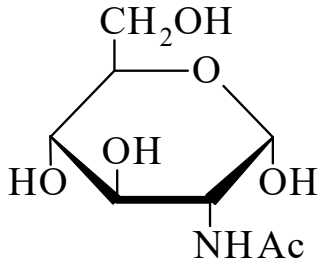
>>**Entry Name: 2-Acetamido-2-deoxyglucose**
Synonym(s): 2-(Acetylamino)-2-deoxyglucose, 9CI. *N*-Acetylglucosamine



a-D-Pyranose-*form*

CAS Registry Number: 7512-17-6
Related CAS Registry Numbers(s): 134451-97-1 134522-12-6

Molecular Formula: $C_8H_{15}NO_6$
Molecular Weight: 221.21
Accurate Mass: 221.089939
Percentage Composition: C 43.44%; H 6.83%; N 6.33%; O 43.40%
Biological Source: Also in the exopolysaccharide from blue-green alga *Cyanospira capsulata*

Aldrich: A1628-9
Fluka: 1140
Sigma: A3286

>>**Variant:** D-form

Molecular Formula: $C_8H_{15}NO_6$
Molecular Weight: 221.21
Accurate Mass: 221.089939
Percentage Composition: C 43.44%; H 6.83%; N 6.33%; O 43.40%
Source/Synthesis: Monomer of Chitin BVM67-G
Melting Point: Mp 205°
Optical Rotation: $[\alpha]_D^{18}$+64 → +41 (H_2O)
Other Data: Homopolymers with α-1,4- and with β-1,6-glycosidic links have been synth. using condensation polym.

>>**Derivative:** 3-Ac
Synonym(s): 2-Acetamido-3-*O*-acetyl-2-deoxy-D-glucose

CAS Registry Number: 51449-93-5

Molecular Formula: $C_{10}H_{17}NO_7$
Molecular Weight: 263.247
Accurate Mass: 263.100504
Percentage Composition: C 45.63%; H 6.51%; N 5.32%; O 42.54%
Physical Description: Cryst. ($EtOH/Et_2O$)
Melting Point: Mp 157-160°
Optical Rotation: $[\alpha]_D$ +19 (c, 1.0 in EtOH)

>>**Derivative:** 3,4,5,6-Tetra-Ac, di-Et dithioacetal

Molecular Formula: $C_{20}H_{33}NO_9S_2$
Molecular Weight: 495.614
Accurate Mass: 495.159674
Percentage Composition: C 48.47%; H 6.71%; N 2.83%; O 29.05%; S 12.94%
Melting Point: Mp 126-127°
Optical Rotation: $[\alpha]_D$ –32 ($CHCl_3$)

>>**Derivative:** Di-Et dithioacetal

Molecular Formula: $C_{12}H_{25}NO_5S_2$
Molecular Weight: 327.465
Accurate Mass: 327.117414
Percentage Composition: C 44.01%; H 7.69%; N 4.28%; O 24.43%; S 19.58%
Melting Point: Mp 121-122°
Optical Rotation: $[\alpha]_D$ –24 (H_2O)

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