

Product Name: Celastrol

Catalog No.: 3203

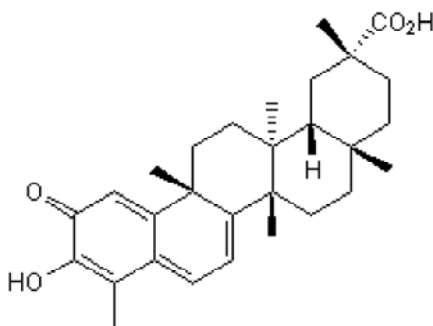
Batch No.: 3

CAS Number: 34157-83-0

IUPAC Name: (9 β ,13 α ,14 β ,20 α)-3-Hydroxy-9,13-dimethyl-2-oxo-24,25,26-trinoroleana-1(10),3,5,7-tetraen-29-oic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₉H₃₈O₄
Batch Molecular Weight: 450.61
Physical Appearance: Red solid
Solubility: DMSO to 100 mM
 ethanol to 75 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	77.3	8.5	
Found	76.97	8.73	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Antioxidant and anti-inflammatory agent. Potently inhibits lipid peroxidation in mitochondria and inhibits TNF-α-induced NFκB activation. Also shown to inhibit topoisomerase II activity in vitro (IC₅₀ = 7.41 μM).

Physical and Chemical Properties:

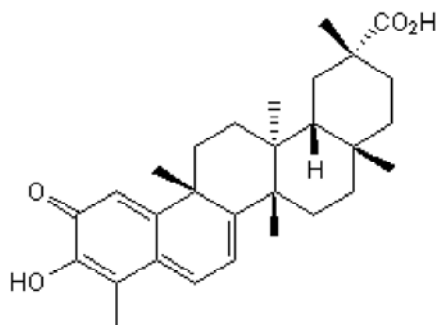
Batch Molecular Formula: C₂₉H₃₈O₄

Batch Molecular Weight: 450.61

Physical Appearance: Red solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 75 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Sethi et al (2007) Celastrol, a novel triterpene, potentiates TNF-induced apoptosis and suppresses invasion of tumor cells by inhibiting NF-κB-regulated gene products and TAK1-mediated NF-κB activation. *Blood* **109** 2727. PMID: 17110449.

Nagase et al (2003) Apoptosis induction in HL-60 cells and inhibition of topoisomerase II by triterpene celastrol. *Biosci.Biotechnol.Biochem.* **67** 1883. PMID: 14519971.

Sassa et al (1990) The triterpene celastrol as a very potent inhibitor of lipid peroxidation in mitochondria. *Biochem.Biophys.Res.Comms.* **172** 890.

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