

## New England Biolabs Certificate of Analysis

*Product Name:* Phusion<sup>®</sup> High-Fidelity PCR Kit  
*Catalog #:* E0553S/L  
*Kit Components:* 10 kb Control Primer Mix (S0536)  
 100% DMSO (B0515)  
 1.3 kb Control Primer Mix (S0535)  
 Phusion<sup>®</sup> HF Buffer Pack (B0518)  
 Phusion<sup>®</sup> GC Buffer Pack (B0519)  
 Control Lambda Template (N3010)  
 Deoxynucleotide (dNTP) Solution Mix (N0447)  
 MgCl<sub>2</sub> solution (B0510)  
 Phusion<sup>®</sup> High-Fidelity DNA Polymerase (M0530)  
 Quick-Load DNA Marker, Broad Range (N0303)

*Lot #:* 0151708  
*Assay Date:* 08/2017  
*Expiration Date:* 08/2019  
*Storage Temp:* -20°C  
*Specification Version:* PS-E0553S/L v1.0  
*Effective Date:* 30 Apr 2018

Assay Name/Specification (minimum release criteria)	Lot #0151708
<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 either 37°C or 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>
<p><b>PCR Amplification (7.5 kb Human Genomic DNA)</b> - A 50 µl reaction in Phusion<sup>®</sup> HF Buffer in the presence of 200 µM dNTPs and 1 µM primers containing 50 ng Human Genomic DNA with 1 unit of Phusion<sup>®</sup> DNA Polymerase for 30 cycles of PCR amplification results in the expected 7.5 kb product.</p>	<b>Pass</b>
<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>



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Authorized by  
Derek Robinson  
30 Apr 2018



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Inspected by  
Lynne Apone  
11 Aug 2017

