# Peimisine

**Cat. No.:** HY-N0214

**CAS No.:** 19773-24-1

**Molecular Formula:** $C_{27}H_{41}NO_3$

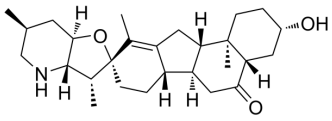
**Molecular Weight:** 427.62

**Target:** mAChR; Angiotensin-converting Enzyme (ACE); Apoptosis

**Pathway:** GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease; Apoptosis

**Storage:**

| | | |
|---|---|---|
| Powder | -20°C | 3 years |
| | 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)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 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 |

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: ≥ 1 mg/mL (2.34 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1 mg/mL (2.34 mM); Clear solution
3. 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.

See more customer validations on www.MedChemExpress.com

## 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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