Paxilline

CAS Registry No.: 57186-25-1

Formal Name: 5,6,6a,7,12,12bS,12cR,12dR,12eR,13,14,14aS-decahydro-4bS-hydroxy-2R-(1-hydroxy-1-methylmethyl)-12b,12c-dimethyl-2H-1-benzopyran[5,6:6,7]indenol[1,2-b]indole-3(4bH)-one

MF: C27H33NO4
FW: 435.6
Purity: ≥98%
Stability: ≥2 years at -20°C

Paxilline is supplied as a crystalline solid. A stock solution may be made by dissolving the paxilline in the solvent of choice. Paxilline is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of paxilline in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Paxilline is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, paxilline should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Paxilline has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO-PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Paxilline is an indole diterpene from fungi which potently and reversibly inhibits large conductance Ca2+-activated K+ (BKCa) channels, as shown in patch clamp (Ki = 1.9 nM) and whole smooth muscle cell studies (Ki = 35.7 nM).1,2 It also enhances the binding of charybdotoxin, a peptidyl neurotoxin, to BKCa channels.3 Paxilline is currently used to evaluate the role of BKCa channels in various cell processes and responses.4,5

Laboratory Procedures

For long term storage, we suggest that paxilline be stored as supplied at -20°C. It should be stable for at least two years.

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References


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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com