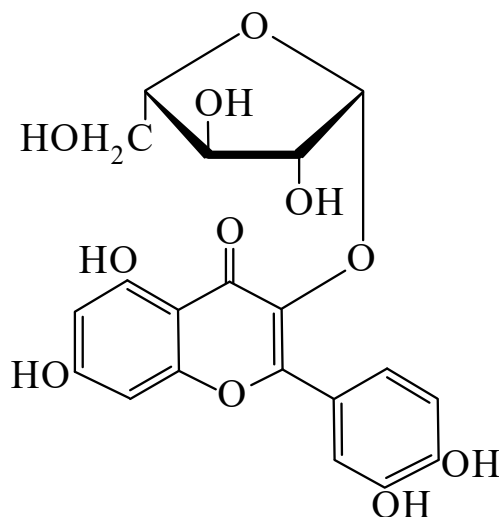




>>Entry Name: Avicularin

Synonym(s): 3-(α -L-Arabinofuranosyloxy)-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-4H-1-benzopyran-4-one, 9Cl. Quercetin 3- α -L-arabofuranoside. Avicularoside. Fenicularin



CAS Registry Number: 572-30-5

Related CAS Registry Numbers(s): 119786-64-0

Molecular Formula: C₂₀H₁₈O₁₁

Molecular Weight: 434.356

Accurate Mass: 434.084915

Percentage Composition: C 55.30%; H 4.18%; O 40.52%

Biological Source: Constit. of *Polygonum aviculare*, *Vaccinium myrtillus*, *Juglans regia*, etc.

Physical Description: Yellow needles + H₂O (EtOH aq.)

Melting Point: Mp 217° (anhyd. 222°)

Optical Rotation: [α]_D -241 (c, 0.138 in MeOH) $\rightarrow$ -116 (24 hr)

Solubility: BERDY SOL: Sol. EtOH, bases; fairly sol. Et₂O; poorly sol. H₂O, hexane

UV: [neutral] $\lambda_{\max}$ 260 (ϵ 20900); 360 (ϵ 17400) (EtOH) (Berdy)

Other Data: Identity of Fenicularin from *Foeniculum vulgare* with Avicularin not fully establ. (same struct. assigned but higher Mp. (256°) given)

>>Derivative: Hepta-Ac

Molecular Formula: C₃₄H₃₂O₁₈

Molecular Weight: 728.616

Percentage Composition: C 56.05%; H 4.43%; O 39.53%

Physical Description: Needles (CHCl₃/petrol)

Melting Point: Mp 187°

Optical Rotation: [α]_D -136 (c, 1.22 in CHCl₃)

References:

Ohta, T., *Hoppe Seyler's Z. Physiol. Chem.*, 1940, **263**, 221, (isol, struct)

El Khadem, H. *et al.*, *J.C.S.*, 1958, 3320, (isol)

Ohta, T. *et al.*, *Yakugaku Zasshi*, 1959, **79**, 986; *CA*, **53**, 20695, (Fenicularin)

Mabry, T.J. *et al.*, *Tetrahedron*, 1978, **34**, 1389, (cmr)