Diphenmanil methylsulfate

Cat. No.: HY-16171
CAS No.: 62-97-5
Molecular Formula: C₂₁H₂₇NO₄S
Molecular Weight: 389.51
Target: mAChR
Pathway: GPCR/G Protein; Neuronal Signaling
Storage: 4°C, sealed storage, away from moisture
* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₂O</td>
<td>2.5673 mL</td>
<td>1 mg</td>
</tr>
<tr>
<td></td>
<td>12.8366 mL</td>
<td>5 mg</td>
</tr>
<tr>
<td></td>
<td>25.6733 mL</td>
<td>10 mg</td>
</tr>
</tbody>
</table>

Preparation of Stock Solutions

1. Add each solvent one by one: PBS
2. Solubility: 50 mg/mL (128.37 mM); Clear solution; Need ultrasonic

In Vivo

1. Add each solvent one by one: PBS
Solubility: 50 mg/mL (128.37 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description
Diphenmanil methylsulfate is a quaternary ammonium anticholinergic. It binds muscarinic acetylcholine receptors and thereby decreases secretory excretion of stomach acids as well as saliva and sweat. IC50 value: Target: mAChR Diphemanil Methylsulfate exerts its action by primarily binding the muscarinic M3 receptor. M3 receptors are located in the smooth muscles of the blood vessels, as well as in the lungs. This means they cause vasodilation and bronchoconstriction. They are also in the smooth muscles of the gastrointestinal tract (GIT), which help in increasing intestinal motility and dilating sphincters. The M3 receptors are also located in many glands which help to stimulate secretion in salivary glands and other glands of the body.

REFERENCES

