

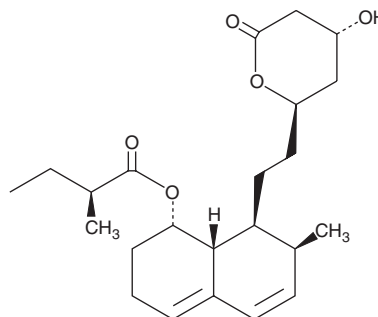
# PRODUCT INFORMATION



## Mevastatin

Item No. 10010340

**CAS Registry No.:** 73573-88-3  
**Formal Name:** 2S-methyl-(1S,2,3,7S,8S,8aR)-hexahydro-7-methyl-8-[2-[(2R,4R)-tetrahydro-4-hydroxy-6-oxo-2-H-pyran-2-yl]ethyl]-1-naphthalenyl ester-butanoic acid  
**Synonyms:** Compactin, CS 500, L-637,312, ML 236B, NSC 281245, Statin I  
**MF:** C<sub>23</sub>H<sub>34</sub>O<sub>5</sub>  
**FW:** 390.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 236 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

Mevastatin is supplied as a crystalline solid. A stock solution may be made by dissolving the mevastatin in the solvent of choice, which should be purged with an inert gas. Mevastatin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of mevastatin in these solvents is approximately 5 mg/ml.

Mevastatin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, mevastatin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Mevastatin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of Ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Mevastatin is a competitive HMG-CoA reductase inhibitor ( $K_i = 0.1 \mu\text{M}$ ).<sup>1</sup> *In vivo*, mevastatin (50 mg/kg) inhibits cholesterol synthesis in the liver and ileum of normolipidemic rats, as well as enhances suppression of cholesterol synthesis in cholesterol-fed rats or rats administered cholestyramine.<sup>2</sup> Mevastatin also suppresses TNF-induced NF- $\kappa$ B activation ( $\text{IC}_{50} = \sim 17 \mu\text{M}$ ) and potentiates apoptosis in human myeloid leukemia cells.<sup>3</sup> It also suppresses induced ferroptosis in HT-1080 cells.<sup>4</sup> Formulations containing mevastatin have been used in the treatment of familial hypercholesterolemia.<sup>5</sup>

### References

1. Endo, A., Kuroda, M., and Tanzawa, K. *FEBS Lett.* **72**(2), 323-326 (1976).
2. Fears, R., Richards, D.H., and Ferres, H. *Atherosclerosis.* **35**(4), 439-449 (1980).
3. Ahn, K.S., Sethi, G., and Aggarwal, B.B. *Biochem. Pharmacol.* **75**(4), 907-913 (2008).
4. Conlon, M., Poltorack, C.D., Forcina, G.C., et al. *Nat. Chem. Biol.* (2021).
5. Endo, A. *J. Lipid Res.* **33**(11), 1569-1582 (1992).

#### 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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