Cinobufagin

**Cat. No.:** HY-N0421  
**CAS No.:** 470-37-1  
**Molecular Formula:** C₂₆H₃₄O₆  
**Molecular Weight:** 442.54  
**Target:** Autophagy  
**Pathway:** Autophagy  
**Storage:**  
- Powder: -20°C, 3 years; 4°C, 2 years  
- In solvent: -80°C, 6 months; -20°C, 1 month

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**Solvent & Solubility**

**In Vitro**  
DMSO: ≥ 43 mg/mL (97.17 mM)  
*“≥” means soluble, but saturation unknown.*

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Concentration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 mM</td>
<td>2.2597 mL</td>
<td>11.2984 mL</td>
<td>22.5968 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.4519 mL</td>
<td>2.2597 mL</td>
<td>4.5194 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.2260 mL</td>
<td>1.1298 mL</td>
<td>2.2597 mL</td>
</tr>
</tbody>
</table>

Please refer to the solubility information to select the appropriate solvent.

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**BIOLOGICAL ACTIVITY**

**Description**  
Cinobufagin, a kind of Chinese materia medica with antitumor effect, is widely used in clinical practice, especially in anti-liver cancer. IC50 value: Target: In vitro: Cinobufagin inhibited proliferation of cancer cells at doses of 0.1, 1, or 10 μM after 2–4 days of culture. Cytotoxicity of cinobufagin on the DU145 and LNCaP cells was dose-dependent. Cinobufagin increased [Ca2+]i and apoptosis in cancer cells after a 24-hr culture as well as caspase 3 activities in DU145 and PC3 cells and caspase 9 activities in LNCaP cells [1]. Cinobufagin suppresses cell proliferation and causes apoptosis in prostate cancer cells via a sequence of apoptotic modulators, including Bax, cytochrome c and caspases [2].

**REFERENCES**


