

**Product Name: Celastrol**

**Catalog No.: 3203**

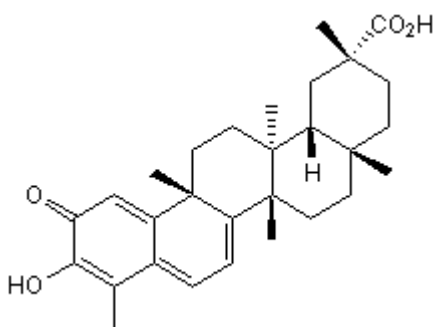
**Batch No.: 2**

CAS Number: 34157-83-0

IUPAC Name: (9 $\beta$ ,13 $\alpha$ ,14 $\beta$ ,20 $\alpha$ )-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:** C<sub>29</sub>H<sub>38</sub>O<sub>4</sub>  
**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 100% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

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**Description:**

Antioxidant and anti-inflammatory agent. Potently inhibits lipid peroxidation in mitochondria and inhibits TNF- $\alpha$ -induced NF $\kappa$ B activation. Also shown to inhibit topoisomerase II activity in vitro (IC<sub>50</sub> = 7.41  $\mu$ M).

**Physical and Chemical Properties:**

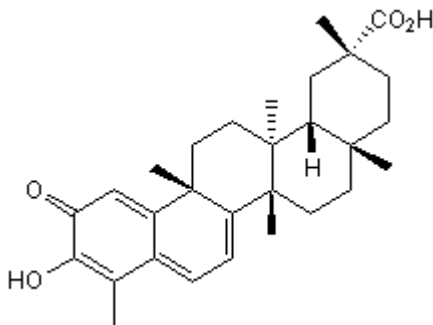
Batch Molecular Formula: C<sub>29</sub>H<sub>38</sub>O<sub>4</sub>

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:**

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

**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.

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

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