

Product Data Sheet

Atorvastatin Calcium

Cat. No.:	A4367
CAS No.:	134523-03-8
Formula:	2(C ₃₃ H ₃₄ FN ₂ O ₅)·Ca
M.Wt:	1155.34
Synonyms:	
Target:	Metabolism
Pathway:	HMG-CoA Reductase
Storage:	Store at -20°C



Solvent & Solubility

≥57.75 mg/mL in DMSO; insoluble in H₂O; ≥2.94 mg/mL in EtOH with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Mass			
	Solvent Concentration	1mg	5mg	10mg
	1 mM	0.8655 mL	4.3277 mL	8.6555 mL
	5 mM	0.1731 mL	0.8655 mL	1.7311 mL
	10 mM	0.0866 mL	0.4328 mL	0.8655 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

HMG-CoA reductase inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: Mononuclear cells and VSMC

Preparation method: The solubility of this compound in DMSO is > 57.8 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.

Reacting conditions: 0.1 or 1 μM

	Applications:	In mononuclear cells and VSMC, Atorvastatin Calcium (0.1 μ M) significantly inhibited NF- κ B activation induced by Ang II and TNF- α . Besides, Atorvastatin Calcium (1 μ M) also down-regulated MCP-1 and IP-10 expressions induced by Ang II and by TNF- α .
In Vivo	Animal experiment	
	Animal models:	Ischemic hindlimb mice
	Dosage form:	2 or 8 mg/kg/day; p.o.; 4 weeks
	Applications:	In ischemic hindlimb mice, Atorvastatin Calcium at the dose of 8 mg/kg significantly recovered blood flow. Besides, the ischemia/normal perfusion ratio in the 8 mg/kg Atorvastatin Calcium treatment group also increased. According to the analyses of the ischemic muscle tissues, Atorvastatin Calcium significantly increased the number of capillaries. Meanwhile, CXCR4 expression was up-regulated in these ischemic tissues.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1]. Ortego M, Bustos C, Hernández-Presa MA, Tuón J, Díaz C, Hernández G, Egido J. Atorvastatin reduces NF-kappaB activation and chemokine expression in vascular smooth muscle cells and mononuclear cells. *Atherosclerosis*. 1999 Dec;147(2):253-61.
- [2]. Chiang KH, Cheng WL, Shih CM, Lin YW, Tsao NW, Kao YT, Lin CT, Wu SC, Huang CY, Lin FY. Statins, HMG-CoA Reductase Inhibitors, Improve Neovascularization by Increasing the Expression Density of CXCR4 in Endothelial Progenitor Cells. *PLoS One*. 2015 Aug 26;10(8):e0136405.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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