

PRODUCT INFORMATION

Fluvastatin-d₆ (sodium salt)

Item No. 25433

Formal Name: (3R,5S,E)-7-(3-(4-fluorophenyl)-1-(propan-2-yl-1,1,1,3,3,3-d₆)-1H-indol-2-yl)-3,5-dihydroxyhept-6-enoate, monosodium salt

MF: C₂₄H₁₉D₆FNO₄ • Na

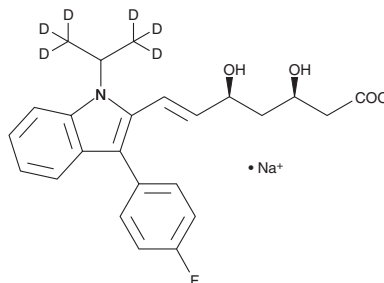
FW: 439.5

Purity: ≥95% (mixture of enantiomers)

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

Fluvastatin-d₆ is intended for use as an internal standard for the quantification of fluvastatin (Item Nos. 10010334 | 10010337) 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).

Fluvastatin-d₆ (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the fluvastatin-d₆ (sodium salt) in the solvent of choice, which should be purged with an inert gas. Fluvastatin-d₆ (sodium salt) is slightly soluble in methanol.

Description

Fluvastatin is an inhibitor of HMG-CoA reductase ($K_i = 0.3$ nM for the rat enzyme).^{1,2} It also inhibits the human cytochrome P450 (CYP) isoform CYP2C9 ($IC_{50} = 100$ nM).³ Fluvastatin inhibits oxidized LDL-induced ferroptosis and reverses oxidized LDL-induced decreases in glutathione peroxidase 4 (GPX4) and system X_c⁻ cystine-glutamate antiporter levels in human umbilical vein endothelial cells (HUVECs).⁴ *In vivo*, fluvastatin (2 mg/kg per day) decreases serum cholesterol, triglyceride, and phospholipid levels, the formation of thiobarbituric acid-reactive substances (TBARS), and vascular angiotensin-converting enzyme (ACE) activity in rabbits fed a high-cholesterol diet.⁵ It increases survival in a mouse model of myocardial infarction when administered at a dose of 10 mg/kg per day.⁶ Formulations containing fluvastatin have been used in the treatment of hypercholesterolemia and the prevention of cardiovascular disease.

References

1. Istvan, E.S. and Deisenhofer, J. *Science* **292**(5519), 1160-1164 (2001).
2. Corsini, A., Maggi, F.M., and Catapano, A.L. *Pharmacol. Res.* **31**(1), 9-27 (1995).
3. Transon, C., Leemann, T., and Dayer, P. *Eur. J. Clin. Pharmacol.* **50**(3), 209-215 (1996).
4. Li, Q., Liu, C., Deng, L., et al. *Exp. Ther. Med.* **22**(5), 1275 (2021).
5. Mitani, H., Bando, T., Ishikawa, J., et al. *Br. J. Pharmacol.* **119**(6), 1269-1275 (1996).
6. Hayashidani, S., Tsutsui, H., Shiomi, T., et al. *Circulation* **105**(7), 868-873 (2002).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/07/2022

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