

New England Biolabs Certificate of Analysis

Product Name: Phusion[®] Hot Start Flex DNA Polymerase
Catalog #: M0535S/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 #: 0041509
Assay Date: 09/2015
Expiration Date: 09/2017
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-M0535S/L v1.0
Effective Date: 14 Sep 2015

Assay Name/Specification (minimum release criteria)	Lot #0041509
Endonuclease Activity (Nicking) - 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 either 37°C or 72°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
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 [®] Hot Start Flex 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 [®] Hot Start Flex DNA Polymerase for 30 cycles of PCR amplification results in the expected 7.5 kb product.	Pass
PCR Amplification (Hot Start, Human Genomic DNA) - A 25 µl reaction in Phusion [®] GC Buffer in the presence of 200 µM dNTPs and 0.5 µM primers containing 50 ng Human Genomic DNA with 0.5 units of Phusion [®] Hot Start Flex DNA Polymerase for 25 cycles of PCR amplification results in the expected 665 bp product, and a decrease in non-specific genomic bands after pre-incubation at room temperature for 1 hour, when compared to a non-hot start control reaction.	Pass



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* 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
14 Sep 2015



Inspected by
Cathy Rezac
22 Sep 2015

