



Accurate Mass: 258.11034
Percentage Composition: C 55.81%; H 7.02%; O 37.17%
Physical Description: Cryst. (petrol)
Melting Point: Mp 126°
Optical Rotation: $[\alpha]_{\text{D}} +50.6$ (c, 1.0 in CHCl_3)

>>**Derivative:** 5,6-Di-Me, 2,3-*O*-isopropylidene
Synonym(s): 2,3-*O*-Isopropylidene-5,6-di-*O*-methyl-D-mannono-1,4-lactone

Molecular Formula: $\text{C}_{11}\text{H}_{18}\text{O}_6$
Molecular Weight: 246.26
Accurate Mass: 246.11034
Percentage Composition: C 53.65%; H 7.37%; O 38.98%
Physical Description: Needles (Et_2O)
Melting Point: Mp 110°
Optical Rotation: $[\alpha]_{\text{D}}^{20} +64.2$ (c, 1.1 in H_2O)

>>**Derivative:** 3,5,6-Tri-Me
Synonym(s): 3,5,6-Tri-*O*-methyl-D-mannono-1,4-lactone

CAS Registry Number: 25018-61-5

Molecular Formula: $\text{C}_9\text{H}_{16}\text{O}_6$
Molecular Weight: 220.222
Accurate Mass: 220.09469
Percentage Composition: C 49.09%; H 7.32%; O 43.59%
Physical Description: Cryst. (diisopropyl ether/ EtOH)
Melting Point: Mp 132-133°
Optical Rotation: $[\alpha]_{\text{D}}^{26} +43.2$ (c, 0.53 in H_2O) (initial)

>>**Derivative:** 2,3,5,6-Tetra-Me
Synonym(s): 2,3,5,6-Tetra-*O*-methyl-D-mannono-1,4-lactone

CAS Registry Number: 20869-29-8

Molecular Formula: $\text{C}_{10}\text{H}_{18}\text{O}_6$
Molecular Weight: 234.249
Accurate Mass: 234.11034
Percentage Composition: C 51.27%; H 7.74%; O 40.98%
Melting Point: Mp 110°

>>**Variant:** L-form

CAS Registry Number: 22430-23-5

Molecular Formula: $\text{C}_6\text{H}_{10}\text{O}_6$
Molecular Weight: 178.141
Accurate Mass: 178.04774
Percentage Composition: C 40.45%; H 5.66%; O 53.89%
Melting Point: Mp 150-151°
Optical Rotation: $[\alpha]_{\text{D}} -51.8$ (H_2O)

References:

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Aleksidze, N.V., *Zh. Obshch. Khim.*, 1967, **37**, 2625; *CA*, **69**, 97056h, (*D*-form, *D*-tetra-Me)
Siddiqui, I.R., *Carbohydr. Res.*, 1969, **9**, 344, (*D*-tri-Me)
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Lunot, I. *et al.*, *Synthesis*, 1992, 1129, (*2,6*-ditosyl)
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