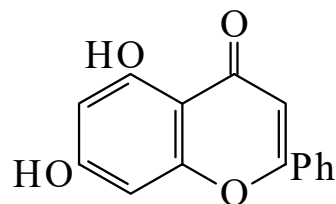




>>Entry Name: 5,7-Dihydroxyflavone

Synonym(s): 5,7-Dihydroxy-2-phenyl-4H-1-benzopyran-4-one, 9CI. **Chrysin.** Chrysinic acid



CAS Registry Number: 480-40-0

Molecular Formula: C₁₅H₁₀O₄

Molecular Weight: 254.242

Accurate Mass: 254.05791

Percentage Composition: C 70.86%; H 3.96%; O 25.17%

Biological Source: Isol. from *Ulmus sieboldiana*, *Flourensia resinosa*, *Oroxylum indicum* (bark), *Pinus* and *Scutellaria* spp. and others

Use/Importance: Used as EtOH soln. for photometric detn. of Th ($\lambda_{\max}$ 380 nm, pH 2.8); reactions with Al, Th. Used as complexing agent for Cu

Biological Use/Importance: Shows antifungal activity

Physical Description: Yellowish plates

Melting Point: Mp 285-286°. Mp 290° (275°)

Solubility: Sol. EtOH; BERDY SOL: Sol. Et₂O, bases; fairly sol. CHCl₃, EtOH; poorly sol. H₂O

pKa Value: pK_{a1} 9.05; pK_{a2} 7.42 (20°,50% EtOH) pK_{a1} 12.37; pK_{a2} 8.37 (25°,50% dioxan)

UV: [neutral] $\lambda_{\max}$ 249 (); 272 (); 316 () (MeOH) (Berdy) [base] $\lambda_{\max}$ 252 (); 282 (); 332 (); 382 () (MeOH-NAOH) (Berdy) [neutral] $\lambda_{\max}$ 212 (); 269 (); 318 () (EtOH) (Berdy)

Other Data: $\lambda_{\max}$ 348 nm

Aldrich: C8010-5

Sigma: C3018

>>Derivative: Di-Ac

CAS Registry Number: 6665-78-7

Molecular Formula: C₁₉H₁₄O₆

Molecular Weight: 338.316

Accurate Mass: 338.07904

Percentage Composition: C 67.45%; H 4.17%; O 28.37%

Physical Description: Needles (EtOH)

Melting Point: Mp 198-200° (192°)

>>Derivative: 5-O-β-D-Glucopyranoside

Synonym(s): Toringin

CAS Registry Number: 1329-10-8

Molecular Formula: C₂₁H₂₀O₉

Molecular Weight: 416.384

Accurate Mass: 416.110735

Percentage Composition: C 60.58%; H 4.84%; O 34.58%

Biological Source: Occurs in bark of *Docyniopsis tschonoski* and in *Malus* spp.

Physical Description: Needles (MeOH)

Melting Point: Mp 240°

Optical Rotation: $[\alpha]_{\text{D}}^{25}$ -71.3 (Py)

Other Data: Originally descr. as the 7-glycoside

>>Derivative: 7-O-β-D-Glucopyranoside

Synonym(s): Aequinoctin. Equinoctin. Aequinetin

CAS Registry Number: 31025-53-3

Molecular Formula: C₂₁H₂₀O₉

Molecular Weight: 416.384

Accurate Mass: 416.110735

Percentage Composition: C 60.58%; H 4.84%; O 34.58%

Biological Source: Isol. from leaves of *Populus deltoides*, roots of *Scutellaria orientalis*, from *Sarothamnus patens*, *Enkianthus* spp. and *Prunus aequinoctalis*

Physical Description: Pale yellow needles (EtOH aq.)

Melting Point: Mp 245° (201-203°)

Optical Rotation: $[\alpha]$