

## New England Biolabs Certificate of Analysis

**Product Name:** *Phusion® High-Fidelity PCR Kit*  
**Catalog Number:** *E0553S*  
**Packaging Lot Number:** *10176244*  
**Expiration Date:** *08/2024*  
**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	10170670	Pass
S0535AVIAL	1.3 kb Control Primer Mix	10170669	Pass
N3010AVIAL	Control Lambda Template	10158275	Pass
N0447AVIAL	Deoxynucleotide (dNTP) Solution Mix	10168058	Pass
N0303AVIAL	Quick-Load® DNA Marker, Broad Range	10166185	Pass
M0530AVIAL	Phusion® High-Fidelity DNA Polymerase	10170333	Pass
B0519SVIAL	Phusion® GC Buffer Pack	10165332	Pass
B0518SVIAL	Phusion® HF Buffer Pack	10160832	Pass
B0515AVIAL	DMSO	10150729	Pass
B0510AVIAL	MgCl <sub>2</sub> Solution (50 mM)	10151178	Pass

Assay Name/Specification	Lot # 10176244
<b>PCR Amplification (20 kb Lambda DNA)</b> 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.	<b>Pass</b>
<b>* Individual Product Component Note</b> Standard Quality Control Tests are performed for each component included in Phusion® High-Fidelity PCR Kit and meet the designated specifications.	<b>Pass</b>
<b>PCR Amplification (7.5 kb Human Genomic DNA)</b> 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.	<b>Pass</b>
<b>Endonuclease Activity (Nicking, Polymerase, dNTP)</b>	<b>Pass</b>

Assay Name/Specification	Lot # 10176244
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 <sup>®</sup> 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.	

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](http://www.neb.com/trademarks) for additional information.




---

Trinh Nguyen  
Production Scientist  
18 Aug 2022




---

Michael Tonello  
Packaging Quality Control Inspector  
03 Feb 2023