LKT Laboratories, Inc.

Filipin III

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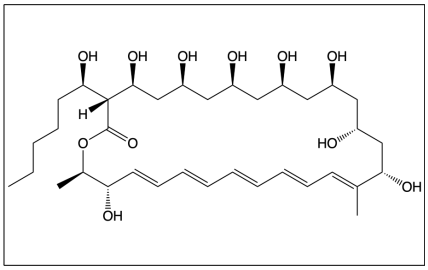
Product Information

Product ID F334453

CAS No. 480-49-9, 11078-21-0

Chemical Name (3R,4S,6S,8S,10R,12R,14R,16S,17E,19E,21E,23E,25E,27S,28R)-4,6,8,10,12,14,16,27-octahydroxy-3-[(1R)-1-hydroxyhexyl]-17,28-dimethyl-1-oxacyclooctacosa-17,19,21,23,25-pentaen-2-one

Synonym Filipin; Filimarisin; Filipine



Formula $C_{35}H_{58}O_{11}$

Formula Wt. 654.83

Melting Point

Purity ≥95%

Solubility

Bulk quanitites available upon request

Product ID	Size
F334453	1 mg
F334453	5 mg

Store Temp -20°C

Ship Temp Ambient

Description Filipin III is one of the components of Filipin Complex. These compounds are 28-membered ring polyene macrolide antifungal antibiotics. Filipin complex has been found to alter cell membrane structure by interacting with the membrane sterols ergosterol and cholesterol. As such, filipin complex has become a useful tool for diagnosis of Niemann-Pick type C disease, and for detection and quantification of cholesterol in cell membranes. Filipin complex continues to find use as a marker for cholesterol trafficking in subcellular membranes.

References

Payero TD, Vicente CM, Rumbero A, et al. Functional analysis of filipin tailoring genes from Streptomyces filipinensis reveals alternative routes in filipin III biosynthesis and yields bioactive derivatives. Microb Cell Fact. 2015 Aug 7;14:114. PMID: 26246267.

Arthur JR, Heinecke KA, Seyfried TN. Filipin recognizes both GM1 and cholesterol in GM1 gangliosidosis mouse brain. J Lipid Res. 2011 Jul;52(7):1345-1351. PMID: 21508255.

Xu LH, Fushinobu S, Takamatsu S, et al. Regio- and steriospecificity of filipin hydroxylation sites revealed by crystal structures of cytochrome P450 105P1 and 105D6 from Streptomyces avermitilis. J Biol Chem. 2010 May 28;285(22):16844-16853. PMID: 20375018.