(E)-2-Decenoic acid

Cat. No.: HY-13211
CAS No.: 334-49-6
Molecular Formula: C₁₀H₁₈O₂
Molecular Weight: 170.25
Target: Others
Pathway: Others
Storage: Pure form -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 (587.37 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>5.8737 mL</td>
<td>29.3686 mL</td>
<td>58.7372 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>1.1747 mL</td>
<td>5.8737 mL</td>
<td>11.7474 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.5874 mL</td>
<td>2.9369 mL</td>
<td>5.8737 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: ≥ 2.5 mg/mL (14.68 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (14.68 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (14.68 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
(E)-2-Decenoic acid is an interesting fatty acid isolated from royal jelly secretions of honey bees.

In Vitro
(E)-2-Decenoic acid is isolated along with 10-hydroxy-trans-2-decenoic acid, a fatty acid unique to royal jelly. (E)-2-Decenoic acid and 10-hydroxy-trans-2-decenoic acid are both described to demonstrate estrogenic activity, where the fatty acids demonstrate inhibition of 17β-estradiol binding to estrogen receptor-β.


