

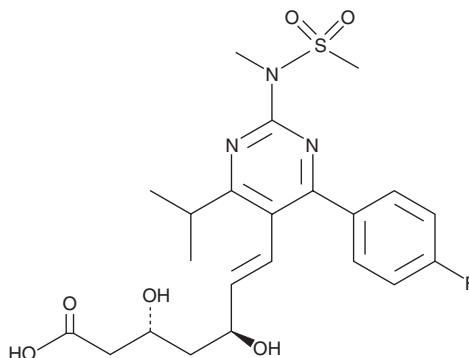
PRODUCT INFORMATION



Rosuvastatin

Item No. 12029

CAS Registry No.: 287714-41-4
Formal Name: 7-[4-(4-fluorophenyl)-6E-(1-methylethyl)-2-[methyl(methylsulfonyl)amino]-5-pyrimidinyl]-3R,5S-dihydroxy-6-heptenoic acid
Synonym: ZD 4522
MF: C₂₂H₂₈FN₃O₆S
FW: 481.5
Purity: ≥98%
UV/Vis.: λ_{max}: 244 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Rosuvastatin is supplied as a crystalline solid. A stock solution may be made by dissolving the rosuvastatin in the solvent of choice, which should be purged with an inert gas. Rosuvastatin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of rosuvastatin is approximately 1 mg/ml in ethanol and approximately 5 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of rosuvastatin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of rosuvastatin in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Rosuvastatin is an inhibitor of HMG-CoA reductase (IC₅₀ = 5 nM).¹ It inhibits cholesterol synthesis in isolated rat hepatocytes with an IC₅₀ value of 0.16 nM.² Rosuvastatin (10 mg/kg) reduces plasma total cholesterol, triglyceride, LDL-C, and oxidized LDL-C levels in *Ldlr*^{-/-} mice fed a high-fat diet.³ It decreases the area of aortic atherosclerotic lesions in the same model. Formulations containing rosuvastatin have been used in the treatment of dyslipidemias.

References

1. Istvan, E.S. and Deisenhofer, J. Structural mechanism for statin inhibition of HMG-CoA reductase. *Science* **292**(5519), 1160-1164 (2001).
2. McTaggart, F., Buckett, L., Davidson, R., *et al.* Preclinical and clinical pharmacology of Rosuvastatin, a new 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitor. *Am. J. Cardiol.* **87**(5A), 28B-32B (2001).
3. Guo, H., Shi, Y., Liu, L., *et al.* Rosuvastatin inhibits MMP-2 expression and limits the progression of atherosclerosis in LDLR-deficient mice. *Arch. Med. Res.* **40**(5), 345-351 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM