Flutamide

Cat. No.: HY-B0022
CAS No.: 13311-84-7
Molecular Formula: C₁₁H₁₁F₃N₂O₃
Molecular Weight: 276.21
Target: Androgen 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: ≥ 100 mg/mL (362.04 mM)
H₂O: < 0.1 mg/mL (insoluble)

* “≥” means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DMSO</td>
<td>1 mg</td>
</tr>
<tr>
<td></td>
<td>1 mM</td>
<td>3.6204 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.7241 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.3620 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 (9.05 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.05 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Flutamide is an antiandrogen drug, with its active metabolite binding at androgen receptor with Ki values of 55 nM, and primarily used to treat prostate cancer. Target: androgen receptor in vitro: Flutamide (Eulexin) is an antiandrogen drug. Flutamide-OH, the active metabolite of flutamide, directly binds at rat anterior pituitary androgen receptor with Ki values of 55 nM [1]. Flutamide does not affect the proliferation of an androgen-sensitive clone of the mouse mammary carcinoma Shionogi SC-l 15 cells in culture, shows only antiandrogenic effect, but not androgenic effect [2]. Flutamide provides...
treatment for prostate cancer when used along with leuprolide [3]. In vivo: Flutamide causes a markedly reduction in rat ventral prostate weight from 319 mg to 245 mg. A combination of flutamide and LHRH agonist induces an additive effect with a decrease in prostate weight to 101 mg, and a marked drop in prostatic ODC activity [4].

**REFERENCES**


