

## New England Biolabs Certificate of Analysis

**Product Name:** Phusion<sup>®</sup> High-Fidelity PCR Kit  
**Catalog Number:** E0553S  
**Packaging Lot Number:** 10192582  
**Expiration Date:** 10/2024  
**Storage Temperature:** -20°C  
**Specification Version:** PS-E0553S/L v1.0

Phusion <sup>®</sup> 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	10178059	Pass
N0447AVIAL	Deoxynucleotide (dNTP) Solution Mix	10183500	Pass
N0303AVIAL	Quick-Load <sup>®</sup> DNA Marker, Broad Range	10166185	Pass
M0530AVIAL	Phusion <sup>®</sup> High-Fidelity DNA Polymerase	10187029	Pass
B0519SVIAL	Phusion <sup>®</sup> GC Buffer Pack	10177234	Pass
B0518SVIAL	Phusion <sup>®</sup> HF Buffer Pack	10180536	Pass
B0515AVIAL	DMSO	10168878	Pass
B0510AVIAL	MgCl <sub>2</sub> Solution (50 mM)	10170338	Pass

Assay Name/Specification	Lot # 10192582
<p><b>* Individual Product Component Note</b> Standard Quality Control Tests are performed for each component included in Phusion<sup>®</sup> High-Fidelity PCR Kit and meet the designated specifications.</p>	<b>Pass</b>
<p><b>Endonuclease Activity (Nicking, Polymerase, dNTP)</b> 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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<b>Pass</b>
<p><b>PCR Amplification (20 kb Lambda DNA)</b> A 50 µl reaction in Phusion<sup>®</sup> HF Buffer in the presence of 200 µM dNTPs and 1 µM primers containing 10 ng Lambda DNA with 1 unit of Phusion<sup>®</sup> DNA Polymerase for 22 cycles of PCR amplification results in the expected 20 kb product.</p>	<b>Pass</b>

Assay Name/Specification	Lot # 10192582
<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>	<p><b>Pass</b></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](http://www.neb.com/trademarks) for additional information.



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11 Oct 2022



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11 Jul 2023