

PRODUCT INFORMATION



4 α -Phorbol 12-myristate 13-acetate

Item No. 16806

CAS Registry No.: 63597-44-4

Formal Name: tetradecanoic acid,
(4aS,7bS,8R,9R,9aS)-9a-(acetyloxy)-
1aR,1bS,4,4a,5,7aS,7b,8,9,9a-decahydro-
4a,7b-dihydroxy-3-(hydroxymethyl)-
1,1,6,8-tetramethyl-5-oxo-1H-cyclopro-
pa[3,4]benz[1,2-e]azulen-9-yl ester

Synonym: 4 α -PMA

MF: C₃₆H₅₆O₈

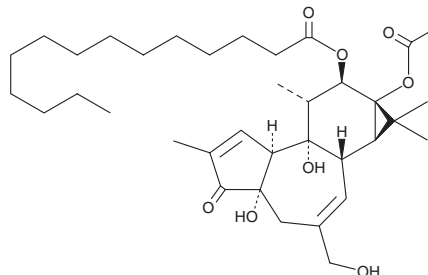
FW: 616.8

Purity: \geq 98%

Supplied as: A solid

Storage: -20°C

Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

4 α -Phorbol 12-myristate 13-acetate (4 α -PMA) is supplied as a solid. A stock solution may be made by dissolving the 4 α -PMA in the solvent of choice. 4 α -PMA is soluble in organic solvents such as ethanol, methanol, and DMSO, which should be purged with an inert gas.

Description

Phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) is a phorbol ester that is commonly used to activate certain types of PKC, including group A (α , β I, β II, γ) and group B (δ , ϵ , η , θ) isoforms.¹ 4 α -PMA is a structural analog of PMA that does not activate PKC.^{2,3} It is used as a negative control for PMA signaling through PKC.³

References

1. Blumberg, P.M. Protein kinase C as the receptor for the phorbol ester tumor promoters: Sixth Rhoads Memorial Award Lecture. *Cancer Res.* **48**(1), 1-8 (1988).
2. Fischer, S.M., Patrick, K.E., Lee, M.L., *et al.* 4 β - and 4 α -12-O-tetradecanoylphorbol-13-acetate elicit arachidonate release from epidermal cells through different mechanisms. *Cancer Res.* **51**(3), 850-856 (1991).
3. Savage, M.J., Trusko, S.P., Howland, D.S., *et al.* Turnover of amyloid β -protein in mouse brain and acute reduction of its level by phorbol ester. *J. Neurosci.* **18**(5), 1743-1752 (1998).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM