Sophocarpine

**Cat. No.:** HY-N0103  
**CAS No.:** 6483-15-4  
**Molecular Formula:** C_{15}H_{22}N_{2}O  
**Molecular Weight:** 246.35

**Target:** Autophagy; Apoptosis; PI3K; Akt; Influenza Virus  
**Pathway:** Autophagy; Apoptosis; PI3K/Akt/mTOR; Anti-infection

**Storage:**  
- Powder: -20°C for 3 years, 4°C for 2 years  
- In solvent: -80°C for 6 months, -20°C for 1 month

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**SOLVENT & SOLUBILITY**

**In Vitro**  
DMSO: 250 mg/mL (1014.82 mM; Need ultrasonic)  
H_{2}O: 10 mg/mL (40.59 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>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>4.0593 mL</td>
<td>20.2963 mL</td>
<td>40.5927 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.8119 mL</td>
<td>4.0593 mL</td>
<td>8.1185 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.4059 mL</td>
<td>2.0296 mL</td>
<td>4.0593 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: ≥ 2.08 mg/mL (8.44 mM); Clear solution  
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (8.44 mM); Clear solution  
3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.08 mg/mL (8.44 mM); Clear solution

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**BIOLOGICAL ACTIVITY**

**Description**  
Sophocarpine is one of the significant alkaloid extracted from the traditional herb medicine Sophora flavescens which has many pharmacological properties such as anti-virus, anti-tumor, anti-inflammatory. Sophocarpine significantly inhibits the growth of gastric cancer (GC) cells through multiple mechanisms such as induction of autophagy, activation of cell apoptosis and down-regulation of cell survival PI3K/AKT signaling pathway. Sophocarpine has been demonstrated to have anti-tumor activity in various cancer cells, including hepatocellular carcinoma, prostate cancer and colorectal cancer[1].
IC₅₀ & Target | PI3K | Akt

**CUSTOMER VALIDATION**

- J Ethnopharmacol. 2021 Nov 2;114796.

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**REFERENCES**


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

Tel: 609-228-6898     Fax: 609-228-5909     E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA