

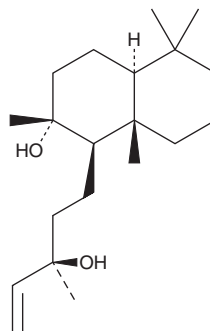
PRODUCT INFORMATION



Sclareol

Item No. 30287

CAS Registry No.: 515-03-7
Formal Name: (α R,1R,2R,4aS,8aS)- α -ethenyldecahydro-2-hydroxy- α ,2,5,5,8a-pentamethyl-1-naphthalenepropanol
Synonym: (-)-Sclareol
MF: C₂₀H₃₆O₂
FW: 308.5
Purity: \geq 98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 2 years
Item Origin: Plant/*Salvia sclarea*



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

Laboratory Procedures

Sclareol is supplied as a crystalline solid. A stock solution may be made by dissolving the sclareol in the solvent of choice, which should be purged with an inert gas. Sclareol is soluble in the organic solvent chloroform at a concentration of approximately 30 mg/ml.

Description

Sclareol is a diterpene originally isolated from *S. sclarea* and has diverse biological activities.¹⁻³ It is active against *A. naeslundii*, *P. gingivalis*, and *P. anaerobius* bacteria (MICs = 12.5, 6.2, and 3.1 μ g/ml, respectively).¹ Sclareol (5 and 10 μ g/ml) inhibits LPS-induced increases in nitric oxide (NO) production and COX-2 and inducible nitric oxide synthase (iNOS) protein levels in RAW 264.7 macrophages.² It reduces λ -carrageenan-induced hind paw edema in mice when administered at a dose of 10 mg/kg. It inhibits the growth of HCT116 cells (GI₅₀ = 34 μ M), as well as induces apoptosis and halts the cell cycle at the G₁ phase in HCT116 cells when used at a concentration of 100 μ M.³ Liposome-encapsulated sclareol (275 mg/kg, i.p.) reduces tumor growth in an HCT116 mouse xenograft model.

References

1. Souza, A.B., de Souza, M.G., Moreira, M.A., *et al.* Antimicrobial evaluation of diterpenes from *Copaifera langsdorffii* oleoresin against periodontal anaerobic bacteria. *Molecules* **16(11)**, 9611-9619 (2011).
2. Huang, G.-J., Pan, C.-H., and Wu, C.-H. Sclareol exhibits anti-inflammatory activity in both lipopolysaccharide-stimulated macrophages and the λ -carrageenan-induced paw edema model. *J. Nat. Prod.* **75(1)**, 54-59 (2012).
3. Dimas, K., Hatziantoniou, S., Tseleni, S., *et al.* Sclareol induces apoptosis in human HCT116 colon cancer cells *in vitro* and suppression of HCT116 tumor growth in immunodeficient mice. *Apoptosis* **12(4)**, 685-694 (2007).

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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