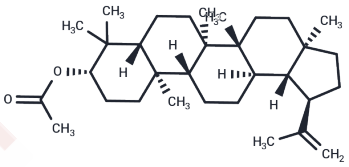
Data Sheet (Cat.No.TN1890)

TargetMol

Lupeol acetate

Chemical Properties



CAS No. : 1617-68-1

Formula: C32H52O2

Molecular Weight: 468.75

Storage: Keep away from direct sunlight,Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Lupeol acetate is a derivative of Lupeol with anti-cancer, anti-inflammatory, anti-diabetic, anti-snake venom, anti-fertility effects and oral activity. It is able to inhibit rheumatoid arthritis by down-regulating inflammatory cytokines (TNF-α, IL-1β, MCP-1, COX-2, VEGF, granzyme B) and is cytotoxic to Hep-3B and A549 cells.
Targets(IC50)	Others,Antibacterial,Parasite,Antifungal,COX,IL Receptor,Interleukin,TNF
In vitro	**Methods**: Lipopolysaccharide (LPS)-stimulated RAW 264.7 cells and bone marrow-derived macrophages (BMDM) were treated with Lupeol acetate (0-80μM) and TNF-α, IL-1β, COX-2, and MCP-1 were measured using Western blotting. In addition, bone formation was examined using reverse transcription-PCR (RT-PCR) and tartrate-resistant acid phosphatase (TRAP) staining. **Results**: Lupeol acetate inhibited the activation, migration, and formation of macrophage osteoclastogenesis in a dose-dependent manner. [3]
In vivo	**Methods**: DBA/1J mice with collagen-induced arthritis (CIA) were randomly divided into three groups: vehicle, Lupeol acetate-treated (50mg/kg), and curcumin-treated (100mg/kg). The therapeutic effects were determined by clinical scores, expression levels of serum cytokines including TNF-α and IL-1β, (18)F-fluorodeoxyglucose ((18)F-FDG) microPET/CT, and histopathology. **Results**: In RA-bearing mice, the expression of inflammatory-related cytokines was suppressed, and LA improved clinical symptoms and bone erosion. Lupeol acetate also significantly reduced the accumulation of (18)F-FDG in the joints of RA-bearing mice. Lupeol acetate significantly improved the symptoms of RA by downregulating the expression of inflammatory cytokines and osteoclastogenesis. [3]

Solubility Information

Solubility	Ethanol: 1 mg/mL (2.13 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1333 mL	10.6667 mL	21.3333 mL
5 mM	0.4267 mL	2.1333 mL	4.2667 mL
10 mM	0.2133 mL	1.0667 mL	2.1333 mL
50 mM	0.0427 mL	0.2133 mL	0.4267 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Javed S, et al. Lupeol acetate as a potent antifungal compound against opportunistic human and phytopathogenic mold Macrophomina phaseolina. Sci Rep. 2021 Apr 19;11(1):8417.
Pardo-Rodriguez D, et al. Lupeol Acetate and α-Amyrin Terpenes Activity against Trypanosoma cruzi: Insights into Toxicity and Potential Mechanisms of Action. Trop Med Infect Dis. 2023 May 3;8(5):263.
Wang WH, et al. Lupeol acetate ameliorates collagen-induced arthritis and osteoclastogenesis of mice through improvement of microenvironment. Biomed Pharmacother. 2016;79:231-240.
Gupta RS, et al. Induction of antifertility with lupeol acetate in male albino rats. Pharmacology. 2005 Oct;75(2):57-62.