Helioxanthin 8-1

Cat. No.: HY-16680
CAS No.: 840529-13-7
Molecular Formula: C₂₀H₁₂N₂O₆
Molecular Weight: 376.32
Target: HBV
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: 10 mg/mL (26.57 mM; Need ultrasonic)

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Solvent Concentration</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.6573 mL</td>
<td>13.2866 mL</td>
<td>26.5731 mL</td>
<td></td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5315 mL</td>
<td>2.6573 mL</td>
<td>5.3146 mL</td>
<td></td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2657 mL</td>
<td>1.3287 mL</td>
<td>2.6573 mL</td>
<td></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 (2.66 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1 mg/mL (2.66 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Helioxanthin 8-1 is an analogue of helioxanthin, exhibits significant in vitro anti-HBV/HCV/HSV-1/HIV activity with EC₅₀ of >5/10/1.4/15 μM. IC₅₀ value: >5/10/1.4/15 μM (HBV/HCV/HSV-1/HIV) [1] Target: Antiviral agent
The cyclic hydrazide 28 (Helioxanthin 8-1) showed the most potent antiHBV activity among those helioxanthin analogues tested. In addition, compound 28 exhibited moderately potent activity against HIV. It would therefore be promising to study helioxanthin analogues that contain a six-membered ring instead of the five-membered ring found in the lactam [1].
8-1 exhibited effective inhibition on DHBV replication. The combination of 8-1 with 3TC resulted in additional anti-DHBV activity. Viral induced cells displayed higher susceptibility to 8-1 treatment than non-induced cells. HBV X protein might not be an essential factor in the initiation of the biological activity of 8-1, as demonstrated by its absence in DHBV [2].
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REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.

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