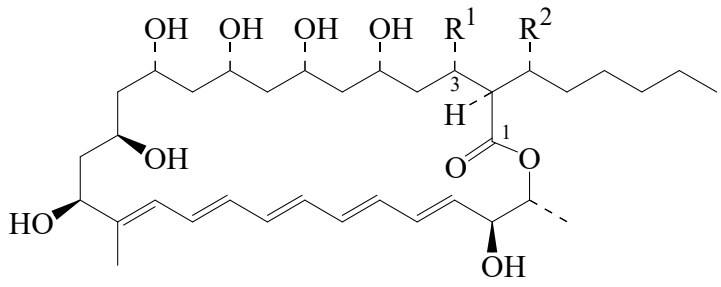
>>**Entry Name: Filipin,** INN, USAN
Synonym(s): Filmarisin. Durhamycin. NSC 3364. U 5956. Antibiotic U 5956



Filipin I $R^1 = R^2 = H$
Filipin II $R^1 = OH$, $R^2 = H$
Filipin III $R^1 = R^2 = OH$

CAS Registry Number: 11078-21-0

General Statement: Pentaene antibiotic complex
Biological Source: Isol. from *Streptomyces durhamensis* and *Streptomyces filipinensis*
Use/Importance: Possesses antifungal, antineoplastic and antiviral props. Formerly used as a plant protecting agent. Forms a fluorescent complex with 3β-hydroxysterols. Poss. use as a cytochemical probe for cellular localisation of cholesterol
UV: [neutral] λ_{max} 310 (sh) (ε); 323 (ε 64300); 339 (ε 104000); 357 (ε 97800) (MeOH) (Derep)
Other Data: Contains at least 8 components
Hazard & Toxicity: LD_{50} (mus, ipr) 17 mg/kg

Fluka: 46329
Sigma: F5507

>>**Variant: Filipin I**

CAS Registry Number: 38723-93-2

Molecular Formula: $C_{35}H_{58}O_9$
Molecular Weight: 622.838
Accurate Mass: 622.408085
Percentage Composition: C 67.50%; H 9.39%; O 23.12%
Biological Source: From *Streptomyces filipinensis*
Use/Importance: Antifungal agent
Physical Description: Yellow cryst.
Melting Point: Mp 200-205 dec.°
Optical Rotation: $[\alpha]_D^{25}$ –330 (DMF)
Solubility: BERDY SOL: Sol. MeOH; poorly sol. H_2O
Calculated Log P Data: Log P 0.3 (calc)
UV: [neutral] λ_{max} 303 (E1%/1cm 440); 321 (E1%/1cm 954); 337 (E1%/1cm 1576); 354 (E1%/1cm 1537) (MeOH) (Berdy)
Other Data: Struct. not certain. Prob. a mixt. of components having 2 OH fewer than Filipin III

>>**Variant: Filipin II**

CAS Registry Number: 38620-77-8

Molecular Formula: $C_{35}H_{58}O_{10}$
Molecular Weight: 638.837
Accurate Mass: 638.403
Percentage Composition: C 65.80%; H 9.15%; O 25.04%
Biological Source: From *Streptomyces filipinensis*
Use/Importance: Antifungal agent
Physical Description: Yellow cryst. (propanol)
Melting Point: Mp 181-195 dec.°
Optical Rotation: $[\alpha]_D^{25}$ –237 (DMF)
Solubility: BERDY SOL: Sol. MeOH; poorly sol. H_2O
UV: [neutral] λ_{max} 308 (E1%/1cm 421); 321 (E1%/1cm 853); 337 (E1%/1cm 1354); 354 (E1%/1cm 1326) (MeOH) (Berdy)

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