NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
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New England Biolabs
Certificate of Analysis

Product Name:	*OneTaq® DNA Polymerase*
Catalog Number:	*M0480L*
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:	*10071515*
Expiration Date:	*02/2022*
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
M0480LVIAL	OneTaq® DNA Polymerase	10067314	**Pass**
B9026AVIAL	OneTaq® High GC Enhancer	10061963	**Pass**
B9023SVIAL	OneTaq® GC Reaction Buffer	10061964	**Pass**
B9022SVIAL	OneTaq® Standard Reaction Buffer	10061962	**Pass**

Assay Name/Specification	Lot # 10071515
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 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) 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**
Non-Specific DNase Activity (16 Hour) 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**

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Assay Name/Specification	Lot # 10071515
PCR Amplification (5.0 kb Lambda DNA) 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**
PCR Amplification (Buffer Dependent, >65% GC-rich) 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**

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

Cathy Rezac
Production Scientist
19 Mar 2020

Michael Tonello
Packaging Quality Control Inspector
24 Mar 2020