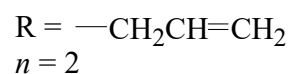
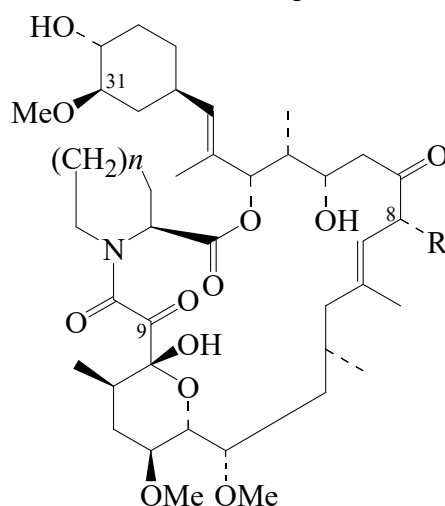




>>Entry Name: Fujimycin

Synonym(s): Tacrolimus, BAN, INN, USAN. Antibiotic FK 506. Antibiotic FR 900506. Prograf. Tsukubaenolide. FK 506. FR 900506



CAS Registry Number: 104987-11-3

Related CAS Registry Numbers(s): 109581-93-3

Molecular Formula: $\text{C}_{44}\text{H}_{69}\text{NO}_{12}$

Molecular Weight: 804.029

Accurate Mass: 803.481979

Percentage Composition: C 65.73%; H 8.65%; N 1.74%; O 23.88%

General Statement: Macrolide-related antibiotic. Exhibits tautomerism in soln.

Biological Source: Isol. from *Streptomyces tsukubaensis* and *Streptomyces hygroscopicus yakushimaensis*

Biological Use/Importance: Immunosuppressant used in organ transplantation. Investigated for treatment of autoimmune chronic active hepatitis. Neurotrophic agent. Simple analogues possibly useful in the treatment of Parkinson's disease.

Physical Description: Prisms + $1\text{H}_2\text{O}$ (MeCN)

Development Status: Launched 1993 (Japan)

Melting Point: Mp 127-129°

Optical Rotation: $[\alpha]_{\text{D}}^{23} -84.4$ (c, 1.02 in CHCl_3)

Solubility: Insol. H_2O ; BERDY SOL: Sol. C_6H_6 , EtOAc, CHCl_3 , EtOH, MeOH; fairly sol. hexane; poorly sol. H_2O

Calculated Log P Data: Log P 4.94 (uncertain value) (calc)

UV: [neutral] λ_{max} 0 (end) (ϵ) (MeOH) (Derep) [neutral] λ_{max} (MeOH) (Berdy)

>>Derivative: 31-O-De-Me

Synonym(s): Demethomycin. 31-De-O-methyl FK 506. 31-De-O-methylfujimycin. FR 901154. Antibiotic FR 901154. L 682993. Antibiotic L 682993

CAS Registry Number: 127984-76-3

Molecular Formula: $\text{C}_{43}\text{H}_{67}\text{NO}_{12}$

Molecular Weight: 790.002

Accurate Mass: 789.466329

Percentage Composition: C 65.38%; H 8.55%; N 1.77%; O 24.30%

Biological Source: Prod. by a genetically engineered *Streptomyces* sp.

Physical Description: Powder

Optical Rotation: $[\alpha]_{\text{D}} -65$ (CHCl_3)

>>Derivative: 31-O-De-Me, 31-ketone

Synonym(s): Antibiotic FR 901155. FR 901155

CAS Registry Number: 129039-81-2

Molecular Formula: $\text{C}_{43}\text{H}_{65}\text{NO}_{12}$

Molecular Weight: 787.986

Accurate Mass: 787.450679

Percentage Composition: C 65.54%; H 8.31%; N 1.78%; O 24.37%

Physical Description: Powder

Optical Rotation: $[\alpha]_{\text{D}} -53$ (CHCl_3)

Solubility: BERDY SOL: Sol. MeOH, C_6H_6 , MeCN, Et_2O , CHCl_3 ; fairly sol. hexane; poorly sol. H_2O

UV: [neutral] λ_{max} 200 () (MeOH) [neutral] λ_{max} (MeOH) (Berdy)