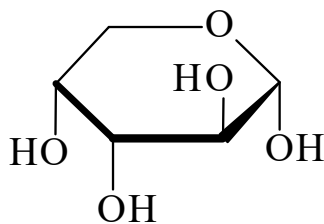




>>Entry Name: Arabinose

ENTRY UNDER REVIEW

Synonym(s): Aloinose. Aloe sugar. Pectinose



α -D-Pyranose-form

CAS Registry Number: 147-81-9

Related CAS Registry Numbers(s): 1768-95-2 28697-53-2

Molecular Formula: C₅H₁₀O₅

Molecular Weight: 150.131

Accurate Mass: 150.052825

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

>>Variant: D-form

CAS Registry Number: 10323-20-3

Molecular Formula: C₅H₁₀O₅

Molecular Weight: 150.131

Accurate Mass: 150.052825

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

General Statement: An aq. soln. at 31° contains 60% α -pyr, 35.5% β -pyr, 2.5% α -fur, 2% β -fur, and 0.03% aldehyde

Source/Synthesis: Found in the polysaccharide of tubercle bacilli and as the constit. sugar of Homonataloin [KDD51-D](#) and Nataloin [LMD46-B](#). Isol. from plants of the genus *Aloe*. Prod. comly. from glucose

Use/Importance: Inexpensive starting material for chiral synthesis

Melting Point: Mp 159-160°

Optical Rotation: $[\alpha]_D -175 \rightarrow -105$ (H₂O)

pKa Value: pK_a 12.34 (25°)

Fluka: 10850

>>Derivative: Phenyllosazone

Melting Point: Mp 163°

>>Derivative: *p*-Bromophenylhydrazone

Melting Point: Mp 163°

>>Derivative: Di-Et dithioacetal

see Arabinose diethyl dithioacetal, [BZD20-W](#)

>>Derivative: Tetra-Ac

Synonym(s): 2,3,4,5-Tetra-*O*-acetyl-D-arabinose

CAS Registry Number: 3891-58-5

Molecular Formula: C₁₃H₁₈O₉

Molecular Weight: 318.28

Accurate Mass: 318.095085

Percentage Composition: C 49.06%; H 5.70%; O 45.24%

Physical Description: Cryst. (Me₂CO/Et₂O/petrol)

Melting Point: Mp 113-115°

Optical Rotation: $[\alpha]_D^{23} +65$ (c, 4.1 in CHCl₃)