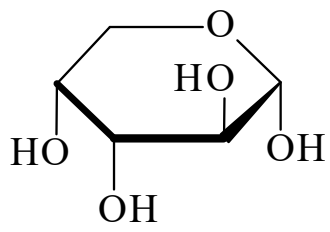
>>**Entry Name: Arabinose**
ENTRY UNDER REVIEW
Synonym(s): Aloinose. Aloe sugar. Pectinose



a-D-Pyranose-*form*

CAS Registry Number: 147-81-9
Related CAS Registry Numbers(s): 1768-95-2 28697-53-2

Molecular Formula: $C_5H_{10}O_5$
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: $C_5H_{10}O_5$
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 → –105 (H_2O)
pKa Value: pK_a 12.34 (25°)
Fluka: 10850

>>**Derivative:** Phenylosazone

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: $C_{13}H_{18}O_9$
Molecular Weight: 318.28
Accurate Mass: 318.095085
Percentage Composition: C 49.06%; H 5.70%; O 45.24%
Physical Description: Cryst. (Me_2CO/Et_2O/petrol)
Melting Point: Mp 113-115°
Optical Rotation: $[\alpha]_D^{23}$+65 (c, 4.1 in $CHCl_3$)