

## New England Biolabs Certificate of Analysis

Product Name: *Phusion® High-Fidelity PCR Kit*  
 Catalog Number: *E0553S*  
 Lot Number: *10023549*  
 Expiration Date: *10/2020*  
 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	10023562	Pass
S0535AVIAL	1.3 kb Control Primer Mix	10023561	Pass
N3010AVIAL	Control Lambda Template	10022938	Pass
N0447AVIAL	Deoxynucleotide (dNTP) Solution Mix	10022939	Pass
N0303AVIAL	Quick-Load® DNA Marker, Broad Range	10022786	Pass
M0530AVIAL	Phusion® High-Fidelity DNA Polymerase	10021635	Pass
B0519SVIAL	Phusion® GC Buffer Pack	0051804	Pass
B0518SVIAL	Phusion® HF Buffer Pack	0071804	Pass
B0515AVIAL	DMSO	10019997	Pass
B0510AVIAL	MgCl <sub>2</sub> Solution (50 mM)	10009811	Pass

Assay Name/Specification	Lot # 10023549
<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 either 37°C or 72°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<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

Assay Name/Specification	Lot # 10023549
<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>

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



Lynne Apone  
Production Scientist  
10 Oct 2018



Michael Tonello  
Packaging Quality Control Inspector  
10 Dec 2018