

PRODUCT INFORMATION

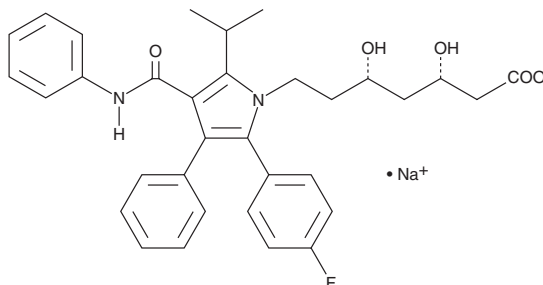


(3S,5S)-Atorvastatin (sodium salt)

Item No. 18465

CAS Registry No.: 1428118-38-0
Formal Name: 2-(4-fluorophenyl)-β,δ-dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid, monosodium salt

MF: C₃₃H₃₄FN₂O₅ • Na
FW: 580.6
Purity: ≥98%
UV/Vis.: λ_{max}: 246 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

(3S,5S)-Atorvastatin (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the (3S,5S)-atorvastatin (sodium salt) in the solvent of choice, which should be purged with an inert gas. (3S,5S)-Atorvastatin (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (3S,5S)-atorvastatin (sodium salt) in these solvents is approximately 0.5, 15, and 25 mg/ml, respectively.

(3S,5S)-Atorvastatin (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (3S,5S)-atorvastatin (sodium salt) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (3S,5S)-Atorvastatin (sodium salt) 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 (Item No. 10493) is an HMG-CoA reductase inhibitor (IC₅₀ = 154 nM) that is effective against hypercholesterolemia and certain dyslipidemias.¹⁻³ Atorvastatin can exist in four optical forms, with the 3R,5R enantiomer displaying the greatest activity against HMG-CoA reductase. (3S,5S)-Atorvastatin is an enantiomer of atorvastatin that has little or no inhibitory activity against HMG-CoA reductase.⁴ It also differs from other atorvastatin enantiomers in cytotoxicity, activation of the pregnane X receptor, and induction of cytochrome P450 isoforms.^{4,5}

References

1. Dart, A., Jerums, G., Nicholson, G., et al. *Am. J. Cardiol.* **80**, 39-44 (1997).
2. The Diabetes Atorvastatin Lipid Intervention (DALI) Study Group. *Diabetes Care* **24**(8), 1335-1341 (2001).
3. van Dam, M., Zwart, M., de Beer, F., et al. *Heart* **88**, 234-238 (2002).
4. Kocarek, T.A., Dahn, M.S., Cai, H., et al. *Drug Metab. Dispos.* **30**(12), 1400-1405 (2002).
5. Korhonova, M., Dorcakova, A., and Dvorak, Z. *PLoS One* **10**(9), (2015).

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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