**7-deaza-dGTP**

**N0445S**

| 0.3 µmol | Lot: 0371209 | Exp: 9/14 |
| 5 mM | Store at –20°C |

**Description:** 7-deaza-dGTP (7-deaza-2′-deoxyguanosine 5′-triphosphate) contains a 5 mM solution of 7-deaza-dGTP as a dilithium salt. Nucleotide concentration is determined by measurements of absorbance at 257 nm.

Supplied in: Milli-Q® water as a lithium salt at (pH 7.0).

**Diluent Compatibility:** Can be diluted using sterile distilled water, preferably Milli-Q water or can be diluted using sterile TE (10 mM Tris-HCl, 1 mM EDTA (pH 7.5).

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**Quality Control Assays**

**The purity of the deoxynucleotide is ≥ 95% as determined by HPLC analysis.**

**0.5 kb, 2 kb and 5 kb Lambda PCR Assay:**

25 cycles of PCR amplification of 1 ng Lambda DNA with 5 units of Taq DNA Polymerase in the presence of 200 µM dATP, dCTP, dGTP and 7-deaza-dGTP, 0.5 µM primers and 1X ThermoPol™ Reaction Buffer results in the amplification of the specific 0.5 kb, 2 kb and 5 kb products as determined by agarose gel electrophoresis.

**Phosphatase Activity Assay (pNPP Colorimetric Assay):**

A protein phosphatase buffer solution containing 2 mM 7-deaza-dGTP and 100 µM p-nitrophenol phosphate, incubated for 4 hours at 37°C, yields no detectable phosphatase activity as determined by spectrophotometric analysis of released p-nitrophenylene anion at 405 nm.

**Non-Specific Nuclease Assay:**

A 50 µl reaction in 1X NEBuffer 2 containing 1 µg of T3 DNA or HindIII digested Lambda DNA and a minimum of 5 µl of 7-deaza-dGTP incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.