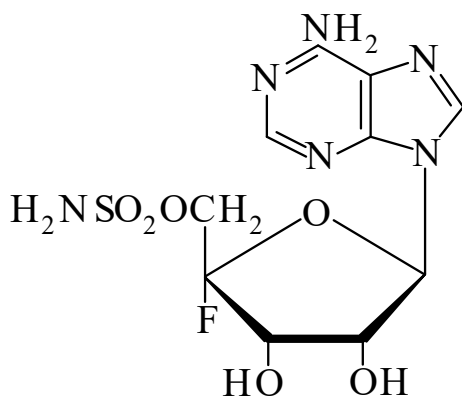




>>Entry Name: Nucleocidin

Synonym(s): 4'-C-Fluoroadenosine 5'-sulfamate, 9Cl, 8Cl. T 3018. Antibiotic T 3018



CAS Registry Number: 24751-69-7

Molecular Formula: $C_{10}H_{13}FN_6O_6S$

Molecular Weight: 364.314

Accurate Mass: 364.060132

Percentage Composition: C 32.97%; H 3.60%; F 5.21%; N 23.07%; O 26.35%; S 8.80%

Biological Source: Produced by *Streptomyces calvus*

Biological Use/Importance: Antitrypanosomal which inhibits protein synth.

Physical Description: Cryst. + 1H₂O (H₂O)

Melting Point: Mp 190 dec.°

Optical Rotation: $[\alpha]_D^{24} -33.3$ (c, 1.05 in EtOH/HCl)

Solubility: Sol. acids, Me₂CO, bases, MeOH, EtOH; fairly sol. H₂O; poorly sol. butanol, hexane, EtOAc

UV: [acid] λ_{max} 257 (ϵ 15000) (0.1N HCl) (Derep) [base] λ_{max} 259 (ϵ 16000) (0.1N NaOH) (Derep) [neutral] λ_{max} 258 (ϵ 15500) (H₂O) (Derep) [neutral] λ_{max} 256 (E1%/1cm 392) (H₂O) (Berdy) [acid] λ_{max} 256 (E1%/1cm 392) (HCl) (Berdy) [base] λ_{max} 259 (E1%/1cm 406) (NAOH) (Berdy)

Other Data: Recent attempts (1993) at isol. from *S. calvus* have been unsuccessful

Hazard & Toxicity: LD₅₀ (mus, ipr) .2 mg/kg , LD₅₀ (mus, orl) 2 mg/kg

>>Derivative: Picrate

Melting Point: Mp 145-147°

References:

Thomas, S.O. *et al.*, *Antibiot. Annu.*, 1956, 716-721, (*isol*)

Waller, C.W. *et al.*, *J.A.C.S.*, 1957, **79**, 1011-1012, (*struct*)

Morton, G.O. *et al.*, *J.A.C.S.*, 1969, **91**, 1535-1537, (*struct, ms, nmr*)

Jenkins, I.D. *et al.*, *J.A.C.S.*, 1971, **93**, 4323-4324; 1976, **98**, 3346-3357, (*synth, ir, uv, nmr*)

Maguire, A.R. *et al.*, *J.C.S. Perkin I*, 1993, 1795-1808, (*synth*)