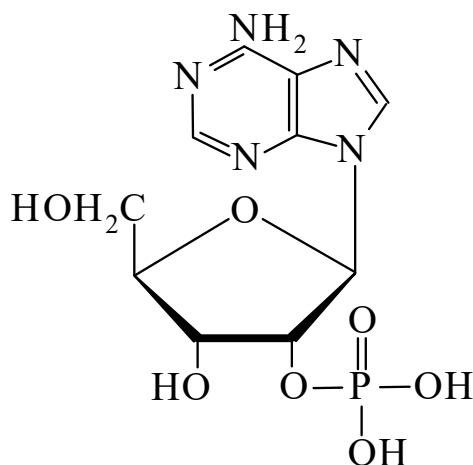




>>Entry Name: **2'-Adenylic acid**, 9Cl, 8Cl

Synonym(s): Adenosine 2'-(dihydrogen phosphate), 9Cl. Adenylic acid a. Adenosine-2'-phosphoric acid



CAS Registry Number: 130-49-4

Molecular Formula: $C_{10}H_{14}N_5O_7P$

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%

Biological Source: Isol. from yeast ribonucleic acid. Also from *Penicillium* sp.

Melting Point: Mp 205-215° (187°) (dec.)

pKa Value: pK_{a1} 0.89; pK_{a2} 3.81; pK_{a3} 6.17 (25°)

Sigma: A3013

>>Derivative: Acridine salt

Melting Point: Mp 215° (dec.)

>>Derivative: Dibrucine salt

Melting Point: Mp 165-175°

>>Derivative: 3'-O-(3,4-Di-O-phospho- α -D-glucopyranoside)

Synonym(s): **Adenophostin A**

CAS Registry Number: 149091-92-9

Molecular Formula: $C_{16}H_{26}N_5O_{18}P_3$

Molecular Weight: 669.325

Accurate Mass: 669.048576

Percentage Composition: C 28.71%; H 3.92%; N 10.46%; O 43.03%; P 13.88%

Biological Source: Prod. by *Penicillium brevicompactum*

Use/Importance: Inositol-1,4,5-triphosphate receptor agonist

Optical Rotation: $[\alpha]_D^{25} +28.6$ (c, 0.7 in H_2O)

Solubility: BERDY SOL: Sol. H_2O , DMSO; fairly sol. MeOH, EtOH; poorly sol. Me_2CO , $CHCl_3$, EtOAc

UV: [acid] λ_{max} 256 (ϵ) (H_2O/HCl) (Derep) [base] λ_{max} 260 (ϵ) ($H_2O/NaOH$) (Derep) [neutral] λ_{max} 258 (ϵ 12000) (H_2O) (Derep) [neutral] λ_{max} 258 (ϵ 14000) (H_2O) (Berdy) [acid] λ_{max} 256 (ϵ 13300) (HCl) (Berdy)

>>Derivative: 3'-O-(6-O-Acetyl-3,4-di-O-phosphono- α -D-glucopyranoside)

Synonym(s): **Adenophostin B**

CAS Registry Number: 149091-93-0

Molecular Formula: $C_{18}H_{28}N_5O_{19}P_3$

Molecular Weight: 711.362

Accurate Mass: 711.059141

Percentage Composition: C 30.39%; H 3.97%; N 9.84%; O 42.73%; P 13.06%

Biological Source: Prod. by *Penicillium brevicompactum*

Use/Importance: Inositol-1,4,5-triphosphate receptor agonist

Optical Rotation: $[\alpha]_D^{25} +33.8$ (c, 0.9 in H_2O)

Solubility: BERDY SOL: Sol. H_2O , DMSO; fairly sol. MeOH, EtOH; poorly sol. Me_2CO , EtOAc, $CHCl_3$

UV: [acid] λ_{max} 256 (ϵ) (H_2O) (Derep) [base] λ_{max} 260 (ϵ) ($H_2O/NaOH$) (Derep) [neutral] λ_{max} 258 (ϵ 12000) (H_2O) (Derep) [neutral] λ_{max} 258 (ϵ 13300) (H_2O) (Berdy) [acid] λ_{max} 256 (ϵ 13300) (HCl) (Berdy)