

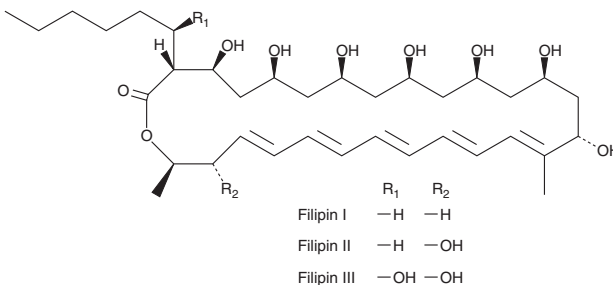
# PRODUCT INFORMATION



## Filipin Complex

Item No. 25073

CAS Registry No.: 11078-21-0  
Synonym: U-5956  
MF:  $C_{35}H_{58}O_{11}$  (for Filipin III)  
FW: 654.8  
Purity:  $\geq 95\%$   
Ex./Em. Max: 338/480 nm  
Supplied as: A solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 4$  years



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

### Laboratory Procedures

Filipin complex is supplied as a solid. A stock solution may be made by dissolving the filipin complex in the solvent of choice, which should be purged with an inert gas. Filipin complex is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

### Description

Filipin complex is a neutral polyene originally isolated from *S. filipinensis* with antifungal activity.<sup>1</sup> It inhibits cell growth as well as mitochondrial terminal electron transport in *S. cerevisiae* when used at a concentration of 135  $\mu\text{g/ml}$ . Filipin complex binds to various sterols, particularly 24 $\alpha$ -methyl cholesterol (Item No. 17344), 24 $\alpha$ -ethyl cholesterol (Item No. 11756), and cholesterol, in aqueous solutions and in fungal cell membranes when used at a concentration of 50  $\mu\text{g/ml}$ , inducing membrane pit formation and leakage of cell contents.<sup>2-4</sup> It is a fluorescent compound that has been used to label sterols within biological structures for imaging.<sup>3,5-7</sup> Filipin complex displays excitation/emission maxima of 338/480 nm, respectively.

### References

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2. Kitajima, Y., Sekiya, T., and Nozawa, Y. Freeze-fracture ultrastructural alterations induced by filipin, pimarin, nystatin and amphotericin B in the plasmia membranes of *Epidermophyton*, *Saccharomyces* and red complex-induced membrane lesions. *Biochim Biophys. Acta* **455(2)**, 452-465 (1976).
3. Miller, R.G. Mini Review. The use and abuse of filipin to localize cholesterol in membranes. *Cell Biol. Int. Rep.* **8(7)**, 519-535 (1984).
4. Kleinschmidt, M.G. and Cough, K.S. Effect of filipin on liposomes prepared with different types of steroids. *Plant Physiol.* **49(5)**, 852-856 (1972).
5. Castanho, M.A., Coutinho, A., and Prieto, M.J. Absorption and fluorescence spectra of polyene antibiotics in the presence of cholesterol. *J. Biol. Chem.* **267(1)**, 204-209 (1992).
6. Sekiya, T., Takenawa, T., and Nozawa, H. Reorganization of membrane cholesterol during membrane fusion in myogenesis *in vitro*: A study using the filipin-cholesterol complex. *Cell Struct. Funct.* **9(2)**, 143-155 (1984).
7. Bridgman, P.C. and Nakajima, Y. Distribution of filipin-sterol complexes on cultured muscle cells: Cell-substratum contact areas associated with acetylcholine receptor clusters. *J. Cell Biol.* **96(2)**, 363-372 (1983).

#### 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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