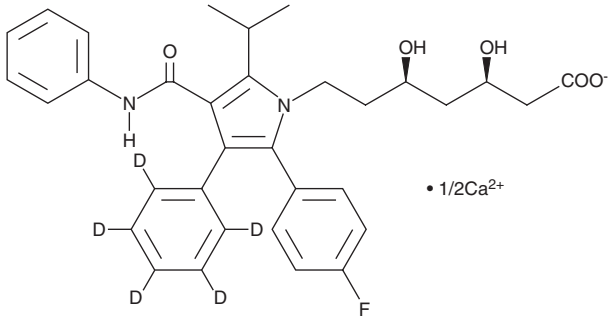
PRODUCT INFORMATION

Atorvastatin-d_5 (calcium salt)

Item No. 25043

CAS Registry No.: 222412-82-0
Formal Name: 2-(4-fluorophenyl)-βR,δR-dihydroxy-5-(1-methylethyl)-3-(phenyl-d_5)-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid, hemicalcium salt
MF: $C_{33}H_{29}D_5FN_2O_5$ • 1/2Ca
FW: 562.7
Chemical Purity: ≥95% Atorvastatin
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_5); ≤1% d_0
Supplied as: A 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

Atorvastatin-d_5 (calcium salt) is intended for use as an internal standard for the quantification of atorvastatin (Item No. 10493) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Atorvastatin-d_5 (calcium salt) is supplied as a solid. A stock solution may be made by dissolving the atorvastatin-d_5 (calcium salt) in the solvent of choice. Atorvastatin-d_5 (calcium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of atorvastatin-d_5 (calcium salt) in these solvents is approximately 0.5, 15, and 25 mg/ml, respectively.

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).

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