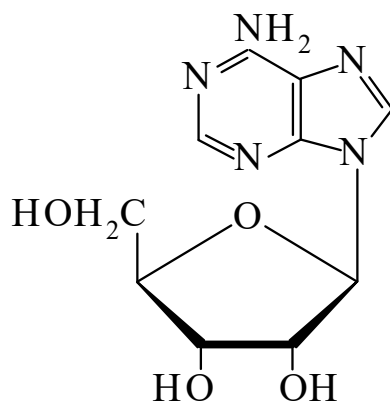




>>Entry Name: Adenosine, 9CI, 8CI, BAN, USAN

Synonym(s): 9-β-D-Ribofuranosyl-9H-purin-6-amine, 9CI. 9-β-D-Ribofuranosyladenine, 8CI. 6-Amino-9-β-D-ribofuranosyl-9H-purine. Adenocard. Adenocor. Adenoscan. SR 96225



CAS Registry Number: 58-61-7

Molecular Formula: C₁₀H₁₃N₅O₄

Molecular Weight: 267.244

Accurate Mass: 267.096755

Percentage Composition: C 44.94%; H 4.90%; N 26.21%; O 23.95%

Biological Source: Widely distributed in nature. One of the four principal nucleosides of nucleic acid

Biological Use/Importance: Antiarrhythmic agent. Cardiac depressant

Physical Description: Cryst. (H₂O)

Development Status: Launched 1989

Melting Point: Mp 234-236°

Optical Rotation: [α]_D¹¹ -61.7 (c, 0.7 in H₂O)

Solubility: BERDY SOL: Sol. H₂O, MeOH; poorly sol. Me₂CO, hexane

pKa Value: pK_{a1} 3.6; pK_{a2} 12.4 (25°)

Calculated Log P Data: Log P -2.88 (calc)

UV: [neutral] λ_{max} 259 (ε 15400) (H₂O) [neutral] λ_{max} 260 (ε 15100) (H₂O) (Berdy)

Other Data: Component of numerous preparations

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

Aldrich: 14659-5

Fluka: 1890

Sigma: A4036

>>Derivative: 2'-Phosphate

see 2'-Adenylic acid, [HJD96-D](#)

>>Derivative: 3'-Phosphate

Synonym(s): 3'-Adenylic acid. Adenosine 3'-(dihydrogen phosphate)

CAS Registry Number: 84-21-9

Molecular Formula: C₁₀H₁₄N₅O₇P

Molecular Weight: 347.224

Accurate Mass: 347.063087

Percentage Composition: C 34.59%; H 4.06%; N 20.17%; O 32.25%; P 8.92%

Melting Point: Mp 195 dec.°

Optical Rotation: [α]_D²⁰ -38.5 (c, 2.0 in H₂O)

Fluka: 1960

Sigma: A9272

>>Derivative: 5'-Phosphate

see Adenylic acid, [HFV18-R](#)

>>Derivative: 5'-Diphosphate

see Adenosine diphosphate, [HJD92-Z](#)

>>Derivative: 5'-Triphosphate