

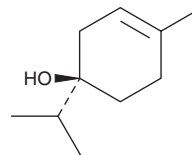
PRODUCT INFORMATION



(-)-Terpinen-4-ol

Item No. 38964

CAS Registry No.: 20126-76-5
Formal Name: (1R)-4-methyl-1-(1-methylethyl)-3-cyclohexen-1-ol
Synonyms: L-4-Terpineol, (R)-Terpinen-4-ol
MF: C₁₀H₁₈O
FW: 154.3
Purity: ≥95%
Supplied as: A neat liquid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

(-)-Terpinen-4-ol is supplied as a neat liquid. A stock solution may be made by dissolving the (-)-terpinen-4-ol in the solvent of choice, which should be purged with an inert gas. (-)-Terpinen-4-ol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of (-)-terpinen-4-ol in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of (-)-terpinen-4-ol can be prepared by directly dissolving the neat liquid in aqueous buffers. The solubility of (-)-terpinen-4-ol in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(-)-Terpinen-4-ol is a monoterpene alcohol that has been found in *A. zerumbet* and has arrhythmogenic and anticonvulsant activities.¹ It induces extrasystoles in isolated rat left atria when used at a concentration of 100 μM. *In vivo*, (-)-terpinen-4-ol (10 mg/kg) induces supraventricular tachycardia in rats. It also increases the latency to seizure and decreases the number of seizures in a rat model of epilepsy induced by pentylenetetrazole (PTZ; Item No. 18682).²

References

- Gondim, A.N.S., Lara, A., Santos-Miranda, A., *et al.* (-)-Terpinen-4-ol changes intracellular Ca²⁺ handling and induces pacing disturbance in rat hearts. *Eur. J. Pharmacol.* **807**, 56-63 (2017).
- Nóbrega, F.F.F., Salvadori, M.G.S.S., Masson, C.J., *et al.* Monoterpenoid terpinen-4-ol exhibits anticonvulsant activity in behavioural and electrophysiological studies. *Oxid. Med. Cell. Longev.* 703848 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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