Fluvastatin sodium

Cat. No.: HY-14664A  
CAS No.: 93957-55-2  
Molecular Formula: C₂₄H₂₅FNNaO₄  
Molecular Weight: 433.45  
Target: HMG-CoA Reductase (HMGCR); Autophagy; Ferroptosis  
Pathway: Metabolic Enzyme/Protease; Autophagy; Apoptosis  
Storage: Powder  
-20°C  3 years  
4°C  2 years  
In solvent  
-80°C  6 months  
-20°C  1 month

**SOLVENT & SOLUBILITY**

<table>
<thead>
<tr>
<th>In Vitro</th>
<th>( \text{H}_2\text{O} ) : 50 mg/mL (115.35 mM; Need ultrasonic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing Stock Solutions</td>
<td><strong>Solvent Concentration</strong></td>
</tr>
<tr>
<td>1 mM</td>
<td>2.3071 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4614 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2307 mL</td>
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</tbody>
</table>

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

**BIOLOGICAL ACTIVITY**

**Description**  
Fluvastatin sodium (XU 62320) is a first fully synthetic, competitive HMG-CoA reductase inhibitor with an IC₅₀ of 8 nM. Fluvastatin sodium protects vascular smooth muscle cells against oxidative stress through the Nrf2-dependent antioxidant pathway[1][2][3].

**IC₅₀ & Target**  
IC₅₀: 8 nM (HMG-CoA reductase)[1]

**In Vitro**  
Fluvastatin sodium (XU 62320) is a competitive inhibitor of hydroxymethylglutaryl-coenzyme A reductase (HMGCR), the enzyme that catalyzes the conversion of HMG-CoA to mevalonic acid, the rate-limiting step in cholesterol biosynthesis. Human hepatocellular carcinoma cell (HCC) studies indicate that Fluvastatin induces G2/M phase arrest. In the presence of Fluvastatin (XU 62320), HCC cells show a decrease of Bcl-2 and procaspase-9 expression, and an increase in Bax, cleaved caspase-3, and cytochrome c. Fluvastatin (XU 62320) is antilipemic and is used to reduce plasma cholesterol levels and prevent cardiovascular disease.
**REFERENCES**

[1]. Araújo FA, Rocha MA, Capettini LS, et al. 3-Hydroxy-3-methylglutaryl coenzyme A reductase inhibitor (fluvastatin) decreases inflammatory angiogenesis in mice. APMIS. 2012 24. [Epub ahead of print]


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