

New England Biolabs Certificate of Analysis

Product Name: OneTaq® Quick-Load® 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.
Packaging Lot Number: 10148508
Expiration Date: 12/2023
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
M0509L	OneTaq® Quick-Load® DNA Polymerase	10147176	Pass

Assay Name/Specification	Lot # 10148508
<p>PCR Amplification (5.0 kb Lambda DNA) 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
<p>PCR Amplification (5.0 kb Lambda DNA) 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>RNase Activity (Extended Digestion) 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, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 or T7 DNA in addition to a</p>	Pass

Assay Name/Specification	Lot # 10148508
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.	

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.



Christie Vazquez
Production Scientist
18 Apr 2022



Michael Tonello
Packaging Quality Control Inspector
18 Apr 2022