>>**Derivative:** 1-Me
Synonym(s): 1-*O*-Methyl-D-*chiro*-inositol

CAS Registry Number: 58769-21-4

Molecular Formula: $C_7H_{14}O_6$
Molecular Weight: 194.184
Accurate Mass: 194.07904
Percentage Composition: C 43.30%; H 7.27%; O 49.44%
Biological Source: Present in *Afrormosia elata*
Melting Point: Mp 207-208°
Optical Rotation: $[\alpha]_D^{20}$+60.7 (c, 2 in H_2O)

>>**Derivative:** 1-Me, penta-Ac
Synonym(s): 2,3,4,5,6-Penta-*O*-acetyl-1-*O*-methyl-*chiro*-inositol

Molecular Formula: $C_{17}H_{24}O_{11}$
Molecular Weight: 404.37
Accurate Mass: 404.131865
Percentage Composition: C 50.50%; H 5.98%; O 43.52%
Melting Point: Mp 111-112°
Optical Rotation: $[\alpha]_D^{19}$+29.1 (c, 2 in $CHCl_3$)

>>**Derivative:** 3-Me
Synonym(s): 3-*O*-Methyl-D-*chiro*-inositol. **D-Pinitol.** Matezitol. Sennitol. Cathartomannitol

CAS Registry Number: 10284-63-6

Molecular Formula: $C_7H_{14}O_6$
Molecular Weight: 194.184
Accurate Mass: 194.07904
Percentage Composition: C 43.30%; H 7.27%; O 49.44%
Biological Source: Widely distributed in plants. Produced on a large scale from the heartwood of *Pinus lambertiana*
Use/Importance: Use as a synthetic precursor
Biological Use/Importance: Shows hypoglycaemic and antidiabetic activity. Feeding stimulant for larvae of butterfly *Eurema hecabe mandarina*, inhibitor of *Heliothis zea* larval growth
Melting Point: Mp 185-186°
Optical Rotation: $[\alpha]_D^{20}$+67 (c, 2.5 in H_2O)
Aldrich: 44125-2

>>**Derivative:** 3-Me, 2-*O*-[α-D-galactopyranosyl-(1→6)-α-D-galactopyranosyl-(1→6)-α-D-galactopyranoside]

CAS Registry Number: 136788-71-1

Molecular Formula: $C_{25}H_{44}O_{21}$
Molecular Weight: 680.61
Accurate Mass: 680.237515
Percentage Composition: C 44.12%; H 6.52%; O 49.37%

>>**Derivative:** 3-Me, 1,2:5,6-di-*O*-isopropylidene
Synonym(s): 1,2:5,6-Di-*O*-isopropylidene-3-*O*-methyl-D-*chiro*-inositol

Molecular Formula: $C_{13}H_{22}O_6$
Molecular Weight: 274.313
Accurate Mass: 274.14164
Percentage Composition: C 56.92%; H 8.08%; O 35.00%
Melting Point: Mp 105-106°
Optical Rotation: $[\alpha]_D^{23}$–45.4 ($CHCl_3$)

>>**Derivative:** 4-Me, 2-*O*-α-D-galactopyranoside
Synonym(s): Galactopinitol A

CAS Registry Number: 64290-91-1