Pifithrin-β hydrobromide

Cat. No.: HY-16702A
CAS No.: 511296-88-1
Molecular Formula: C₁₆H₁₇BrN₂S
Molecular Weight: 349.29
Target: MDM-2/p53; Ferroptosis
Pathway: Apoptosis
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 : 10 mg/mL (28.63 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Concentration</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solvent</td>
<td>1 mg</td>
</tr>
<tr>
<td></td>
<td>1 mM</td>
<td>2.8630 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.5726 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.2863 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: ≥ 1 mg/mL (2.86 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1 mg/mL (2.86 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1 mg/mL (2.86 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Pifithrin-β hydrobromide (PFT β hydrobromide) is a potent p53 inhibitor with an IC₅₀ of 23 μM.

IC₅₀ & Target
IC₅₀: 23 μM (p53)[¹]

In Vitro
Pifithrin-α hydrobromide (PFT β hydrobromide), an inhibitor of the p53 protein, is regarded as a lead compound for cancer and neurodegenerative disease therapy. Pifithrin-α is very unstable in culture medium and rapidly converts to...
its condensation product pifithrin-β, the N-acetyl derivative\(^2\). After 24 h, the viability assay shows that the pretreatments with 1 and 10 \(\mu\)M pifithrin-β exerts neuroprotective effects\(^3\).

**REFERENCES**

