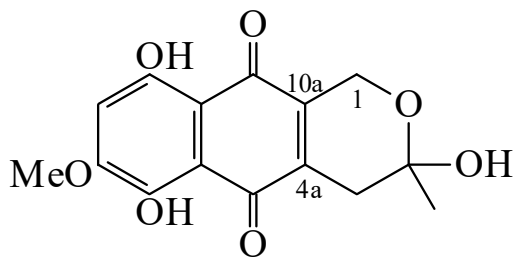
>>**Entry Name: Fusarubin**

Synonym(s): 3,4-Dihydro-3,6,9-trihydroxy-7-methoxy-3-methyl-1*H*-naphtho[2,3-*c*]pyran-5,10-dione, 9CI. 5,8-Dihydroxy-2-(hydroxymethyl)-6-methoxy-3-(2-oxopropyl)-1,4-naphthalenedione. 3-Acetonyl-5,8-dihydroxy-2-(hydroxymethyl)-6-methoxy-1,4-naphthoquinone. Oxyjavanicin. Hydroxyjavanicin



CAS Registry Number: 1702-77-8
Related CAS Registry Numbers(s): 84276-35-7 84277-83-8

Molecular Formula: $C_{15}H_{14}O_7$
Molecular Weight: 306.271
Accurate Mass: 306.073955
Percentage Composition: C 58.83%; H 4.61%; O 36.57%
General Statement: Naphthoquinone-type antibiotic
Biological Source: Constit. of *Fusarium solani* and other *Fusarium* spp.
Use/Importance: Phytotoxic. Active against gram-positive bacteria and fungi. Less active than dihydro derivs.
Physical Description: Red prisms (C_6H_6)
Melting Point: Mp 218°
Solubility: BERDY SOL: Sol. Me_2CO, THF, bases, Py, AcOH; fairly sol. MeOH, $CHCl_3$, Et_2O; poorly sol. C_6H_6, hexane, H_2O
UV: [neutral] λ_{max} 301 (ε 6800); 472 (ε 5100); 498 (ε 5700); 525 (ε 4200) (MeOH) (Berdy) [neutral] λ_{max} 303 (ε 6500); 472 (ε 5000); 498 (ε 5800); 534 (ε 5800) (EtOH) (Berdy)
Other Data: Fusarubin may be an artifact formed nonenzymatically during alkaline fermentation; also formed by some spp. in acid conditions

>>**Derivative:** 3-Me ether
Synonym(s): Fusarubin methyl acetal

CAS Registry Number: 87667-46-7

Molecular Formula: $C_{16}H_{16}O_7$
Molecular Weight: 320.298
Accurate Mass: 320.089605
Percentage Composition: C 60.00%; H 5.03%; O 34.97%
Biological Source: From *Fusarium martii*. Artifact
Use/Importance: Shows moderate activity against gram-positive bacteria, fungi and mouse leukaemia
Physical Description: Reddish-orange needles ($CHCl_3$/EtOH)
Melting Point: Mp 157-158° (188-190°)
Solubility: BERDY SOL: Sol. MeOH, EtOAc; poorly sol. H_2O
UV: [neutral] λ_{max} 225 (ε 30900); 302 (ε 8913); 470 (ε 6026); 495 (ε 6761); 532 (ε 4365) (95% EtOH) (Derep) [neutral] λ_{max} 225 (ε 31000); 302 (ε 8950); 470 (ε 86000) ; 495 (ε 6750); 532 (ε 4370) (EtOH) (Berdy)

>>**Derivative:** 9-Me ether

CAS Registry Number: 73618-70-9

Molecular Formula: $C_{16}H_{16}O_7$
Molecular Weight: 320.298
Accurate Mass: 320.089605
Percentage Composition: C 60.00%; H 5.03%; O 34.97%
Biological Source: From *Fusarium moniliforme* and *Fusarium oxysporum*
Physical Description: Red-brown needles (MeOH)
Melting Point: Mp 138-139°
Solubility: BERDY SOL: Sol. MeOH, $CHCl_3$; poorly sol. H_2O, hexane
UV: [neutral] λ_{max} 226 (ε 30000); 282 (ε 11200); 484 (ε 6800); 510 (ε 6350) (MeOH) (Berdy) [neutral] λ_{max} 227 (); 286 (); 486 (); 510 () (EtOH) (Berdy)

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