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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:	OneTaq® DNA Polymerase
Catalog Number:	M0480X
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:	10088135
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	
M0480L	OneTaq® DNA Polymerase	10083900	Pass	

Assay Name/Specification	Lot # 10088135
PCR Amplification (5.0 kb Lambda DNA) A 25 $\mu$ I reaction in OneTaq® Standard Reaction Buffer in the presence of 200 $\mu$ M dNTPs and 0.2 $\mu$ M 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
<b>Non-Specific DNase Activity (16 Hour)</b> 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 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>RNase Activity (Extended Digestion)</b> 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 37°C. 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	Pass





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Assay Name/Specification	Lot # 10088135
the presence of 200 $\mu$ M dNTPs and 0.2 $\mu$ M 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.	
<b>PCR Amplification (Buffer Dependent, &gt;65% GC-rich)</b> 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.

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.

vistie Vayanez

Christie Vazquez Production Scientist 04 Nov 2020

Michae

Michael Tonello Packaging Quality Control Inspector 04 Nov 2020

