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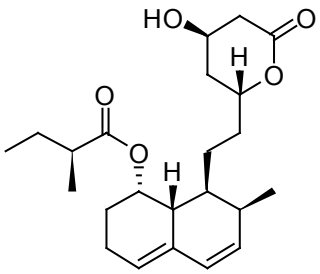
PRODUCT DATA SHEET

Mevastatin

Code: **BIA-M1209**

Pack sizes: **25 mg, 100 mg**



Synonyms : **Compactin, Antibiotic ML 236B, ML 236B, SIPI 8915, Antibiotic SIpI 8915**

Specifications

CAS #	:	**73573-88-3**
Molecular Formula	:	**$C_{23}H_{34}O_5$**
Molecular Weight	:	**390.5**
Source	:	**Penicillium sp. MST-FP445**
Appearance	:	**White solid**
Purity	:	**> 95%**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility**

Application Notes

Mevastatin is a diterpene produced by several species of the genera *Penicillium* and *Monascus* first reported in 1976. Mevastatin is a potent competitive inhibitor of 3-hydroxy-3-methyl-glutaryl (HMG)-CoA reductase, a regulatory enzyme for cholesterol biosynthesis. Mevastatin has been extensively reviewed and is the prototype of so-called "statin" anticholesterolaemic agents. More recently, mevastatin has been demonstrated to elicit other pharmacological actions of interest, including induction of apoptosis by inhibiting post-translational prenylation of proteins such as Ras, increasing eNOS mRNA and protein levels by blocking the geranylgeranylation of Rho, and inhibiting myoblast fusion. It induces cell cycle arrest in late G1 phase and may induce bone morphogenic protein-2 (BMP-2).

References

1. Crystal and molecular structure of compactin, a new antifungal metabolite from *Penicillium brevicompactum*. Brown A. G. et al., J.C.S. Perkin 1, 1976, 1165.
2. Sterol biosynthesis: effect of compactin and its derivatives. Fears R., Biochem. Soc. Trans. 1983, 11, 642.
3. Post-transcriptional regulation of endothelial nitric oxide synthase mRNA stability by Rho GTPase. Laufs U. & Liao J.K., J. Biol. Chem. 1998, 273, 24266.

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