Tacalcitol

Cat. No.: HY-32337
CAS No.: 57333-96-7
Molecular Formula: C_{27}H_{44}O_{3}
Molecular Weight: 416.64
Target: VD/VDR
Pathway: Vitamin D Related
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 (240.02 mM)
* "≥" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Mass 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>2.4002 mL</td>
<td>12.0008 mL</td>
<td>24.0015 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.4800 mL</td>
<td>2.4002 mL</td>
<td>4.8003 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.2400 mL</td>
<td>1.2001 mL</td>
<td>2.4002 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: ≥ 2.75 mg/mL (6.60 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.75 mg/mL (6.60 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.75 mg/mL (6.60 mM); Clear solution

**BIOLOGICAL ACTIVITY**

Description
Tacalcitol, (1,24(R)-Dihydroxyvitamin D3; 1.alpha.,24R-Dihydroxyvitamin D3) promotes normal bone development by regulating calcium. IC50 value: Target: Tacalcitol modulates immunological and inflammatory processes. Tacalcitol induces nerve growth factor production in epidermal keratinocytes.
REFERENCES


