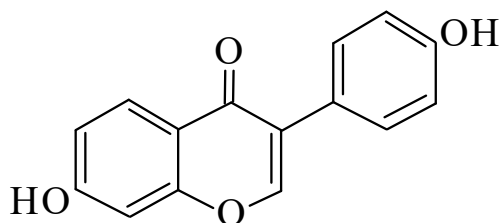




>>Entry Name: 4',7-Dihydroxyisoflavone

ENTRY UNDER REVIEW

Synonym(s): 7-Hydroxy-3-(4-hydroxyphenyl)-4*H*-1-benzopyran-4-one, 9Cl. **Daidzein**. Dimethylbiochanin B. Daizeol. K 251-6. Daidzeol



CAS Registry Number: 486-66-8

Molecular Formula: C<sub>15</sub>H<sub>10</sub>O<sub>4</sub>

Molecular Weight: 254.242

Accurate Mass: 254.05791

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

Biological Source: Widespread isoflavone in the Leguminosae (Papilionoideae) eg. in *Chamaecytisus* spp., *Cytisus* spp., *Phaseolus* spp. Also from *Streptomyces xanthophaeus*

Use/Importance: Calmodulin antagonist. Antioxidant

Physical Description: Pale yellow cryst. (EtOH aq.)

Melting Point: Mp 330° (323°)

UV: [base] λ<sub>max</sub> 259 (ε ) (MeOH/NaOH) (Derep) [neutral] λ<sub>max</sub> 252 (ε 25400) (MeOH) (Derep)

Other Data: Tatoin was impure Daidzein

Sigma: D7802

>>Derivative: Di-Ac

CAS Registry Number: 3682-01-7

Molecular Formula: C<sub>19</sub>H<sub>14</sub>O<sub>6</sub>

Molecular Weight: 338.316

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

Physical Description: Cryst. (EtOH)

Melting Point: Mp 188-189°

>>Derivative: 4'-O-β-D-Glucopyranoside

CAS Registry Number: 58970-69-7

Molecular Formula: C<sub>21</sub>H<sub>20</sub>O<sub>9</sub>

Molecular Weight: 416.384

Accurate Mass: 416.110735

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

Biological Source: Isol. from twigs of *Piptanthus nepalensis*

>>Derivative: 7-O-β-D-Glucopyranoside

Synonym(s): **Daidzin**. Daidzoxide

CAS Registry Number: 552-66-9

Molecular Formula: C<sub>21</sub>H<sub>20</sub>O<sub>9</sub>

Molecular Weight: 416.384

Accurate Mass: 416.110735

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

Biological Source: Isol. from soya bean meal, roots of *Pueraria lobata* and shoots of *Piptanthus nepalensis*. Also from *Baptisia* spp., *Glycine max*, *Medicago sativa*, *Thermopsis* spp. and others in Leguminosae

Physical Description: Cryst. + 1H<sub>2</sub>O (H<sub>2</sub>O) becoming anhyd. at 120°

Melting Point: Mp 233-235°

Optical Rotation: [α]<sub>D</sub><sup>20</sup> -36.4 (0.02*M* KOH)