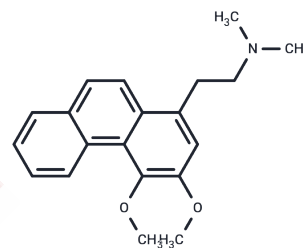


## Atherosperminine

## Chemical Properties

|                   |  |
|-------------------|--|
| CAS No. :         | 5531-98-6  |
| Formula:          | C <sub>20</sub> H <sub>23</sub> NO <sub>2</sub>          |
| Molecular Weight: | 309.4  |
| Appearance:       | Solid  |
| Storage:          | keep away from direct sunlight,store at low temperature  |
|                   | Powder: -20°C for 3 years   In solvent: -80°C for 1 year |



## Biological Description

|               |   |
|---------------|---|
| Description   | Atherosperminine shows cholinesterase inhibitory activity against acetylcholinesterase (AChE) and butyrylcholinesterase (BChE). Atherosperminine exerts a non-specific relaxant effect on the trachealis, its major mechanism of action appears to be inhibition of cAMP phosphodiesterase. |
| Targets(IC50) | cAMP,Calcium Channel,AChR,Parasite  |
| In vitro      | Atherosperminine shows strong anti-plasmodial activity against Plasmodium falciparum, with the IC50 value of 5.80 µM. Atherosperminine also shows antioxidant activity in a DPPH assay with the IC50 value of 54.53 ug/mL[3].   |

## Solubility Information

|            |   |
|------------|---|
| Solubility | DMSO: 50 mg/mL (161.6 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

## Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 3.2321 mL | 16.1603 mL | 32.3206 mL |
| 5 mM  | 0.6464 mL | 3.2321 mL  | 6.4641 mL  |
| 10 mM | 0.3232 mL | 1.616 mL   | 3.2321 mL  |
| 50 mM | 0.0646 mL | 0.3232 mL  | 0.6464 mL  |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

### Reference

- Nasrullah AA, et al. Antiplasmodial alkaloids from the bark of *Cryptocarya nigra* (Lauraceae). *Molecules*. 2013 Jul 8;18(7):8009-17.
- Lin CH, et al. The relaxant actions on guinea-pig trachealis of atherosperminine isolated from *Fissistigma glaucescens*. *Eur J Pharmacol*. 1993 Jun 11;237(1):109-16.
- Ayu Afiqah Nasrullah, et al. Antiplasmodial Alkaloids from the Bark of *Cryptocarya nigra* (Lauraceae). *Molecules*. 2013 Jul; 18(7): 8009-8017.
- C H Lin, et al. The relaxant actions on guinea-pig trachealis of atherosperminine isolated from *Fissistigma*. *Eur J Pharmacol*. 1993 Jun 11;237(1):109-16.

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