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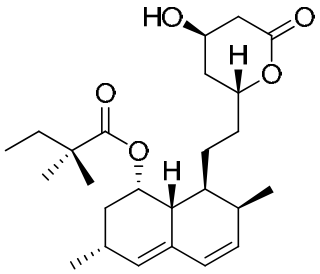
PRODUCT DATA SHEET

Simvastatin

Code: **BIA-S1276**

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



Synonyms : **MK-733**

Specifications

CAS #	:	**79902-63-9**
Molecular Formula	:	**$C_{25}H_{38}O_5$**
Molecular Weight	:	**418.6**
Source	:	**Semi-synthetic**
Appearance	:	**White powder**
Purity	:	**> 98% by HPLC**
Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.**

Application Notes

Simvastatin is a slightly more hydrophobic semi-synthetic analog of lovastatin. Like lovastatin, simvastatin is a specific inhibitor of HMG-CoA reductase and is used therapeutically to reduce LDL cholesterol. More recently, the statins have become important biochemical probes in cell biology. Their involvement in many events can be correlated to their primary mode of action, however, the mode of action of many other effects is less apparent.

References

1. Hoffman W. F. US Patent 4,444,784 (1984).
2. Lovastatin and simvastatin are modulators of the proteasome. Wojcik C. et al. Int. J. Biochem. Cell Biol. 2000, 32, 957.
3. 3-Hydroxy-3-methylglutaryl CoA reductase inhibitors prevent high glucose-induced proliferation of mesangial cells via modulation of Rho GTPase/p21 signaling pathway: Implications for diabetic nephropathy. Danesh F. R. et al. Proc. Natl. Acad. Sci. USA 2002, 99, 8301.
4. HMG-CoA reductase inhibitor simvastatin mitigates VEGF-induced "inside-out" signaling to extracellular matrix by preventing RhoA activation. Xu H. et al. Am. J. Physiol. Renal. Physiol. 2006, 291, F995.

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