Drospirenone

Cat. No.: HY-B0111
CAS No.: 67392-87-4
Molecular Formula: C₂₄H₃₀O₃
Molecular Weight: 366.49
Target: Progesterone Receptor
Pathway: Others
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: 50 mg/mL (136.43 mM; Need ultrasonic)

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Mass ( 1 \text{ mg} )</th>
<th>Mass ( 5 \text{ mg} )</th>
<th>Mass ( 10 \text{ mg} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.7286 mL</td>
<td>13.6429 mL</td>
<td>27.2859 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5457 mL</td>
<td>2.7286 mL</td>
<td>5.4572 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2729 mL</td>
<td>1.3643 mL</td>
<td>2.7286 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 (6.82 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.82 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.82 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Drospirenone (Dihydrospirorenone) is a synthetic progestin that is an analog to spironolactone. Target: Progesterone Receptor
Drospirenone is a novel progestin under clinical development that is similar to the natural hormone progesterone, combining potent progestogenic with antimineralocorticoid and antiandrogenic activities. Drospirenone was devoid of glucocorticoid activity. Both progestins did not show any antiglucocorticoid action. Furthermore, drospirenone and progesterone both showed considerable antimineralocorticoid activity and weak mineralocorticoid activity [1]. The pharmacological profile of drospirenone is more closely related to that of the natural hormone progesterone than is that of any other synthetic progestogen in use today. Therefore, drospirenone is anticipated to give rise to a number of additional...
health benefits both for users of oral contraceptives and hormone replacement therapy recipients [2]. The combination of 17beta-estradiol and drospirenone has a positive effect on BMD and a potentially beneficial effect on lipids. Although endometrial thickness increased slightly, the safety of the endometrium was assured, as no cases of hyperplasia or cancer occurred [3].

Clinical indications: Acne; Dysmenorrhea; Endometriosis; Female contraception; Folic acid deficiency; Premenstrual syndrome

REFERENCES

