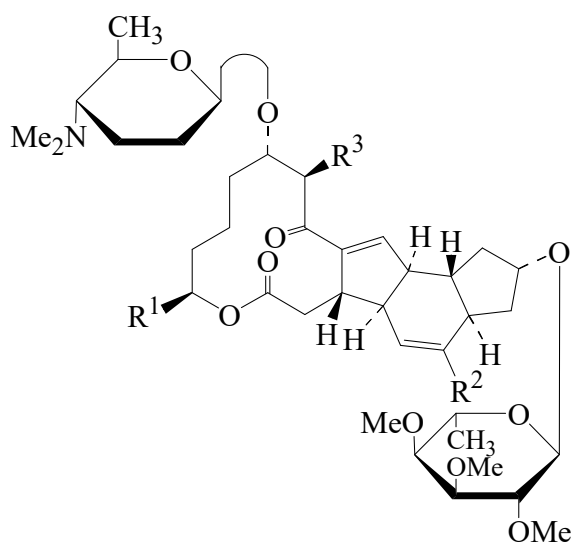




>>Entry Name: Spinosyn

Synonym(s): A 83543. Lepicidin. Antibiotic A 83543. Tracer™



Spinosyn A, $R^1 = \text{CH}_2\text{CH}_3$, $R^2 = \text{H}$, $R^3 = \text{CH}_3$
D, $R^1 = \text{CH}_2\text{CH}_3$, $R^2 = R^3 = \text{CH}_3$
E, $R^1 = R^3 = \text{CH}_3$, $R^2 = \text{H}$
F, $R^1 = \text{CH}_2\text{CH}_3$, $R^2 = R^3 = \text{H}$

Biological Source: Prod. by *Saccharopolyspora spinosa*

Biological Use/Importance: Possess insecticidal activity

Other Data: A mixt. of Spinosyn A and Spinosyn D (Spinosad, BSI, ANSI, Tracer) is marketed as an insecticide

>>Variant: Spinosyn A

Synonym(s): Lepicidin A. Antibiotic A 83543A. A 83543A. LY 232105. Antibiotic LY 232105

CAS Registry Number: 131929-60-7

Extra CAS Registry Numbers(s): 139404-49-2

Molecular Formula: $\text{C}_{41}\text{H}_{65}\text{NO}_{10}$

Molecular Weight: 731.965

Accurate Mass: 731.460849

Percentage Composition: C 67.28%; H 8.95%; N 1.91%; O 21.86%

Physical Description: Cryst. (MeOH aq.)

Melting Point: Mp 118°

Optical Rotation: $[\alpha]_{\text{D}} -135.3$ (c, 1 in EtOH)

Solubility: BERDY SOL: Sol. MeOH, MeCN, DMF, Me_2CO , DMSO; poorly sol. H_2O

UV: [neutral] λ_{max} 243 (ϵ 8900) (EtOH) (Derep) [neutral] λ_{max} 244 () (MeOH) (Berdy)

>>Derivative: 4"-Epimer

Synonym(s): Spinosyn G. Lepicidin G. A 83543G. Antibiotic A 83543G

CAS Registry Number: 132016-82-1

Molecular Formula: $\text{C}_{41}\text{H}_{65}\text{NO}_{10}$

Molecular Weight: 731.965

Accurate Mass: 731.460849

Percentage Composition: C 67.28%; H 8.95%; N 1.91%; O 21.86%

Solubility: BERDY SOL: Sol. MeOH, DMF, MeCN, DMSO, Me_2CO ; poorly sol. H_2O

UV: [neutral] λ_{max} 243 (ϵ 8970) (MeOH) (Berdy)

>>Derivative: N-De-Me

Synonym(s): Spinosyn B. Lepicidin B. A 83543B. Antibiotic 83543B

CAS Registry Number: 131929-61-8

Melting Point: Mp 89-95°

Optical Rotation: $[\alpha]_{\text{D}} -144.7$ (c, 1 in EtOH)