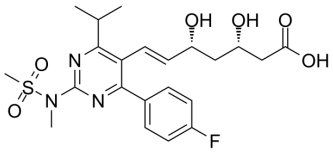
(3S,5R)-Rosuvastatin

Cat. No.:	HY-17504D
CAS No.:	1242184-42-4
Molecular Formula:	$C_{22}H_{28}FN_3O_6S$
Molecular Weight:	481.54
Target:	HMG-CoA Reductase (HMGCR); Potassium Channel; Autophagy
Pathway:	Metabolic Enzyme/Protease; Membrane Transporter/Ion Channel; Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	(3S,5R)-Rosuvastatin is the (3S,5R)-enantiomer of Rosuvastatin. Rosuvastatin is a competitive HMG-CoA reductase inhibitor with an IC_{50} of 11 nM[1]. Rosuvastatin potently blocks human ether-a-go-go related gene (hERG) current with an IC_{50} of 195 nM[2]. Rosuvastatin reduces the expression of the mature hERG and the interaction of heat shock protein 70 (Hsp70) with the hERG protein. Rosuvastatin 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)[1] and 195 nM (hERG)[2]

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.

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