

## New England Biolabs Product Specification

*Product Name:* Phusion<sup>®</sup> Hot Start Flex 2X Master Mix  
*Catalog #:* M0536S/L  
*Concentration:* 2 X Concentrate  
*Shelf Life:* 12 months  
*Storage Temp:* -20°C  
*Composition (1X):* 1 X Phusion<sup>®</sup> Hot Start Flex Reaction Buffer, 0.2 mM dATP, 0.2 mM dCTP, 0.2 mM dGTP, 0.2 mM dTTP, 20 units/ml Phusion<sup>®</sup> Hot Start Flex DNA Polymerase  
*Specification Version:* PS-M0536S/L v1.0  
*Effective Date:* 30 Jun 2016

### Assay Name/Specification (minimum release criteria)

**PCR Amplification (20 kb Lambda DNA, Master Mix)** - A 50 µl reaction in 1X Phusion<sup>®</sup> Hot Start Flex Master Mix and 1.0 µM primers containing 10 ng Lambda DNA for 22 cycles of PCR amplification results in the expected 20 kb product.

**PCR Amplification (7.5 kb Human Genomic DNA, Master Mix)** - A 50 µl reaction in 1X Phusion<sup>®</sup> Hot Start Flex Master Mix and 1.0 µM primers containing 50 ng Human Genomic DNA for 30 cycles of PCR amplification results in the expected 7.5 kb product.

**PCR Amplification (Hot Start, Human Genomic DNA, Master Mix)** - A 25 µl reaction in 1X Phusion<sup>®</sup> Hot Start Flex Master Mix and 0.5 µM primers containing 50 ng Human Genomic DNA 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.

\* 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.



Date 30 Jun 2016

Derek Robinson  
Director of Quality Control

