

**Product Name:** Paxilline

**Catalog No.:** 2006

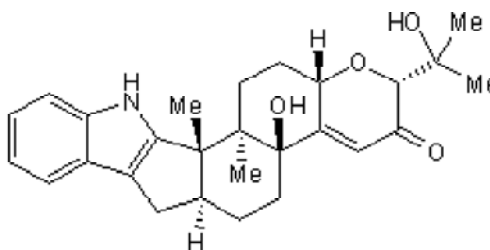
**Batch No.:** 9

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:** C<sub>27</sub>H<sub>33</sub>NO<sub>4</sub>  
**Batch Molecular Weight:** 435.56  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 20 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.2% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	74.45	7.64	3.22
Found	73.35	7.69	3.21

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

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**9**

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**Description:**

Paxilline is a potent blocker of high-conductance Ca<sup>2+</sup>-activated K<sup>+</sup> (BK<sub>Ca</sub>, K<sub>Ca</sub>1.1) channels. Binds to the α-subunit of BK<sub>Ca</sub> (K<sub>i</sub> = 1.9 nM for block of currents in α-subunit-expressing oocytes) and enhances binding of charybdotoxin to BK<sub>Ca</sub> channels in vascular smooth muscle. Also inhibits sarco/endoplasmic reticulum Ca<sup>2+</sup>-ATPase (IC<sub>50</sub> = 5 - 50 μM).

**Physical and Chemical Properties:**

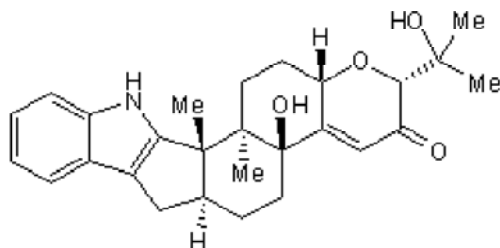
Batch Molecular Formula: C<sub>27</sub>H<sub>33</sub>NO<sub>4</sub>

Batch Molecular Weight: 435.56

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**References:**

**Bilmen et al** (2002) The mechanism of inhibition of the sarco/endoplasmic reticulum Ca<sup>2+</sup> 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.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 20 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. Our standard recommendations are:

**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.

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