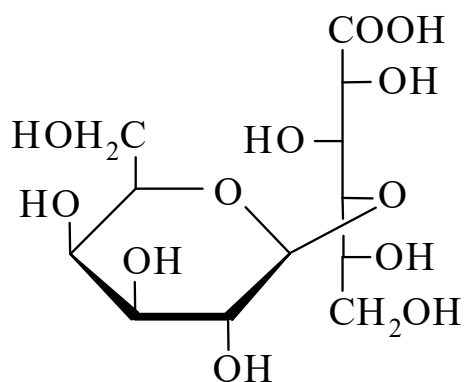




>>Entry Name: Lactonic acid

ENTRY UNDER REVIEW

Synonym(s): 4-*O*- β -Galactopyranosylgluconic acid, 9Cl. Lactobionic acid, 8Cl



Molecular Formula: $C_{12}H_{22}O_{12}$

Molecular Weight: 358.299

Accurate Mass: 358.11113

Percentage Composition: C 40.23%; H 6.19%; O 53.58%

>>Variant: D-form

CAS Registry Number: 96-82-2

Molecular Formula: $C_{12}H_{22}O_{12}$

Molecular Weight: 358.299

Accurate Mass: 358.11113

Percentage Composition: C 40.23%; H 6.19%; O 53.58%

Source/Synthesis: Formed by the action of paracolon bacteria and *Pseudomonas graveolens* (ATCC 4683) on lactose

Aldrich: 15351-6

Fluka: 61321

Sigma: L2398

>>Derivative: Ca salt

Synonym(s): Calcium lactobionate

CAS Registry Number: 5001-51-4

Physical Description: Pentahydrate

Optical Rotation: $[\alpha]_D^{20} +23.7$ (c, 6.28 in H_2O)

Sigma: L3375

>>Derivative: 1,5-Lactone

Synonym(s): Lactono-1,5-lactone

Molecular Formula: $C_{12}H_{20}O_{11}$

Molecular Weight: 340.283

Accurate Mass: 340.100565

Percentage Composition: C 42.36%; H 5.92%; O 51.72%

Melting Point: Mp 195-196 dec. $^{\circ}$

Optical Rotation: $[\alpha]_D^{20} +54 \rightarrow +22$ (c, 5.0 in H_2O)

>>Derivative: Octa-Me, Me ester

Synonym(s): Methyl octa-*O*-methyl-D-lactonate

Molecular Formula: $C_{21}H_{40}O_{12}$

Molecular Weight: 484.54

Accurate Mass: 484.25198

Percentage Composition: C 52.06%; H 8.32%; O 39.62%

Boiling Point: Bp_{0.05} 157-164 $^{\circ}$

References: