. *J Cardiovasc Pharmacol Ther.* 2013 Mar;18(2):162-76. PMID: 23139358.

Pignatelli P, Carnevale R, Di Santo S, et al. Rosuvastatin reduces platelet recruitment by inhibiting NADPH oxidase activation. *Biochem Pharmacol.* 2012 Dec 15;84(12):1635-42. PMID: 23022230.

Laumen H, Skurk T, Hauner H. The HMG-CoA reductase inhibitor rosuvastatin inhibits plasminogen activator inhibitor-1 expression and secretion in human adipocytes. *Atherosclerosis.* 2008 Feb;196(2):565-73. PMID: 17692320.

Holdgate GA, Ward WH, McTaggart F. Molecular mechanism for inhibition of 3-hydroxy-3-methylglutaryl CoA (HMG-CoA) reductase by rosuvastatin. *Biochem Soc Trans.* 2003 Jun;31(Pt 3):528-31. PMID: 12773150.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.