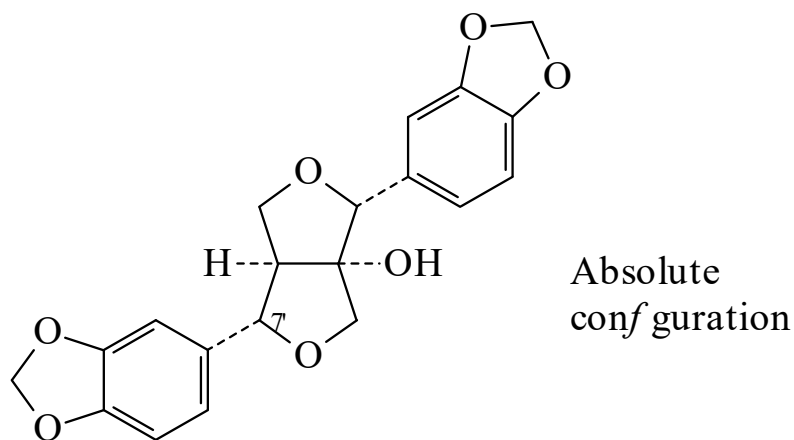




>>Entry Name: Paulownin

Synonym(s): 1,4-Bis(1,3-benzodioxol-5-yl)dihydro-1*H*,3*H*-furo[3,4-*c*]furan-3*a*(4*H*)-ol, 9*Cl*. 2,6-Bis(3,4-methylenedioxyphenyl)-3,7-dioxabicyclo[3.3.0]octan-1-ol. 8-Hydroxy-3,4:3',4'-bis(methylenedioxy)-7,9':7',9-diepoxyignan



CAS Registry Number: 13040-46-5

Molecular Formula: C₂₀H₁₈O₇

Molecular Weight: 370.358

Accurate Mass: 370.105255

Percentage Composition: C 64.86%; H 4.90%; O 30.24%

Biological Source: Isol. from wood of *Paulownia tomentosa* and from *Gmelina arborea*

Physical Description: Cryst. (MeOH)

Melting Point: Mp 105-106°

Optical Rotation: [α]_D³⁰ +29

>>Derivative: Ac

Molecular Formula: C₂₂H₂₀O₈

Molecular Weight: 412.395

Percentage Composition: C 64.07%; H 4.89%; O 31.04%

Melting Point: Mp 144-145°

>>Derivative: 7'-Epimer

Synonym(s): Isopaulownin

CAS Registry Number: 10590-41-7

Molecular Formula: C₂₀H₁₈O₇

Molecular Weight: 370.358

Accurate Mass: 370.105255

Percentage Composition: C 64.86%; H 4.90%; O 30.24%

Source/Synthesis: Acid-cat. epimerisation prod. of Paulownin

Melting Point: Mp 132°

Optical Rotation: [α]_D +127 (c, 0.80 in CHCl₃)

References:

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Takahashi, K. *et al.*, *Chem. Pharm. Bull.*, 1966, **14**, 641; 1970, **18**, 421, (*pmr, stereochem*)
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Chiba, M. *et al.*, *Chem. Pharm. Bull.*, 1979, **27**, 2868, (*cd, abs config*)
Kraus, G.A. *et al.*, *J.A.C.S.*, 1990, **112**, 3464, (*synth*)
Adhikara, S. *et al.*, *Tet. Lett.*, 1992, **33**, 6025, (*synth*)
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Okazaki, M. *et al.*, *Biosci., Biotechnol., Biochem.*, 1997, **61**, 743-745, (*synth*)