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:  
- Powder: -20°C, 3 years; 4°C, 2 years  
- In solvent: -80°C, 6 months; -20°C, 1 month

Solvent & Solubility

<table>
<thead>
<tr>
<th>In Vitro</th>
<th>: 16.67 mg/mL (42.80 mM; Need ultrasonic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing Stock Solutions</td>
<td></td>
</tr>
<tr>
<td>Solvent Concentration</td>
<td>Mass</td>
</tr>
<tr>
<td>1 mM</td>
<td>2.5673 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5135 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2567 mL</td>
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</tbody>
</table>

Please refer to the solubility information to select the appropriate solvent.

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

Diphenmanil 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

