

## New England Biolabs Certificate of Analysis

Product Name: *Phusion® High-Fidelity PCR Kit*  
 Catalog Number: *E0553S*  
 Packaging Lot Number: *10145487*  
 Expiration Date: *07/2023*  
 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	10114245	Pass
S0535AVIAL	1.3 kb Control Primer Mix	10135684	Pass
N3010AVIAL	Control Lambda Template	10114240	Pass
N0447AVIAL	Deoxynucleotide (dNTP) Solution Mix	10114243	Pass
N0303AVIAL	Quick-Load® DNA Marker, Broad Range	10114232	Pass
M0530AVIAL	Phusion® High-Fidelity DNA Polymerase	10114234	Pass
B0519SVIAL	Phusion® GC Buffer Pack	10129313	Pass
B0518SVIAL	Phusion® HF Buffer Pack	10122295	Pass
B0515AVIAL	DMSO	10129312	Pass
B0510AVIAL	MgCl <sub>2</sub> Solution (50 mM)	10111975	Pass

Assay Name/Specification	Lot # 10145487
<p><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.</p>	Pass
<p><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.</p>	Pass
<p><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.</p>	Pass
<p><b>Endonuclease Activity (Nicking, Polymerase, dNTP)</b></p>	Pass

Assay Name/Specification	Lot # 10145487
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.



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24 Mar 2022



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24 Mar 2022