Lubiprostone

Cat. No.: HY-B0679
CAS No.: 136790-76-6
Molecular Formula: C₂₀H₃₂F₂O₅
Molecular Weight: 390.46
Target: Chloride Channel
Pathway: Membrane Transporter/Ion Channel
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: 100 mg/mL (256.11 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass Concentration 1 mg</th>
<th>Mass Concentration 5 mg</th>
<th>Mass Concentration 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>2.5611 mL</td>
<td>12.8054 mL</td>
<td>25.6108 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.5122 mL</td>
<td>2.5611 mL</td>
<td>5.1222 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.2561 mL</td>
<td>1.2805 mL</td>
<td>2.5611 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: ≥ 3.25 mg/mL (8.32 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 3.25 mg/mL (8.32 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 3.25 mg/mL (8.32 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Lubiprostone (SPI-0211; RU-0211) is a gastrointestinal agent used for the treatment of idiopathic chronic constipation. Target: Others
Lubiprostone is a bicyclic fatty acid derived from prostaglandin E1 that acts by specifically activating ClC-2 chloride channels on the apical aspect of gastrointestinal epithelial cells, producing a chloride-rich fluid secretion. These secretions soften the stool, increase motility, and promote spontaneous bowel movements (SBM). From Wikipedia.
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REFERENCES