SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

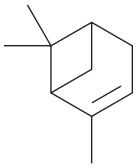
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

α-Pinene

Item No. 21576

CAS Registry No.:	80-56-8
Formal Name:	2,6,6-trimethyl-bicyclo[3.1.1]hept-2-ene
Synonym:	NSC 7727
MF:	$C_{10}H_{16}$
FW:	136.2
Purity:	≥95%
Supplied as:	A neat oil
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

α-Pinene is supplied as a neat oil. A stock solution may be made by dissolving the α-pinene in the solvent of choice, which should be purged with an inert gas. α-Pinene is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of α-pinene in these solvents is approximately 20 mg/ml.

α-Pinene is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, α-pinene should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. α-Pinene has a solubility of approximately 0.33 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

α-Pinene is a bicyclic monoterpene found in pine trees and other plants, including *Cannabis* with diverse biological activities.[1] It reduces the growth of a panel of seven Gram-positive bacteria, seven Gram-negative bacteria, and eight yeast strains with MIC values of 0.75-1.29, 1.05-1.59, and 0.7-1.17%, respectively.[2] It has insecticidal activity against *C. molestus* larvae with LC_{50} values ranging from 47 to 49 mg/L.[3] α-Pinene (100 µg/ml) induces apoptosis, increases anion superoxide production and DNA fragmentation, and activates caspase-3 in B16/F10 melanoma cells.[4] In a B16/F10 mouse xenograft model, α-pinene (100 ml of a 10 mg/ml solution) reduces the number of metastatic lung nodules by approximately 7-fold. α-Pinene (8.6 mg/L, aerosol) also increases the time spent in the open arms of the elevated plus maze by approximately 2-fold in mice, indicating anxiolytic-like activity.[5]

References

1. Russo, E.B. Taming THC: Potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. *Br. J. Pharmacol.* **163(7)**, 1344-1364 (2011).
2. Nissen, L., Zatta, A., Stefanini, I., *et al.* Characterization and antimicrobial activity of essential oils of industrial hemp varieties (*Cannabis sativa* L.). *Fitoterapia* **81(5)**, 413-419 (2010).
3. Traboulsi, A.F., Taoubi, K., el-Haj, S., *et al.* Insecticidal properties of essential plant oils against the mosquito *Culex pipiens molestus* (Diptera: Culicidae). *Pest Manag. Sci.* **58(5)**, 491-495 (2002).
4. Matsuo, A.L., Figueiredo, C.R., Arruda, D.C., *et al.* α-Pinene isolated from *Schinus terebinthifolius* Raddi (Anacardiaceae) induces apoptosis and confers antimetastatic protection in a melanoma model. *Biochem. Biophys. Res. Commun.* **411(2)**, 4749-454 (2011).
5. Satou, T., Kasuya, H., Maeda, K., *et al.* Daily inhalation of α-pinene in mice: Effects on behavior and organ accumulation. *Phytother. Res.* **28(9)**, 1284-1287 (2014).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM