

## New England Biolabs Certificate of Analysis

**Product Name:** OneTaq® Quick-Load® DNA Polymerase  
**Catalog Number:** M0509S  
**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:** 10023803  
**Expiration Date:** 06/2020  
**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 v1.0

OneTaq® Quick-Load® DNA Polymerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0509SVIAL	OneTaq® Quick-Load® DNA Polymerase	10011869	Pass
B9022SVIAL	OneTaq® Standard Reaction Buffer	0031708	Pass
B0509AVIAL	OneTaq® Quick-Load® Reaction Buffer	0031708	Pass

Assay Name/Specification	Lot # 10023803
<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® 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>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
<p><b>PCR Amplification (5.0 kb Lambda DNA)</b>            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® Quick-Load® DNA Polymerase for 25 cycles of PCR amplification results in the expected 5.0 kb product.</p>	Pass

Assay Name/Specification	Lot # 10023803
<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> Quick-Load<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>	<p><b>Pass</b></p>

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



Tony Spear-Alfonso  
Production Scientist  
15 Jun 2018



Michael Tonello  
Packaging Quality Control Inspector  
01 Oct 2018