

## New England Biolabs Certificate of Analysis

**Product Name:** OneTaq<sup>®</sup> Quick-Load<sup>®</sup> DNA Polymerase  
**Catalog Number:** M0509X  
**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.  
**Lot Number:** 10040405  
**Expiration Date:** 03/2021  
**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-M0509S/L/X v1.0

OneTaq <sup>®</sup> Quick-Load <sup>®</sup> DNA Polymerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0509L	OneTaq <sup>®</sup> Quick-Load <sup>®</sup> DNA Polymerase	10040399	Pass

Assay Name/Specification	Lot # 10040405
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 5 units of OneTaq<sup>®</sup> Quick-Load<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>	Pass
<p><b>PCR Amplification (5.0 kb Lambda DNA)</b>            A 25 µl reaction in OneTaq<sup>®</sup> Quick-Load<sup>®</sup> 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>	Pass
<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>	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</p>	Pass

Assay Name/Specification	Lot # 10040405
and a minimum of 1 µl of OneTaq <sup>®</sup> Quick-Load <sup>®</sup> 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.	

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



Christie Vazquez  
Production Scientist  
03 Apr 2019



Josh Hersey  
Packaging Quality Control Inspector  
03 Apr 2019