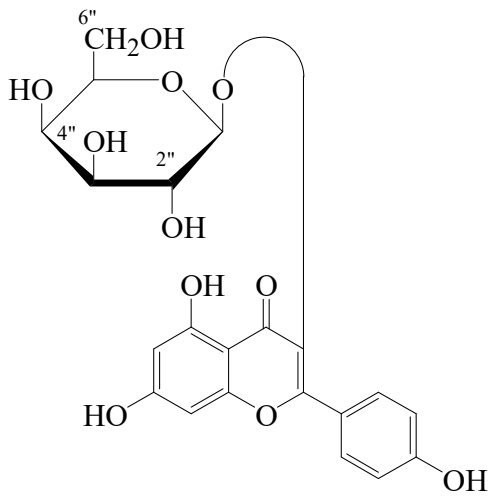
>>**Entry Name: Trifolin**
**ENTRY UNDER REVIEW**
**Synonym(s):** 3-*O*-β-D-Galactopyranosyloxy-4',5,7-trihydroxyflavone. Kaempferol 3-galactoside. Trifolioside




**CAS Registry Number:** 23627-87-4
**Related CAS Registry Numbers(s):** 11055-94-0 78656-61-8 152343-70-9

**Molecular Formula:** $C_{21}H_{20}O_{11}$
**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:** $C_{28}H_{30}O_{16}$
**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:** $[\alpha]_D^{25}$ –34.4 (c, 0.06 in MeOH)
**UV:** [neutral] $\lambda_{max}$ 267 (); 348 () (MeOH)

>>**Derivative:** 4'-*O*-β-D-Glucopyranoside
**Synonym(s):** Kaempferol 3-galactoside 4'-glucoside. Trifolin 4'-glucoside. OK-2

**Molecular Formula:** $C_{27}H_{30}O_{16}$
**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:** $C_{27}H_{30}O_{16}$
**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*

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