

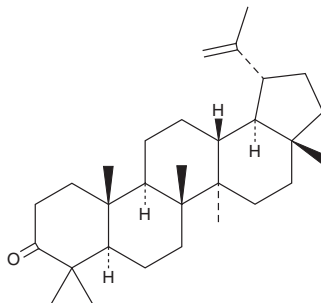
PRODUCT INFORMATION



Lupenone

Item No. 35335

CAS Registry No.: 1617-70-5
Formal Name: lup-20(29)-en-3-one
Synonym: NSC 281807
MF: $C_{30}H_{48}O$
FW: 424.7
Purity: $\geq 98\%$
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Plant/*Adenophora tetraphylla*



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

Laboratory Procedures

Lupenone is supplied as a solid. A stock solution may be made by dissolving the lupenone in the solvent of choice, which should be purged with an inert gas. Lupenone is soluble in the organic solvent dimethyl formamide at a concentration of approximately 2 mg/ml. Lupenone is also slightly soluble in ethanol and DMSO.

Description

Lupenone is a triterpenoid that has been found in *L. eriocalyx* and has diverse biological activities.¹⁻⁴ It inhibits HIV-1 reverse transcriptase ($IC_{50} = 2.1 \mu\text{M}$).¹ Lupenone is active against the W2 and D6 strains of *P. falciparum* (IC_{50} s = 208.1 and 394.7 ng/ml, respectively).² It induces melanogenesis in ($EC_{50} = 0.35 \mu\text{M}$), and inhibits the growth of, B16 2F2 melanoma cells *in vitro* ($IC_{50} = 25.4 \mu\text{M}$).³ Topical application of lupenone (1 mg/ear) reduces ear edema induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014) in mice.⁴ It also inhibits acetic acid-induced writhing in mice when administered at a dose of 100 mg/kg.²

References

1. Akihisa, T., Ogihara, J., Kato, J., *et al.* Inhibitory effects of triterpenoids and sterols on human immunodeficiency virus-1 reverse transcriptase. *Lipids* **36**(5), 507-512 (2001).
2. Manguro, L.O.A., Owuor, P.O., and Ochung, A.A. Isolation, characterization and biological activities of phytoconstituents from *Lonchocarpus eriocalyx* harms leaves. *Trends Phytochem. Res.* **2**(3), 135-146 (2018).
3. Hata, K., Hori, K., and Takahashi, S. Differentiation- and apoptosis-inducing activities by pentacyclic triterpenes on a mouse melanoma cell line. *J. Nat. Prod.* **65**(5), 645-648 (2002).
4. Yasukawa, K., Yu, S., Yamanouchi, S., *et al.* Some lupane-type triterpenes inhibit tumor promotion by 12-O-tetradecanoylphorbol-13-acetate in two-stage carcinogenesis in mouse skin. *Phytomedicine* **1**(4), 309-313 (1995).

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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