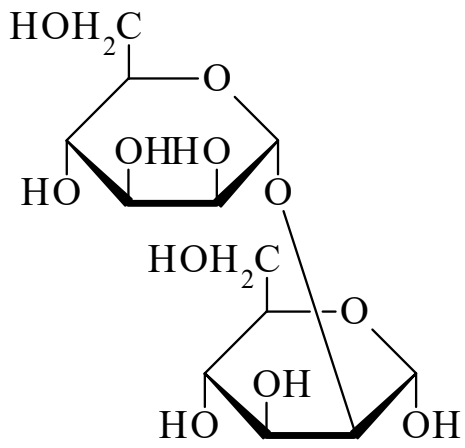
>>**Entry Name: 2-*O*-α-D-Mannopyranosyl-D-mannose,** 9CI, 8CI



a-Pyranose-*form*

CAS Registry Number: 40871-49-6

Molecular Formula: $C_{12}H_{22}O_{11}$
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_2O)

>>**Variant:** α-Pyranose-form

CAS Registry Number: 50271-62-0
Molecular Formula: $C_{12}H_{22}O_{11}$
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: $C_{28}H_{38}O_{19}$
Molecular Weight: 678.597
Accurate Mass: 678.200735
Percentage Composition: C 49.56%; H 5.64%; O 44.80%
Physical Description: Needles (hexane/Et_2O)
Melting Point: Mp 135-137°
Optical Rotation: $[\alpha]_D^{23}$+42.1 (c, 0.47 in $CHCl_3$)

>>**Derivative:** Me glycoside
Synonym(s): Methyl 2-*O*-α-D-mannopyranosyl-α-D-mannopyranoside, 9CI, 8CI

CAS Registry Number: 59571-75-4

Molecular Formula: $C_{13}H_{24}O_{11}$
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_2O). $[\alpha]_D^{22}$+74.4 (c, 1.4 in MeOH)
Sigma: M3898

>>**Variant:** β-Pyranose-form