Mulberroside A

Cat. No.: HY-N0619
CAS No.: 102841-42-9
Molecular Formula: C_{26}H_{32}O_{14}
Molecular Weight: 568.52
Target: TNF Receptor; Interleukin Related; Tyrosinase
Pathway: Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease
Storage: Powder -20°C 3 years
In solvent -80°C 6 months
-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (175.90 mM)
* "≥" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mg</td>
<td>5 mg</td>
</tr>
<tr>
<td></td>
<td>1 mM</td>
<td>1.7590 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.3518 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.1759 mL</td>
</tr>
</tbody>
</table>

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (4.40 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (4.40 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (4.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Mulberroside A is one of the main bioactive constituent in mulberry (Morus alba L.)\(^1\). Mulberroside A decreases the expressions of TNF-α, IL-1β, and IL-6 and inhibits the activation of NALP3, caspase-1, and NF-κB and the phosphorylation of ERK, JNK, and p38, exhibiting anti-inflammatory antiapoptotic effects\(^2\). Mulberroside A shows inhibitory activity against mushroom tyrosinase with an IC\(_{50}\) of 53.6 μM\(^3\).
<table>
<thead>
<tr>
<th>IC₅₀ &amp; Target</th>
<th>TNF-α</th>
<th>IL-1β</th>
<th>IL-6</th>
</tr>
</thead>
</table>

REFERENCES


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

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