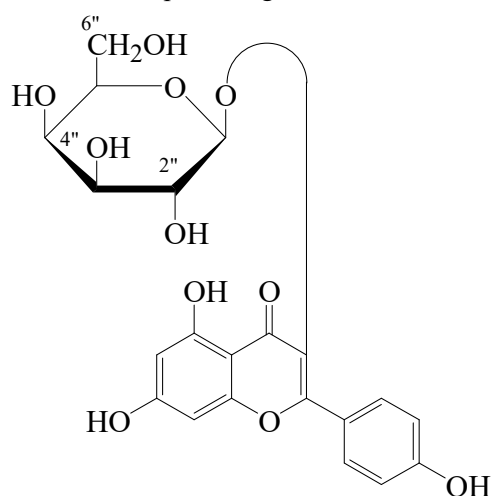




>>Entry Name: Trifolin

ENTRY UNDER REVIEW

**Synonym(s):** 3-*O*-β-D-Galactopyranosyloxy-4',5,7-trihydroxyflavone. Kaempferol 3-galactoside. Trifolioside



**CAS Registry Number:** 23627-87-4

**Related CAS Registry Numbers(s):** 11055-94-0 78656-61-8 152343-70-9

**Molecular Formula:** C<sub>21</sub>H<sub>20</sub>O<sub>11</sub>

**Molecular Weight:** 448.382

**Accurate Mass:** 448.100565

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

**Biological Source:** Widespread occurrence in plant world e.g. *Campanula* and *Diospyros* spp., *Trifolium pannonicum* flowers, *Pinus sylvestris*, fruits of *Scolymus hispanicus* and leaves of *Lespedeza cuneata*

**Physical Description:** Yellowish needles (Py aq.)

**Melting Point:** Mp 235° (229-231°)

>>Derivative: 7-*O*-α-Arabinopyranoside, 2"-Ac

**Molecular Formula:** C<sub>28</sub>H<sub>30</sub>O<sub>16</sub>

**Molecular Weight:** 622.535

**Accurate Mass:** 622.15339

**Percentage Composition:** C 54.02%; H 4.86%; O 41.12%

**Biological Source:** Constit. of the flowers of *Aconitum paniculatum*

**Physical Description:** Amorph. yellow powder

**Optical Rotation:** [α]<sub>D</sub><sup>25</sup> -34.4 (c, 0.06 in MeOH)

**UV:** [neutral] λ<sub>max</sub> 267 (); 348 () (MeOH)

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

**Synonym(s):** Kaempferol 3-galactoside 4'-glucoside. Trifolin 4'-glucoside. OK-2

**Molecular Formula:** C<sub>27</sub>H<sub>30</sub>O<sub>16</sub>

**Molecular Weight:** 610.524

**Accurate Mass:** 610.15339

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

**Biological Source:** Constit. of *Bryum pseudotriquetrum* and *Ophiopogon jaburan*

**Physical Description:** Needles

>>Derivative: 5-*O*-β-D-Galactopyranoside

**Synonym(s):** Kaempferol 3,5-digalactoside

**CAS Registry Number:** 91377-10-5

**Molecular Formula:** C<sub>27</sub>H<sub>30</sub>O<sub>16</sub>

**Molecular Weight:** 610.524

**Accurate Mass:** 610.15339

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

**Biological Source:** Isol. from *Indigofera hirsuta*