

Description: DNA molecules are built of dNTPs which are used in various PCR-based assays. The purity of dNTPs is highly important for the accuracy of assay results. The dNTPs synthesis itself doesn't except the presence of contaminants (such as NTPs, modified nucleotides, dNDPs, dNMPs, heavy/transition metals) in resulting solution, which can extremely affect the experiment by PCR inhibition.

The use of a highly purified dNTP preparation is particularly recommended for sensitive techniques such as long-range PCR, RT-PCR, multiplex, mutagenesis experiments and Real-Time applications.

The set consists of **4 x 10 mM** aqueous solutions of dATP, dCTP, dGTP and dTTP each supplied in a separate vial.

Content

Ref No.	S110031	110031	110032	color
dATP *, 10 mM	Sample size	200 µL	1000 µL	white
dCTP **, 10 mM	Sample size	200 µL	1000 µL	purple
dGTP ***, 10 mM	Sample size	200 µL	1000 µL	yellow
dTTP ****, 10 mM	Sample size	200 µL	1000 µL	black
Datasheet	1	1	1	--

* dATP Na₄ * 3 H₂O, MW 634, 2'-Deoxyadenosine 5'-triphosphate, tetrasodium salt, Purity: 98.7 % (HPLC)

** dCTP Na₄ * 3 H₂O, MW 609, 2'-Deoxycytidine 5'-triphosphate, tetrasodium salt, Purity: 98.9 % (HPLC)

*** dGTP Na₄ * 3 H₂O, MW 649, 2'-Deoxyguanosine 5'-triphosphate, tetrasodium salt, Purity: 98.7 % (HPLC)

**** dTTP Na₄ * 3 H₂O, MW 624, 2'-Desoxythymidine 5'-triphosphate, tetrasodium salt, Purity: 98.8 % (HPLC)

Application: The deoxynucleotides are suitable for many applications where high-quality reagents are required. Such procedures include reverse transcription (RT), polymerase chain reaction (PCR), RT-PCR, DNA labeling reactions, and sequencing/cycle sequencing analysis.

Concentration: In water of sodium salts: 10 mM each, pH 7.5

Quality Control

- HPLC analysis (> 98 %);
- NMR analysis (inorganic phosphates)
- Exo-endonucleases contamination test
- UV-spectral analysis
- Spectrophotometry
- Production of 8 kb PCR fragment from genomic DNA with *Taq* DNA polymerase
- Production of 0.6 kb PCR fragment from genomic DNA with *Pfu* DNA polymerase

Storage condition: -20 °C