

## Filipin complex

Cat. No.:	HY-N6716		
CAS No.:	11078-21-0		
Molecular Formula:	C <sub>35</sub> H <sub>58</sub> O <sub>11</sub> (for Filipin III)		
Molecular Weight:	654.8		
Target:	Fungal		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month

## Filipin complex

### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 100 mg/mL (152.72 mM)  
 Ethanol : 25 mg/mL (38.18 mM; Need ultrasonic)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
	1 mM		1.5272 mL	7.6359 mL	15.2718 mL
5 mM		0.3054 mL	1.5272 mL	3.0544 mL	
10 mM		0.1527 mL	0.7636 mL	1.5272 mL	

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (3.82 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (3.82 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (3.82 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Filipin, produced as a mixture of related compounds known as the filipin complex (filipins I-IV) in nature<sup>[1]</sup>, is a 28-membered ring pentaene macrolide antifungal antibiotic produced by *S. filipinensis*, *S. avermitilis* and *S. miharaensis*. Filipin interacts with membrane sterols causing the alteration of membrane structure. Filipin III is the major component of Filipin<sup>[2]</sup>.

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## REFERENCES

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- [1]. Kelly PM, et al. Separation of the filipin complex by gradient-elution high performance liquid chromatography. *J Antibiot (Tokyo)*. 1985 Apr;38(4):485-9.
- [2]. Payero TD, 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.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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