

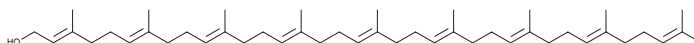
PRODUCT INFORMATION



Solanesol

Item No. 30867

CAS Registry No.: 13190-97-1
Formal Name: (2E,6E,10E,14E,18E,22E,26E,30E)-
3,7,11,15,19,23,27,31,35-nonamethyl-
2,6,10,14,18,22,26,30,34-
hexatriacontanonaen-1-ol
MF: C₄₅H₇₄O
FW: 631.1
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Solanesol is supplied as a solid. A stock solution may be made by dissolving the solanesol in the solvent of choice, which should be purged with an inert gas. Solanesol is soluble in the organic solvent ethanol at a concentration of approximately 0.25 mg/ml.

Description

Solanesol is a trisesquiterpenoid that has been found in *N. tabacum* and has diverse biological activities.¹⁻³ It is active against *E. coli*, *M. phlei*, *P. aeruginosa*, and *S. aureus*.¹ Solanesol (40 μM) increases basal heme oxygenase-1 (HO-1) and nuclear factor erythroid 2-related factor 2 (Nrf2) activities and inhibits LPS-induced production of IL-6, IL-1β, and TNF-α in RAW 264.7 cells.² It reduces escape latency in the Morris water maze and the number of slips in a beam-crossing task in a rat model of Huntington's disease induced by 3-nitropropionic acid (3-NP; Item No. 14684) when administered at doses of 5, 10, and 15 mg/kg.³ Solanesol is also a precursor in the formation of polynuclear aromatic hydrocarbons (PAHs), which are carcinogenic components of tobacco smoke, and has been used as a synthetic intermediate in the synthesis of coenzyme Q₁₀ (Item No. 11506) and vitamin K analogs that have antioxidant activities.¹

References

1. Yan, N., Liu, Y., Liu, L., *et al.* Bioactivities and medicinal value of solanesol and its accumulation, extraction technology, and determination methods. *Biomolecules* **9**(8), 334 (2019).
2. Yao, X., Lu, B., Lü, C., *et al.* Solanesol induces the expression of heme oxygenase-1 via p38 and Akt and suppresses the production of proinflammatory cytokines in RAW264.7 cells. *Food Funct.* **8**(1), 132-141 (2017).
3. Mehan, S., Monga, V., Rani, M., *et al.* Neuroprotective effect of solanesol against 3-nitropropionic acid-induced Huntington's disease-like behavioral, biochemical, and cellular alterations: Restoration of coenzyme-Q10-mediated mitochondrial dysfunction. *Indian J. Pharmacol.* **50**(6), 309-319 (2018).

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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