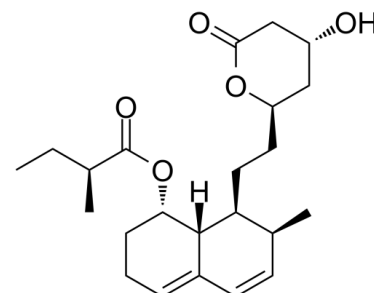


Data Sheet

Product Name:	Mevastatin
Cat. No.:	CS-1234
CAS No.:	73573-88-3
Molecular Formula:	C ₂₃ H ₃₄ O ₅
Molecular Weight:	390.51
Target:	Apoptosis; Autophagy; HMG-CoA Reductase (HMGCR)
Pathway:	Apoptosis; Autophagy; Metabolic Enzyme/Protease
Solubility:	DMSO : 25 mg/mL (64.02 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Mevastatin (Compactin; ML236B) inhibits HMGCR (HMG-CoA reductase) (K_i for acid form is 1 nM) which in turn inhibits isoprenoid biosynthesis and therefore blocks protein isoprenylation and reduces plasma cholesterol levels in humans. IC₅₀ value: 1 nM (K_i)
Target: HMGCR Mevastatin induces apoptosis, arrests cancer cells in G1 phase and downregulates cdk 2, 4, and 6, cyclin D1 and E1, p21 and p27. Mevastatin suppresses TNF-induced NF-κB activation (IC₅₀ = ~17 μM), which potentiates apoptosis in human myeloid leukemia cells and thus, may be useful in treating cancer.

References:

- [1]. Sugazaki M, Hirotsu H, Echigo S, et al. Effects of mevastatin on grafted bone in MRL/MpJ mice. *Connect Tissue Res.* 2010 Apr;51(2):105-12. doi: 10.3109/03008200903105098.
- [2]. Evangelopoulos ME, Weis J, Krüttgen A. Mevastatin-induced neurite outgrowth of neuroblastoma cells via activation of EGFR. *J Neurosci Res.* 2009 Jul;87(9):2138-44. doi: 10.1002/jnr.22025.
- [3]. W?chtersh?user A, Akoglu B, Stein J. HMG-CoA reductase inhibitor mevastatin enhances the growth inhibitory effect of butyrate in the colorectal carcinoma cell line Caco-2. *Carcinogenesis.* 2001 Jul;22(7):1061-7.
- [4]. Amin-Hanjani S, Stagliano NE, Yamada M, et al. Mevastatin, an HMG-CoA reductase inhibitor, reduces stroke damage and upregulates endothelial nitric oxide synthase in mice. *Stroke.* 2001 Apr;32(4):980-6.

CAIndexNames:

Butanoic acid, 2-methyl-, (1S,7S,8S,8aR)-1,2,3,7,8,8a-hexahydro-7-methyl-8-[2-[(2R,4R)-tetrahydro-4-hydroxy-6-oxo-2H-pyran-2-yl]ethyl]-1-naphthalenyl ester, (2S)-

SMILES:

CC[C@H](C)C(O[C@H]1CCC=C2C=C[C@H](C)[C@H](CC[C@@H]3C[C@@H](O)CC(O3)=O)[C@@]12[H])=O

Caution: Product has not been fully validated for medical applications. For research use only.

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