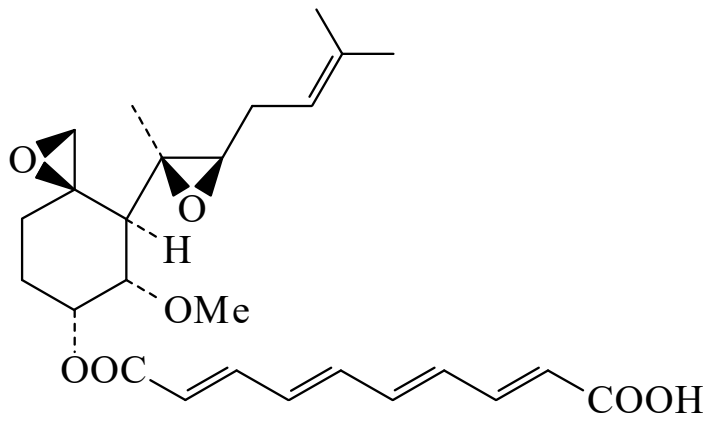
>>**Entry Name: Fumagillin,** BAN, INN
Synonym(s): Phagopedin sigma. Amebacilin. Fumidil. Fugillin. Amebex. Fumadil B. NSC 9168. U 5762



CAS Registry Number: 23110-15-8

Molecular Formula: $C_{26}H_{34}O_7$
Molecular Weight: 458.55
Accurate Mass: 458.230455
Percentage Composition: C 68.10%; H 7.47%; O 24.42%
Biological Source: Isol. from *Aspergillus fumigatus* H3 and *Penicillium nigricans*
Use/Importance: Antibiotic, with antiphage and amoebicidal props. Inhibits RNA synthesis of *Octosporea muscae-domesticae*. Of limited use for the treatment of drug-resistant intestinal amoebiasis
Physical Description: Yellow needles (MeOH aq.)
Melting Point: Mp 189-194°
Optical Rotation: $[\alpha]_D^{25}$ –26.6 (MeOH)
Solubility: Sol. dil. alkalis; insol. hydrocarbons, H_2O; BERDY SOL: Sol. MeOH, bases, $CHCl_3$; fairly sol. H_2O; poorly sol. Et_2O, acids, hexane
Calculated Log P Data: Log P 2.63 (calc)
UV: [neutral] λ_{max} 239 (ε 6870); 320 (sh) (ε 48000); 336 (ε 68700); 352 (ε 61800) (EtOH) (Derep) [neutral] λ_{max} 239 (E1%/1cm 75); 336 (E1%/1cm 1464); 351 (E1%/1cm 1335) (MeOH) (Berdy) [neutral] λ_{max} 239 (); 304 (); 322 (); 336 (); 351 () (EtOH) (Berdy)
Other Data: Best stored in dark, evac. ampoules at low temp.
Hazard & Toxicity: LD_{50} (mus, orl) 2000 mg/kg. Exp. reprod. and teratogenic effects ; BERDY HAZD : LD_{50} (mus, scu) 800 mg/kg , LD_{50} (mus, orl) 2000 mg/kg

Sigma: F6771

>>**Derivative:** Dicyclohexylamine salt

Melting Point: Mp 147-148 dec.°

>>**Derivative:** Me ester

Molecular Formula: $C_{27}H_{36}O_7$
Molecular Weight: 472.577
Accurate Mass: 472.246105
Percentage Composition: C 68.62%; H 7.68%; O 23.70%
Physical Description: Needles (MeOH aq.)
Melting Point: Mp 151-152°

>>**Derivative:** Bis-2,4-dinitrophenylhydrazone

Melting Point: Mp 123-126°

>>**Derivative:** 2'*Z*-Isomer
Synonym(s): ***cis*-Fumagillin**

Molecular Formula: $C_{26}H_{34}O_7$
Molecular Weight: 458.55
Accurate Mass: 458.230455
Percentage Composition: C 68.10%; H 7.47%; O 24.42%
Biological Source: Prod. by *Penicillium* sp. F2757
Biological Use/Importance: Methionine aminopeptidase inhibitor
Physical Description: Amorph. yellow solid (as Me ester)
Optical Rotation: $[\alpha]_D$ +0.3 (MeOH) (Me ester)