

PRODUCT INFORMATION



Prostratin

Item No. 10272

CAS Registry No.: 60857-08-1
Formal Name: 9a-(acetyloxy)-
1,1aR,1bS,4,4aR,7aS,7bR,8R,9,9aS-
decahydro-4a,7b-dihydro-3-(hydroxymethyl)-
1,1,6,8-tetramethyl-5H-cyclopropa[3,4]
benz[1,2-e]azulen-5-one

Synonyms: 13-O-Acetylphorbol, NSC 623310, SA 101A

MF: C₂₂H₃₀O₆

FW: 390.5

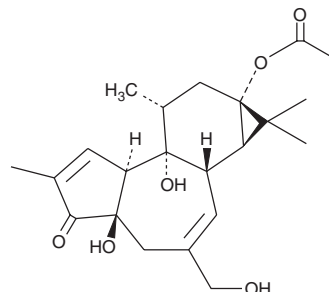
Purity: ≥98%

UV/Vis.: λ_{max}: 205, 235 nm

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

Prostratin is supplied as a crystalline solid. A stock solution may be made by dissolving the prostratin in the solvent of choice, which should be purged with an inert gas. Prostratin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of prostratin in these solvents is approximately 10 mg/ml.

Description

Activation of latent reservoirs of HIV-infected cells is a treatment strategy designed to reduce viral load and eliminate the perpetuation of retroviral infection. Prostratin is a non-tumor promoting phorbol ester that potently induces HIV-1 reactivation in latent reservoirs of infected Jurkat-LAT-GFP cells with an IC₅₀ value of ~0.5 μM.¹ Originally, prostratin was isolated from plant sources including *P. prostrata*, *E. cornigera*, and *H. nutans*.² The effects of prostratin are mediated through activation of NF-κB via protein kinase C and by downregulation of HIV-1 receptor CD4 expression and its co-receptors CXCR4 and CCR5.³⁻⁵

References

1. Bedoya, L.M., Márquez, N., Martínez, N., *et al.* SJ23B, a jatrophone diterpene activates classical PKCs and displays strong activity against HIV *in vivo*. *Biochem Pharmacol.* **77(6)**, 965-978 (2009).
2. Wender, P.A., Kee, J.-M., and Warrington, J.M. Practical synthesis of prostratin, DPP, and their analogs, adjuvant leads against latent HIV. *Science* **320(5876)**, 649-652 (2008).
3. Williams, S.A., Chen, L.-F., Kwon, H., *et al.* Prostratin antagonizes HIV latency by activating NF-κB. *J. Biol. Chem.* **279(40)**, 42008-42017 (2004).
4. Biancotto, A., Grivel, J.-C., Gondois-Rey, F., *et al.* Dual role of prostratin in inhibition of infection and reactivation of human immunodeficiency virus from latency in primary blood lymphocytes and lymphoid tissue. *J. Virol.* **78(19)**, 10507-10515 (2004).
5. Hezareh, M., Moukil, M.A., Szanto, I., *et al.* Mechanisms of HIV receptor and co-receptor down-regulation by prostratin: Role of conventional and novel PKC isoforms. *Antivir. Chem. Chemother.* **15(4)**, 207-222 (2004).

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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