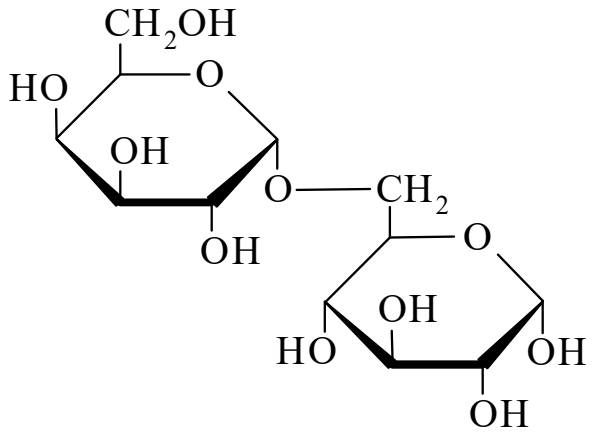
>>**Entry Name: 6-*O*-α-D-Galactopyranosyl-D-glucose,** 9CI
ENTRY UNDER REVIEW
Synonym(s): Melibiose, 8CI



a-Pyranose-*form*

CAS Registry Number: 585-99-9
Related CAS Registry Numbers(s): 66009-10-7

Molecular Formula: $C_{12}H_{22}O_{11}$
Molecular Weight: 342.299
Accurate Mass: 342.116215
Percentage Composition: C 42.11%; H 6.48%; O 51.42%
Biological Source: Occurs free in wild mallow and combined with fructose as the trisaccharide raffinose. Also isol. from coffee beans, *Corylus* spp., *Aconitum napellus*, apple (*Pyrus malus*) and other plants
Melting Point: Mp 85 dec.° (dihydrate). Mp 179-181° (monohydrate)
Solubility: BERDY SOL: Sol. H_2O
UV: [neutral] λ_{max} (H_2O) (Berdy)
Other Data: Approx. one-third as sweet as sucrose. Dihydrate reported to be β-anomer; monohydrate the α-anomer
Hazard & Toxicity: BERDY HAZD : LD_{50} (mus, ivn) 1000 - 3000 mg/kg

Aldrich: M269-1
Sigma: M5500

>>**Derivative:** Phenylosazone

Melting Point: Mp 176-178°
Optical Rotation: $[\alpha]_D^{21}$+43.2 (Py)

>>**Variant:** α-Pyranose-form

Molecular Formula: $C_{12}H_{22}O_{11}$
Molecular Weight: 342.299
Accurate Mass: 342.116215
Percentage Composition: C 42.11%; H 6.48%; O 51.42%
Optical Rotation: $[\alpha]_D^{20}$+134 (c, 4 in H_2O)

>>**Derivative:** Me glycoside, hepta-Me
Synonym(s): Methyl hepta-*O*-methyl-α-D-galactopyranosyl-α-D-glucopyranoside

Molecular Formula: $C_{20}H_{38}O_{11}$
Molecular Weight: 454.514
Accurate Mass: 454.241415
Percentage Composition: C 52.85%; H 8.43%; O 38.72%
Melting Point: Mp 122-123°

>>**Derivative:** 1-Chloro-1-deoxy, hepta-Ac
Synonym(s): Acetochloromelibiose

Molecular Formula: $C_{26}H_{35}ClO_{17}$
Molecular Weight: 655.005
Accurate Mass: 654.156282
Percentage Composition: C 47.68%; H 5.39%; Cl 5.41%; O 41.52%
Melting Point: Mp 127°
Optical Rotation: $[\alpha]_D^{20}$+192.5 ($CHCl_3$)