Loxoprofen

Product Data Sheet

Cat. No.: HY-B0578
CAS No.: 68767-14-6
Molecular Formula: \( \text{C}_{15}\text{H}_{18}\text{O}_3 \)
Molecular Weight: 246.3
Target: COX
Pathway: Immunology/Inflammation
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: \( \geq 100 \text{ mg/mL} \) (406.01 mM)

\* "\( \geq \)" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass (1 mg)</th>
<th>Mass (5 mg)</th>
<th>Mass (10 mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>4.0601 mL</td>
<td>20.3004 mL</td>
<td>40.6009 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.8120 mL</td>
<td>4.0601 mL</td>
<td>8.1202 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.4060 mL</td>
<td>2.0300 mL</td>
<td>4.0601 mL</td>
</tr>
</tbody>
</table>

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: \( \geq 2.5 \text{ mg/mL} \) (10.15 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-\( \beta \)-CD in saline)
   Solubility: \( \geq 2.5 \text{ mg/mL} \) (10.15 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: \( \geq 2.5 \text{ mg/mL} \) (10.15 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Loxoprofen is a non-steroidal anti-inflammatory drug. Target: COX
Loxoprofen is a non-steroidal anti-inflammatory drug in the propionic acid derivatives group, which also includes ibuprofen and naproxen among others. Loxoprofen is a non-selective cyclooxygenase inhibitor, and works by reducing the synthesis of prostaglandins from arachidonic acid.
<table>
<thead>
<tr>
<th>IC₅₀ &amp; Target</th>
<th>COX-1</th>
<th>COX-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.5 μM (IC₅₀, in human whole blood)</td>
<td>13.5 μM (IC₅₀, in human whole blood)</td>
<td></td>
</tr>
</tbody>
</table>

REFERENCES