Lonidamine

Cat. No.: HY-B0486  
CAS No.: 50264-69-2  
Molecular Formula: $\text{C}_{15}\text{H}_{10}\text{Cl}_{2}\text{N}_{2}\text{O}_{2}$  
Molecular Weight: 321.16  
Target: Hexokinase; Mitochondrial Metabolism; Apoptosis  
Pathway: Metabolic Enzyme/Protease; Apoptosis  
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: 50 mg/mL (155.69 mM; Need ultrasonic)  
H$_2$O: < 0.1 mg/mL (insoluble)

<table>
<thead>
<tr>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>3.1137 mL</td>
<td>15.5686 mL</td>
<td>31.1371 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.6227 mL</td>
<td>3.1137 mL</td>
<td>6.2274 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3114 mL</td>
<td>1.5569 mL</td>
<td>3.1137 mL</td>
</tr>
</tbody>
</table>

Preparation: Please refer to solubility information to select appropriate solvent.

In Vivo  
1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (6.48 mM); Clear solution  
2. Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (6.48 mM); Clear solution

BIOLOGICAL ACTIVITY

Description  
Lonidamine (AF-1890), an antitumor agent, is a hexokinase, mitochondrial pyruvate carrier ($K_i$ 2.5 μM in isolated rat liver mitochondria) and plasma membrane monocarboxylate transporters inhibitor, which also inhibits mitochondrial complex II [1][2].

IC$_{50}$ & Target  
$K_i$: 2.5 μM (Mitochondrial pyruvate carrier)[2]

CUSTOMER VALIDATION

Product Data Sheet  
Inhibitors  
• Agonists  
• Screening Libraries  
www.MedChemExpress.com
REFERENCES


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