

## New England Biolabs Certificate of Analysis

**Product Name:** Phusion® High-Fidelity PCR Kit  
**Catalog Number:** E0553L  
**Packaging Lot Number:** 10252442  
**Expiration Date:** 03/2026  
**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	10238739	Pass
S0535AVIAL	1.3 kb Control Primer Mix	10238740	Pass
N3010AVIAL	Control Lambda Template	10242788	Pass
N0447AAVIAL	Deoxynucleotide (dNTP) Solution Mix	10238469	Pass
N0303AAVIAL	Quick-Load® DNA Marker, Broad Range	10242789	Pass
M0530AAVIAL	Phusion® High-Fidelity DNA Polymerase	10238814	Pass
B0519SVIAL	Phusion® GC Buffer Pack	10237048	Pass
B0518SVIAL	Phusion® HF Buffer Pack	10239947	Pass
B0515AVIAL	DMSO	10228581	Pass
B0510AVIAL	MgCl <sub>2</sub> Solution (50 mM)	10233969	Pass

Assay Name/Specification	Lot # 10252442
<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>	<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® 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® 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>	<b>Pass</b>

Assay Name/Specification	Lot # 10252442
<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>

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

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06 May 2024



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