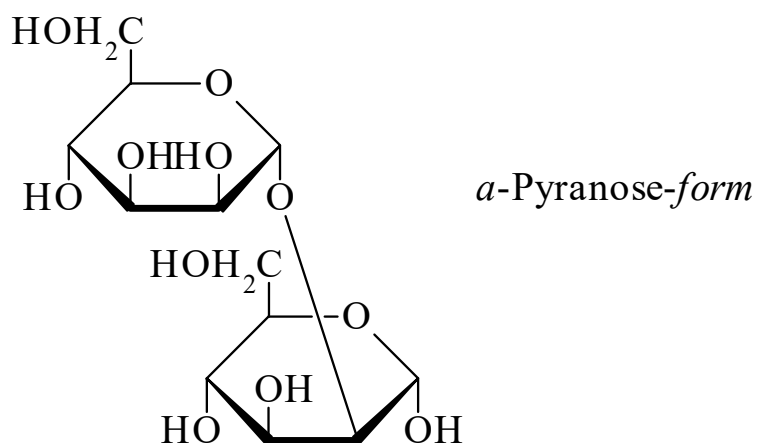




>>Entry Name: 2-*O*- $\alpha$ -D-Mannopyranosyl-D-mannose, 9Cl, 8Cl



CAS Registry Number: 40871-49-6

Molecular Formula: C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>

Molecular Weight: 342.299

Accurate Mass: 342.116215

Percentage Composition: C 42.11%; H 6.48%; O 51.42%

Biological Source: Constit. of the mycelia of *Epidermophyton floccosum* and in the cell walls of *Hansensula capsulata*, *Hansensula holstii* and in *Trichophyton mentagrophytes* the dermatophyte that causes tinea and other cutaneous lesions in humans. Isol. from baker's yeast (this appears to be a better route than chemical synthesis)

Use/Importance: Located at the non-reducing ends of the antennae of mannosidic type *N*-glycoproteins and assumed to play an important role in their interaction with receptor molecules

Physical Description: Amorph. powder

Melting Point: Mp 186-189 dec.°

Optical Rotation:  $[\alpha]_D^{25} +60$  (c, 0.1 in H<sub>2</sub>O)

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

CAS Registry Number: 50271-62-0

Molecular Formula: C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>

Molecular Weight: 342.299

Accurate Mass: 342.116215

Percentage Composition: C 42.11%; H 6.48%; O 51.42%

>>Derivative: Octa-Ac

CAS Registry Number: 82731-25-7

Molecular Formula: C<sub>28</sub>H<sub>38</sub>O<sub>19</sub>

Molecular Weight: 678.597

Accurate Mass: 678.200735

Percentage Composition: C 49.56%; H 5.64%; O 44.80%

Physical Description: Needles (hexane/Et<sub>2</sub>O)

Melting Point: Mp 135-137°

Optical Rotation:  $[\alpha]_D^{23} +42.1$  (c, 0.47 in CHCl<sub>3</sub>)

>>Derivative: Me glycoside

Synonym(s): Methyl 2-*O*- $\alpha$ -D-mannopyranosyl- $\alpha$ -D-mannopyranoside, 9Cl, 8Cl

CAS Registry Number: 59571-75-4

Molecular Formula: C<sub>13</sub>H<sub>24</sub>O<sub>11</sub>

Molecular Weight: 356.326

Accurate Mass: 356.131865

Percentage Composition: C 43.82%; H 6.79%; O 49.39%

Physical Description: Syrup or cryst.

Optical Rotation:  $[\alpha]_D^{22} +67.6$  (c, 2.4 in H<sub>2</sub>O).  $[\alpha]_D^{22} +74.4$  (c, 1.4 in MeOH)

Sigma: M3898

>>Variant:  $\beta$ -Pyranose-form