Dienogest

Cat. No.: HY-B0084
CAS No.: 65928-58-7
Molecular Formula: C₂₀H₂₅NO₂
Molecular Weight: 311.42
Target: Progesterone Receptor; Autophagy; Apoptosis
Pathway: Others; Autophagy; Apoptosis
Storage: Powder -20°C 3 years
4°C 2 years
In solvent -80°C 6 months
-20°C 1 month

SOLVENT & SOLUBILITY

<table>
<thead>
<tr>
<th>In Vitro</th>
<th>DMSO : 25 mg/mL (80.28 mM; Need ultrasonic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing Stock Solutions</td>
<td></td>
</tr>
<tr>
<td>Solvent</td>
<td>Mass</td>
</tr>
<tr>
<td>1 mM</td>
<td>3.2111 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.6422 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3211 mL</td>
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</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 (8.03 mM); Clear solution |
|----------|--------------------------------------------------------------------------------------------------|
| 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (8.03 mM); Clear solution |
| 3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (8.03 mM); Clear solution |

BIOLOGICAL ACTIVITY

Description: Dienogest(STS-557) is a specific progesterone receptor agonist with potent oral endometrial activity and is used in the treatment of endometriosis. Target: progesterone receptor agonist. Dienogest is an orally active synthetic progesterone (or progestin). It is available for use as an oral contraceptive in combination with ethinylestradiol. It has antiandrogenic activity and as a result can improve androgenic symptoms. It is a non-ethinylated progestin which is structurally related to testosterone [1]. Complete sperm suppression was observed in rats sacrificed either 60 or 90 days after dienogest (DNG)+ testosterone undecanoate (TU) administration, for two injections at 45-day interval. The
neutral α-glucosidase activity in these treated rats remained in the normal range. Germ cell loss due to apoptosis was frequently observed both after 60 or 90 days of combination treatment. Significant decline in serum gonadotropin and testosterone, both serum and intratesticular levels, were observed in the treated rats. Following stoppage of treatment (given at 45-day interval) after two (0 and 45 days) or three injections (0, 45 and 90 days), complete restoration of spermatogenesis was observed by 120 and 165 days, respectively [2]. Clinical indications: Adenomyosis; Endometriosis FDA Approved Date: 1995 Toxicity: weight gain; increased blood pressure; breast tenderness and nausea

REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.
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