Deferiprone

Cat. No.: HY-B0568
CAS No.: 30652-11-0
Molecular Formula: C₇H₉NO₂
Molecular Weight: 139.15
Target: Others
Pathway: Others
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: 7.14 mg/mL (51.31 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td>7.1865 mL</td>
<td>35.9324 mL</td>
<td>71.8649 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>1.4373 mL</td>
<td>7.1865 mL</td>
<td>14.3730 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.7186 mL</td>
<td>3.5932 mL</td>
<td>7.1865 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: ≥ 0.71 mg/mL (5.10 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 0.71 mg/mL (5.10 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 0.71 mg/mL (5.10 mM); Clear solution

BIOLOGICAL ACTIVITY

Deferiprone is the only orally active iron-chelating drug to be used therapeutically in conditions of transfusional iron overload. Deferiprone is an orphan drug designed and developed primarily by academic initiatives for the treatment of iron overload in thalassaemia. Deferiprone has been used in several other iron or other metal imbalance conditions and has prospects of wider clinical applications. Deferiprone has high affinity for iron and interacts with almost all the iron pools at the molecular, cellular, tissue and organ levels. Doses of 50-120 mg/kg/day appear to be effective in bringing patients to negative iron balance. Deferiprone increases urinary iron excretion, which mainly
depends on the iron load of patients and the dose of the drug.

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REFERENCES