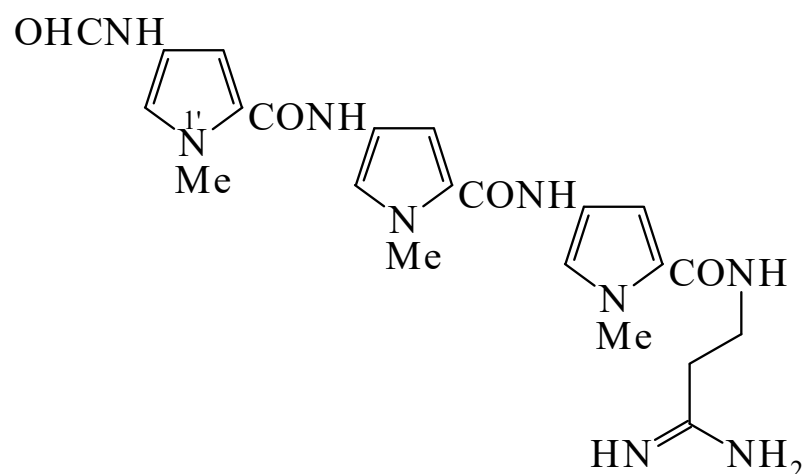




>>Entry Name: Distamycin A

Synonym(s): Stallimycin, INN. Herperal. Dst 3. FI 6426. Distamycin 3



CAS Registry Number: 636-47-5

Type of Compound Code(s): XA2400 VX7010

Molecular Formula: C₂₂H₂₇N₉O₄

Molecular Weight: 481.513

Accurate Mass: 481.218601

Percentage Composition: C 54.88%; H 5.65%; N 26.18%; O 13.29%

General Statement: Peptide antibiotic

Biological Source: Isol. from *Streptomyces distallicus*

Use/Importance: Antiviral agent, used topically to treat herpes simplex infections

Melting Point: Mp 154-156°

Solubility: BERDY SOL: Sol. H₂O, MeOH; poorly sol. butanol, hexane

Calculated Log P Data: Log P -1.45 (uncertain value) (calc)

UV: [neutral] λ_{max} 237 (ε 30000); 302 (ε 37000) (EtOH as hydrogen halide salt) (Derep) [acid] λ_{max} 237 (ε 30000); 302 (ε 37000) (as hydrochloride salt in alcohol) (Derep)

[neutral] λ_{max} 237 (ε 30000); 303 (ε 37000) (EtOH) (Berdy) [acid] λ_{max} 235 (E1%/1cm 470); 302 (E1%/1cm 565) (HCl) (Berdy) [neutral] λ_{max} 236 (E1%/1cm 591); 305

(E1%/1cm 723) (H₂O) (Berdy)

Hazard & Toxicity: LD₅₀ (mus, ipr) 500 mg/kg ; BERDY HAZD : LD₅₀ (mus, ivn) 75 mg/kg , LD₅₀ (mus, ipr) 500 mg/kg

>>Derivative: Hydrochloride

Synonym(s): Stallimycin hydrochloride, USAN

CAS Registry Number: 6576-51-8

Physical Description: Cryst. (dil. HCl)

Melting Point: Mp 186-189°

Hazard & Toxicity: LD₅₀ (mus, ipr) 160 mg/kg

Sigma: D6135

>>Derivative: N^{1'}-De-Me

Synonym(s): 1-Nordistamycin A

CAS Registry Number: 85407-06-3

Type of Compound Code(s): VX7010

Molecular Formula: C₂₁H₂₅N₉O₄

Molecular Weight: 467.486

Accurate Mass: 467.202951

Percentage Composition: C 53.95%; H 5.39%; N 26.97%; O 13.69%

Biological Source: Synthetic analogue

Use/Importance: Shows improved antiviral activity and similar toxicity to parent

Melting Point: Mp 150° (darkens)

References:

Arcamone, F. *et al.*, *Nature (London)*, 1964, **203**, 1064, (*isol, struct, synth*)

Arcamone, F. *et al.*, *Gazz. Chim. Ital.*, 1967, **97**, 1097; 1110, (*isol, struct, uv, ir, nmr, synth*)

Hahn, F.E., *Antibiotics*, (Corcoran, J.W. *et al.*, Eds.), Springer, N.Y., 1975, **3**, 79, (*rev*)

Bialer, M. *et al.*, *Tetrahedron*, 1978, **34**, 2389, (*pmr, ir, ms, synth*)

Grehn, L. *et al.*, *J. Med. Chem.*, 1983, **26**, 1042, (*derivs*)

Bialer, M., *Dev. Mol. Virol.*, 1984, **4**, 143, (*props, rev*)

Lown, J.W. *et al.*, *J.O.C.*, 1985, **50**, 3774, (*synth, bibl*)

Martindale, The Extra Pharmacopoeia, 30th edn., Pharmaceutical Press, 1993, 555

Boger, D.L. *et al.*, *J.A.C.S.*, 2000, **122**, 6382-6384, (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DXG600; SLI300