

## New England Biolabs Certificate of Analysis

*Product Name:* Phusion<sup>®</sup> High-Fidelity DNA Polymerase  
*Catalog #:* M0530S/L  
*Concentration:* 2,000 units/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.  
*Lot #:* 0051803  
*Assay Date:* 03/2018  
*Expiration Date:* 03/2020  
*Storage Temp:* -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  
*Effective Date:* 16 Oct 2015

Assay Name/Specification (minimum release criteria)	Lot #0051803
<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> High-Fidelity 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 1.0 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>	<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 1.0 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>	<b>Pass</b>

\* The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.



Authorized by  
Melanie Fortier  
16 Oct 2015



Inspected by  
Tony Spear-Alfonso  
28 Feb 2018

