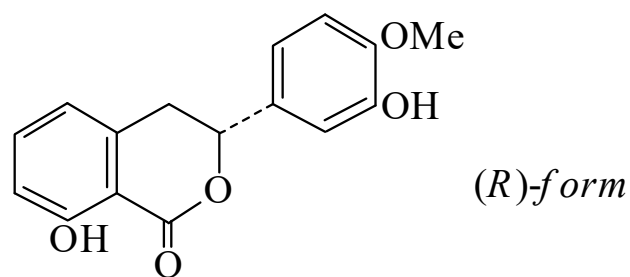




>>Entry Name: Phyllodulcin

ENTRY UNDER REVIEW

Synonym(s): 3,4-Dihydro-8-hydroxy-3-(3-hydroxy-4-methoxyphenyl)-1*H*-2-benzopyran-1-one, 9Cl. 3',8-Dihydroxy-4'-methoxy-3-phenyl-3,4-dihydroisocoumarin. Phyllodulcinol



CAS Registry Number: 480-46-6

Related CAS Registry Numbers(s): 37568-82-4

Molecular Formula: C₁₆H₁₄O₅

Molecular Weight: 286.284

Accurate Mass: 286.084125

Percentage Composition: C 67.13%; H 4.93%; O 27.94%

>>Variant: (*R*)-form

CAS Registry Number: 21499-23-0

Molecular Formula: C₁₆H₁₄O₅

Molecular Weight: 286.284

Accurate Mass: 286.084125

Percentage Composition: C 67.13%; H 4.93%; O 27.94%

Biological Source: Isol. from *Hydrangea macrophylla*

Use/Importance: Natural sweetener approx. 600-800 times sweeter than sucrose

Physical Description: Cryst.

Melting Point: Mp 120°

Optical Rotation: [α]_D +67.7

Other Data: Most samples are partly racemic

>>Derivative: 3'-*O*- β -D-Glucopyranoside

Molecular Formula: C₂₂H₂₄O₁₀

Molecular Weight: 448.426

Accurate Mass: 448.13695

Percentage Composition: C 58.93%; H 5.39%; O 35.68%

Biological Source: Constit. of *Hydrangea macrophylla* var. *thunbergii*

Physical Description: Powder

Optical Rotation: [α]_D²⁵ +26.9 (c, 0.1 in MeOH)

UV: [neutral] $\lambda_{\max}$ 227 (log ϵ 3.6); 280 (log ϵ 3); 312 (log ϵ 3) (MeOH)

>>Derivative: 8-*O*- β -D-Glucopyranoside

CAS Registry Number: 64847-00-3

Molecular Formula: C₂₂H₂₄O₁₀

Molecular Weight: 448.426

Accurate Mass: 448.13695

Percentage Composition: C 58.93%; H 5.39%; O 35.68%

Biological Source: Constit. of *Hydrangea macrophylla*

Melting Point: Mp 115-117°

Optical Rotation: [α]_D²⁰ -60 (c, 0.2 in EtOH)