Estrone

Cat. No.: HY-B0234
CAS No.: 53-16-7
Molecular Formula: C₁₈H₂₂O₂
Molecular Weight: 270.37
Target: Estrogen Receptor/ERR; Endogenous Metabolite
Pathway: Others; Metabolic Enzyme/Protease
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 : 33.33 mg/mL (123.28 mM; Need ultrasonic)
H₂O : < 0.1 mg/mL (insoluble)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Concentration</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mg</td>
<td>5 mg</td>
</tr>
<tr>
<td>1 mM</td>
<td>3.6986 mL</td>
<td>18.4932 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.7397 mL</td>
<td>3.6986 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3699 mL</td>
<td>1.8493 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 (9.25 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.25 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Estrone is an estrogogenic hormone. Target: Estrogen Receptor/ERR
Estrone (E1) is an estrogogenic hormone secreted by the ovary as well as adipose tissue with the chemical name of 3-hydroxyestra-1,3,5(10)-triene-17-one and the chemical formula C₁₈H₂₂O₂. Estrone is one of several natural estrogens, which also include estriol and estradiol. Estrone is the least abundant of the three hormones; estradiol is present almost always in the reproductive female body, and estriol is abundant primarily during pregnancy. Estrone is relevant to health and disease states because of its conversion to estrone sulfate, a long-lived derivative. Estrone sulfate acts as a reservoir that can be converted as needed to the more active estradiol. It is the predominant estrogen in postmenopausal women [1, 2].
| IC₅₀ & Target | Human Endogenous Metabolite |

**REFERENCES**
