

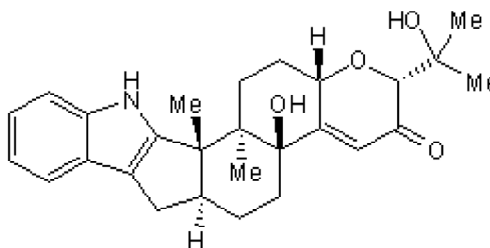
Certificate of Analysis

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Product Name: Paxilline **Catalog No.:** 2006 **Batch No.:** 10
CAS Number: 57186-25-1
IUPAC Name: (2*R*,4*bS*,6*aS*,12*bS*,12*cR*,14*aS*)-5,6,6*a*,7,12,12*b*,12*c*,13,14,14*a*-Decahydro-4*b*-hydroxy-2-(1-hydroxy-1-methylethyl)-12*b*,12*c*-dimethyl-2*H*-pyrano[2'',3'':5',6']benz[1',2':6,7]indeno[1,2-*b*]indol-3(4*bH*)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₃₃NO₄·½H₂O
Batch Molecular Weight: 444.57
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	72.95	7.71	3.15
Found	71.88	7.94	3.06

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Paxilline is a potent blocker of high-conductance Ca²⁺-activated K⁺ (BK_{Ca}, K_{Ca}1.1) channels. Binds to the α-subunit of BK_{Ca} (K_i = 1.9 nM for block of currents in α-subunit-expressing oocytes) and enhances binding of charybdotoxin to BK_{Ca} channels in vascular smooth muscle. Also inhibits sarco/endoplasmic reticulum Ca²⁺-ATPase (IC₅₀ = 5 - 50 μM).

Physical and Chemical Properties:

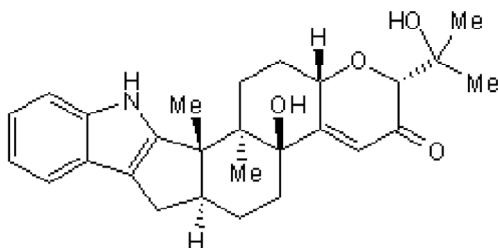
Batch Molecular Formula: C₂₇H₃₃NO₄·½H₂O

Batch Molecular Weight: 444.57

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

This product contains 1 molar equivalent of acetonitrile.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Bilmen *et al* (2002) The mechanism of inhibition of the sarco/endoplasmic reticulum Ca²⁺ ATPase by paxilline. *Arch.Biochem.Biophys.* **406** 55. PMID: 12234490.

Sanchez and McManus (1996) Paxilline inhibition of the alpha-subunit of the high-conductance calcium-activated potassium channel. *Neuropharmacology* **35** 963. PMID: 8938726.

Knaus *et al* (1994) Tremorgenic indole alkaloids potently inhibit smooth muscle high-conductance calcium-activated potassium channels. *Biochemistry* **33** 5819. PMID: 7514038.

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