

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: 10147176
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 |
| M0509LVIAL | OneTaq® Quick-Load® DNA Polymerase | 10132107 | Pass |
| B9022SVIAL | OneTaq® Standard Reaction Buffer | 10143441 | Pass |
| B0509AVIAL | OneTaq® Quick-Load® Reaction Buffer | 10111135 | Pass |

| Assay Name/Specification | Lot # 10147176 |
|---|----------------|
| <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>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>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 |

| Assay Name/Specification | Lot # 10147176 |
|---|--------------------|
| <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 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> | <p>Pass</p> |

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
15 Apr 2022



Michael Tonello
Packaging Quality Control Inspector
15 Apr 2022