

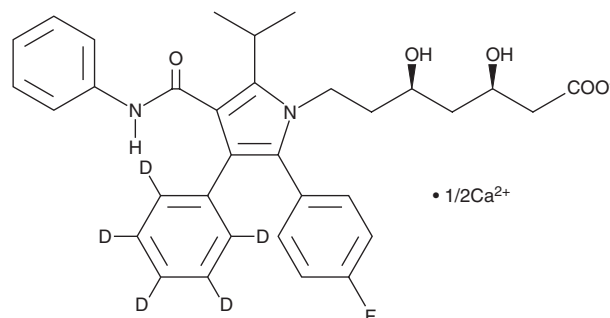
# PRODUCT INFORMATION



## Atorvastatin-d<sub>5</sub> (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<sub>5</sub>)-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid, hemicalcium salt  
**MF:** C<sub>33</sub>H<sub>29</sub>D<sub>5</sub>FN<sub>2</sub>O<sub>5</sub> • 1/2Ca  
**FW:** 562.7  
**Chemical Purity:** ≥98% Atorvastatin  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>5</sub>); ≤1% d<sub>0</sub>  
**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<sub>5</sub> (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<sub>5</sub> (calcium salt) is supplied as a solid. A stock solution may be made by dissolving the atorvastatin-d<sub>5</sub> (calcium salt) in the solvent of choice. Atorvastatin-d<sub>5</sub> (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<sub>5</sub> (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<sub>50</sub> values of 73, 102, and 0.6 nM for HepG2 cells, human fibroblasts, and rat hepatocytes, respectively.<sup>1</sup> 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).

#### 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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