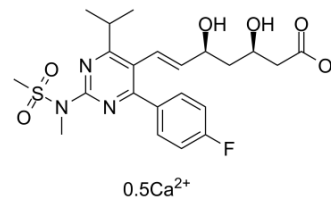


Rosuvastatin Calcium

Cat. No.:	HY-17504		
CAS No.:	147098-20-2		
Molecular Formula:	C ₂₂ H ₂₇ Ca _{0.5} FN ₃ O ₆ S		
Molecular Weight:	500.57		
Target:	HMG-CoA Reductase (HMGCR); Autophagy; Potassium Channel		
Pathway:	Metabolic Enzyme/Protease; Autophagy; Membrane Transporter/Ion Channel		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (49.94 mM; Need ultrasonic)
 H₂O : 1 mg/mL (2.00 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	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

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.08 mg/mL (4.16 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.08 mg/mL (4.16 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (4.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Rosuvastatin Calcium (Rosuvastatin hemicalcium) is a competitive HMG-CoA reductase inhibitor with an IC₅₀ of 11 nM^[1]. Rosuvastatin Calcium potently blocks human ether-a-go-go related gene (hERG) current with an IC₅₀ of 195 nM, delayed cardiac repolarization, and thereby prolonged action potential durations (APDs) and corrected QT interval (QTc) intervals^[2]. Rosuvastatin Calcium reduces the expression of the mature hERG and the interaction of heat shock protein 70 (Hsp70) with the hERG protein. Rosuvastatin Calcium is very effective in lowering low-density lipoprotein (LDL) cholesterol, triglycerides, and C-reactive protein levels^[3].

IC ₅₀ & Target	IC50: 11 nM (HMG-CoA) and 195 nM (hERG) ^[1,2]
In Vivo	Rosuvastatin Calcium (10 mg/kg, intraperitoneal) prolongs QTc in conscious and unrestrained guinea pigs from 201 ± 1 to 210 ± 2 ms. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Inflamm Res. 2021,14: 1537-1549.
- Front Oncol. 10 May 2021.

See more customer validations on www.MedChemExpress.com

REFERENCES

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- [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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