

dNTP Set 4 tubes/pack  
100mM Solutions (dATP, dCTP, dGTP, dTTP)

packaging	Mfr. No
1Set    PolyTube	BP2564-1
1Set    PolyTube	BP2564-4

Lambda max (pH 7.0)	267nm
Molar Absorbancy (Am) (at pH 7.0)	9.6 x 103

*High-purity:> 98% triphosphate*  
**Applications:** dNTP Set consists of 100mM high-purity solutions of dATP, dCTP, dGTP, and dTTP for use in PCR, dideoxy sequencing, mutagenesis and cDNA synthesis.  
Functionally tested in PCR.  
**Components:** Supplied as 100mM solutions in purified water (pH 7.5)  
**Recommended Storage:** -20°C  
**Not on TSCA inventory:** for R and D use only; not for manufacturing or commercial purposes.  
UN 1845; DOT Class 9:Miscellaneous  
High-purity: > 98% triphosphate

2'-Deoxyadenosine 5'-Triphosphate (dATP)  
100mM Solution

packaging	Mfr. No
400 µℓ    PolyTube	BP2560-4

C<sub>10</sub>H<sub>14</sub>N<sub>5</sub>Na<sub>2</sub>O<sub>12</sub>P<sub>3</sub>  
CAS: 1927-31-7  
MW: 535.15

EINECS: 217-662-3

Base Purity	>=98% Deoxynucleoside
Identity	Conforms to Standard
Purity	>=98% Triphosphate
Pyrophosphate	Run and report

**Applications:** dATP high-purity solution is used in PCR, dideoxy sequencing, mutagenesis and cDNA synthesis.  
Functionally tested in PCR.  
High purity:> 98% triphosphate.  
Supplied as 100mM solution in purified water (pH 7.5).  
**Recommended Storage:** -20°C  
**Not on TSCA inventory:** for R and D use only; not for manufacturing or commercial purposes.  
UN 1845; DOT Class 9:Miscellaneous  
recyclable material by an SFI certified supplier.

2'-Deoxyguanosine 5'-Triphosphate (dGTP)  
100mM Solution

packaging	Mfr. No
400 µℓ    PolyTube	BP2561-4

C<sub>10</sub>H<sub>12</sub>N<sub>5</sub>Na<sub>4</sub>O<sub>13</sub>P<sub>3</sub>  
CAS: 93919-41-6  
MW: 594.99

EINECS: 300-026-5

Base Purity	>=98% Deoxynucleoside
Identity	Conforms to Standard
Purity	>=98% Triphosphate
Pyrophosphate	Run and Report

**Applications:** dGTP high-purity solution is used in PCR, dideoxy sequencing, mutagenesis and cDNA synthesis.  
Functionally tested in PCR.  
High purity:> 98% triphosphate.  
Supplied as 100mM solution in purified water (pH 7.5).  
**Recommended Storage:** -20°C  
**Not on TSCA inventory:** for R and D use only; not for manufacturing or commercial purposes.  
UN 1845; DOT Class 9:Miscellaneous

2'-Deoxycytidine 5'-Triphosphate (dCTP)  
100mM Solution

packaging	Mfr. No
400 µℓ    PolyTube	BP2562-4

C<sub>9</sub>H<sub>12</sub>O<sub>13</sub>N<sub>3</sub>P<sub>3</sub>Na<sub>4</sub>  
CAS: 102783-51-7  
MW: 554.98

Base Purity	>=98% Deoxynucleoside
Identity	Conforms to Standard
Purity	>=98% Triphosphate
Pyrophosphate	Run and Report

**Applications:** dCTP high-purity solution is used in PCR, dideoxy sequencing, mutagenesis and cDNA synthesis.  
Functionally tested in PCR.  
High purity:> 98% triphosphate.  
Supplied as 100mM solution in purified water (pH 7.5).  
**Recommended Storage:** -20°C  
**Not on TSCA inventory:** for R and D use only; not for manufacturing or commercial purposes.  
UN 1845; DOT Class 9:Miscellaneous

2'-Deoxythymidine 5'-Triphosphate (dTTP)  
100mM Solution

packaging	Mfr. No
400 µℓ    PolyTube	BP2563-4

C<sub>10</sub>H<sub>13</sub>O<sub>14</sub>N<sub>2</sub>P<sub>3</sub>Na<sub>4</sub>  
CAS: 18423-43-3  
MW: 569.98

Base Purity	>=98% Deoxynucleoside
Identity	Conforms to Standard
Purity	>=98% Triphosphate
Pyrophosphate	Run and Report

**Applications:** dTTP high-purity solution is used in PCR, dideoxy sequencing, mutagenesis and cDNA synthesis.  
Functionally tested in PCR.  
Supplied as 100mM solution in purified water (pH 7.5).  
**Recommended Storage:** -20°C  
**Not on TSCA inventory:** for R and D use only; not for manufacturing or commercial purposes.  
UN 1845; DOT Class 9:Miscellaneous

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Polymerase Chain Reaction | Molecular Biology

Fisher BioReagents\* *exACTGene*\* Complete PCR Kit and Core Reagent Sets

Optimized for routine PCR applications

► Generate reliable PCR products using all genomic and cDNA templates

► Provide clean and consistent PCR yields up to 10kb

► Offer excellent specificity for all PCR amplicons

► PCR-tested to ensure reliable, reproducible, high-performance reactions

► **Complete PCR Kit** includes positive controls for troubleshooting PCR parameters, color-coded reagent tubes for ease-of-use, and dual reaction buffers for extra flexibility in optimizing PCR reactions

► **Core Reagent Sets** provide an economical alternative for high quality PCR

► Kit components are also available separately

STORAGE CONDITIONS: Store at -20°C.



FB-6100

Description	Quantity	
Complete PCR Kit (250U <i>Taq</i> DNA Polymerase†, 10X Buffer A, 10X Buffer B, 25mM MgCl <sub>2</sub> , dNTPs, three Control Primers, and DNA Template)	200 rxns	FB6100
Core Reagent Set A ( <i>Taq</i> DNA Polymerase, 10X Buffer A, and dNTPs)	80 rxns	FB6210
	400 rxns	FB6225
Core Reagent Set B ( <i>Taq</i> DNA Polymerase, 10X Buffer B, MgCl <sub>2</sub> and dNTPs)	80 rxns	FB6245
	400 rxns	FB6260
Individual Components		
<i>Taq</i> DNA Polymerase (5U/µL)	250U	FB6111
10X Buffer A (with MgCl <sub>2</sub> )	1000µL	BP6112
10X Buffer B (without MgCl <sub>2</sub> )	1000µL	BP6113
25mM MgCl <sub>2</sub>	1000µL	BP6114
PCR Nucleotide Mix (10mM each dNTP)	200µL	BP2565-2K
Lambda DNA Template (1ng/µL)	100µL	BP6115
Control Primer 1 (20µM), 5'—GATGAGTTCGTGTCCTACAACTG—3'	100µL	BP6116
Control Primer 2 (20µM), 5'—GGTTATCGAAATCAGCCACAGCGCC—3'	100µL	BP6117
Control Primer 3 (20µM), 5'—CCACATCCATACCGGGTTTCAC—3'	100µL	BP6118

† Purchase of this product includes an immunity from suit under patents specified in the product insert to use only the amount purchased for the purchaser's own internal research. No other patent rights (such as 5' Nuclease Process patent rights) are conveyed expressly, by implication, or by estoppel. Further information on purchasing licenses may be obtained by contacting the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.  
‡ One reaction is defined as a 50µL PCR reaction using 1.25U *Taq*.

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dNTPs

Fisher BioReagents\* *exACTGene*\* dNTPs

Ultrapure dNTPs ideal for use in PCR, DNA labeling, and DNA sequencing

- >99% triphosphate

► Chemically synthesized to meet a high purity standard

► Ensure consistent results and optimum sensitivity for many rigorous applications

► Tested for purity by HPLC, performance in long-template PCR, and absence of DNase, RNase, and protease activity to ensure dependable performance and lot-to-lot consistency

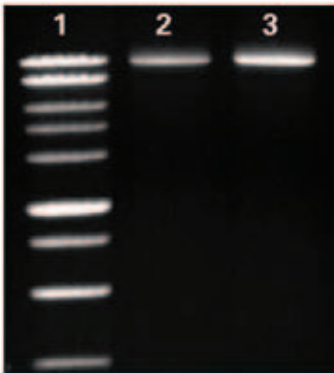
► Ultrapure dNTPs will enhance results for the following procedures: qPCR, high-fidelity PCR, long template (>8kb) PCR, RT-PCR, fluorescent sequencing, cDNA synthesis, Pyrosequencing\*, and in vitro mutagenesis

STORAGE CONDITIONS: Store at -20°C.

Description	Concentration	Quantity	
dATP	100mM	250µL	BP2590-250
dCTP	100mM	250µL	BP2592-250
dGTP	100mM	250µL	BP2591-250
dTTP	100mM	250µL	BP2593-250
dNTP Mix	10mM soln. of dATP, dCTP, dGTP, and dTTP	200µL	BP2595-200
		1000µL	BP2595-1

dNTP Set	100mM	500µL of each	BP2594-500
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This product is distributed for laboratory research use only. Under no circumstances may it be used for diagnostic purposes. The safety and efficacy of this product in diagnostic or other clinical uses has not been established.



Performance of ultrapure dNTPs in long template PCR. Impurities in PCR reagents can often inhibit PCR reactions. To demonstrate this effect, a 10kb fragment from Lambda DNA was amplified using *exACTGene* PCR dNTP Mix (BP2595-200) (lane 3) and a competitor's standard dNTP mix of lower purity (lane 2).

PCR Nucleotide Mix  
10mM solution of each dATP, dCTP, dGTP, dTTP

packaging	Mfr. No
200 µℓ PolyMicroTube	BP2565-2
1 mℓ PolyMicroTube	BP2565-1

Functional analysis ..... Pass Test

**Applications:** This premixed solution is used for PCR. Supplied as 10mM solution in purified water (pH 7.5). Functionally tested in PCR. High purity:> 98% triphosphate. [1927-31-7 (dATP)] ; [18423-43-3 (dTTP)] ; [93919-41-6 (dGTP)] ; [102783-51-7 (dCTP)]  
**Recommended Storage:** -20°C  
**Not on TSCA inventory:** for R and D use only; not for manufacturing or commercial purposes.

Mineral Oil  
Clear, Viscous Liquid

packaging	Mfr. No
1 ℓ PolyBottle,EcoSafPak*	BP2629-1

CAS: 8012-95-1  
EINECS: 232-384-2

Appearance .....	Clear, colorless, viscous liquid
DNase .....	None detected
Identification .....	Pass test
Limit of Polynuclear Compounds .....	Pass test
Neutrality .....	Pass test
Protease .....	None detected
Readily Carbonizable Substances .....	Pass test
RNase .....	None detected
Specific Gravity (at 25°C) .....	0.818-0.880
USP Protocol required .....	Pass test
Viscosity (at 40°C) .....	Not more than 33.5cs

**Applications:** Mineral Oil can be used in PCR applications.  
**Recommended Storage:** RT

Taq DNA Polymerase

packaging	Mfr. No
100 units Poly Tube	FB6000-10
5 x 100 units Poly Tube	FB6000-15
500 units Poly Tube	FB6000-25
5 x 500 units Poly Tube	FB6000-30
2500 units Poly Tube	FB6000-35
100 units Poly Tube	FB6000-45
5 x 100 units Poly Tube	FB6000-50
500 units Poly Tube	FB6000-60
5 x 500 units Poly Tube	FB6000-65
25 x 100 units Poly Tube	FB6000-20
5 x 2500 units Poly Tube	FB6000-40
25 x 100 units Poly Tube	FB6000-55
2500 units Poly Tube	FB6000-70
5 x 2500 units Poly Tube	FB6000-75

CAS: 9012-90-2

Tested for ..... human genomic DNA using primers for the p53 gene.

**Applications:** Taq DNA Polymerase is a recombinant enzyme that is licensed for use in PCR. Provides superior performance in routine PCR and RT-PCR. Capable of amplifying large DNA target regions (up to 10kb). Well-suited for the following PCR applications:STR, RAPD, AFLP, and SNP analyses.  
**Description:** Taq DNA Polymerase is a thermostable enzyme of approximately 94kDa size which was isolated originally from Thermus aquaticus. Replicates DNA optimally at 72°C and has a half-life of 40 minutes at 95°C allowing up to 45-50 thermal cycles without appreciable loss of enzyme activity. The enzyme catalyzes the polymerization of nucleotides into double-stranded DNA in the 5'->3' direction in the presence of magnesium and it also has a 5'->3' exonuclease activity.  
**Source:** Escherichia coli carrying a recombinant plasmid that encodes the T. aquaticus DNA polymerase gene.  
**Storage Buffer:** 50mM Tris-HCl (pH 7.5), 0.1mM EDTA, 5mM DTT, added stabilizers, and 50% glycerol.  
**10X Buffer A:** Supplied. Contains 500mM KCl, 15mM MgCl2, and 100mM Tris-HCl (pH 9.0 at 25°C).  
**10X Buffer B:** Supplied. Contains 500mM KCl and 100mM Tris-HCl (pH 9.0 at 25°C). MgCl2 supplied separately.  
**Concentration:** 5000 units/mℓ  
**Unit Definition:** One unit catalyzes the incorporation of 10 nmole of total nucleotide into acid-insoluble product in 30 minutes at 70°C utilizing M13mp18 DNA as template.  
**Recommended Storage:** -20°C