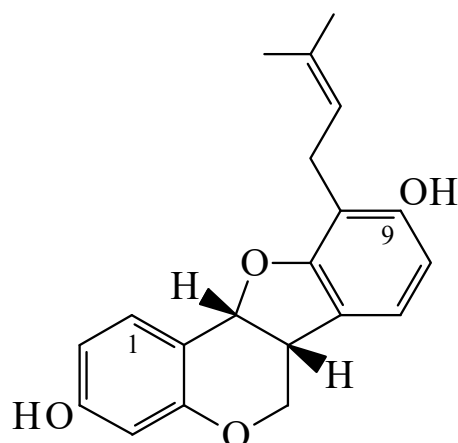




>>Entry Name: 3,9-Dihydroxy-10-prenylpterocarpan

ENTRY UNDER REVIEW

Synonym(s): 6*a*,11*a*-Dihydro-10-(3-methyl-2-butenyl)-6*H*-benzofuro[3,2-*c*][1]benzopyran-3,9-diol, 9Cl. **Phaseollidin**



Absolute
configuration

CAS Registry Number: 37831-70-2

Type of Compound Code(s): VK3400 WA2800 WI2200

Molecular Formula: C₂₀H₂₀O₄

Molecular Weight: 324.376

Accurate Mass: 324.13616

Percentage Composition: C 74.06%; H 6.21%; O 19.73%

Biological Source: Isol. from kidney bean *Phaseolus vulgaris*, mung bean *Phaseolus aureus*, rice bean *Phaseolus calcaratus*, cowpea *Dolichos biflorus*, and hyacinth bean *Lablab niger*

Use/Importance: Antifungal antibiotic. Green bean phytoalexin

Melting Point: Mp 67-69°

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

UV: [neutral] λ_{max} 208 (ε 39800); 237 (sh) (ε 19100); 281 (ε 7940); 286 (ε 8910) (EtOH) (Derep) [neutral] λ_{max} 214 (); 281 (); 287 () (MeOH) (Berdy) [neutral] λ_{max} 208 (ε 39800); 281 (ε 7940); 286 (ε 8900) (EtOH) (Berdy) [base] λ_{max} 230 (); 248 (); 289 (); 291 () (EtOH-NaOH) (Berdy)

>>Derivative: 9-Me ether

Synonym(s): 3-Hydroxy-9-methoxy-10-prenylpterocarpan. **Sandwicensin**

CAS Registry Number: 74515-46-1

Type of Compound Code(s): VK3400

Molecular Formula: C₂₁H₂₂O₄

Molecular Weight: 338.402

Accurate Mass: 338.15181

Percentage Composition: C 74.54%; H 6.55%; O 18.91%

Biological Source: Isol. from leaves of *Erythrina sandwicensis*

Optical Rotation: [α]_D -190 (c, ca. 0.02 in MeOH)

UV: [neutral] λ_{max} 214 (ε 37100); 281 (ε 5890); 287 (ε 630) (MeOH) (Berdy) [neutral] λ_{max} 211 (); 281 (); 287 () (EtOH) (Berdy) [base] λ_{max} 212 (); 252 (); 290 () (EtOH-NaOH) (Berdy) [base] λ_{max} 214 (); 251 (); 289 () (MeOH-NAOH) (Berdy)

References:

- Scheffer, T.C., *Annu. Rev. Phytopathol.*, 1966, **4**, 147, (rev)
Perrin, D.R. *et al.*, *Tet. Lett.*, 1972, 1673, (struct, nmr, uv, ms)
Burden, R.S. *et al.*, *Tet. Lett.*, 1972, 4175, (isol, struct)
Perrin, D.R. *et al.*, *Aust. J. Chem.*, 1974, **27**, 1607, (struct)
Ingham, J.L., *Z. Naturforsch., C*, 1980, **35**, 384, (Sandwicensin)
Ingham, J.L., *Prog. Chem. Org. Nat. Prod.*, 1983, **43**, 1, (rev, occur)
McKee, T.C. *et al.*, *J. Nat. Prod.*, 1997, **60**, 431, (isol, cmr, Sandwicensin)