

Paxilline

Chemical Properties

CAS No. : 57186-25-1

Formula: C₂₇H₃₃N₃O₄

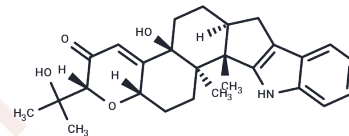
Molecular Weight: 435.56

Storage:

Keep away from direct sunlight, Store at low temperature, Keep away from moisture

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 | Paxilline is an indole alkaloid mycotoxin from * <i>Penicillium paxilli</i> *, acting as a potent BK channel inhibitor via an almost exclusively closed-channel block mechanism. Paxilline possesses significant anticonvulsant activity. |
| Targets(IC50) | Calcium Channel, Potassium Channel, ROS |

Solubility Information

| | |
|---------------------|--|
| Solubility | DMSO: 80 mg/mL (183.67 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: 5 mg/mL (11.48 mM), Sonication is recommended. <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 | 2.2959 mL | 11.4795 mL | 22.9589 mL |
| 5 mM | 0.4592 mL | 2.2959 mL | 4.5918 mL |
| 10 mM | 0.2296 mL | 1.1479 mL | 2.2959 mL |
| 50 mM | 0.0459 mL | 0.2296 mL | 0.4592 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

- Zhou Y, et al. Paxilline inhibits BK channels by an almost exclusively closed-channel block mechanism. *J Gen Physiol.* 2014 Nov;144(5):415-40.
- Bilmen JG, et al. The mechanism of inhibition of the sarco/endoplasmic reticulum Ca²⁺ ATPase by paxilline. *Arch Biochem Biophys.* 2002 Oct 1;406(1):55-64.
- Sheehan JJ, et al. Anticonvulsant effects of the BK-channel antagonist paxilline. *Epilepsia.* 2009 Apr;50(4):711-20.
- Yin C, et al. The Bi-Functional Paxilline Enriched in Skin Secretion of Tree Frogs (*Hyla japonica*) Targets the KCNK18 and BKCa Channels. *Toxins (Basel).* 2023 Jan 12;15(1):70.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481