

**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 100 mM** aqueous solutions of dATP, dCTP, dGTP and dTTP each supplied in a separate vial.

### Content

Ref No.	S110011	110011	110012	color
dATP *, 100 mM	Sample size	200 µL	1000 µL	white
dCTP **, 100 mM	Sample size	200 µL	1000 µL	purple
dGTP ***, 100 mM	Sample size	200 µL	1000 µL	yellow
dTTP ****, 100 mM	Sample size	200 µL	1000 µL	black
Datasheet	1	1	1	--

\* dATP Na<sub>4</sub> \* 3 H<sub>2</sub>O, MW 634, 2'-Deoxyadenosine 5'-triphosphate, tetrasodium salt, Purity: 98.7 % (HPLC)

\*\* dCTP Na<sub>4</sub> \* 3 H<sub>2</sub>O, MW 609, 2'-Deoxycytidine 5'-triphosphate, tetrasodium salt, Purity: 98.9 % (HPLC)

\*\*\* dGTP Na<sub>4</sub> \* 3 H<sub>2</sub>O, MW 649, 2'-Deoxyguanosine 5'-triphosphate, tetrasodium salt, Purity: 98.7 % (HPLC)

\*\*\*\* dTTP Na<sub>4</sub> \* 3 H<sub>2</sub>O, 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: 100 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