240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

New England Biolabs Certificate of Analysis

Product Name: One Taq® DNA Polymerase

Catalog #: M0480S/L/X
Concentration: 5,000 units/ml

Unit Definition: One unit is defined as the amount of enzyme that will incorporate 15 nmol of dNTP into acid insoluble material in 30 minutes

at 75°C.

 Lot #:
 0101606

 Assay Date:
 06/2016

 Expiration Date:
 06/2018

 Storage Temp:
 -20°C

Storage Conditions: 10 mM Tris-HCl, 100 mM KCl, 1 mM DTT, 0.1 mM EDTA, 0.5 % Tween® 20, 0.5 % IGEPAL® CA-630, 50 %

Glycerol, (pH 7.4 @ 25°C)

Specification Version: PS-M0480S/L/X v1.0

Effective Date: 27 Sep 2016

| Assay Name/Specification (minimum release criteria) | Lot #0101606 |
|--|--------------|
| 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 units of One <i>Taq</i> ® DNA Polymerase 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 (5.0 kb Lambda DNA) - A 25 μ l reaction in One Taq ® Standard Reaction Buffer in the presence of 200 μ M dNTPs and 0.2 μ M primers containing 5 ng Lambda DNA with 0.625 units of One Taq ® DNA Polymerase for 25 cycles of PCR amplification results in the expected 5.0 kb product. | Pass |
| PCR Amplification (Buffer Dependent, >65% GC-rich) - A 25 μ l reaction in One Taq ® GC Reaction Buffer in the presence of 200 μ M dNTPs and 0.2 μ M primers containing 10 ng Human Genomic DNA with 0.625 units of One Taq ® DNA Polymerase for 30 cycles of PCR amplification results in the buffer-dependent production of the expected 737 bp product. | Pass |
| PCR Amplification (Enhancer Dependent, >70% GC-rich) - A 25 μl reaction in One <i>Taq</i> ® GC Reaction Buffer and 20% One <i>Taq</i> ® High GC Enhancer in the presence of 200 μM dNTPs and 0.2 μM primers containing 10 ng Human Genomic DNA with 0.625 units of One <i>Taq</i> ® DNA Polymerase for 30 cycles of PCR amplification results in the enhancer-dependent production of the expected 627 bp product. | Pass |









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|---|--------------|
| RNase Activity (Extended Digestion) - A 10 μ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μ l of One Taq ® DNA Polymerase 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 Denisa Gilaj 27 Sep 2016







Inspected by Karen Moreira 07 Oct 2016