

NUCLEOTIDES AND BASES

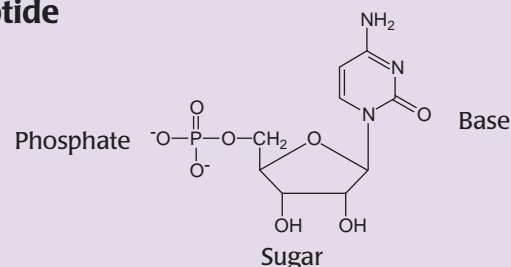
In addition to serving as carriers of chemical energy in the cell for all metabolic reactions, nucleotides are also involved in signal transduction and intracellular communication. They are composed of nitrogenous bases, a pentose ring, and phosphate groups. The phosphate groups, that vary from one to three, are covalently linked at the 5'-hydroxyl of pentose sugar. Adenosine triphosphate (ATP) is widely involved in bioenergetics of the cell. The figure below depicts the structure of a typical nucleotide.

Major Functions of Nucleotides

1. Components of nucleic acids (DNA, RNA)
2. Carriers of chemical energy in the cell (eg., ATP, GTP)
3. Components of cofactors (eg., NAD, FAD)
4. Intermediates in cellular communication and signal transduction (eg., cAMP, cGMP)
5. Donor substrates for glycobiology (eg. UDPG)

Note: Base + Sugar = Nucleoside; Base + Sugar + Phosphate = Nucleotide

Nucleotide



Product	Cat. No.	Product	Cat. No.
DIDEOXYNUCLEOSIDES		MONONUCLEOTIDES AND BASES CONTINUED...	
2',3'-Dideoxyadenosine	288103	Adenosine-5'-monophosphate, Disodium Salt	118110
2',3'-Dideoxycytidine	288108	Adenosine-5'-triphosphate, Disodium Salt	1191
2',3'-Dideoxyinosine	288117	Adenosine-5'-triphosphate, Disodium Salt, Low Metals Grade	119125
DEOXYNUCLEOSIDES AND DEOXYNUCLEOTIDES		Guanosine-3',5'-cyclic Monophosphate, Sodium Salt	370656
2'-Deoxyadenosine-5'-monophosphate, Dilithium Salt	256251	Guanosine-5'-monophosphate, Disodium Salt	371650
2'-Deoxycytidine	257911	Guanosine-5'-triphosphate, Disodium Salt	371701
2'-Deoxyguanosine	2600	Inosine	4060
2'-Deoxyguanosine-5'-triphosphate, Trisodium Salt	260041	Thymidine	6060
2'-Deoxyinosine	260250	Uracil	6630
2'-Deoxyuridine	2630	Uridine	6680
2',3'-Dideoxythymidine	288126	Uridine-5'-triphosphate, Trisodium Salt	6701
MONONUCLEOTIDES AND BASES		POLYNUCLEOTIDES	
Adenine	1152	Polyadenylic Acid•Oligodeoxythymidylic Acid, Sodium Salt	528814
Adenosine	1160	Poly(deoxyadenylic-deoxythymidylic) Acid, Sodium Salt	528851
Adenosine-3',5'-cyclic Monophosphate, Sodium Salt	116801	Polyinosinic Acid•Polycytidylic Acid, Sodium Salt,	528906
Adenosine 5'-Monophosphate, Free Acid, Yeast	118101	Double-Stranded, <i>Bacillus polymyxa</i>	
Adenosine-5'-diphosphate, Monosodium Salt	1171	Polyuridylic Acid, Potassium Salt	529475

Product	Cat. No.	Product	Cat. No.
MODIFIED NUCLEOTIDES, NUCLEOSIDES AND BASES			
Adenine, N ⁶ -[Δ ² -Isopentenyl]-	310456	Guanosine 5'-O-(2-Thiodiphosphate), Trilithium Salt	371543
Adenosine, N ⁶ -Cyclohexyl-	116830	Guanosine 5'-O-(3-Thiotriphosphate), Tetralithium Salt	371545
Adenosine 3',5'-cyclic Monophosphate, N ⁶ -Benzoyl-, Sodium Salt	203800	Guanosine 3',5'-cyclic Monophosphate, 2'-O-Anthraniloyl-, Sodium Salt	178154
Adenosine 3',5'-cyclic Monophosphate, 8-Chloro-, Sodium Salt	116804	Guanosine-3',5'-cyclic Monophosphate, 8-Bromo-, Sodium Salt	203820
Adenosine 3',5'-cyclic Monophosphate, 2'-O-(N-Methyl-anthraniloyl)-, Sodium Salt	116806	Guanosine-3',5'-cyclic Monophosphate, N ² ,2'-O-Dibutyl-Disodium Salt	370660
Adenosine 3',5'-cyclic Monophosphate, N ⁶ -Monobutyl-, Sodium Salt	116808	Guanosine 3',5'-cyclic Monophosphate, 8-(4-Chlorophenylthio)-Triethylammonium Salt	370665
Adenosine 3',5'-cyclic Monophosphorothioate, Triethylammonium Salt, Rp-Isomer	116814	Guanosine 3',5'-cyclic Monophosphate, 2'-O-(N-Methyl-anthraniloyl)- Sodium Salt	370668
Adenosine 3',5'-cyclic Monophosphorothioate, 8-Bromo-, Sodium Salt, Sp-Isomer	116818	Guanosine 3',5'-cyclic Monophosphorothioate, 8-Bromo-, Rp-Isomer, Sodium Salt	370674
Adenosine-3',5'-cyclic Monophosphate, 2'-O-Anthraniloyl-, Sodium Salt	178150	Guanosine 3',5'-cyclic Monophosphorothioate, 8-(4-Chlorophenylthio)-, Rp-Isomer, Triethylammonium Salt	370677
Adenosine-3',5'-cyclic Monophosphate, N ⁶ ,O ² -Dioctanoyl-, Sodium Salt	116530	Guanylyl-(β,γ,-methylene)-diphosphonate, Tetralithium Salt	371560
Adenosine-3',5'-cyclic Monophosphorothioate, Rp-Isomer, Triethylammonium Salt	116814	Guanylyl-5'-imidodiphosphate, Tetralithium Salt	371565
Adenosine-3',5'-cyclic Monophosphorothioate, Sp-Isomer, Triethylammonium Salt	116815	5-Iodo-2'-deoxyuridine	40776
Adenosine-3',5'-cyclic Monophosphate, 8-Bromo-, Sodium Salt	203800	P ¹ -5'-(7-Methyl)-guanosine-P ³ ,5'-guanosine Triphosphate, Dilithium Salt	461552
Adenosine-3',5'-cyclic Monophosphate, 8-(4-Chlorophenylthio)-, Sodium Salt	116812	UDP-α-D-N-Acetylgalactosamine, Disodium Salt	670105
Adenosine-3',5'-cyclic Monophosphate, N ⁶ ,O ² -Dibutyl-, Sodium Salt	28745	UDP-α-D-N-Acetylglucosamine, Disodium Salt	670107
Adenosine 5'-O-(3-Thiotriphosphate), Tetralithium Salt	119120	UDP-α-D-Galactose, Disodium Salt	670111
Adenosine 5'-O-(3-Thiotriphosphate), Tetralithium Salt, Solution	119123	UDP-α-D-Glucose, Disodium Salt	670120
Adenosine 5'-O-(2-Thiodiphosphate), Trilithium Salt	119134	UDP-α-D-Glucuronate, Disodium Salt	670125
Adenosine 5'-O-(1-Thiotriphosphate), S-Isomer, Tetralithium Salt	119132		
S-Adenosyl-L-methionine, Dihydrogen Sulfate	119124	CAGED NUCLEOTIDES	
5'-Adenylyl-imidodiphosphate, Tetralithium Salt	120002	Caged cAMP	116810
1-β-D-Arabinofuranosylcytosine	251010	Caged cAMP, Desyl	116817
8-Azaganine	1911	Caged ATP, Disodium Salt	119127
3'-Azido-3'-deoxythymidine	194348	Caged ATP, Dimethoxy-	119128
5-Bromo-2'-deoxyuridine	203806	Caged cGMP	370657
5,6-Dichloro-1-β-D-ribofuranosylbenzimidazole (DRB)	287891	Caged GTP, Disodium Salt	371710
Cytidine-5'-diphosphocholine, Sodium Salt	249670	Caged GTP, Trisodium Salt, Dimethoxy-	371711
5-Fluoro-2'-deoxycytidine	343335		
5-Fluoro-2'-deoxyuridine	343333	ATP ASSAY KIT	119108
5-Fluorouracil	343922		
5-Fluorouridine	344033		

Please call our Technical Service Department or your local sales office for more information on these products.

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