Tetrahydrozoline hydrochloride

Cat. No.: HY-B0556A
CAS No.: 522-48-5
Molecular Formula: C₁₃H₁₇ClN₂
Molecular Weight: 236.74
Target: Adrenergic Receptor
Pathway: GPCR/G Protein; Neuronal Signaling
Storage: Powder
-20°C 3 years
4°C 2 years
In solvent
-80°C 6 months
-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 50 mg/mL (211.20 mM)
DMSO : 16.67 mg/mL (70.41 mM; Need ultrasonic)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Mass (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>4.2240 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.8448 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.4224 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: ≥ 1.67 mg/mL (7.05 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.67 mg/mL (7.05 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.67 mg/mL (7.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Tetrahydrozoline hydrochloride (Tetryzoline hydrochloride) is a α-adrenoceptor agonist. Target: α-adrenoceptor hydrozoline is an imidazole derivative with alpha receptor agonist activity widely available in over-the-counter topical ocular and nasal formulations. More than 1,600 cases of oral exposures are reported to United States poison centers annually (1,2). Reports of significant toxicity from tetrahydrozoline ingestion are unusual but...
have occurred primarily in small children after unintentional ingestion (3-63, 6) [1].

REFERENCES