Zoledronic Acid

Cat. No.: HY-13777
CAS No.: 118072-93-8
Molecular Formula: C₅H₁₀N₂O₇P₂
Molecular Weight: 272.09
Target: Autophagy
Pathway: Autophagy
Storage: Please store the product under the recommended conditions in the COA.

Solvent & Solubility

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Solvent</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>DMSO</td>
<td>3.6753 mL</td>
<td>18.3763 mL</td>
<td>36.7525 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>DMSO</td>
<td>0.7351 mL</td>
<td>3.6753 mL</td>
<td>7.3505 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>DMSO</td>
<td>0.3675 mL</td>
<td>1.8376 mL</td>
<td>3.6753 mL</td>
</tr>
</tbody>
</table>

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

BIOLOGICAL ACTIVITY

Description
Zoledronic Acid is a third-generation, nitrogen-containing bisphosphonate, inhibits osteoclast-mediated bone resorption, and also has antitumor activity.

In Vitro
Zoledronic Acid induces apoptosis in HGF and HaCaT cells at 0.5 μM, and causes cell death at 1-5 μM[1]. Zoledronic Acid (50, 100 μM) causes dose- and time-dependent apoptosis in CNE-2Z cells after treatment for 24, 48, and 72 h. Zoledronic Acid (50 μM) also increases the level of ROS, which is supposed to mediate Cl⁻ currents activation in CNE-2Z cells. Furthermore, the apoptosis and chloride currents induced by Zoledronic Acid can be blocked by knocking down ClC-3 protein expression[2].

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