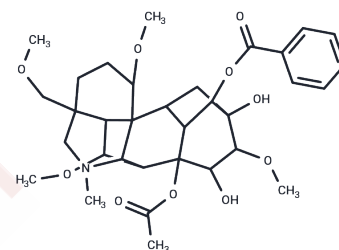


Hypaconitine

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 6900-87-4 |
| Formula: | C ₃₃ H ₄₅ N ₁ O ₁₀ |
| Molecular Weight: | 615.71 |
| Storage: | Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA. |



Biological Description

| | |
|-----------------|--|
| Description | Hypaconitine, an active and highly toxic constituent derived from Aconitum species, possesses anti-inflammatory activity and is widely used to treat rheumatism. |
| Targets(IC50) | Calcium Channel, NF-κB, Cytochromes P450, Potassium Channel, TNF |
| In vitro | Hypaconitine (0.08-2 microM) depressed the nerve-evoked twitch tension, without affecting the contraction evoked by stimulation of the muscle. At the concentrations of hypaconitine (up to 5 microM) that depressed the nerve-evoked twitch tension, the resting membrane potential of the muscle cells was unchanged. Hypaconitine (0.1-2 microM) blocked the end-plate potential (epp), without affecting the amplitude of the miniature epp (mepp). The quantal content of end-plate potentials was decreased by these agents in parallel with the decrement in amplitude. |
| Animal Research | Adult Wistar rats were orally administered Hypaconitine (0.23, 0.69, 2.07 mg/kg per day), liquiritin (20 mg/kg per day), or Hypaconitine (2.07 mg/kg per day) plus liquiritin (20 mg/kg per day) for seven consecutive days. The mRNA expression levels of CaM and Cx43 in rat myocardial tissue were determined by real-time quantitative PCR. The protein contents of CaM and phosphorylated Cx43 (Ser368) were determined by Western blot |

Solubility Information

| | |
|---------------------|--|
| Solubility | DMSO: 62.5 mg/mL (101.51 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.25 mM), Sonication is recommended. 10% DMSO+90% Saline: 6.25 mg/mL (10.15 mM), Solution. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|-----------|------------|
| 1 mM | 1.6241 mL | 8.1207 mL | 16.2414 mL |
| 5 mM | 0.3248 mL | 1.6241 mL | 3.2483 mL |
| 10 mM | 0.1624 mL | 0.8121 mL | 1.6241 mL |
| 50 mM | 0.0325 mL | 0.1624 mL | 0.3248 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Muroi M , Kimura I , Kimura M . Blocking effects of hyaconitine and aconitine on nerve action potentials in phrenic nerve-diaphragm muscles of mice[J]. Neuropharmacology, 1990, 29(6):567-572.

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