Print Date: Jan 4th 2022

Certificate of Analysis

www.tocris.com

Product Name: **Paxilline** **Catalog No.: 2006** **Batch No.: 8**

CAS Number: 57186-25-1

IUPAC Name: (2*R*,4b*S*,6a*S*,12b*S*,12c*R*,14a*S*)-5,6,6a,7,12,12b,12c,13,14,14a-Decahydro-4b-hydroxy-2-(1-hydroxy-1-methylethyl) -12b,12c-dimethyl-2*H*-pyrano[2'',3'':5',6']benz[1',2':6,7]indeno[1,2-*b*]indol-3(4bH)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{27}H_{33}NO_4.0.75C_3H_6O$

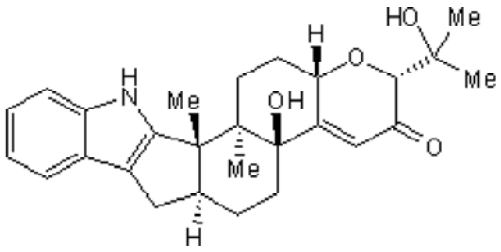
Batch Molecular Weight: 479.12

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 98.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	73.33	7.89	2.92
Found	72.99	8.06	2.87

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Product Information

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Description:

Paxilline is a potent blocker of high-conductance Ca^{2+}-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 Ca^{2+}-ATPase (IC_{50} = 5 - 50 µM).

Physical and Chemical Properties:

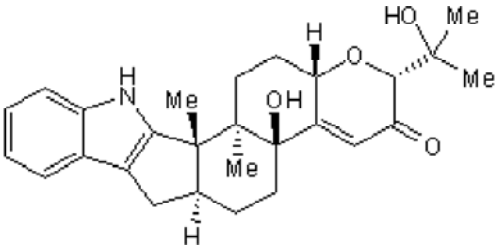
Batch Molecular Formula: $C_{27}H_{33}NO_4.0.75C_3H_6O$

Batch Molecular Weight: 479.12

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



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.

References:

Bilmen *et al* (2002) The mechanism of inhibition of the sarco/endoplasmic reticulum Ca^{2+} 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.