Benfotiamine

Cat. No.: HY-17374
CAS No.: 22457-89-2
Molecular Formula: C₁₉H₂₃N₄O₆PS
Molecular Weight: 466.45
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 : 120 mg/mL (257.26 mM; Need ultrasonic)
H₂O : 0.67 mg/mL (1.44 mM; Need ultrasonic)

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Solvent Concentration</th>
<th>Mass 1 mg</th>
<th>Mass 5 mg</th>
<th>Mass 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.1439 mL</td>
<td>10.7193 mL</td>
<td>21.4385 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4288 mL</td>
<td>2.1439 mL</td>
<td>4.2877 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2144 mL</td>
<td>1.0719 mL</td>
<td>2.1439 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: ≥ 3 mg/mL (6.43 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 3 mg/mL (6.43 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 3 mg/mL (6.43 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Benfotiamine (S-Benzoylthiamine O-monophosphate) is a lipid-soluble analog of vitamin B1 with higher absorption and bioavailability than vitamin B1, and is commonly used as a food supplement for diabetic complications. Benfotiamine exhibits direct antioxidative capacity and prevents induction of DNA damage[1][2].

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