Arglabin

Cat. No.: HY-16059
CAS No.: 84692-91-1
Molecular Formula: C₁₅H₁₈O₃
Molecular Weight: 246.3
Target: NOD-like Receptor (NLR)
Pathway: Immunology/Inflammation
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 : ≥ 100 mg/mL (406.01 mM)
* "≥" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1 mg</td>
<td>5 mg</td>
<td>10 mg</td>
</tr>
<tr>
<td>Mass</td>
<td>Solvent Concentration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 mM</td>
<td>4.0601 mL</td>
<td>20.3004 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.8120 mL</td>
<td>4.0601 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.4060 mL</td>
<td>2.0300 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: ≥ 2.5 mg/mL (10.15 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.15 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.15 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Arglabin is a sesquiterpene gamma-lactone is isolated from Artemisia glabella; anticancer natural compound. IC50 value: Target: anticancer in vitro: Arglabin-stimulated macrophages displayed a strong cytotoxic activity and the lowest doses (1.25 micrograms/mL and 0.125 micrograms/mL) induced a significant stimulation of cell mitochondrial metabolism, which correlated with [3H]TdR uptake by J774.1 cells under the same experimental conditions. Arglabin triggered the production of the three cytokines from J774-1 cells. However, the pattern of cytokine secretion differed
to some extent, according to the methodology used for cytokine measurement: either traditional bioassay or specific immunoassay (ELISA) [1]. Arglabin exhibits antiexudative and antiproliferative properties on the models of acute aseptic inflammation caused by formalin, carrageenan, and histamine, and on the model of proliferative inflammation accompanying cotton-pellet granuloma [2]. Arglabin is able to reduce the proportion of AML stem cells (CD34+CD38-) in primary AML cells [3].

REFERENCES

