

Description

Bioline Ultra-pure dNTPs are enzymatically synthesized from premium quality raw materials, using highly specific production systems in our purpose built facilities. The manufacturing process eliminates impurities and PCR-specific inhibitors such as modified nucleotides, tetraphosphates and pyrophosphates commonly observed in other commercially available dNTP products. Bioline dNTPs are purified with quantitative HPLC and possess at least 99% purity.

All Bioline dNTPs 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.

This reagent has been manufactured under 13485 Quality Management System and is suitable for further manufacturing use as an IVD component.

Features

- Ultra-pure: >99% trisphosphate by HPLC
- Extended shelf-life of 24 months at -20 °C
- Free from PCR inhibitors
- DNase, RNase and Nickase free
- Manufactured by Bioline in a purpose-built facility
- Custom, bulk and OEM nucleotide service

dTTP Characteristics 2'-deoxythymidine-5'-triphosphate solution

| SPECTRAL & HPLC ANALYSIS | PERFORMANCE | |
|------------------------------------|---|--|
| λmax pH 7.0 | 267nm | |
| ε at λmax | 9.6 E x mmol ⁻¹ x cm ⁻¹ | |
| A ₂₅₀ /A ₂₆₀ | 0.65 ± 0.03 | |
| A ₂₈₀ /A ₂₆₀ | 0.73 ± 0.02 | |
| Concentration | 100mM ± 2% | |
| Appearance | Clear Colourless Solution | |
| pH of Solution | 7.5 | |
| dNTP (HPLC Area) | ≥ 99% | |
| dNDP (HPLC Area) | < 1% | |
| DNases, RNases, Nicking Activity | Negative | |

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Applications

- Standard and long range PCR assays
- cDNA synthesis
- qPCR
- Microarrays
- DNA sequencing
- Labelling

Associated products

| Product Name | Pack Size | Catalog No. |
|-----------------------|------------|-------------|
| dNTP Mix 100 mM total | 1 x 500 μL | BIO-39028 |
| dNTP Set | 4 x 250 μL | BIO-39025 |
| HyperLadder 1 kb | 200 Lanes | BIO-33025 |
| Agarose | 500 g | BIO-41025 |

Product citations

- 1. Meijer, P-J., et al. Meth. Mol. Biol. 525(3), 1-17 (2009).
- 2. Dellinger, M., et al. Develop. Biol. 319(2), 309-320 (2008).
- 3. Hampson, L., et al. FEBS Lett. 581(21), 3955-3960 (2007).
- 4. Lloyd, R.E., et al. Gene. 172, 2515-2527 (2006).
- 5. Tabone, T., et al. NAR 34(6), e45 (2006).

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