NEW ENGLAND BioLabs Inc.
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Tel 978-927-5054
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# New England Biolabs
# Certificate of Analysis

| | |
|---|---|
| *Product Name:* | *OneTaq® DNA Polymerase* |
| *Catalog Number:* | *M0480S* |
| *Concentration:* | *5,000 U/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.* |
| *Packaging Lot Number:* | *10145378* |
| *Expiration Date:* | *09/2023* |
| *Storage Temperature:* | *-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 v2.0* |

**OneTaq® DNA Polymerase Component List**

| NEB Part Number | Component Description | Lot Number | Individual QC Result |
|---|---|---|---|
| M0480SVIAL | OneTaq® DNA Polymerase | 10128866 | **Pass** |
| B9026AVIAL | OneTaq® High GC Enhancer | 10128747 | **Pass** |
| B9023SVIAL | OneTaq® GC Reaction Buffer | 10129314 | **Pass** |
| B9022SVIAL | OneTaq® Standard Reaction Buffer | 10114954 | **Pass** |

| Assay Name/Specification | Lot # 10145378 |
|---|---|
| **RNase Activity (Extended Digestion)**<br>A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of OneTaq® DNA Polymerase is incubated at 37ºC. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection. | **Pass** |
| **PCR Amplification (Enhancer Dependent, >70% GC-rich)**<br>A 25 µl reaction in OneTaq® GC Reaction Buffer and 20% OneTaq® 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 OneTaq® DNA Polymerase for 30 cycles of PCR amplification results in the enhancer-dependent production of the expected 627 bp product. | **Pass** |
| **PCR Amplification (Buffer Dependent, >65% GC-rich)**<br>A 25 µl reaction in OneTaq® GC Reaction Buffer in the presence of 200 µM dNTPs and 0.2 µM primers containing 10 ng Human Genomic DNA with 0.625 units of OneTaq® DNA Polymerase for 30 cycles of PCR amplification results in the buffer-dependent production of the expected 737 bp product. | **Pass** |

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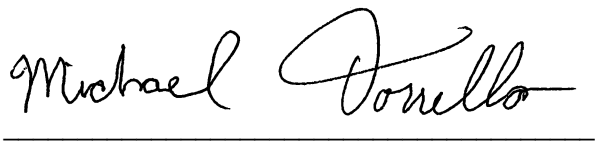
| Assay Name/Specification | Lot # 10145378 |
|---|---|
| **Non-Specific DNase Activity (16 Hour)**<br>A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 or T7 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 5 units of OneTaq® DNA Polymerase incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | **Pass** |
| **PCR Amplification (5.0 kb Lambda DNA)**<br>A 25 µl reaction in OneTaq® Standard Reaction Buffer in the presence of 200 µM dNTPs and 0.2 µM primers containing 5 ng Lambda DNA with 0.625 units of OneTaq® DNA Polymerase for 25 cycles of PCR amplification results in the expected 5.0 kb product. | **Pass** |

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Christie Vazquez
Production Scientist
17 Mar 2022



Michael Tonello
Packaging Quality Control Inspector
17 Mar 2022