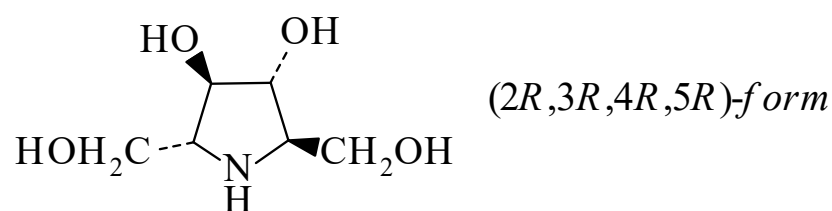




>>Entry Name: 3,4-Dihydroxy-2,5-bis(hydroxymethyl)pyrrolidine

Synonym(s): 3,4-Dihydroxy-2,5-pyrrolidinedimethanol, 9CI



CAS Registry Number: 59920-31-9

Molecular Formula: C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub>

Molecular Weight: 163.173

Accurate Mass: 163.084459

Percentage Composition: C 44.17%; H 8.03%; N 8.58%; O 39.22%

>>Variant: (2*R*,3*R*,4*R*,5*R*)-form

Synonym(s): 2,5-Dideoxy-2,5-imino-D-mannitol

Molecular Formula: C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub>

Molecular Weight: 163.173

Accurate Mass: 163.084459

Percentage Composition: C 44.17%; H 8.03%; N 8.58%; O 39.22%

Biological Source: Alkaloid from the leaves of *Derris elliptica* and the seeds of *Lonchocarpus sericeus* (Leguminosae)

Use/Importance: Glycosidase inhibitor

Physical Description: Cryst. (EtOH/Me<sub>2</sub>CO/EtOAc)

Melting Point: Mp 115-117°

Optical Rotation: [α]<sub>D</sub><sup>20</sup> +56.4 (c, 7 in H<sub>2</sub>O)

>>Variant: (2*S*,3*R*,4*R*,5*S*)-form

Synonym(s): 2,5-Dideoxy-2,5-imino-L-idoitol, 9CI

CAS Registry Number: 105015-44-9

Molecular Formula: C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub>

Molecular Weight: 163.173

Accurate Mass: 163.084459

Percentage Composition: C 44.17%; H 8.03%; N 8.58%; O 39.22%

Melting Point: Mp 161-162°

Optical Rotation: [α]<sub>D</sub> +14.3 (c, 0.93 in H<sub>2</sub>O)

>>Variant: (2*R*,3*R*,4*R*,5*S*)-form

Synonym(s): 2,5-Dideoxy-2,5-imino-D-glucitol

Molecular Formula: C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub>

Molecular Weight: 163.173

Accurate Mass: 163.084459

Percentage Composition: C 44.17%; H 8.03%; N 8.58%; O 39.22%

Physical Description: Sl. yellow powder

Melting Point: Mp 139-142.5°

Optical Rotation: [α]<sub>D</sub><sup>23</sup> +25.75 (c, 4.0 in H<sub>2</sub>O)

>>Variant: (2*RS*,3*SR*,4*RS*,5*SR*)-form

Synonym(s): *all-cis*-form. 2,5-Dideoxy-2,5-iminogalactitol

Molecular Formula: C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub>

Molecular Weight: 163.173

Accurate Mass: 163.084459

Percentage Composition: C 44.17%; H 8.03%; N 8.58%; O 39.22%

Physical Description: Oil(?)

Other Data: Opt. inactive (*meso*-)