

**Product Name:** Pristimerin

**Catalog No.:** 3731

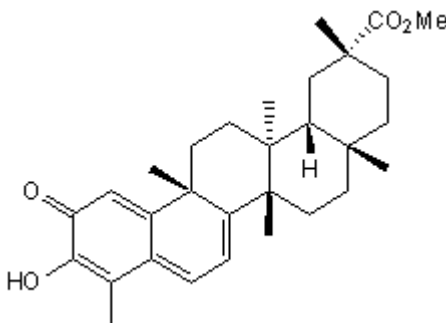
**Batch No.:** 1

CAS Number: 1258-84-0

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 methyl ester

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>30</sub>H<sub>40</sub>O<sub>4</sub>·½H<sub>2</sub>O  
**Batch Molecular Weight:** 473.65  
**Physical Appearance:** Orange solid  
**Solubility:** DMSO to 25 mM  
ethanol to 10 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  
**Optical Rotation:** [α]<sub>D</sub> = -167 (Concentration = 1, Solvent = Chloroform)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	76.07	8.72	
Found	76.38	8.94	

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**Description:**

Potent and reversible inhibitor of monoacylglycerol lipase (MGL) (IC<sub>50</sub> = 93 nM). Also suppresses NF- $\kappa$ B activation via inhibition of proteasome chymotrypsin-like activity and IKK $\alpha$  $\beta$ . Displays antitumor, anti-inflammatory and antimicrobial activities.

**Physical and Chemical Properties:**

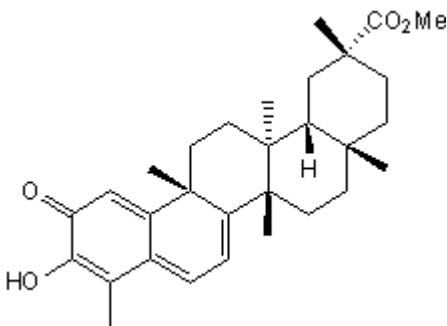
Batch Molecular Formula: C<sub>30</sub>H<sub>40</sub>O<sub>4</sub>·½H<sub>2</sub>O

Batch Molecular Weight: 473.65

Physical Appearance: Orange solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 25 mM  
ethanol to 10 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:**

**Byun et al (2009)** Reactive oxygen species-dependent activation of Bax and Poly(ADP-ribose) polymerase-1 is required for mitochondrial cell death induced by triterpenoid Pristimerin in human cervical cancer cells. *Mol.Pharmacol.* **76** 734. PMID: 19574249.

**Tiedemann et al (2009)** Identification of a potent natural triterpenoid inhibitor of proteasome chymotrypsin-like activity and NF- $\kappa$ B with antimyeloma activity in vitro and in vivo. *Blood* **113** 4027. PMID: 19096011.

**King et al (2009)** Discovery of potent and reversible monoacylglycerol lipase inhibitors. *Chem.Biol.* **16** 1045. PMID: 19875078.

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