

New England Biolabs Certificate of Analysis

Product Name: 7-deaza-dGTP
Catalog Number: N0445L
Concentration: 5 mM
Unit Definition: N/A
Lot Number: 10026067
Expiration Date: 10/2020
Storage Temperature: -20°C
Storage Conditions: Supplied in Ultrapure water as a lithium salt , (pH 7.0)
Specification Version: PS-N0445S/L v1.0

7-deaza-dGTP Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N0445LVIAL	7-deaza-dGTP	10023127	Pass

Assay Name/Specification	Lot # 10026067
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
Phosphatase Activity (pNPP) A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl ₂ containing 2.5 mM p-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
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
Endonuclease Activity (Nicking)	Pass

Assay Name/Specification	Lot # 10026067
<p>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.</p>	
<p>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.</p>	Pass
<p>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.</p>	Pass
<p>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.</p>	Pass

This product has been tested and shown to be in compliance with all specifications.



Tony Spear-Alfonso
Production Scientist
09 Oct 2018



Michael Tonello
Packaging Quality Control Inspector
16 Oct 2018