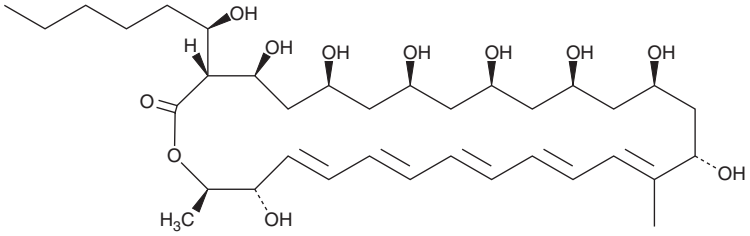
PRODUCT INFORMATION

Filipin III

Item No. 70440

CAS Registry No.: 480-49-9
Formal Name: 4S,6S,8S,10R,12R,14R,16S,27S-octahydroxy-3R-(1R-hydroxy-hexyl)17,28R-dimethyl-oxacyclooctacosa-17E,19E,21E,21E,23E,25E-pentaen-2-one
MF: $C_{35}H_{58}O_{11}$
FW: 654.8
Purity: ≥90%
UV/Vis.: λ_{max}: 323, 339, 357 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Special Conditions: Light sensitive. Do not expose to direct intense light.



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

Laboratory Procedures

Filipin III is supplied as a crystalline solid. A stock solution may be made by dissolving the Filipin III in an organic solvent purged with an inert gas. Filipin III is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of Filipin III in these solvents is approximately 2, 5, and 10 mg/ml, respectively. We recommend using the stock solution within 24 hours or it may result in reduced activity.

Filipin III is sparingly soluble in aqueous buffers. Therefore, further dilutions of the organic solvent solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. For maximum solubility in aqueous buffers, Filipin III should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Filipin III has a solubility of approximately 0.4 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Filipin III is a polyene and an active component of the polyene antibiotic filipin complex (Item No. 25073).[1] It is active against various fungi, including *B. dermatitidis*, *C. neoformans*, *H. capsulatum*, *C. albicans*, and *T. mentagrophytes* (MICs = 1-10 µg/ml). Filipin III induces hemolysis of isolated rabbit erythrocytes (EC_{50} = 0.8 µg/ml).[2] It induces apoptosis in HaCaT keratinocytes in a concentration-dependent manner.[3] Filipin III binds to cholesterol and has been used to fluorescently label sterols in biological structures.[4,5] The filipin complex has excitation maxima of 338 and 357 nm and an emission maxima of 480 nm.[6]

References

1. Bergy, M.E. and Eble, T.E. *Biochemistry* **7(2),** 653-659 (1968)
2. Sessa, G. and Weissmann, G. *J. Bio. Chem.* **243(16),** 4364-4371 (1968).
3. Gniadecki, R. *Biochem. Biophys. Res. Commun.* **320(1),** 165-169 (2004).
4. Bittman, R. and Fischkoff, S.A. *Proc. Natl. Acad. Sci. USA* **69(12),** 3795-3799 (1972).
5. Boutté, Y., Men, S., and Grebe, M. *Nat. Protoc.* **6(4),** 446-456 (2011).
6. Drabikowski, W., Lagwinska, E., and Sarzala, M.G. *Biochim. Biophys. Acta* **291,** 61-70 (1973)

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