

Product Name	: Mevastatin
Synonyms	: Compactin; CS 500; L-637,312; ML 236B; NSC 281245; Statin I
Cat No.	: M15815
CAS Number	: 73573-88-3
Molecular Formula	: C ₂₃ H ₃₄ O ₅
Formula Weight	: 390.51
Chemical Name	: (1S,7S,8S,8aR)-8-(2-((2R,4R)-4-hydroxy-6-oxotetrahydro-2H-pyran-2-yl)ethyl)-7-methyl-1,2,3,7,8,8a-hexahydronaphthalen-1-yl (S)-2-methylbutanoate
Description	<p>Mevastatin or compactin is a cholesterol-lowering agent isolated from <i>Penicillium citrinum</i>. It was the first discovered agent belonging to the class of cholesterol-lowering medications known as statins. During a search for antibiotic compounds produced by fungi in 1971, Akira Endo at Sankyo Co. (Japan) discovered a class of compounds that appeared to lower plasma cholesterol levels. Two years later, the research group isolated a compound structurally similar to hydroxymethylglutarate (HMG) that inhibited the incorporation of acetate. The compound was proposed to bind to the reductase enzyme and was named compactin. Mevastatin is a competitive inhibitor of HMG-Coenzyme A (HMG-CoA) reductase with a binding affinity 10,000 times greater than the HMG-CoA substrate itself. Mevastatin is a pro-drug that is activated by in vivo hydrolysis of the lactone ring. It has served as one of the lead compounds for the development of the synthetic compounds used today.</p>
Pathway	: Metabolic Enzyme/Protease
Target	: HMGCR
Receptor	: HMG-CoA reductase; CES1
Solubility	: DMSO: 78mg/ml(199.74 mM);Water: <1mg/ml;Ethanol: <1mg/ml
SMILES	: <chem>CC[C@H](C)C(=O)C[C@H]1CCC=C2C=C[C@H](C)[C@H](CC[C@@H]3C[C@@H](O)CC(=O)O)[C@@H]12[H]=O</chem>
Storage	: (-20°C)
Stability	: ≥ 2 years
Reference	:

1.Endo A, et al. J Antibiot (Tokyo), 1976, 29(12), 1346-1348.