Tiliroside

Cat. No.: HY-N1425
CAS No.: 20316-62-5
Molecular Formula: C₃₀H₂₆O₁₃
Molecular Weight: 594.52
Target: Others
Pathway: Others
Storage: 4°C, protect from light
* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

SOLVENT & SOLUBILITY

In Vitro

DMSO: 250 mg/mL (420.51 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Concentration</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>1.6820 mL</td>
<td>8.4101 mL</td>
<td>16.8203 mL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.3364 mL</td>
<td>1.6820 mL</td>
<td>3.3641 mL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.1682 mL</td>
<td>0.8410 mL</td>
<td>1.6820 mL</td>
<td></td>
</tr>
</tbody>
</table>

Preparing Stock Solutions

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: ≥ 2.08 mg/mL (3.50 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (3.50 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.50 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Tiliroside, a glycosidic flavonoid, possesses anti-diabetic activities. Tiliroside is a noncompetitive inhibitor of α-amylase with a $K_i$ value of 84.2 μM. Tiliroside inhibits carbohydrate digestion and glucose absorption in the gastrointestinal tract[1].

In Vitro
Tiliroside inhibits pancreatic α-amylase (IC₅₀=0.28 mM) in vitro[1].

In Vivo
In male ICR mice, the increase in postprandial plasma glucose levels was significantly suppressed in the Tiliroside-administered group[1].
REFERENCES