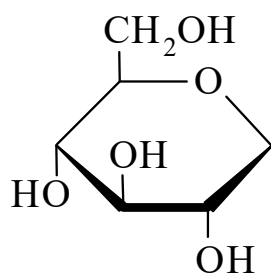




>>Entry Name: **1,5-Anhydroglucitol**, 9CI, 8CI

Synonym(s): 1,5-Anhydrosorbitol. Polygalitol. Aceritol



Molecular Formula: C₆H₁₂O₅

Molecular Weight: 164.158

Accurate Mass: 164.068475

Percentage Composition: C 43.90%; H 7.37%; O 48.73%

Other Data: All possible 31 isomers of Me/Ac/benzoylated 1,5-anhydro-D-glucitol were prepd. by Elvebak *et al.*

>>Variant: D-form

CAS Registry Number: 154-58-5

Molecular Formula: C₆H₁₂O₅

Molecular Weight: 164.158

Accurate Mass: 164.068475

Percentage Composition: C 43.90%; H 7.37%; O 48.73%

Biological Source: Occurs in *Polygala tenuifolia*, *Polygala vulgaris*, *Polygala amara*, *Polygala senega* and in human cerebrospinal fluid

Melting Point: Mp 142-143°

Optical Rotation: [α]_D²⁰ +42.3 (c, 0.84 in H₂O)

Sigma: A0511

>>Derivative: 2,3,4-Tri-Ac

CAS Registry Number: 38982-72-8

Molecular Formula: C₁₂H₁₈O₈

Molecular Weight: 290.269

Accurate Mass: 290.10017

Percentage Composition: C 49.65%; H 6.25%; O 44.10%

Melting Point: Mp 111-113°

Optical Rotation: [α]_D +49.9 (c, 3.0 in CHCl₃)

>>Derivative: Tetra-Ac

Molecular Formula: C₁₄H₂₀O₉

Molecular Weight: 332.307

Accurate Mass: 332.110735

Percentage Composition: C 50.60%; H 6.07%; O 43.33%

Melting Point: Mp 74-75°

Optical Rotation: [α]_D²⁰ +42.7 (c, 1.4 in CHCl₃)

>>Derivative: 2-O-(3,4,5-Trihydroxybenzoyl)

Synonym(s): 1,5-Anhydro-2-O-galloyl-D-glucitol. **Ginnalin C**

CAS Registry Number: 82145-59-3

Molecular Formula: C₁₃H₁₆O₉

Molecular Weight: 316.264

Accurate Mass: 316.079435

Percentage Composition: C 49.37%; H 5.10%; O 45.53%

Biological Source: Constit. of *Acer ginnala*

Biological Use/Importance: Antibacterial agent

Physical Description: Cryst.

Melting Point: Mp 251-252°

Optical Rotation: [α]_D²⁰ +64.8 (c, 2.7 in DMSO)

Solubility: BERDY SOL: Sol. Me₂CO, DMSO

UV: [neutral] $\lambda_{\max}$ 218 (27200); 277 (10000) (MeOH) [neutral] $\lambda_{\max}$ 218 (ϵ 27200); 277 (ϵ 10000) (MeOH) (Berdy)