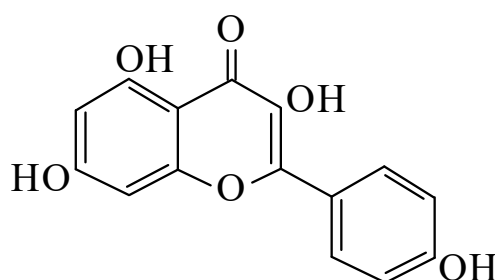




>>Entry Name: 3,4',5,7-Tetrahydroxyflavone

ENTRY UNDER REVIEW

Synonym(s): 3,5,7-Trihydroxy-2-(4-hydroxyphenyl)-4*H*-1-benzopyran-4-one, 9Cl. 4',5,7-Trihydroxyflavonol. **Kaempferol**. Campherol. Populnetin. Robigenin. Rhamnolutin. Trifolitin. Nimbecetin. Kampherol. Swartziol



CAS Registry Number: 520-18-3

Related CAS Registry Numbers(s): 27638-32-0 28384-70-5 69501-06-0 124027-49-2

Molecular Formula: C₁₅H₁₀O₆

Molecular Weight: 286.24

Accurate Mass: 286.04774

Percentage Composition: C 62.94%; H 3.52%; O 33.54%

Biological Source: Very widespread in the plant world, e.g. in Brassicaceae, Apocynaceae, Dilleniaceae, Ranunculaceae, Leguminosae, etc.

Use/Importance: Used as 0.3% aq. EtOH soln. for photometric detn. of Ga, In, Sn(IV) ($\lambda_{\max}$ 430 nm, ϵ 41000)

Biological Use/Importance: Antiinflammatory agent. Diuretic. Antioxidant

Physical Description: Yellow needles (EtOH aq.)

Melting Point: Mp 276-278°

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

Calculated Log P Data: Log P 0.31 (calc)

UV: [neutral] $\lambda_{\max}$ 204 (); 265 (); 365 () (MeOH) (Berdy) [neutral] $\lambda_{\max}$ 265 (); 365 () (EtOH) (Berdy)

Fluka: 60010

Sigma: K0133

>>Derivative: 3-*O*-Sulfate

Synonym(s): Kaempferol 3-sulfate

CAS Registry Number: 62369-24-8

Molecular Formula: C₁₅H₁₀O₉S

Molecular Weight: 366.305

Accurate Mass: 366.004555

Percentage Composition: C 49.18%; H 2.75%; O 39.31%; S 8.75%

Biological Source: Isol. from *Acrotema uniflorum*

>>Derivative: 7-*O*-Sulfate

Synonym(s): Kaempferol 7-sulfate

CAS Registry Number: 56857-59-1

Molecular Formula: C₁₅H₁₀O₉S

Molecular Weight: 366.305

Accurate Mass: 366.004555

Percentage Composition: C 49.18%; H 2.75%; O 39.31%; S 8.75%

Biological Source: Isol. from *Frankenia pulverulenta*

>>Derivative: 3,7-Di-*O*-sulfate

Synonym(s): Kaempferol 3,7-disulfate

CAS Registry Number: 64291-85-6

Molecular Formula: C₁₅H₁₀O₁₂S₂

Molecular Weight: 446.369

Accurate Mass: 445.96137

Percentage Composition: C 40.36%; H 2.26%; O 43.01%; S 14.37%

Biological Source: Isol. from *Reaumuria mucronata*