Trequinsin hydrochloride

Cat. No.: HY-18740A
CAS No.: 78416-81-6
Molecular Formula: C₂₄H₂₈ClN₃O₃
Molecular Weight: 441.95
Target: Phosphodiesterase (PDE)
Pathway: Metabolic Enzyme/Protease
Storage: Please store the product under the recommended conditions in the Certificate of Analysis.

SOLVENT & SOLUBILITY

In Vitro
DMSO : 62.5 mg/mL (141.42 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent 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>2.2627 mL</td>
<td>11.3135 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4525 mL</td>
<td>2.2627 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2263 mL</td>
<td>1.1313 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: ≥ 2.08 mg/mL (4.71 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.71 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Trequinsin hydrochloride (HL 725) is an extremely potent inhibitor of platelet CAMP phosphodiesterase (PDE), with an IC₅₀ of 0.25 nM. Trequinsin hydrochloride (HL 725) is an extremely potent inhibitor of the aggregation of human platelets induced in vitro by ADP, collagen, thrombin and epinephrine[1][2][3].

In Vitro
Trequinsin hydrochloride exerts besides its cardiovascular and antihypertensive qualities very potent antiplatelet activities [1].
Trequinsin hydrochloride is an efficacious agonist of \([\text{Ca}^{2+}]\)[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Cell Viability Assay[3]
Cell Line: Samples from healthy volunteer research donors with normal sperm motility parameters in agreement with World Health Organization 2010 criteria.

Concentration: 10 μM.

Incubation Time: 20 min.

Result: Caused a concentration-dependent increase in [Ca^{2+}]_i (EC_{50} = 6.4 μM [95% confidence interval (CI): 4.1-9.9 μM]).

REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.

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