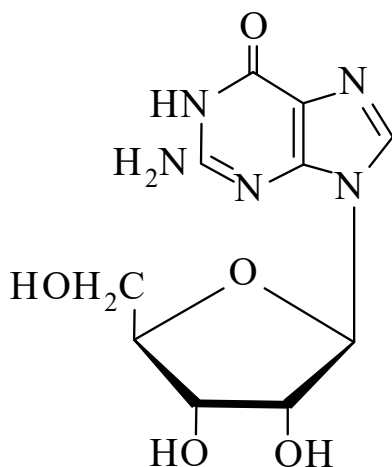




>>Entry Name: Guanosine

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



CAS Registry Number: 118-00-3

Molecular Formula: C₁₀H₁₃N₅O₅

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: p*K*_{a1} 1.9; p*K*_{a2} 9.25; p*K*_{a3} 12.33 (25°)

Other Data: λ_{max} 252.5 nm (ε 13 600) (H₂O, pH 7)

Hazard & Toxicity: Exp. teratogen. LD₅₀ (mus, ipr) 500 mg/kg

Aldrich: G1200-0

Fluka: 51050

Sigma: G6752

>>Derivative: 5'-Ac

CAS Registry Number: 28220-16-8

Molecular Formula: C₁₂H₁₅N₅O₆

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: C₁₆H₁₉N₅O₈

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)