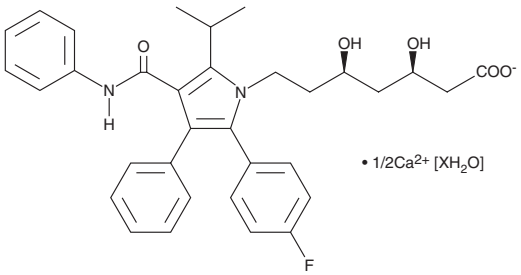
PRODUCT INFORMATION

Atorvastatin (calcium salt hydrate)

Item No. 10493

CAS Registry No.: 357164-38-6
Formal Name: 2-(4-fluorophenyl)-βR,δR-dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid, hemicalcium salt, hydrate
MF: $C_{33}H_{34}FN_2O_5$ • 1/2Ca [XH_2O]
FW: 577.7
Purity: ≥98%
UV/Vis.: λ_{max}: 247 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

Atorvastatin (calcium salt hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the atorvastatin (calcium salt hydrate) in the solvent of choice. Atorvastatin (calcium salt hydrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of atorvastatin (calcium salt hydrate) in these solvents is approximately 0.5, 15, and 25 mg/ml, respectively.

Atorvastatin (calcium salt hydrate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, atorvastatin (calcium salt hydrate) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Atorvastatin (calcium salt hydrate) has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Atorvastatin is an inhibitor of HMG-CoA reductase, the rate-limiting enzyme in the mevalonate pathway of cholesterol synthesis, that has IC_{50} values of 73, 102, and 0.6 nM for HepG2 cells, human fibroblasts, and rat hepatocytes, respectively.[1] Formulations containing atorvastatin have been used in the treatment of hypercholesterolemia and certain dyslipidemias.

Reference

1. Shaw, M.K., Newton, R.S., Sliskovic, D.R., *et al.* Hep-G2 cells and primary rat hepatocytes differ in their response to inhibitors of HMG-CoA reductase. *Biochem. Biophys. Res. Commun.* **170(2)**, 726-734 (1990).

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