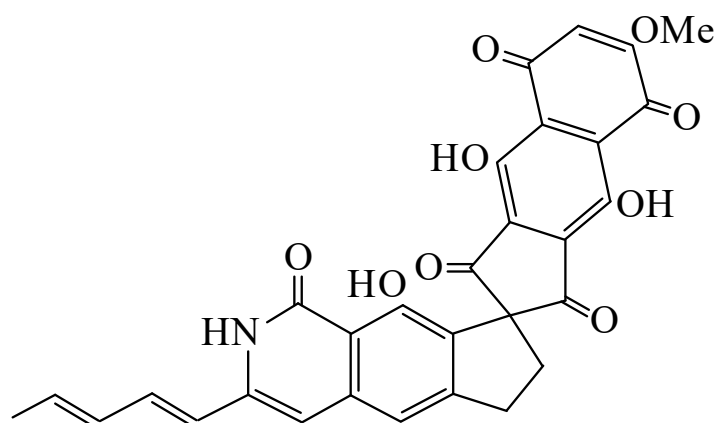




>>Entry Name: Fredericamycin A

Synonym(s): FCRC A48. NSC 305263. Antibiotic FCRC A48



CAS Registry Number: 80455-68-1

Molecular Formula: C₃₀H₂₁NO₉

Molecular Weight: 539.497

Accurate Mass: 539.121634

Percentage Composition: C 66.79%; H 3.92%; N 2.60%; O 26.69%

Biological Source: Isol. from *Streptomyces griseus*

Use/Importance: Active against P388 tumour cells. Thought to be a generator of free radicals causing DNA strand cleavage

Physical Description: Red powder

Melting Point: Mp 350 dec.°

Solubility: BERDY SOL: Sol. Py, AcOH, DMSO, DMF; fairly sol. MeOH; poorly sol. Me₂CO, H₂O, hexane

UV: [acid] λ_{max} 253 (ε 50800); 304 (ε 23500); 317 (ε 20600); 358 (sh) (ε 22000); 392 (ε 20600); 505 (ε 10400) (MeOH/HCOOH) (Derep) [neutral] λ_{max} 254 (ε 50800); 303 (ε 23500); 317 (ε 24200); 332 (ε 21600); 358 (ε 23700); 373 (ε 26700); 392 (ε 21000); 504 (ε 10400) (MeOH/pH 4) (Derep) [neutral] λ_{max} 260 (ε 43459); 302 (ε 22991); 316 (ε 25152); 332 (ε 23323); 357 (ε 24044); 373 (ε 19971); 392 (ε 23711); 635 (ε 8033) (MeOH) (Berdy) [base] λ_{max} 256 (E1%/1cm 785); 302 (E1%/1cm 415); 316 (E1%/1cm 454); 330 (E1%/1cm 421); 356 (E1%/1cm 434); 371 (E1%/1cm 541); 391 (E1%/1cm 428); 500 (E1%/1cm 145); 784 (E1%/1cm 350) (pH 8 buffer) (Berdy) [acid] λ_{max} 260 (); 310 (); 330 (); 355 (); 372 (); 390 (); 500 () (MeOH-HCl) (Berdy)

Other Data: Red in acid, blue-green in base. Nonmutagenic in Ames test

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