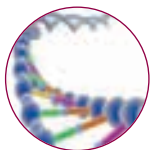


## ULTRA-PURE DEOXYNUCLEOTIDES (dNTPs)

### EXCELLENCE IN NUCLEOTIDE DEVELOPMENT AND PRODUCTION

Meridian Life Science, Inc. ultra-pure dNTPs are manufactured at our Bioline purpose-built manufacturing facility in Germany. Bioline dNTPs are enzymatically synthesized from premium quality dNMPs by phosphorylation using highly specific production systems. The manufacturing process eliminates impurities and PCR-specific inhibitors such as modified nucleotides, tetraphosphates and inorganic pyrophosphates commonly observed in other commercially available dNTP solutions. Bioline dNTPs are purified with quantitative HPLC (> 99.9% purity).

Ultra-pure dNTP Mixes and Sets are supplied as lithium salts in purified water at pH 7.5. Lithium salts have greater resistance to repeated freezing and thawing cycles than sodium salts, and lithium salt dNTP preparations remain sterile over the entire shelf-life due to the bacteriostatic activity of lithium towards various microorganisms.



#### dNTPs

Ready-to-use molecular grade individual dNTP solutions at pH 7.5 supplied as lithium salts in purified water.

**dATP** - 2'-deoxyadenosine-5'-triphosphate

**dCTP** - 2'-deoxycytidine-5'-triphosphate

**dGTP** - 2'-deoxyguanosine-5'-triphosphate

**dTTP** - 2'-deoxythymidine-5'-triphosphate

**dUTP** - 2'-deoxyuridine-5'-triphosphate

#### FEATURES:

Ultra-pure: >99.9% trisphosphate by HPLC  
Free from PCR inhibitors  
DNase, RNase and Nickase free  
Bulk and OEM sizes available  
Stable for 24 months at -20°C  
Shipped on Dry or Blue ice  
Available as dNTP Mixes and Sets  
dUTP Mix also available

#### APPLICATIONS:

Standard and long range PCR assays  
cDNA synthesis  
Real-time PCR  
Low-copy assays  
Microarrays  
DNA sequencing  
Labeling

#### QUALITY CONTROL AND PERFORMANCE

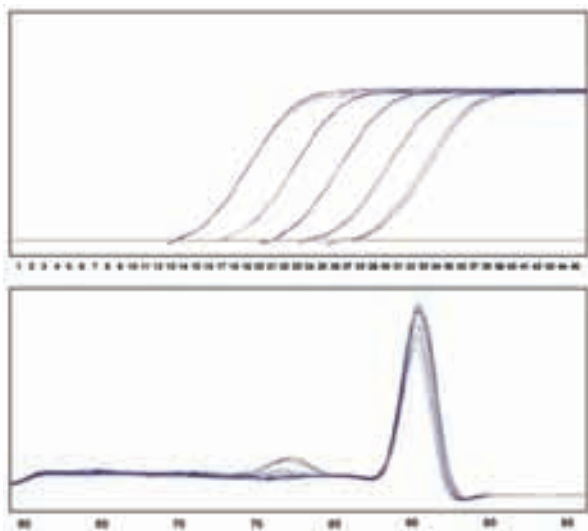
- dNTPs are tested for the absence of DNase, RNase, Protease, Nickase activity and the absence of human, viral and bacterial DNA.
- Each batch is purified with quantitative HPLC and undergoes stringent functional tests with a wide range of assays to guarantee performance and outstanding results.

### VALIDATED FOR A WIDE RANGE OF APPLICATIONS

Validated for use in a variety of molecular biology applications including, standard PCR, long range PCR (20Kb), hot-start PCR, real-time PCR, reverse transcription assays, cDNA synthesis, low-copy assays, DNA sequencing, site-direct mutagenesis, microarrays, etc.

### SENSITIVE AND REPRODUCIBLE REAL-TIME PCR

Real-time PCR is perhaps the most sensitive technique for gene expression analysis and is reliant upon the quality of reagents to yield reliable data. The results illustrate that Bionline's ultra-pure dNTPs are ideal for highly sensitive, reproducible and specific real-time PCR over a large range of cDNA template preparations.



A fragment of the mouse  $\beta$ -actin gene was amplified from a 10-fold serial dilution of total RNA from mouse 3T3 cells in quadruplicate using SensiFAST SYBR One-Step Kit.

### OUR CAPABILITIES

Being a primary manufacturer, we can accommodate requests from micro-liter to multi-liter quantities. We can manufacture special batches with unique formulations, blends and mixes to any requirements. Private labeling and packaging arrangements are available.

- Custom product configurations
- Custom bulk packaging requirements
- Private label OEM manufacturing
- Validation support file
- Scheduled delivery to fit your needs
- Mutually agreed confidentiality

