

New England Biolabs Certificate of Analysis

Product Name: *Phusion® High-Fidelity PCR Kit*
 Catalog Number: *E0553L*
 Packaging Lot Number: *10173613*
 Expiration Date: *07/2024*
 Storage Temperature: *-20°C*
 Specification Version: *PS-E0553S/L v1.0*

| Phusion® High-Fidelity PCR Kit Component List | | | |
|---|---------------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| S0536AVIAL | 10 kb Control Primer Mix | 10154733 | Pass |
| S0535AVIAL | 1.3 kb Control Primer Mix | 10170669 | Pass |
| N3010AVIAL | Control Lambda Template | 10158275 | Pass |
| N0447AAVIAL | Deoxynucleotide (dNTP) Solution Mix | 10158267 | Pass |
| N0303AAVIAL | Quick-Load® DNA Marker, Broad Range | 10158264 | Pass |
| M0530AAVIAL | Phusion® High-Fidelity DNA Polymerase | 10158245 | Pass |
| B0519SVIAL | Phusion® GC Buffer Pack | 10165332 | Pass |
| B0518SVIAL | Phusion® HF Buffer Pack | 10160832 | Pass |
| B0515AVIAL | DMSO | 10150729 | Pass |
| B0510AVIAL | MgCl ₂ Solution (50 mM) | 10151178 | Pass |

| Assay Name/Specification | Lot # 10173613 |
|---|----------------|
| <p>Endonuclease Activity (Nicking, Polymerase, dNTP) A 50 µl reaction in NEBuffer 2 in the presence of 200 µM dNTPs containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 units of Phusion® DNA Polymerase incubated for 4 hours at 37°C and 72°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> | Pass |
| <p>PCR Amplification (20 kb Lambda DNA) A 50 µl reaction in Phusion® HF Buffer in the presence of 200 µM dNTPs and 1 µM primers containing 10 ng Lambda DNA with 1 unit of Phusion® DNA Polymerase for 22 cycles of PCR amplification results in the expected 20 kb product.</p> | Pass |
| <p>PCR Amplification (7.5 kb Human Genomic DNA) A 50 µl reaction in Phusion® HF Buffer in the presence of 200 µM dNTPs and 1 µM primers containing 50 ng Human Genomic DNA with 1 unit of Phusion® DNA Polymerase for 30 cycles of PCR amplification results in the expected 7.5 kb product.</p> | Pass |

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|--|--------------------|
| <p>* Individual Product Component Note Standard Quality Control Tests are performed for each component included in Phusion® High-Fidelity PCR Kit and meet the designated specifications.</p> | <p>Pass</p> |

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

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Trinh Nguyen
Production Scientist
17 Aug 2022



Michael Tonello
Packaging Quality Control Inspector
19 Jan 2023