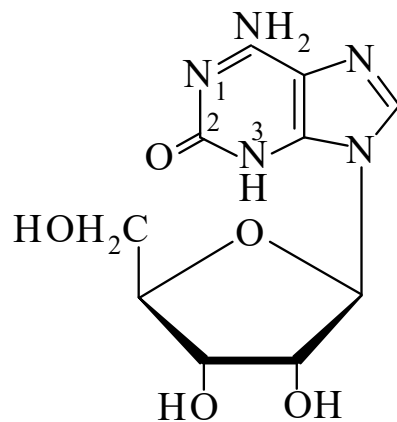




>>Entry Name: Isoguanosine

Synonym(s): 6-Amino-9-β-D-ribofuranosyl-9*H*-purin-2(1*H*)-one, 8Cl. 9-β-D-Ribofuranosylisoguanine. Crotonoside. 2-Hydroxyadenosine



CAS Registry Number: 1818-71-9

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%

Use/Importance: Incorporated into mammalian nucleic acids. Stimulates cyclic AMP incorporation into brain tissue, inhibitor of inosine monophosphate pyrophosphorylase and glutamic acid dehydrogenase

Physical Description: Cryst. (H₂O)

Melting Point: Mp 243-245 (237-252°) dec.°

Optical Rotation: $[\alpha]_D^{26} -71$ (c, 1.1 in 0.1*M* NaOH)

Solubility: BERDY SOL: Sol. H₂O

UV: [acid] $\lambda_{\max}$ 235 (ε 6140); 283 (ε 12700) (0.05*N* HCl) (Derep) [base] $\lambda_{\max}$ 251 (ε 6890); 285 (ε 10600) (0.05*N* NaOH) (Derep) [neutral] $\lambda_{\max}$ 247 (ε 8930); 293 (ε 11100) (H₂O) (Derep)

Other Data: $\lambda_{\max}$ 293 (ε 11 100), 247 (8 930) (H₂O); 283 (12 700), 235 (6 140) (0.5*M* HCl); 285 (10 550), 251 nm (6 890) (0.05*M* NaOH)

>>Derivative: 6*N*-Me

CAS Registry Number: 23605-76-7

Molecular Formula: C₁₁H₁₅N₅O₅

Molecular Weight: 297.27

Accurate Mass: 297.10732

Percentage Composition: C 44.44%; H 5.09%; N 23.56%; O 26.91%

Melting Point: Mp 188-190 dec.°

Optical Rotation: $[\alpha]_D^{26} -63.1$ (c, 0.9 in 0.1*M* NaOH)

>>Derivative: 6*N*-Et

Molecular Formula: C₁₂H₁₇N₅O₅

Molecular Weight: 311.297

Accurate Mass: 311.12297

Percentage Composition: C 46.30%; H 5.50%; N 22.50%; O 25.70%

Melting Point: Mp 212 dec.°

Optical Rotation: $[\alpha]_D^{26} -68.2$ (c, 0.97 in 0.1*M* NaOH)

>>Derivative: 6*N*-Di-Me

CAS Registry Number: 24386-79-6

Molecular Formula: C₁₂H₁₇N₅O₅

Molecular Weight: 311.297

Accurate Mass: 311.12297

Percentage Composition: C 46.30%; H 5.50%; N 22.50%; O 25.70%

Melting Point: Mp 184-186 (220°) dec.°

Optical Rotation: $[\alpha]_D^{26} -52$ (c, 0.07 in 0.1*M* NaOH)

>>Derivative: 1-Me