Tetrazolium Red

Cat. No.: HY-D0714
CAS No.: 298-96-4
Molecular Formula: C₁₉H₁₅ClN₄
Molecular Weight: 334.8
Target: Others
Pathway: Others
Storage: 4°C, protect from light

* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

**SOLVENT & SOLUBILITY**

**In Vitro**
DMSO: 150 mg/mL (448.03 mM; Need ultrasonic)
H₂O: 50 mg/mL (149.34 mM; Need ultrasonic)

<table>
<thead>
<tr>
<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>2.9869 mL</td>
<td>14.9343 mL</td>
<td>29.8686 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5974 mL</td>
<td>2.9869 mL</td>
<td>5.9737 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2987 mL</td>
<td>1.4934 mL</td>
<td>2.9869 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: ≥ 2.5 mg/mL (7.47 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (7.47 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (7.47 mM); Clear solution |

**BIOLOGICAL ACTIVITY**

Description: Tetrazolium Red (2,3,5-Triphenyltetrazolium chloride; TPTZ) is used to visualize dehydrogenase enzyme activity; initially the tetrazolium solution is colorless but changes to red when it comes into contact with hydrogen. Tetrazolium red is used in a biochemical viability test for seeds. The test relies on dehydrogenase enzymes to release hydrogen ions which subsequently reduce the colorless tetrazolium salt solution to a red compound called formazan. Living cells turn red while dead cells remain colorless.
Caution: Product has not been fully validated for medical applications. For research use only.

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