

Certificate of Analysis

www.tocris.com

Product Name: Phorbol 12-myristate 13-acetate

Catalog No.: 1201

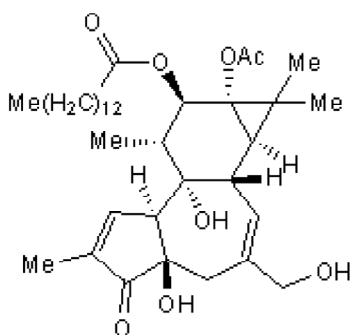
Batch No.: 26

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

Batch Molecular Formula: C₃₆H₅₆O₈
Batch Molecular Weight: 616.83
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.7% purity
Mass Spectrum: Consistent with structure

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

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
 Tel: (800) 343 7475

China
info.cn@bio-techne.com
 Tel: +86 (21) 52380373

Europe Middle East Africa
 Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
 Tel: +1 612 379 2956

Product Name: Phorbol 12-myristate 13-acetate

Catalog No.: 1201

Batch No.: 26

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

Description:

Phorbol 12-myristate 13-acetate is an extensively used phorbol ester high affinity activator of protein kinase C ($K_i = 2.6$ nM as measured by displacement of [3H]phorbol 12,13-dibutyrate binding in rat cortex synaptosomal membranes). It binds to the C1a and C1b domains of PKC inducing membrane translocation of PKC. Phorbol 12-myristate 13-acetate activates the PKC isoforms PKC α , - β , - γ , - δ , - ϵ , - η , and - θ but not PKC ζ or - ι/λ . Phorbol 12-myristate 13-acetate is a tumor promoter. Phorbol 12-myristate 13-acetate can also induce differentiation of THP-1 monocytes to a macrophage phenotype in vitro... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

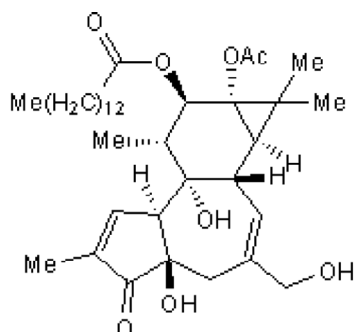
Batch Molecular Formula: C₃₆H₅₆O₈

Batch Molecular Weight: 616.83

Physical Appearance: Off White solid

Minimum Purity: ≥97%

Batch Molecular Structure:



References:

Lund *et al* (2016) The choice of phorbol 12-myristate 13-acetate differentiation protocol influences the response of THP-1 macrophages to a pro-inflammatory stimulus. *J.Immunol.Methods* **430** 64. PMID: 26826276.

Steinberg (2008) Structural basis of protein kinase C isoform function. *Physiol.Rev.* **88** 1341. PMID: 18923184.

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

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

When purchased as a 1mg unit, this product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956