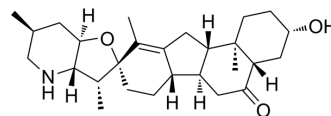


Peimisine

Cat. No.:	HY-N0214												
CAS No.:	19773-24-1												
Molecular Formula:	C ₂₇ H ₄₁ NO ₃												
Molecular Weight:	427.62												
Target:	mAChR; Angiotensin-converting Enzyme (ACE); Apoptosis												
Pathway:	GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease; Apoptosis												
Storage:	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>2 years</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 year</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	2 years		-20°C	1 year
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	4°C	2 years											
In solvent	-80°C	2 years											
	-20°C	1 year											



SOLVENT & SOLUBILITY

In Vitro	DMSO : 10 mg/mL (23.39 mM); ultrasonic and warming and heat to 60°C																			
	<table border="1"> <thead> <tr> <th rowspan="2">Concentration</th> <th colspan="3">Mass</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td>2.3385 mL</td> <td>11.6926 mL</td> <td>23.3852 mL</td> </tr> <tr> <td>5 mM</td> <td>0.4677 mL</td> <td>2.3385 mL</td> <td>4.6771 mL</td> </tr> <tr> <td>10 mM</td> <td>0.2339 mL</td> <td>1.1693 mL</td> <td>2.3385 mL</td> </tr> </tbody> </table>	Concentration	Mass			1 mg	5 mg	10 mg	1 mM	2.3385 mL	11.6926 mL	23.3852 mL	5 mM	0.4677 mL	2.3385 mL	4.6771 mL	10 mM	0.2339 mL	1.1693 mL	2.3385 mL
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	Please refer to the solubility information to select the appropriate solvent.																			
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1 mg/mL (2.34 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1 mg/mL (2.34 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1 mg/mL (2.34 mM); Clear solution 																			

BIOLOGICAL ACTIVITY

Description	Peimisine (Ebeiensine) is a muscarinic M receptor antagonist and angiotensin converting enzyme (ACE) inhibitor. Peimisine shows anti-tumor, anti-inflammatory, antihypertensive activities. Peimisine can induce apoptosis and be used in cough and asthma research ^{[1][2][3]} .
In Vitro	Peimisine (17.43-92.07 μg/mL; 72 h) shows significant cytotoxic effects ^[3] . Peimisine (15 μg/mL; 24, 48 and 72 h) induces G ₀ /G ₁ phase arrest and rising apoptosis rate ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis^[3]

Cell Line:	A2780 cells
Concentration:	15 µg/mL
Incubation Time:	24, 48 and 72 hours
Result:	Induced G ₀ /G ₁ phase arrest of A2780 cells in a time-dependent manner.

Cell Cytotoxicity Assay^[3]

Cell Line:	LLC, A2780, HepG2 and A549 cells
Concentration:	17.43-92.07 µg/mL
Incubation Time:	72 hours
Result:	Inhibited LLC, A2780, HepG2 and A549 cells with the IC ₅₀ values of 20.75 µg/mL, 17.43 µg/mL, 92.07 µg/mL, 36.11 µg/mL, respectively.

CUSTOMER VALIDATION

- Phytomedicine. 2023 Jul 2, 154946.
- J Pharm Pharmacol. 2023 Nov 25:rgad091.

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REFERENCES

- [1]. Armando Alberola-Die, et al. Peimine, an Anti-Inflammatory Compound from Chinese Herbal Extracts, Modulates Muscle-Type Nicotinic Receptors. *Int J Mol Sci*. 2021 Oct 19;22(20):11287.
- [2]. Dongdong Wang, et al. Evaluation of antitumor property of extracts and steroidal alkaloids from the cultivated *Bulbus Fritillariae ussuriensis* and preliminary investigation of its mechanism of action. *BMC Complement Altern Med*. 2015 Feb 21;15:29.
- [3]. Pan F, et al. Peimisine and peiminine production by endophytic fungus *Fusarium* sp. isolated from *Fritillaria unibracteata* var. *wabensis*. *Phytomedicine*. 2014 Jul-Aug;21(8-9):1104-9.

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

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