

**Product Name:** Phorbol 12-myristate 13-acetate

**Catalog No.:** 1201

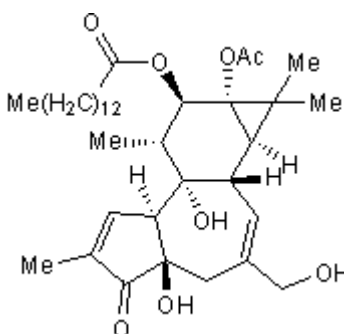
**Batch No.:** 18

**CAS Number:** 16561-29-8

**IUPAC Name:** (1a*R*,1b*S*,4a*R*,7a*S*,7b*S*,8*R*,9*R*,9a*S*)-9a-(Acetyloxy)-1a,1b,4,4a,5,7a,7b,8,9,9a-decahydro-4a,7b-dihydroxy-3-(hydroxymethyl)-1,1,6,8-tetramethyl-5-oxo-1*H*-cyclopropa[3,4]benz[1,2-*e*]azulen-9-yl tetradecanoate

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>36</sub> H <sub>56</sub> O <sub>8</sub>
<b>Batch Molecular Weight:</b>	616.83
<b>Physical Appearance:</b>	Colourless lyophilised solid
<b>Solubility:</b>	DMSO to 100 mM
<b>Storage:</b>	Desiccate at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>TLC:</b>	R <sub>f</sub> = 0.35 (Ethyl acetate:Hexane [4:1])
<b>HPLC:</b>	Shows 99.7% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure

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

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**Description:**

Extensively used phorbol ester activator of protein kinase C; tumor promoter. Binds to PKC with a  $K_i$  value of 2.6 nM as measured by displacement of [<sup>3</sup>H]phorbol 12,13-dibutyrate binding in rat cortex synaptosomal membranes.

**Physical and Chemical Properties:**

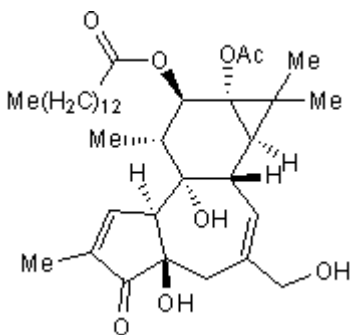
Batch Molecular Formula: C<sub>36</sub>H<sub>56</sub>O<sub>8</sub>

Batch Molecular Weight: 616.83

Physical Appearance: Colourless lyophilised solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

This product is supplied in a sealed glass ampoule as a lyophilized solid, please refer to the Tocris catalogue for opening instructions. Lyophilized solids can be hard to visualize therefore solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**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:**

Merck Index 12 7487.

**Castagna et al (1982)** Direct activation of calcium-activated, phospholipid-dependent protein kinase by tumor-promoting phorbol esters. *J.Biol.Chem.* **257** 7847. PMID: 7085651.

**Hockberger et al (1989)** A diacylglycerol analogue reduces neuronal calcium currents independently of protein kinase C activation. *Nature* **338** 340. PMID: 2922062.

**Murphy et al (1999)** Structural determinants of phorbol ester binding in synaptosomes: pharmacokinetics and pharmacodynamics. *Eur.J.Pharmacol.* **381** 77. PMID: 10528137.

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