NEW ENGLAND BioLabs Inc.
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Tel 978-927-5054
Fax 978-921-1350
www.neb.com

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:	*10062227*
Expiration Date:	*11/2021*
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	10058480	**Pass**
B0519SVIAL	Phusion® GC Buffer Pack	10046899	**Pass**
B0518SVIAL	Phusion® HF Buffer Pack	10058492	**Pass**
B0515AVIAL	DMSO	10041254	**Pass**
B0510AVIAL	MgCl2 Solution (50 mM)	10048126	**Pass**

Assay Name/Specification	**Lot # 10062227**
PCR Amplification (20 kb Lambda DNA) 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**
PCR Amplification (7.5 kb Human Genomic DNA) 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**
Endonuclease Activity (Nicking, Polymerase, dNTP) 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**

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

Christie Vazquez
Production Scientist
08 Jan 2020

Josh Hersey
Packaging Quality Control Inspector
08 Jan 2020