

## Atorvastatin calcium hydrate

## Chemical Properties

CAS No. :	344423-98-9
Formula:	C <sub>33</sub> H <sub>35</sub> FN <sub>2</sub> O <sub>5</sub> .1/2Ca.3/2H <sub>2</sub> O
Molecular Weight:	605.72
Storage:	Keep away from moisture Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

## Biological Description

Description	Atorvastatin calcium hydrate is an oral lipid-lowering compound belonging to the class of HMG-CoA reductase inhibitors. Atorvastatin calcium hydrate significantly reduces serum LDL cholesterol levels by inhibiting a key enzyme involved in cholesterol biosynthesis. Atorvastatin calcium hydrate is used in in vitro experiments to study cholesterol metabolism, lipid accumulation, and the regulation of related signaling pathways, and is commonly employed in high-fat diet animal models to validate its lipid-lowering effects.
Targets(IC50)	Others,HMG-CoA Reductase

## Solubility Information

Solubility	H <sub>2</sub> O: Insoluble, DMSO: 80 mg/mL (132.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6509 mL	8.2546 mL	16.5093 mL
5 mM	0.3302 mL	1.6509 mL	3.3019 mL
10 mM	0.1651 mL	0.8255 mL	1.6509 mL
50 mM	0.033 mL	0.1651 mL	0.3302 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Delgado-Montero A, et al. Atorvastatin calcium plus amlodipine for the treatment of hypertension. *Expert Opin Pharmacother.* 2012 Dec;13(18):2673-85.

Tan Q, Yu D, Song L. Atorvastatin disrupts primary human brain microvascular endothelial cell functions via prenylation-dependent mitochondrial inhibition and oxidative stress. *Fundam Clin Pharmacol.* 2021;35(2):341-350.

Karlson BW, Palmer MK, Nicholls SJ, Lundman P, Barter PJ. Doses of rosuvastatin, atorvastatin and simvastatin that induce equal reductions in LDL-C and non-HDL-C: Results from the VOYAGER meta-analysis. *Eur J Prev Cardiol.* 2016 May;23(7):744-7. doi: 10.1177/2047487315598710. Review. PubMed PMID: 26246463.

Li H, Wang C, Zhang S, Sun S, Li R, Zou M, Cheng G. Safety Profile of Atorvastatin 80 mg: A Meta-Analysis of 17 Randomized Controlled Trials in 21,910 Participants. *Drug Saf.* 2016 May;39(5):409-19. doi: 10.1007/s40264-016-0394-0. Review. PubMed PMID: 26860922.

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