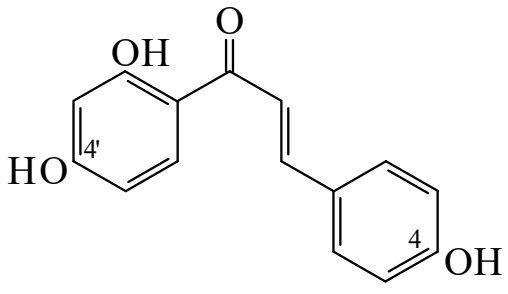
>>**Entry Name: 2',4,4'-Trihydroxychalcone**
Synonym(s): 1-(2,4-Dihydroxyphenyl)-3-(4-hydroxyphenyl)-2-propen-1-one. **Isoliquiritigenin**



CAS Registry Number: 961-29-5
Related CAS Registry Numbers(s): 2198-19-8 13745-20-5 23141-04-0 27233-96-1 30925-62-3 32274-67-2

Molecular Formula: $C_{15}H_{12}O_4$
Molecular Weight: 256.257
Accurate Mass: 256.07356
Percentage Composition: C 70.31%; H 4.72%; O 24.97%
Biological Source: Isol. from *Sophora tomentosa, Dalbergia* spp., *Onobrychis vicifolia, Medicago* spp., *Machaerium* spp., *Lespedeza cyrtobotrya*, *Dahlia tenuicaulis, Dahlia variabilis, Acacia* spp., *Platymiscium* spp., *Cyclolobium* and others. Widespread in the Leguminosae and Compositae
Use/Importance: Aldose reductase inhibitor. Shows antineoplastic and antiinflammatory activity
Physical Description: Pale yellow needles (EtOAc/petrol or EtOH aq.)
Melting Point: Mp 200-204° (198-200°)
Solubility: BERDY SOL: Sol. MeOH, $CHCl_3$; poorly sol. H_2O, hexane
Calculated Log P Data: Log P 2.25 (calc)
UV: [neutral] λ_{max} 285 (); 328 (); 368 () (MeOH) (Berdy) [base] λ_{max} 428 () (MeOH-NAOH) (Berdy)

Sigma: I3766

>>**Derivative:** 4-*O*-β-D-Glucopyranoside
Synonym(s): Isoliquiritin. Isoliquiritoside

CAS Registry Number: 5041-81-6

Molecular Formula: $C_{21}H_{22}O_9$
Molecular Weight: 418.399
Accurate Mass: 418.126385
Percentage Composition: C 60.28%; H 5.30%; O 34.42%
Biological Source: Isol. from *Trifolium subterraneum, Glycyrrhiza* spp. and others
Use/Importance: Antiinflammatory agent
Melting Point: Mp 187-189°
Optical Rotation: $[\alpha]_D$ –60.8
Calculated Log P Data: Log P –0.57 (calc)

>>**Derivative:** 4'-*O*-β-D-Glucopyranoside
Synonym(s): Neoisoliquiritin

CAS Registry Number: 59122-93-9

Molecular Formula: $C_{21}H_{22}O_9$
Molecular Weight: 418.399
Accurate Mass: 418.126385
Percentage Composition: C 60.28%; H 5.30%; O 34.42%
Biological Source: Isol. from *Glycyrrhiza glabra*, *Cicer arietinum, Dahlia* spp., *Glycine max, Ulex europaeus* and others
Use/Importance: Antiinflammatory agent
Physical Description: Yellow needles (EtOH)
Melting Point: Mp 230-232°
Optical Rotation: $[\alpha]_D$ –61.5 (c, 0.5 in EtOH)
Calculated Log P Data: Log P –0.59 (calc)