

## New England Biolabs Certificate of Analysis

**Product Name:** Phusion® High-Fidelity DNA Polymerase  
**Catalog Number:** M0530S  
**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:** 10090926  
**Expiration Date:** 09/2022  
**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® High-Fidelity DNA Polymerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0530SVIAL	Phusion® High-Fidelity DNA Polymerase	10084002	Pass
B0519SVIAL	Phusion® GC Buffer Pack	10085574	Pass
B0518SVIAL	Phusion® HF Buffer Pack	10085573	Pass
B0515AVIAL	DMSO	10081387	Pass
B0510AVIAL	MgCl <sub>2</sub> Solution (50 mM)	10073655	Pass

Assay Name/Specification	Lot # 10090926
<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® 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® HF Buffer in the presence of 200 µM dNTPs and 1.0 µM primers containing 10 ng Lambda DNA with 1 unit of Phusion® 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® 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® 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.

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02 Dec 2020



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02 Dec 2020