

## New England Biolabs Certificate of Analysis

**Product Name:** Phusion<sup>®</sup> High-Fidelity DNA Polymerase  
**Catalog Number:** M0530L  
**Concentration:** 2,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme that will incorporate 10 nmol of dNTP into acid insoluble material in 30 minutes at 74°C.  
**Packaging Lot Number:** 10147412  
**Expiration Date:** 10/2023  
**Storage Temperature:** -20°C  
**Storage Conditions:** 20 mM Tris-HCl , 100 mM KCl , 1 mM DTT , 0.1 mM EDTA , 200 µg/ml BSA , 1X Stabilizers , 50 % Glycerol, (pH 7.4 @ 25°C)  
**Specification Version:** PS-M0530S/L v1.0

Phusion <sup>®</sup> High-Fidelity DNA Polymerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0530LVIAL	Phusion <sup>®</sup> High-Fidelity DNA Polymerase	10125135	Pass
B0519SVIAL	Phusion <sup>®</sup> GC Buffer Pack	10145977	Pass
B0518SVIAL	Phusion <sup>®</sup> HF Buffer Pack	10143445	Pass
B0515AVIAL	DMSO	10129312	Pass
B0510AVIAL	MgCl <sub>2</sub> Solution (50 mM)	10131968	Pass

Assay Name/Specification	Lot # 10147412
<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> High-Fidelity 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.	Pass
<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 1.0 µM primers containing 10 ng Lambda DNA with 1 unit of Phusion <sup>®</sup> High-Fidelity DNA Polymerase for 22 cycles of PCR amplification results in the expected 20 kb product.	Pass
<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 1.0 µM primers containing 50 ng Human Genomic DNA with 1 unit of Phusion <sup>®</sup> High-Fidelity DNA Polymerase for 30 cycles of PCR amplification results in the expected 7.5 kb product.	Pass

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.



Christie Vazquez  
Production Scientist  
07 Apr 2022



Josh Hersey  
Packaging Quality Control Inspector  
07 Apr 2022