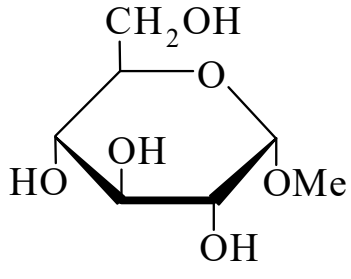
>>**Entry Name: Methyl α-D-glucopyranoside,** 9CI, 8CI



**CAS Registry Number:** 97-30-3
**Extra CAS Registry Numbers(s):** 3149-68-6

**Molecular Formula:** $C_7H_{14}O_6$
**Molecular Weight:** 194.184
**Accurate Mass:** 194.07904
**Percentage Composition:** C 43.30%; H 7.27%; O 49.44%
**Source/Synthesis:** Obt. using yeast α-glucosidase
**Use/Importance:** Inexpensive starting material for synthesis
**Melting Point:** Mp 168°
**Optical Rotation:** $[\alpha]_D^{20}$+158.9 ($H_2O$)
**Solubility:** V. sol. $H_2O$
**Aldrich:** 17044-5
**Fluka:** 66940
**Sigma:** M9376

>>**Derivative:** 6-Ac
**Synonym(s):** Methyl 6-*O*-acetyl-α-D-glucopyranoside

**CAS Registry Number:** 4201-66-5

**Molecular Formula:** $C_9H_{16}O_7$
**Molecular Weight:** 236.221
**Accurate Mass:** 236.089605
**Percentage Composition:** C 45.76%; H 6.83%; O 47.41%
**Physical Description:** Oil
**Optical Rotation:** $[\alpha]_D^{21}$+151.1 (c, 1.12 in $Me_2CO$)

>>**Derivative:** 2,3-Di-Ac
**Synonym(s):** Methyl 2,3-di-*O*-acetyl-α-D-glucopyranoside

**CAS Registry Number:** 29868-42-6

**Molecular Formula:** $C_{11}H_{18}O_8$
**Molecular Weight:** 278.258
**Accurate Mass:** 278.10017
**Percentage Composition:** C 47.48%; H 6.52%; O 46.00%
**Optical Rotation:** $[\alpha]_D^{25}$+112.4 (c, 1.0 in $H_2O$)

>>**Derivative:** 2,3,4-Tri-Ac
**Synonym(s):** Methyl 2,3,4-tri-*O*-acetyl-α-D-glucopyranoside

**CAS Registry Number:** 7432-72-6

**Molecular Formula:** $C_{13}H_{20}O_9$
**Molecular Weight:** 320.296
**Accurate Mass:** 320.110735
**Percentage Composition:** C 48.75%; H 6.29%; O 44.96%
**Melting Point:** Mp 111°
**Optical Rotation:** $[\alpha]_D^{20}$+148.8 ($CHCl_3$)

>>**Derivative:** 2,3,4,6-Tetra-Ac
**Synonym(s):** Methyl 2,3,4,6-tetra-*O*-acetyl-α-D-glucopyranoside

**CAS Registry Number:** 604-70-6