Optical Rotation: $[\alpha]_D$ +47.6 (H_2O)

>>**Derivative:** 2,4-Di-Me
Synonym(s): 6-Deoxy-2,4-di-*O*-methyl-L-mannose. 2,4-Di-*O*-methyl-L-rhamnose

Molecular Formula: $C_8H_{16}O_5$
Molecular Weight: 192.211
Accurate Mass: 192.099775
Percentage Composition: C 49.99%; H 8.39%; O 41.62%
Biological Source: Hydrol. prod. of *Pneumococcus* and other bacterial polysaccharides and of flax hemicellulose
Melting Point: Mp 91-93°
Optical Rotation: $[\alpha]_D$ +10.6 (H_2O)

>>**Derivative:** 3,4-Di-Me
Synonym(s): 6-Deoxy-3,4-di-*O*-methyl-L-mannose, $^{9Cl, 8Cl}$. 3,4-Di-*O*-methyl-L-rhamnose

CAS Registry Number: 4060-11-1

Molecular Formula: $C_8H_{16}O_5$
Molecular Weight: 192.211
Accurate Mass: 192.099775
Percentage Composition: C 49.99%; H 8.39%; O 41.62%
Melting Point: Mp 98-99°
Optical Rotation: $[\alpha]_D$ +24 → +18.5 (H_2O)

>>**Derivative:** 2,3,4-Tri-Me
Synonym(s): 6-Deoxy-2,3,4-tri-*O*-methyl-L-mannose, ^{9Cl}. 2,3,4-Tri-*O*-methyl-L-rhamnose

CAS Registry Number: 7439-05-6

Molecular Formula: $C_9H_{18}O_5$
Molecular Weight: 206.238
Accurate Mass: 206.115425
Percentage Composition: C 52.41%; H 8.80%; O 38.79%
Physical Description: Syrup
Optical Rotation: $[\alpha]_D$ +26 (H_2O)

>>**Variant:** α-L-form

Molecular Formula: $C_6H_{12}O_5$
Molecular Weight: 164.158
Accurate Mass: 164.068475
Percentage Composition: C 43.90%; H 7.37%; O 48.73%
Physical Description: Rods + $1H_2O$ (H_2O or EtOH)
Melting Point: Mp 93-94°
Other Data: On heating loses H_2O of cryst. and partly changes to the β-form. V. sweet taste

>>**Variant:** α-L-Pyranose-form

CAS Registry Number: 6014-42-2
Molecular Formula: $C_6H_{12}O_5$
Molecular Weight: 164.158
Accurate Mass: 164.068475
Percentage Composition: C 43.90%; H 7.37%; O 48.73%

>>**Derivative:** 1,2,4-Tri-Ac
Synonym(s): 1,2,4-Tri-*O*-acetyl-6-deoxy-α-L-mannopyranose. 1,2,4-Tri-*O*-acetyl-α-L-rhamnopyranose

Molecular Formula: $C_{12}H_{18}O_8$
Molecular Weight: 290.269
Accurate Mass: 290.10017
Percentage Composition: C 49.65%; H 6.25%; O 44.10%
Physical Description: Fine needles
Melting Point: Mp 145-149°
Optical Rotation: $[\alpha]_D$ –41 (c, 1.1 in $CHCl_3$)