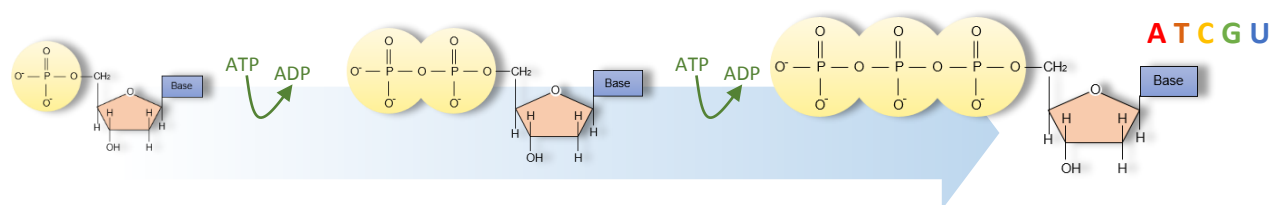


Deoxynucleotide (dNTP)

A T C G U

100 mM, by Liters

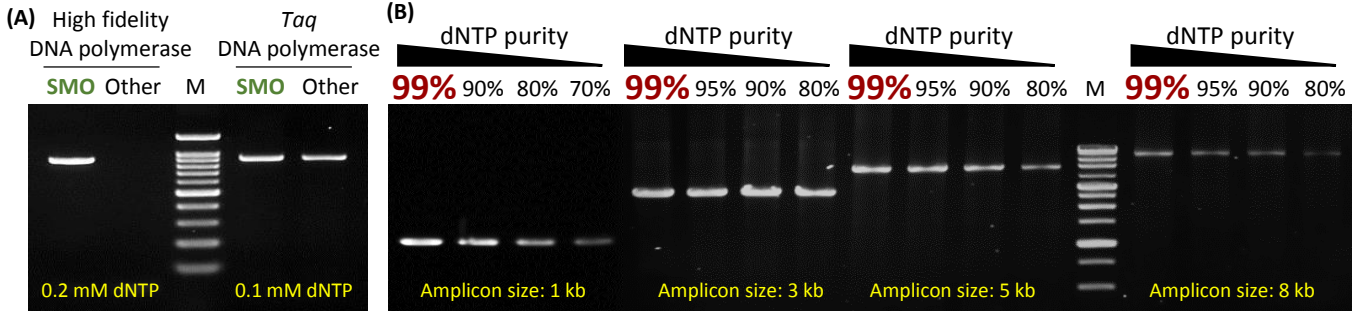
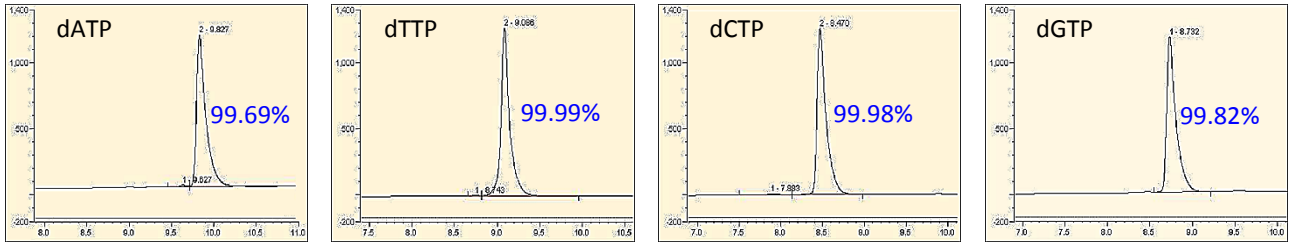
SMOBIO's dNTPs are enzymatically synthesized and undergo stringent purification steps to eliminate impurities and PCR-specific inhibitors such as modified nucleotides, tetraphosphates and pyrophosphates commonly observed in other commercially available dNTP products. SMOBIO offers greater than 99% purity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



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)	$C_{10}H_{13}N_5O_{12}P_3$	$C_{10}H_{14}N_2O_{14}P_3$	$C_9H_{13}N_3O_{13}P_3$	$C_{10}H_{13}N_5O_{13}P_3$	$C_9H_{12}N_2O_{14}P_3$
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
Cation (Mg ²⁺)	≤ 5 mM	≤ 5 mM	≤ 5 mM	≤ 5 mM	≤ 5 mM
Phosphate (PO ₄ ³⁻)	≤ 2 mM	≤ 2 mM	≤ 2 mM	≤ 2 mM	≤ 2 mM
Proteases, DNases, RNases, Nicking Activity	Negative	Negative	Negative	Negative	Negative

SMOBIO offers greater than 99% purity of dNTPs to yield optimal results.



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.

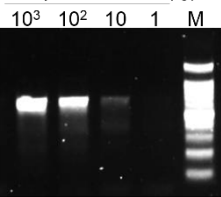
General PCR - Amplification of DNA fragments from 1 pg to 1 fg plasmid DNA.

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

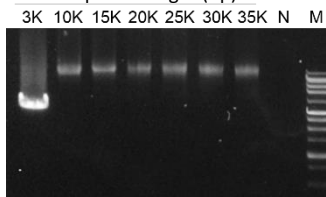
RT-PCR - Amplification of DNA fragments from cDNA synthesized from 1 ng to 10 pg of RNA.

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

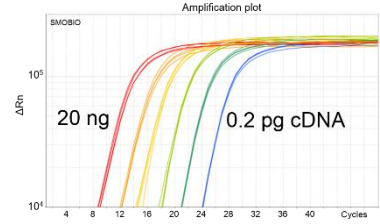
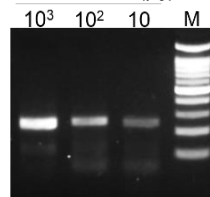
Template amount (fg)



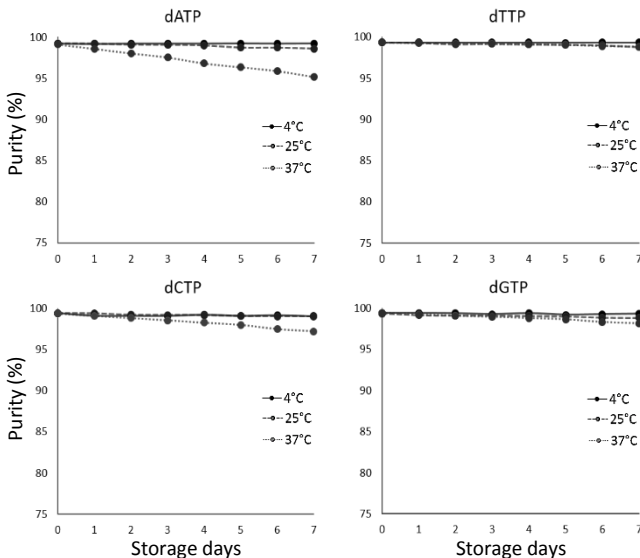
Amplicon length (bp)



RNA amount (pg)



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



Ordering Information

Cat. No.	Product Description
CD3000	dATP Solution - Sodium Salt (100 mM)
CD4000	dTTP Solution - Sodium Salt (100 mM)
CD5000	dCTP Solution - Sodium Salt (100 mM)
CD6000	dGTP Solution - Sodium Salt (100 mM)
CD7000	dUTP Solution - Sodium Salt (100 mM)



For more information, please contact with us.
order@smobio.com
 For more details, please check following link
<http://www.smobio.com/Product-dNTP.html>