

## New England Biolabs Certificate of Analysis

**Product Name:** OneTaq® Quick-Load® DNA Polymerase  
**Catalog Number:** M0509L  
**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:** 10155695  
**Expiration Date:** 04/2024  
**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-M0509S/L/X v2.0

OneTaq® Quick-Load® DNA Polymerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0509LVIAL	OneTaq® Quick-Load® DNA Polymerase	10147741	Pass
B9022SVIAL	OneTaq® Standard Reaction Buffer	10143441	Pass
B0509AVIAL	OneTaq® Quick-Load® Reaction Buffer	10149721	Pass

Assay Name/Specification	Lot # 10155695
<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® Quick-Load® 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>	Pass
<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® Quick-Load® 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 (5.0 kb Lambda DNA)</b>            A 25 µl reaction in OneTaq® Quick-Load® 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® Quick-Load® DNA Polymerase for 25 cycles of PCR amplification results in the expected 5.0 kb product.</p>	Pass

Assay Name/Specification	Lot # 10155695
<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> Quick-Load<sup>®</sup> DNA Polymerase for 25 cycles of PCR amplification results in the expected 5.0 kb product.</p>	<p><b>Pass</b></p>

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

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Christie Vazquez  
Production Scientist  
14 Jun 2022



Josh Hersey  
Packaging Quality Control Inspector  
14 Jun 2022