

## New England Biolabs Certificate of Analysis

**Product Name:** OneTaq<sup>®</sup> 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:** 10068637  
**Expiration Date:** 07/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl , 100 mM KCl , 1 mM DTT , 0.1 mM EDTA , 0.5 % Tween<sup>®</sup> 20 , 0.5 % IGEPAL<sup>®</sup> CA-630 , 50 % Glycerol, (pH 7.4 @ 25°C)  
**Specification Version:** PS-M0480S/L/X v2.0

OneTaq <sup>®</sup> DNA Polymerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0480LVIAL	OneTaq <sup>®</sup> DNA Polymerase	10052287	Pass
B9026AVIAL	OneTaq <sup>®</sup> High GC Enhancer	10031487	Pass
B9023SVIAL	OneTaq <sup>®</sup> GC Reaction Buffer	10034012	Pass
B9022SVIAL	OneTaq <sup>®</sup> Standard Reaction Buffer	10034011	Pass

Assay Name/Specification	Lot # 10068637
<p><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<sup>®</sup> DNA Polymerase is incubated at 37°C. After incubation for 16 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass
<p><b>PCR Amplification (Enhancer Dependent, &gt;70% GC-rich)</b>            A 25 µl reaction in OneTaq<sup>®</sup> GC Reaction Buffer and 20% OneTaq<sup>®</sup> 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<sup>®</sup> DNA Polymerase for 30 cycles of PCR amplification results in the enhancer-dependent production of the expected 627 bp product.</p>	Pass
<p><b>PCR Amplification (Buffer Dependent, &gt;65% GC-rich)</b>            A 25 µl reaction in OneTaq<sup>®</sup> 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<sup>®</sup> DNA Polymerase for 30 cycles of PCR amplification results in the buffer-dependent production of the expected 737 bp product.</p>	Pass

Assay Name/Specification	Lot # 10068637
<p><b>PCR Amplification (5.0 kb Lambda DNA)</b> A 25 µl reaction in OneTaq<sup>®</sup> 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<sup>®</sup> DNA Polymerase for 25 cycles of PCR amplification results in the expected 5.0 kb product.</p>	<b>Pass</b>
<p><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<sup>®</sup> 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.</p>	<b>Pass</b>

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



Christie Vazquez  
Production Scientist  
19 Aug 2019



Josh Hersey  
Packaging Quality Control Inspector  
16 Mar 2020