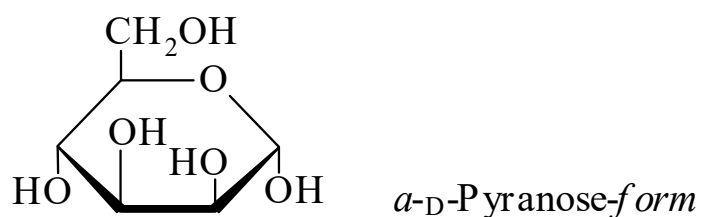




>>Entry Name: Mannose, 9CI, 8CI

ENTRY UNDER REVIEW

Synonym(s): Seminose. Carubinose



CAS Registry Number: 31103-86-3

Related CAS Registry Numbers(s): 12773-34-1 36972-23-3 37738-80-0 41767-04-8 41847-42-1 41847-43-2 41847-45-4

Molecular Formula: C₆H₁₂O₆

Molecular Weight: 180.157

Accurate Mass: 180.06339

Percentage Composition: C 40.00%; H 6.71%; O 53.28%

>>Variant: D-form

CAS Registry Number: 3458-28-4

Molecular Formula: C₆H₁₂O₆

Molecular Weight: 180.157

Accurate Mass: 180.06339

Percentage Composition: C 40.00%; H 6.71%; O 53.28%

Phoenix canariensis, and corms of *Amorphophallus konjac*. They are proliferated by some red algae and yeasts. Mannose is a constit. of blood serum globulins, ovomucoid, and tubercle bacilli. Occurs in trace amounts in apples and peaches. Obt. comly. from ivory nut hydrolysis

Use/Importance: Inexpensive starting material for chiral synthesis

pKa Value: pK_{a1} 12.08 (25°)

Aldrich: 11258-5

Fluka: 63582

Sigma: M8296

Supelco: 4-7250

>>Derivative: Oxime

Molecular Formula: C₆H₁₃NO₆

Molecular Weight: 195.172

Accurate Mass: 195.074289

Percentage Composition: C 36.92%; H 6.71%; N 7.18%; O 49.19%

Melting Point: Mp 176-184°

Optical Rotation: [α]_D +3.1 (H₂O)

>>Derivative: Phenylhydrazone

Melting Point: Mp 198-200°

Optical Rotation: [α]_D +27 → +28 (EtOH)

>>Derivative: 4-Nitrophenylhydrazone

Melting Point: Mp 202-203°

Optical Rotation: [α]_D +56 (Py/EtOH)

>>Derivative: 2-Mesyl

Synonym(s): 2-O-Mesyl-D-mannose

Molecular Formula: C₇H₁₄O₈S

Molecular Weight: 258.249

Accurate Mass: 258.04094

Percentage Composition: C 32.56%; H 5.46%; O 49.56%; S 12.42%

Melting Point: Mp 128-130°

Optical Rotation: [α]_D 0 (c, 1 in H₂O)