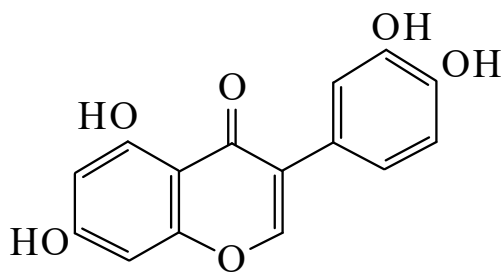




>>Entry Name: 3',4',5,7-Tetrahydroxyisoflavone

ENTRY UNDER REVIEW

Synonym(s): 3-(3,4-Dihydroxyphenyl)-5,7-dihydroxy-4*H*-1-benzopyran-4-one, 9CI. **Orobol**. Norsantal. Isoluteolin



CAS Registry Number: 480-23-9

Molecular Formula: C₁₅H₁₀O₆

Molecular Weight: 286.24

Accurate Mass: 286.04774

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

Biological Source: Isol. from *Baptisia* spp., *Bolusanthus speciosus*, *Cytisus scoparius*, *Lathyrus* spp. and *Thermopsis* spp. (Leguminosae, Papilionoideae). Also prod. by microorganisms *Aspergillus niger*, *Fusarium*, *Stemphylium* and *Streptomyces* spp.

Physical Description: Pale-yellow cryst. (AcOH)

Melting Point: Mp 212°

Solubility: BERDY SOL: Sol. MeOH, EtOAc

UV: [neutral] λ_{max} 263 (ε 27500); 290 (ε 11400) (MeOH) (Derep) [neutral] λ_{max} 234 (ε 25000); 263 (E1%/1cm 960); 290 (E1%/1cm 400) (MeOH) (Berdy)

Other Data: All isolations of isoflavonoids from microorganisms are considered doubtful

>>Derivative: 7-*O*-β-D-Glucopyranoside

Synonym(s): Oroboside

CAS Registry Number: 20486-33-3

Molecular Formula: C₂₁H₂₀O₁₁

Molecular Weight: 448.382

Accurate Mass: 448.100565

Percentage Composition: C 56.25%; H 4.50%; O 39.25%

Biological Source: Isol. from *Baptisia* spp., *Thermopsis* spp., *Lathyrus macrorrhizus* and *Lathyrus montanus*

Other Data: The struct. of Oroboside as the 7-glucoside is not confirmed

>>Derivative: 7-*O*-[β-D-Glucopyranosyl-(1→2)-β-D-glucopyranoside]

Synonym(s): Compactin‡

CAS Registry Number: 101072-83-7

Molecular Formula: C₂₇H₃₀O₁₆

Molecular Weight: 610.524

Accurate Mass: 610.15339

Percentage Composition: C 53.12%; H 4.95%; O 41.93%

Biological Source: Isol. from *Genista compacta*

Physical Description: Light-grey powder

Melting Point: Mp 206-208°

Optical Rotation: [α]_D²⁰ +35.8 (c, 1.0 in MeOH)

>>Derivative: 7-*O*-[α-L-Rhamnopyranosyl-(1→?)-β-D-glucopyranoside]

Synonym(s): Orobol rhamnosylglucoside

CAS Registry Number: 27576-45-0

Molecular Formula: C₂₇H₃₀O₁₅

Molecular Weight: 594.525

Accurate Mass: 594.158475

Percentage Composition: C 54.55%; H 5.09%; O 40.37%

Biological Source: Isol. from *Baptisia* spp.

UV: [neutral] λ_{max} 219 (); 259 (); 286 (sh) (); 330 (sh) () (MeOH)