

Lupenone Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Lupenone

Catalog No.: CFN99681

Cas No.: 1617-70-5

Purity: >=98%

M.F: C₃₀H₄₈O

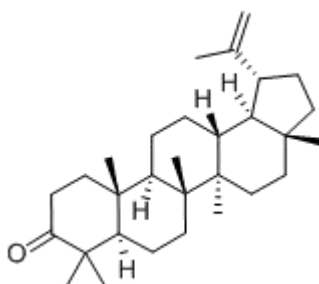
M.W: 424.70

Physical Description: White powder

Synonyms: 18-Lupen-3-one; 5 α -Lup-20(29)-en-3-one; Lup-20(29)-en-3-one;

Lupa-20(29)-ene- β -one; Lupa-20(30)-ene-3-one;

(1R,3Ar,4S,5ar,5br,7ar,11ar,11br,13ar,13br)-1-isopropenyl-3A,5A,5B,8,8,11A-hexamethyl-eicosahydro-cyclopenta[A]chrysen-9-one.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The roots of *Pueraria thomsonii* Benth.

[Biological Activity or Inhibitors]

Lupenone from *Erica multiflora leaf extract* stimulates melanogenesis by increasing the tyrosinase enzyme expression via mitogen-activated protein kinase phosphorylated extracellular signal-regulated kinases 1 and 2 phosphorylation inhibition, making it a possible treatment for hypopigmentation diseases.^[1]

Lupenone and lupeol inhibit protein tyrosine phosphatase 1B (PTP1B) with IC₅₀ values of 13.7 ± 2.1 and 5.6 ± 0.9 μ M, respectively, they are non-competitive inhibitors of PTP1B that decrease V_{max} values with no effect on K_m values; and PTP1B appears to be an attractive target for the development of new drugs for type 2 diabetes and obesity.^[2]

Lupenone inhibits adipocyte differentiation through downregulation of related transcription factor, particularly the PPAR γ gene. ^[3]

A mixture of lupenone and caryophyllene oxide has trypanocidal activity against *T. cruzi* in vitro and in vivo.^[4]

Lupenone has in vitro antibacterial activity and cytotoxicity.^[5]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[6]

Mobile phase: Methanol- Acetonitrile=50:50 ;

Flow rate: 0.7 ml/min;

Column temperature: 25 °C;

The wave length of determination: 206 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

- [1] Villareal M O, Han J, Matsuyama K, *et al. Planta Med.*, 2013, 79(3-4):236-43.
- [2] Na M, Bo Y K, Osada H, *et al. J. Enzym. Inhib. Med. Ch.*, 2009, 24(4):1056-9.
- [3] Ahn E K, Oh J S. *Phytother. Res.*, 2013, 27(5):761-6.
- [4] Polancohernández G, Escalanteerosa F, Garcíasosa K, *et al. Evid.Based. Comp. Alt.*, 2013, 2013(4):3520-39.
- [5] Chowdhury D, Sayeed A, Islam A, *et al. Journal of Bio-Science*, 2000, 8:31-5.
- [6] Xu F, Wu H, Wang X, *et al. Molecules*, 2014, 19(9):14114-27.

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