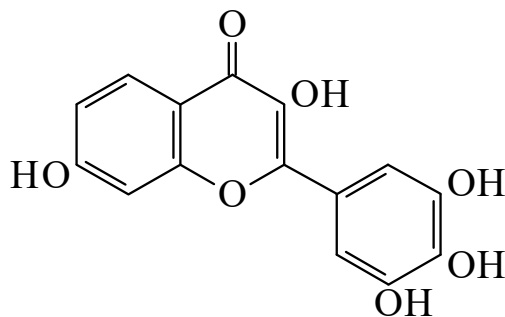




>>Entry Name: **3,3',4',5',7-Pentahydroxyflavone**

Synonym(s): 3,7-Dihydroxy-2-(3,4,5-trihydroxyphenyl)-4H-1-benzopyran-4-one, 9Cl. 3',4',5',7-Tetrahydroxyflavonol. **Robinetin**. Norkanugin



CAS Registry Number: 490-31-3

Molecular Formula: C₁₅H₁₀O₇

Molecular Weight: 302.24

Accurate Mass: 302.042655

Percentage Composition: C 59.61%; H 3.33%; O 37.06%

Biological Source: Constit. of *Robinia pseudacacia*, *Gleditsia monosperma* and other plants

Use/Importance: Used as 1mM soln. in EtOH for photometric detn. of Zr ($\lambda_{\max}$ 415 nm)

Physical Description: Greenish-yellow needles (AcOH aq.)

Melting Point: Mp 325-330 dec.°

Solubility: BERDY SOL: Sol. EtOH, EtOAc; fairly sol. H₂O, Et₂O; poorly sol. CHCl₃, C₆H₆, hexane

UV: [neutral] $\lambda_{\max}$ 254 (); 317 (); 370 () (EtOH) (Berdy) [base] $\lambda_{\max}$ 274 (); 337 (); 420 () (EtOH-NaOH) (Berdy)

>>Derivative: 3',5'-Di-Me ether

Synonym(s): 3,4', 7-Trihydroxy-3',5'-dimethoxyflavone. 4',7-Dihydroxy-3',5'-dimethoxyflavonol. **Laurentinol**

Molecular Formula: C₁₇H₁₄O₇

Molecular Weight: 330.293

Accurate Mass: 330.073955

Percentage Composition: C 61.82%; H 4.27%; O 33.91%

Biological Source: Constit. of the heartwood of *Millettia laurentii*

Physical Description: Green prisms (MeOH)

Melting Point: Mp 258-260°

UV: [neutral] $\lambda_{\max}$ 250 (log ϵ 4.05); 320 (log ϵ 2.93); 360 (log ϵ 4.23) (EtOH)

>>Derivative: 3,3',7-Tri-Me ether

Synonym(s): 3',4'-Dihydroxy-3',5',7-trimethoxyflavone

Molecular Formula: C₁₈H₁₆O₇

Molecular Weight: 344.32

Accurate Mass: 344.089605

Percentage Composition: C 62.79%; H 4.68%; O 32.53%

Biological Source: Constit. of the roots of *duroia hirsuta*

Melting Point: Mp 230-238°

Optical Rotation: $[\alpha]_D^{25} +154$ (c, 0.1 in MeOH)

UV: [neutral] $\lambda_{\max}$ 259 (log ϵ 3.98); 313 (log ϵ 4.14) (MeOH)

Other Data: Unexplained opt. rotation assigned

>>Derivative: 3',5',7-Tri-Me ether

Synonym(s): 3,4'-Dihydroxy-3',5',7-trimethoxyflavone. 4'-Hydroxy-3',5',7-trimethoxyflavonol

Molecular Formula: C₁₈H₁₆O₇

Molecular Weight: 344.32

Accurate Mass: 344.089605

Percentage Composition: C 62.79%; H 4.68%; O 32.53%

Biological Source: Constit. of the roots of *Duroia hirsuta*

Melting Point: Mp 232-239°

Optical Rotation: $[\alpha]_D^{25} +158$ (c, 0.1 in MeOH)

UV: [neutral] $\lambda_{\max}$ 258 (log ϵ 3.76); 314 (log ϵ 4.21) (MeOH)

Other Data: Unexplained opt. rotation assigned