Donepezil Hydrochloride

Cat. No.: HY-B0034  
CAS No.: 120011-70-3  
Molecular Formula: C₂₄H₃₀ClNO₃  
Molecular Weight: 415.95  
Target: AChE  
Pathway: 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>Solvent</th>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₂O</td>
<td>1 mM</td>
<td>2.4041 mL</td>
<td>12.0207 mL</td>
<td>24.0414 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.4808 mL</td>
<td>2.4041 mL</td>
<td>4.8083 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.2404 mL</td>
<td>1.2021 mL</td>
<td>2.4041 mL</td>
</tr>
</tbody>
</table>

Preparation of Stock Solutions: 
- H₂O : 33.33 mg/mL (80.13 mM; Need ultrasonic)  
- DMSO : 6.2 mg/mL (14.91 mM; Need warming)

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

**BIOLOGICAL ACTIVITY**

**Description**

Donepezil (Hydrochloride) (E-2020) is a noncompetitive acetylcholinesterase inhibitor, which can readily cross the blood brain barrier and increases the concentration of cortical acetylcholine. IC50 Value: Target: AChE

It is known that Donepezil Hydrochloride is a useful tool in the study of Alzheimer’s disease. Studies indicate that Donepezil Hydrochloride protects the brain against diisopropylfluorophosphate-induced effects. Studies indicate that Donepezil Hydrochloride selectively inhibits acetylcholinesterase, whereas it has little effect on butyrylcholinesterase. Alternate studies suggest that Donepezil Hydrochloride increases the concentration of extracellular acetylcholine in the cerebral cortex and hippocampus of rats.

**REFERENCES**


Caution: Product has not been fully validated for medical applications. For research use only.
Tel: 609-228-6898       Fax: 609-228-5909       E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA