

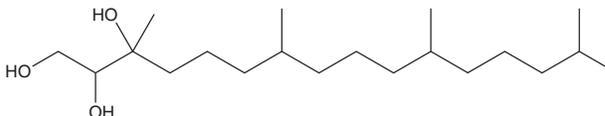
PRODUCT INFORMATION



Phytantriol

Item No. 40742

CAS Registry No.: 74563-64-7
Formal Name: 3,7,11,15-tetramethyl-1,2,3-hexadecanetriol
MF: $C_{20}H_{42}O_3$
FW: 330.6
Purity: $\geq 95\%$
Supplied as: A neat oil
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

Phytantriol is supplied as a neat oil. A stock solution may be made by dissolving the phytantriol in the solvent of choice, which should be purged with an inert gas. Phytantriol is soluble (≥ 10 mg/ml) in ethanol and DMSO.

Description

Phytantriol is an aliphatic alcohol that has been used in the formation of liquid crystalline nanoparticles (LCNPs) and cubosomes.^{1,2} Cubosomes containing phytantriol are bactericidal against LPS-deficient and polymyxin-resistant *A. baumannii* strains.¹ LCNPs containing phytantriol and encapsulating the isoquinoline alkaloid berberine (Item No. 10006427) reduce TNF- α and inducible nitric oxide synthase (iNOS) levels and the production of reactive oxygen species (ROS) in LPS-activated RAW 264.7 macrophages.²

References

- Lai, X., Ding, Y., Wu, C.M., *et al.* Phytantriol-based cubosome formulation as an antimicrobial against lipopolysaccharide-deficient Gram-negative bacteria. *ACS Appl. Mater. Interfaces* **12(40)**, 44485-44498 (2020).
- Alnuqaydan, A.M., Almutary, A.G., Azam, M., *et al.* Phytantriol-based berberine-loaded liquid crystalline nanoparticles attenuate inflammation and oxidative stress in lipopolysaccharide-induced RAW264.7 macrophages. *Nanomaterials (Basel)* **12(23)**, 4312 (2022).

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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