

## Specification

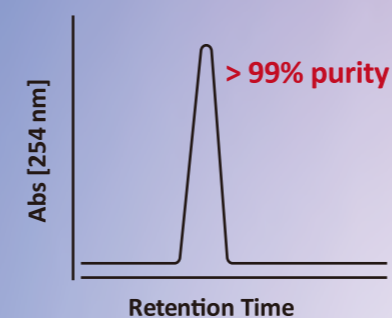
Product Name	dATP Solution - Sodium Salt (100 mM)	dTTP Solution - Sodium Salt (100 mM)	dCTP Solution - Sodium Salt (100 mM)	dGTP Solution - Sodium Salt (100 mM)	dUTP Solution - Sodium Salt (100 mM)
Cat. No.	CD3000	CD4000	CD5000	CD6000	CD7000
Nomenclature	2'-Deoxyadenosine 5'-triphosphate	2'-Deoxythymidine 5'-triphosphate	2'-Deoxycytidine 5'-triphosphate	2'-Deoxyguanosine 5'-triphosphate	2'-Deoxyuridine 5'-triphosphate
Formula (Anion)	C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>12</sub> P <sub>3</sub>	C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> O <sub>14</sub> P <sub>3</sub>	C <sub>9</sub> H <sub>13</sub> N <sub>3</sub> O <sub>13</sub> P <sub>3</sub>	C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>13</sub> P <sub>3</sub>	C <sub>9</sub> H <sub>12</sub> N <sub>2</sub> O <sub>14</sub> P <sub>3</sub>
Storage	at -20 °C	at -20 °C	at -20 °C	at -20 °C	at -20 °C
Stability	24 months	24 months	24 months	24 months	24 months
Appearance	Colorless	Colorless	Colorless	Colorless	Colorless
Concentration	100-110mM	100-110mM	100-110mM	100-110mM	100-110mM
Purity (HPLC)	≥ 99%	≥ 99%	≥ 99%	≥ 99%	≥ 99%
A250/A260	0.78±0.02	0.64±0.02	0.82±0.02	1.15±0.03	0.74±0.03
A280/A260	0.15±0.01	0.74±0.02	0.97±0.02	0.67±0.02	0.38±0.02
A290/A260	N/A	0.24±0.02	0.30±0.02	0.28±0.02	N/A
pH (4 °C)	8.5±0.1	8.5±0.1	8.5±0.1	8.5±0.1	8.5±0.1
Cations (Mg <sup>2+</sup> )	≤ 5 mM	≤ 5 mM	≤ 5 mM	≤ 5 mM	≤ 5 mM
Phosphate (PO <sub>4</sub> <sup>3-</sup> )	≤ 2 mM	≤ 2 mM	≤ 2 mM	≤ 2 mM	≤ 2 mM
Contamination with human DNA (18S rRNA) or bacterial DNA (23S rRNA)	Negative	Negative	Negative	Negative	Negative
Proteases, DNases, RNases, Nicking Activity	Negative	Negative	Negative	Negative	Negative

# DNA building blocks Deoxynucleotide (dNTP)

**A T C G U** 100 mM, by Liters



Product Description	Size	Cat. No.
dATP Solution - Sodium Salt (100 mM)	25 ml	CD3000
	100 ml	CD3001
dTTP Solution - Sodium Salt (100 mM)	25 ml	CD4000
	100 ml	CD4001
dCTP Solution - Sodium Salt (100 mM)	25 ml	CD5000
	100 ml	CD5001
dGTP Solution - Sodium Salt (100 mM)	25 ml	CD6000
	100 ml	CD6001
dUTP Solution - Sodium Salt (100 mM)	25 ml	CD7000
	100 ml	CD7001

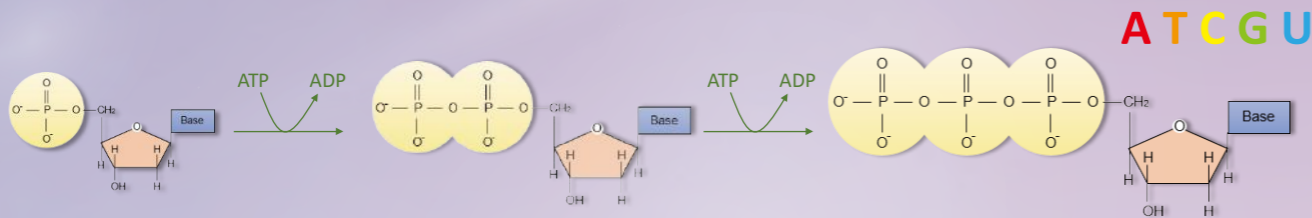


## Distributors

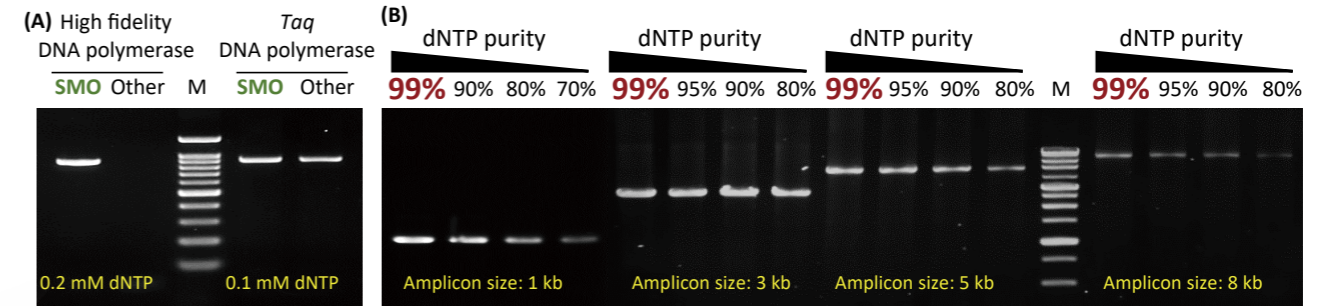
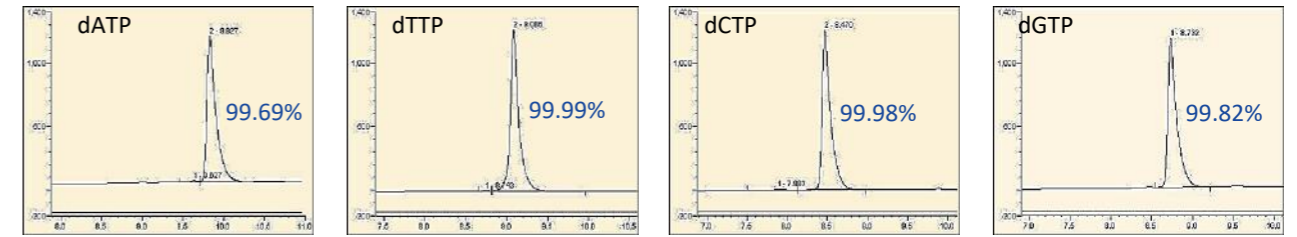
To find more about our distributors.



SMOBIO's dNTPs are enzymatically synthesized and undergo stringent purification steps to eliminate impurities and PCR-specific inhibitors such as modified nucleotides, tetraphosphates and pyrophosphates commonly observed in other commercially available dNTP products. SMOBIO offers greater than 99% purity of dNTPs to yield optimal results.



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**Impurity or residual PCR inhibitors in dNTP mix suppress DNA amplification.** (A) High fidelity DNA polymerase, which is highly sensitive to PCR inhibitors, was completely failed in amplification using dNTP mix from other supplier. DNA amplification using *Taq* DNA polymerase and dNTP mix from other supplier was slightly reduced compared to dNTP mix from SMOBIO. (B) Varied purity of dNTP mix was tested with different length of amplicons indicating that purity of dNTPs is crucial for PCR amplification.

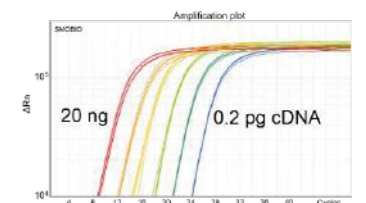
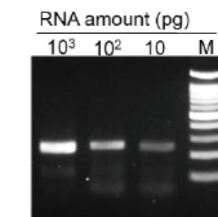
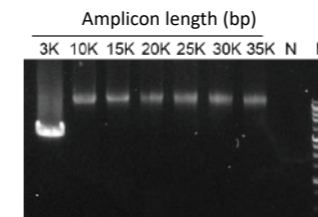
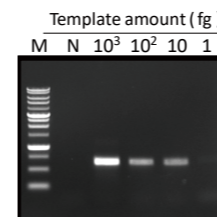
SMOBIO's dNTPs are suitable for various dNTP incorporation experiments.

**General PCR** - Amplification of DNA fragments from 1 pg to 1 fg plasmid DNA.

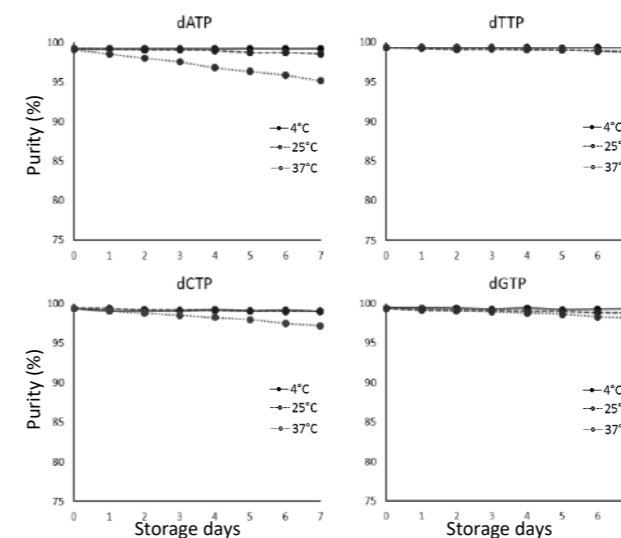
**Long Range PCR** - Amplification of 3 to 35 kb DNA fragments from 50 ng λDNA.

**RT-PCR** - Amplification of DNA fragments from cDNA synthesized from 1 ng to 10 pg of RNA.

**Real-time PCR** - Amplification of DNA fragments from 20 ng to 0.2 pg cDNA.



SMOBIO's dNTPs are stable at ambient temperature within one week.



Ordering Information

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CD6000	dGTP Solution - Sodium Salt (100 mM)
CD7000	dUTP Solution - Sodium Salt (100 mM)

