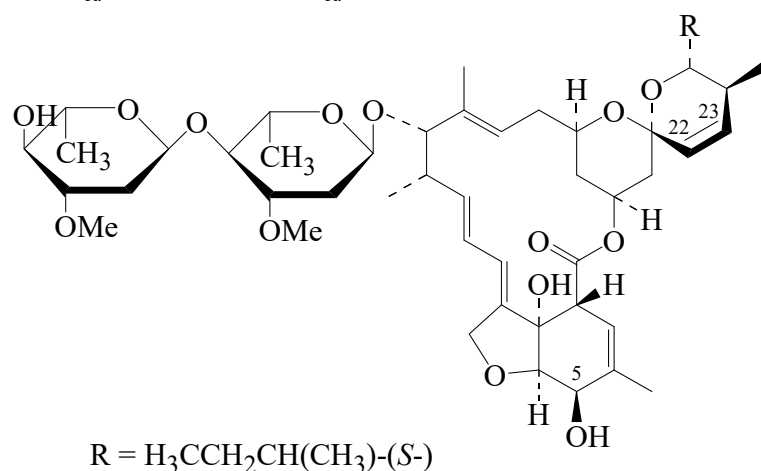




>>Entry Name: Avermectin B_{1a}

Synonym(s): 5-*O*-Demethylavermectin A_{1a}, 9Cl. C 076B_{1a}. Antibiotic C 076B_{1a}. Affirm. Vertimec



CAS Registry Number: 65195-55-3

Related CAS Registry Numbers(s): 71751-41-2 106434-14-4 113665-88-6 113665-89-7 131483-64-2 135556-35-3 135556-38-6 135681-09-3

Molecular Formula: C₄₈H₇₂O₁₄

Molecular Weight: 873.088

Accurate Mass: 872.49221

Percentage Composition: C 66.03%; H 8.31%; O 25.66%

General Statement: Macrolide-type antibiotic

Biological Source: Prod. by *Streptomyces avermitilis*

Biological Use/Importance: Anthelmintic agent. Active against *Nematospiroides dubius* in mice

Optical Rotation: $[\alpha]_D^{27} +55.7$ (c, 1.06 in CHCl₃)

Solubility: Sol. MeOH, C₆H₆; poorly sol. H₂O

Calculated Log P Data: Log P 2.25 (uncertain value) (calc)

UV: [neutral] λ_{max} 237 (ϵ 29120); 243 (ϵ 31850); 252 (ϵ 20510) (MeOH) (Berdy)

Other Data: Component of Abamectin, INN, BSI, ANSI, USAN (Avid)

>>Derivative: *O*⁵-Me

Synonym(s): Avermectin A_{1a}. C 076A_{1a}. Antibiotic C 076A_{1a}

CAS Registry Number: 65195-51-9

Molecular Formula: C₄₉H₇₄O₁₄

Molecular Weight: 887.115

Accurate Mass: 886.50786

Percentage Composition: C 66.34%; H 8.41%; O 25.25%

Biological Source: Prod. by *Streptomyces avermitilis*

Biological Use/Importance: Anthelmintic. Active against *Nematospirodes dubius* in mice

Optical Rotation: $[\alpha]_D^{27} +68.5$ (c, 0.77 in CHCl₃)

Calculated Log P Data: Log P 2.87 Uncertain value (calc)

>>Derivative: *O*⁵-Me, 3'-*O*-de-Me, 4'-*O*-deglycosyl

CAS Registry Number: 99965-59-0

Molecular Formula: C₄₁H₆₀O₁₁

Molecular Weight: 728.918

Accurate Mass: 728.413565

Percentage Composition: C 67.56%; H 8.30%; O 24.14%

Biological Source: Prod. by *Streptomyces avermitilis*

Solubility: Sol. MeOH, Me₂CO; fairly sol. hexane; poorly sol. H₂O

>>Derivative: 3'-*O*-De-Me

Synonym(s): 3'-De-*O*-methylavermectin B_{1a}

CAS Registry Number: 100044-30-2

Molecular Formula: C₄₇H₇₀O₁₄

Molecular Weight: 859.062

Accurate Mass: 858.47656

Percentage Composition: C 65.71%; H 8.21%; O 26.07%

Biological Source: Prod. by *Streptomyces avermitilis*

Solubility: Sol. MeOH, Me₂CO; fairly sol. hexane; poorly sol. H₂O