**Quercitrin**

**Cat. No.:** HY-N0418

**CAS No.:** 522-12-3

**Molecular Formula:** C₂₁H₂₀O₁₁

**Molecular Weight:** 448.38

**Target:** Ribosomal S6 Kinase (RSK); Autophagy; Reactive Oxygen Species

**Pathway:** MAPK/ERK Pathway; Autophagy; Immunology/Inflammation; Metabolic Enzyme/Protease

**Storage:** -20°C, protect from light

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**SOLVENT & SOLUBILITY**

**In Vitro**

DMSO: ≥ 31 mg/mL (69.14 mM)

*"≥" means soluble, but saturation unknown.*

<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>2.2303 mL</td>
<td>11.1513 mL</td>
<td>22.3025 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4461 mL</td>
<td>2.2303 mL</td>
<td>4.4605 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2230 mL</td>
<td>1.1151 mL</td>
<td>2.2303 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 >> 90% (20% SBE-β-CD in saline)
   
   Solubility: ≥ 2.58 mg/mL (5.75 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   
   Solubility: ≥ 2.58 mg/mL (5.75 mM); Clear solution

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**BIOLOGICAL ACTIVITY**

**Description**

Quercitrin is a natural compound found in Tartary buckwheat with a potential anti-inflammation effect that is used to treat heart and vascular conditions. IC50 value: Target In vitro: There were significant increases in caspase-3 activity, loss of MMP, and increases in the apoptotic cell population in response to quercitrin in DLD-1 colon cancer cells in a time- and dose-dependent manner. [1] In vivo: ICR mice received CCl4 intraperitoneally with or without quercitrin co-administration for 4 weeks. Data showed that quercitrin significantly suppressed the elevation of reactive oxygen species (ROS) production and malondialdehyde (MDA) content, reduced tissue plasminogen activator (t-PA) activity, enhanced the antioxidant enzyme activities and abrogated cytochrome P450 2E1 (CYP2E1) induction in mouse brains. [2]
REFERENCES

