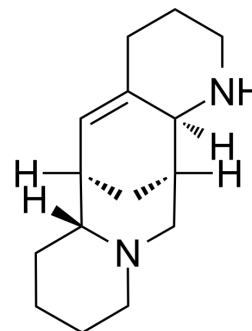


## Aloperine

<b>Cat. No.:</b>	HY-13516
<b>CAS No.:</b>	56293-29-9
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>24</sub> N <sub>2</sub>
<b>Molecular Weight:</b>	232.36
<b>Target:</b>	Apoptosis; Autophagy; Filovirus; HIV
<b>Pathway:</b>	Apoptosis; Autophagy; Anti-infection
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 5.56 mg/mL (23.93 mM); ultrasonic and warming and heat to 60°C																							
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent Concentration</th> <th>Mass</th> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>4.3037 mL</td> <td>21.5183 mL</td> <td>43.0367 mL</td> </tr> <tr> <td>5 mM</td> <td>0.8607 mL</td> <td>4.3037 mL</td> <td>8.6073 mL</td> </tr> <tr> <td>10 mM</td> <td>0.4304 mL</td> <td>2.1518 mL</td> <td>4.3037 mL</td> </tr> </tbody> </table>	Solvent Concentration	Mass	1 mg	5 mg	10 mg						Preparing Stock Solutions	1 mM	4.3037 mL	21.5183 mL	43.0367 mL	5 mM	0.8607 mL	4.3037 mL	8.6073 mL	10 mM	0.4304 mL	2.1518 mL	4.3037 mL
Solvent Concentration	Mass		1 mg	5 mg	10 mg																			
Preparing Stock Solutions	1 mM	4.3037 mL	21.5183 mL	43.0367 mL																				
	5 mM	0.8607 mL	4.3037 mL	8.6073 mL																				
	10 mM	0.4304 mL	2.1518 mL	4.3037 mL																				
	Please refer to the solubility information to select the appropriate solvent.																							
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.08 mg/mL (8.95 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (8.95 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.08 mg/mL (8.95 mM); Clear solution</li> </ol>																							

### BIOLOGICAL ACTIVITY

<b>Description</b>	Aloperine is an alkaloid in sophora plants such as <i>Sophora alopecuroides</i> L, which has shown anti-cancer, anti-inflammatory and anti-virus properties <sup>[1]</sup> . Aloperine is widely used to treat patients with allergic contact dermatitis eczema and other skin inflammation in China <sup>[2]</sup> . Aloperine induces apoptosis and autophagy in HL-60 cells <sup>[1]</sup> .
<b>In Vitro</b>	<p>Aloperine (1-20 μM; 24 hours) gives growth-inhibitory IC<sub>50</sub> values in cancer cells ranges from 0.04 to 1.36 mM, the IC<sub>50</sub> values in HL-60, U937, K562, EC109, A549 and HepG2 cells are 0.04, 0.27, 0.36, 1.11, 1.18 and 1.36 mM, respectively<sup>[1]</sup>.</p> <p>Aloperine (1-20 μM; 24 hours) induces apoptosis and decreases bcl-2 expression in HL-60 cells<sup>[1]</sup>.</p> <p>Aloperine (20–100 μM; 18 hours) induces autophagy and formation of acidic vacuole in HL-60 cells<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

---

## CUSTOMER VALIDATION

- Int Immunopharmacol. 2021 May 1;97:107720.
- Am J Physiol Cell Physiol. 2023 Sep 4.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

---

## REFERENCES

- [1]. Lin Z, et al. In vitro anti-tumour activities of quinolizidine alkaloids derived from *Sophora flavescens* Ait. *Basic Clin Pharmacol Toxicol.* 2011 May;108(5):304-9.
- [2]. Yuan XY, et al. Effects and mechanisms of aloperine on 2, 4-dinitrofluorobenzene-induced allergic contact dermatitis in BALB/c mice. *Eur J Pharmacol.* 2010 Mar 10;629(1-3):147-52.
- 

**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](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA