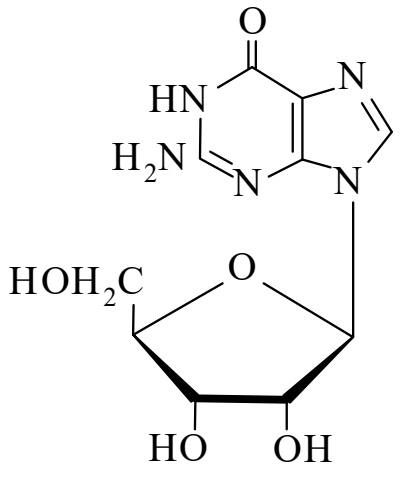
>>**Entry Name: Guanosine**

Synonym(s): 2-Amino-9-β-D-ribofuranosyl-9*H*-purin-6(1*H*)-one, 9CI, 8CI. 9-β-D-Ribofuranosylguanine. Vernine. Guanine riboside. 2-Aminoinosine



CAS Registry Number: 118-00-3

Molecular Formula: $C_{10}H_{13}N_5O_5$
Molecular Weight: 283.243
Accurate Mass: 283.09167
Percentage Composition: C 42.41%; H 4.63%; N 24.73%; O 28.24%
Biological Source: Constit. of nucleic acids. One of the four principal nucleosides involved in Watson-Crick base pairing in both DNA and RNA
Melting Point: Mp 239 dec.°
Optical Rotation: $[\alpha]_D^{20}$ –64 (0.1*M* NaOH)
pKa Value: pK_{a1} 1.9; pK_{a2} 9.25; pK_{a3} 12.33 (25°)
Other Data: λ_{max} 252.5 nm (ε 13 600) (H_2O, pH 7)
Hazard & Toxicity: Exp. teratogen. LD_{50} (mus, ipr) 500 mg/kg

Aldrich: G1200-0
Fluka: 51050
Sigma: G6752

>>**Derivative:** 5'-Ac

CAS Registry Number: 28220-16-8
Molecular Formula: $C_{12}H_{15}N_5O_6$
Molecular Weight: 325.28
Accurate Mass: 325.102235
Percentage Composition: C 44.31%; H 4.65%; N 21.53%; O 29.51%
Melting Point: Mp 192-193°

>>**Derivative:** 2',3',5'-Tri-Ac

CAS Registry Number: 6979-94-8
Molecular Formula: $C_{16}H_{19}N_5O_8$
Molecular Weight: 409.355
Accurate Mass: 409.123365
Percentage Composition: C 46.95%; H 4.68%; N 17.11%; O 31.27%
Melting Point: Mp 232°
Optical Rotation: $[\alpha]_D^{20}$ –28.4 (EtOH)
Aldrich: 85092-6
Sigma: T5751

>>**Derivative:** 5'-Tosyl

CAS Registry Number: 39947-33-6
Melting Point: Mp 288-289°
Optical Rotation: $[\alpha]_D^{30}$ +36 (DMF)