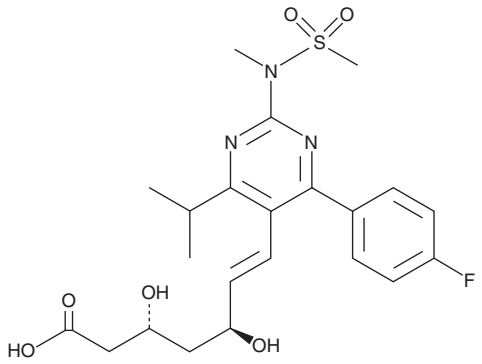
PRODUCT INFORMATION

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:	$C_{22}H_{28}FN_3O_6S$
FW:	481.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 244 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 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. Rosuvastatin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. 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 a potent HMG-CoA reductase inhibitor (IC_{50} = 5 nM).[1,2] It is a fully-synthetic inhibitor that is designed to maximize the points of contact with, and inhibition of, HMG-CoA reductase.[1] Formulations containing rosuvastatin reduce low-density lipoprotein (LDL) and C-reactive protein and increase high-density lipoprotein (HDL) in humans.[3,4]

References

1. Istvan, E.S. and Deisenhofer, J. Structural mechanism for statin inhibition of HMG-CoA reductase. *Science* **292(5519)**, 1160-1164 (2001).
2. Tobert, J.A. Lovastatin and beyond: The history of the HMG-CoA reductase inhibitors. *Nat. Rev. Drug Discov.* **2(7)**, 517-526 (2003).
3. Asztalos, B.F., Maulf, F.L., Dallal, G.E., *et al.* Comparison of the effects of high doses of Rosuvastatin versus Atorvastatin on the subpopulations of high-density lipoproteins. *Am. J. Cardiol.* **99(5)**, 681-685 (2007).
4. Rubba, P., Marotta, G., and Gentile, M. Efficacy and safety of rosuvastatin in the management of dyslipidemia. *Vasc. Health Risk Manag.* **5(1)**, 343-352 (2009).

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