

## New England Biolabs Certificate of Analysis

**Product Name:** Phusion<sup>®</sup> 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:** 10115894  
**Expiration Date:** 07/2023  
**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 |
| M0530SVIAL   | Phusion <sup>®</sup> High-Fidelity DNA Polymerase | 10114826   | Pass                 |
| B0519SVIAL   | Phusion <sup>®</sup> GC Buffer Pack               | 10114949   | Pass                 |
| B0518SVIAL   | Phusion <sup>®</sup> HF Buffer Pack               | 10113103   | Pass                 |
| B0515AVIAL   | DMSO  | 10111136   | Pass                 |
| B0510AVIAL   | MgCl <sub>2</sub> Solution (50 mM)                | 10111975   | Pass                 |

| Assay Name/Specification   | Lot # 10115894 |
|--|----------------|
| <p><b>PCR Amplification (20 kb Lambda DNA)</b><br/>           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.</p>   | Pass           |
| <p><b>PCR Amplification (7.5 kb Human Genomic DNA)</b><br/>           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.</p>   | Pass           |
| <p><b>Endonuclease Activity (Nicking, Polymerase, dNTP)</b><br/>           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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> | Pass           |

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

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13 Aug 2021



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13 Aug 2021