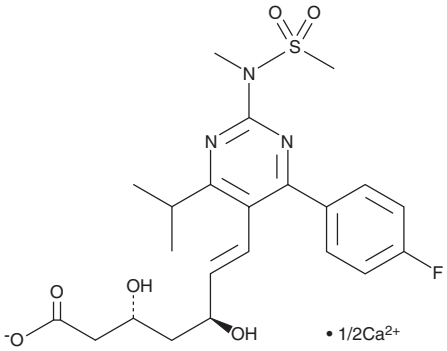
PRODUCT INFORMATION

Rosuvastatin (calcium salt)

Item No. 18813

CAS Registry No.:	147098-20-2
Formal Name:	(3R,5S,6E)-7-[4-(4-fluorophenyl)-6-(1-methylethyl)-2-[methyl(methylsulfonyl)amino]-5-pyrimidinyl]-3,5-dihydroxy-6-heptenoic acid, hemicalcium salt
MF:	$C_{22}H_{27}FN_3O_6S$ • 1/2Ca
FW:	500.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 243 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 (calcium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the rosuvastatin (calcium salt) in the solvent of choice, which should be purged with an inert gas. Rosuvastatin (calcium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of rosuvastatin (calcium salt) in these solvents is approximately 20 mg/ml.

Rosuvastatin (calcium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, rosuvastatin (calcium salt) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Rosuvastatin (calcium salt) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Rosuvastatin is an inhibitor of HMG-CoA reductase (IC_{50} = 5 nM).[1] It inhibits cholesterol synthesis in isolated rat hepatocytes with an IC_{50} 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).

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