Toltrazuril (sulfone)

Cat. No.: HY-17008
CAS No.: 69004-04-2
Molecular Formula: C₁₈H₁₄F₃N₃O₆S
Molecular Weight: 457.38
Target: Parasite
Pathway: Anti-infection
Storage: Powder -20°C 3 years
          4°C 2 years
          In solvent -80°C 6 months
          -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro
DMSO : 50 mg/mL (109.32 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
</table>
| Preparing Stock Solutions
|          | Concentration |           |            |            |
|          | 1 mM       | 2.1864 mL  | 10.9318 mL | 21.8637 mL |
|          | 5 mM       | 0.4373 mL  | 2.1864 mL  | 4.3727 mL  |
|          | 10 mM      | 0.2186 mL  | 1.0932 mL  | 2.1864 mL  |

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: ≥ 2.5 mg/mL (5.47 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.47 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.47 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Toltrazuril sulfone (Ponazuril) is a metabolite of Toltrazuril (HY-B0175), with antiprotozoal activity. Toltrazuril sulfone is a triazine anticoccidial that is developed to prevent coccidiosis in poultry[1][2].

IC₅₀ & Target
Anticoccidia[1]

In Vitro
Toltrazuril sulfone inhibits the development of merozoites of S. neurona[1].
Toltrazuril sulfone inhibits the development of N. caninum after approximately 48 h post-exposure[1].
Toltrazuril sulfone exhibits inhibitory possibly by targeting different enzyme/enzyme systems in different apicomplexans[1]. Toltrazuril sulfone (5 mg/ml; 20 hours) inhibits T. gondii replication after the second division by endodyogeny[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

<table>
<thead>
<tr>
<th>In Vivo</th>
<th>Toltrazuril sulfone (10-20 mg/kg; p.o.; daily; for 10 days) is effective in preventing and treating toxoplasmosis in mice[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Model:</td>
<td>Female CD-1 mice[2]</td>
</tr>
<tr>
<td>Dosage:</td>
<td>10 mg/kg, 20 mg/kg</td>
</tr>
<tr>
<td>Administration:</td>
<td>Oral administration, daily, for 10 days</td>
</tr>
<tr>
<td>Result:</td>
<td>Prevented and protected mice from toxoplasmosis.</td>
</tr>
</tbody>
</table>

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