



>>>Variant:  $\alpha$ -D-Pyranose-form

CAS Registry Number: 7296-15-3

Extra CAS Registry Numbers(s): 27710-20-9

Molecular Formula:  $C_6H_{12}O_6$

Molecular Weight: 180.157

Accurate Mass: 180.06339

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

Melting Point: Mp 133°

Optical Rotation:  $[\alpha]_D^{25} +29.3 \rightarrow +14.5$  (c, 1 in  $H_2O$ )

>>>Derivative: 2,3,4,6-Tetra-Ac

Synonym(s): 2,3,4,6-Tetra-*O*-acetyl- $\alpha$ -D-mannopyranose

CAS Registry Number: 22860-22-6

Molecular Formula:  $C_{14}H_{20}O_{10}$

Molecular Weight: 348.306

Accurate Mass: 348.10565

Percentage Composition: C 48.28%; H 5.79%; O 45.93%

Melting Point: Mp 93-94°

Optical Rotation:  $[\alpha]_D^{25} +22.8$  (c, 2.2 in  $CHCl_3$ )

>>>Derivative: Penta-Ac

Synonym(s): 1,2,3,4,6-Penta-*O*-acetyl- $\alpha$ -D-mannopyranose

CAS Registry Number: 4163-65-9

Molecular Formula:  $C_{16}H_{22}O_{11}$

Molecular Weight: 390.343

Accurate Mass: 390.116215

Percentage Composition: C 49.23%; H 5.68%; O 45.09%

Melting Point: Mp 64°. Mp 75°

Optical Rotation:  $[\alpha]_D +55$  (c, 1 in  $CHCl_3$ )

Sigma: M6633

>>>Derivative: 2,3,4,6-Tetrabenzoyl

Synonym(s): 2,3,4,6-Tetra-*O*-benzoyl- $\alpha$ -D-mannopyranose

Molecular Formula:  $C_{34}H_{28}O_{10}$

Molecular Weight: 596.589

Accurate Mass: 596.16825

Percentage Composition: C 68.45%; H 4.73%; O 26.82%

Melting Point: Mp 112°

Optical Rotation:  $[\alpha]_D +71$  (c, 1 in  $CHCl_3$ )

>>>Derivative: 4,6-Isopropylidene

Synonym(s): 4,6-*O*-Isopropylidene- $\alpha$ -D-mannopyranose

CAS Registry Number: 68791-08-2

Molecular Formula:  $C_9H_{16}O_6$

Molecular Weight: 220.222

Accurate Mass: 220.09469

Percentage Composition: C 49.09%; H 7.32%; O 43.59%

Physical Description: Microcryst. powder (EtOAc)

Melting Point: Mp 156-157°

Optical Rotation:  $[\alpha]_D^{20} -1 \rightarrow -24$  (c, 1.2 in  $H_2O$ )

>>>Derivative: 4,6-Isopropylidene, tri-Ac

Synonym(s): 1,2,3-Tri-*O*-acetyl-4,6-*O*-isopropylidene- $\alpha$ -D-mannopyranose

CAS Registry Number: 68791-09-3