Amentoflavone

Cat. No.: HY-N0662
CAS No.: 1617-53-4
Molecular Formula: C_{30}H_{18}O_{10}
Molecular Weight: 538.46
Target: Reactive Oxygen Species; Apoptosis; Bacterial; Fungal; RSV
Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Apoptosis; 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**

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO</td>
<td>≥ 100 mg/mL (185.71 mM)</td>
<td>1.8571 mL</td>
<td>9.2857 mL</td>
<td>18.5715 mL</td>
</tr>
<tr>
<td>H_{2}O</td>
<td>&lt; 0.1 mg/mL (insoluble)</td>
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</tbody>
</table>

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

- 1 mM
- 5 mM
- 10 mM

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 (4.64 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (4.64 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Amentoflavone is a natural biflavone compound with many biological properties, including anti-inflammatory, antioxidative, and neuroprotective effects. IC50 value: Target:

In vitro: In irradiated v79 cells, Pretreatment with amentoflavone 24 hours prior to 8 Gy 60Co γ-ray irradiation significantly inhibited apoptosis, promoted the G2 phase, decreased the concentration of ROS and mitochondrial mass [2]. Amentoflavone dose-dependently inhibited the viability of SW480 cells, and a high concentration of amentoflavone (150 μmol/L) obviously induced apoptosis of the cells [3]. In vivo: In epilepsy models, amentoflavone effectively prevented pilocarpine-induced epilepsy in a mouse kindling model, suppressed nuclear factor-κB activation and expression, inhibited excessive discharge of hippocampal neurons resulting in a reduction...
in epileptic seizures, shortened attack time, and diminished loss and apoptosis of hippocampal neurons [1].

REFERENCES

