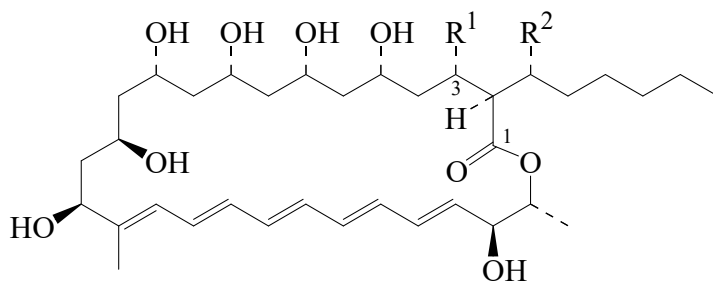




>>Entry Name: **Filipin**, INN, USAN

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] $\lambda_{\max}$ 310 (sh) (ϵ); 323 (ϵ 64300); 339 (ϵ 104000); 357 (ϵ 97800) (MeOH) (Derep)

Other Data: Contains at least 8 components

Hazard & Toxicity: LD₅₀ (mus, ipr) 17 mg/kg

Fluka: 46329

Sigma: F5507

>>Variant: **Filipin I**

CAS Registry Number: 38723-93-2

Molecular Formula: C₃₅H₅₈O₉

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. H₂O

Calculated Log P Data: Log P 0.3 (calc)

UV: [neutral] $\lambda_{\max}$ 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: C₃₅H₅₈O₁₀

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. H₂O

UV: [neutral] $\lambda_{\max}$ 308 (E1%/1cm 421); 321 (E1%/1cm 853); 337 (E1%/1cm 1354); 354 (E1%/1cm 1326) (MeOH) (Berdy)