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New England Biolabs Product Specification

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.

Shelf Life: 24 months
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: 04 Aug 2015

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking) - A 50 μ l reaction in NEBuffer 2 in the presence of 200 μ M dNTPs containing 1 μ g 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.

PCR Amplification (20 kb Lambda DNA) - A 50 μ l reaction in Phusion® HF Buffer in the presence of 200 μ M dNTPs and 1.0 μ M 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.

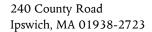
PCR Amplification (7.5 kb Human Genomic DNA) - A 50 μl reaction in Phusion® HF Buffer in the presence of 200 μM dNTPs and 1.0 μM primers containing 50 ng Human Genomic DNA with 1 unit of Phusion® Hot Start Flex DNA Polymerase for 30 cycles of PCR amplification results in the expected 7.5 kb product.

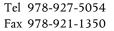
PCR Amplification (Hot Start, Human Genomic DNA) - A 25 µl reaction in Phusion® GC Buffer in the presence of 200 µM dNTPs and 0.5 µM primers containing 50 ng Human Genomic DNA with 0.5 units of Phusion® Hot Start Flex DNA Polymerase for 25 cycles of PCR amplification results in the expected 665 bp product, 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.



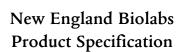








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Date 04 Aug 2015

Derek Robinson Quality Approver





