

## New England Biolabs Certificate of Analysis

Product Name: 7-deaza-dGTP

Catalog #: N0445\$/L

Concentration: 5 mM

Unit Definition: N/A

Lot #: 0461708

Assay Date: 08/2017

Expiration Date: 8/2019

Storage Temp:

Storage Conditions: Supplied in Ultrapure water as a lithium salt, (pH 7.0)

*-20°C* 

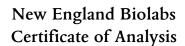
Specification Version: PS-N0445S/L v1.0 Effective Date: 08 Mar 2017

Assay Name/Specification (minimum release criteria)	Lot #0461708
<b>Endonuclease Activity (Nicking)</b> - A 50 μl reaction in NEBuffer 2 containing 1 μg of supercoiled PhiX174 DNA and a minimum of 20 μl of 7-deaza-dGTP incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII 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.	Pass
PCR Amplification (0.5 kb Lambda DNA, 7-deaza) - A 50 μl reaction in ThermoPol® Reaction Buffer in the presence of 200 μM dATP, dCTP, dTTP and 7-deaza-dGTP, 0.5 μM primers containing 1 ng Lambda DNA with 5 units of Taq® DNA Polymerase for 25 cycles of PCR amplification results in the expected 0.5 kb product.	Pass
PCR Amplification (2 kb Lambda DNA, 7-deaza) - A 50 μl reaction in ThermoPol® Reaction Buffer in the presence of 200 μM dATP, dCTP, dTTP and 7-deaza-dGTP, 0.5 μM primers containing 1 ng Lambda DNA with 5 units of Taq® DNA Polymerase for 25 cycles of PCR amplification results in the expected 2 kb product.	Pass
PCR Amplification (5 kb Lambda DNA, 7-deaza) - A 50 μl reaction in ThermoPol® Reaction Buffer in the presence of 200 μM dATP, dCTP, dTTP and 7-deaza-dGTP, 0.5 μM primers containing 1 ng Lambda DNA with 5 units of Taq® DNA Polymerase for 25 cycles of PCR amplification results in the expected 5 kb product.	Pass
<b>Phosphatase Activity (pNPP)</b> - A 200 μl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl <sub>2</sub> containing 2.5 mM <i>p</i> -Nitrophenyl Phosphate (pNPP) and a minimum of 80 μl 7-deaza-dGTP incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	Pass









Assay Name/Specification (minimum release criteria)	Lot #0461708
Physical Purity (HPLC) - 7-deaza-dGTP is ≥ 95% pure as determined by HPLC analysis.	Pass
RNase Activity (Extended Digestion) - A 10 μl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μl of 7-deaza-dGTP is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass

Authorized by Karen Moreira 08 Mar 2017

nga.
ISO 9001
Registered
Quality





Inspected by
Tony Spear-Alfonso
30 Aug 2017