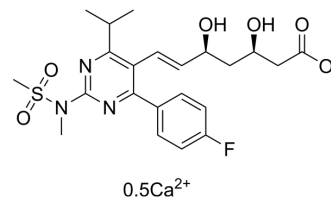


## Rosuvastatin Calcium

<b>Cat. No.:</b>	HY-17504
<b>CAS No.:</b>	147098-20-2
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>27</sub> Ca <sub>0.5</sub> FN <sub>3</sub> O <sub>6</sub> S
<b>Molecular Weight:</b>	500.57
<b>Target:</b>	HMG-CoA Reductase (HMGCR); Autophagy; Potassium Channel; Bacterial
<b>Pathway:</b>	Metabolic Enzyme/Protease; Autophagy; Membrane Transporter/Ion Channel; Anti-infection
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 2 years; -20°C, 1 year (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 25 mg/mL (49.94 mM; Need ultrasonic)																					
	H <sub>2</sub> O : 1 mg/mL (2.00 mM; Need ultrasonic)																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>1.9977 mL</td> <td>9.9886 mL</td> <td>19.9772 mL</td> </tr> <tr> <td>5 mM</td> <td>0.3995 mL</td> <td>1.9977 mL</td> <td>3.9954 mL</td> </tr> <tr> <td>10 mM</td> <td>0.1998 mL</td> <td>0.9989 mL</td> <td>1.9977 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	1.9977 mL	9.9886 mL	19.9772 mL	5 mM	0.3995 mL	1.9977 mL	3.9954 mL	10 mM	0.1998 mL	0.9989 mL	1.9977 mL
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Please refer to the solubility information to select the appropriate solvent.																						
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.08 mg/mL (4.16 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.16 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.08 mg/mL (4.16 mM); Clear solution</li> </ol>																					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Rosuvastatin Calcium is a competitive HMG-CoA reductase (HMGCR) inhibitor, with an IC <sub>50</sub> of 11 nM. Rosuvastatin Calcium potently blocks hERG current with an IC <sub>50</sub> of 195 nM <sup>[2]</sup> . Rosuvastatin Calcium reduces the expression of the mature hERG and the interaction of heat shock protein 70 (Hsp70) with the hERG protein. Rosuvastatin Calcium effectively lowers low-density lipoprotein (LDL) cholesterol, triglycerides, and C-reactive protein levels <sup>[1][2][3]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	IC50: 11 nM (HMG-CoA), 195 nM (hERG) <sup>[1][2]</sup>

## In Vivo

Rosuvastatin Calcium (10 mg/kg, intraperitoneal) prolongs QTc in conscious and unrestrained guinea pigs from 201±1 to 210±2 ms<sup>[2]</sup>.

Rosuvastatin (20 mg/kg/day, for 2 weeks) significantly reduces very low-density lipoproteins Calcium (VLDL) in diabetes mellitus rats induced by Streptozocin<sup>[4]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Acta Pharmacol Sin. 2023 Jan 31.
- Front Bioeng Biotechnol. 2022 Mar 17;10:826093.
- Front Cell Dev Biol. 2022 Mar 3;10:806081.
- Front Cell Dev Biol. 2021 May 6;9:651579.
- Eur J Pharmacol. 2023 Jul 13;955:175911.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Watanabe, M., et al., Synthesis and biological activity of methanesulfonamide pyrimidine- and N-methanesulfonyl pyrrole-substituted 3,5-dihydroxy-6-heptenoates, a novel series of HMG-CoA reductase inhibitors. *Bioorg Med Chem*, 1997. 5(2): p. 437-44.

[2]. Plante I, et al. Rosuvastatin blocks hERG current and prolongs cardiac repolarization. *J Pharm Sci*. 2012 Feb;101(2):868-78.

[3]. Feng PF, et al. Intracellular Mechanism of Rosuvastatin-Induced Decrease in Mature hERG Protein Expression on Membrane. *Mol Pharm*. 2019 Apr 1;16(4):1477-1488.

[4]. Carswell C.I., et al. Rosuvastatin. *Drugs*, 2002. 62(14): p. 2075-85; discussion 2086-7.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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