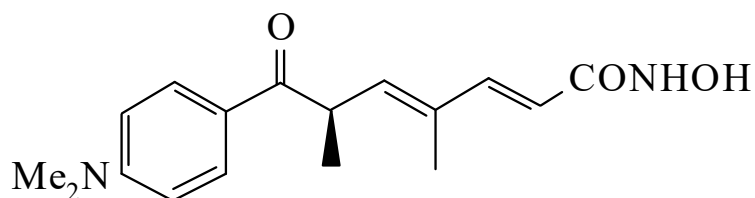




>>Entry Name: Trichostatin A

Synonym(s): 7-[4-(Dimethylamino)phenyl]-N-hydroxy-4,6-dimethyl-7-oxo-2,4-heptadienamide, 9Cl. A 300I. Antibiotic A 300I



CAS Registry Number: 58880-19-6

Molecular Formula: C₁₇H₂₂N₂O₃

Molecular Weight: 302.372

Accurate Mass: 302.163043

Percentage Composition: C 67.53%; H 7.33%; N 9.26%; O 15.87%

Biological Source: Isol. from *Streptomyces hygroscopicus* and *Streptomyces sioyaensis*

Use/Importance: Antifungal antibiotic. Potent differentiation inducer of Friend leukaemia

Physical Description: Powder (EtOAc)

Melting Point: Mp 172-174 (150.1°) dec.°

Optical Rotation: $[\alpha]_D^{20} +62.8$ (c, 1.007 in EtOH)

Solubility: BERDY SOL: Sol. MeOH, Et₂O; poorly sol. hexane, H₂O

UV: [neutral] $\lambda_{\max}$ 252 (sh) (ϵ 16000); 265 (ϵ 17600); 341 (ϵ 19600) (EtOH) (Derep) [neutral] $\lambda_{\max}$ 253 (E1%/1cm 477); 263 (ϵ 23600); 267 (E1%/1cm 495); 341 (E1%/1cm 776); 342 (ϵ 25100) (MeOH) (Berdy) [base] $\lambda_{\max}$ 249 (E1%/1cm 500); 343 (E1%/1cm 800) (MeOH-NAOH) (Berdy) [neutral] $\lambda_{\max}$ 264 (ϵ 24100); 265 (E1%/1cm 582); 341 (E1%/1cm 648); 342 (ϵ 27000) (EtOH) (Berdy)

Sigma: T8552

>>Derivative: Fe complex

Synonym(s): Trichostatin B. A 300-II. Antibiotic A 300-II

CAS Registry Number: 58895-00-4

Molecular Formula: C₅₁H₆₆FeN₆O₉

Molecular Weight: 962.964

Accurate Mass: 962.424068

Percentage Composition: C 63.61%; H 6.91%; Fe 5.80%; N 8.73%; O 14.95%

Physical Description: Dark reddish-purple prisms + H₂O (MeOH)

Melting Point: Mp 192 dec.°

Solubility: BERDY SOL: Sol. MeOH, Et₂O; poorly sol. H₂O

UV: [neutral] $\lambda_{\max}$ 252 (sh) (ϵ 16000); 265 (ϵ 17600); 341 (ϵ 19600) (EtOH) (Derep) [neutral] $\lambda_{\max}$ 262 (E1%/1cm 680); 345 (E1%/1cm 920); 450 (E1%/1cm 50) (MeOH) (Berdy) [neutral] $\lambda_{\max}$ 277 (E1%/1cm 651); 351 (E1%/1cm 918); 450 (E1%/1cm 50) (EtOH) (Berdy)

>>Derivative: O- α -D-Glucopyranoside

Synonym(s): Trichostatin D

Molecular Formula: C₂₃H₃₂N₂O₈

Molecular Weight: 464.514

Accurate Mass: 464.215868

Percentage Composition: C 59.47%; H 6.94%; N 6.03%; O 27.55%

Biological Source: From *Streptomyces violaceusniger*

Biological Use/Importance: Antitumour agent

Physical Description: Powder

Melting Point: Mp 131-135°

Optical Rotation: $[\alpha]_D^{21} +183$ (c, 0.56 in MeOH)

UV: [neutral] $\lambda_{\max}$ 267 (ϵ 27000); 345 (ϵ 27000) (MeOH)