

## New England Biolabs Certificate of Analysis

Product Name: *Phusion® High-Fidelity PCR Kit*  
 Catalog Number: *E0553S*  
 Packaging Lot Number: *10073566*  
 Expiration Date: *11/2021*  
 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	10057354	Pass
S0535AVIAL	1.3 kb Control Primer Mix	10057353	Pass
N3010AVIAL	Control Lambda Template	10057350	Pass
N0447AVIAL	Deoxynucleotide (dNTP) Solution Mix	10057349	Pass
N0303AVIAL	Quick-Load® DNA Marker, Broad Range	10057297	Pass
M0530AVIAL	Phusion® High-Fidelity DNA Polymerase	10057278	Pass
B0519SVIAL	Phusion® GC Buffer Pack	10046899	Pass
B0518SVIAL	Phusion® HF Buffer Pack	10058492	Pass
B0515AVIAL	DMSO	10041254	Pass
B0510AVIAL	MgCl <sub>2</sub> Solution (50 mM)	10048126	Pass

Assay Name/Specification	Lot # 10073566
<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>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>	<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>
<p><b>Endonuclease Activity (Nicking, Polymerase, dNTP)</b></p>	<b>Pass</b>

Assay Name/Specification	Lot # 10073566
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.



Christie Vazquez  
Production Scientist  
21 Apr 2020



Josh Hersey  
Packaging Quality Control Inspector  
21 Apr 2020