NEW ENGLAND BioLabs® Inc.

240 County Road
Ipswich, MA 01938-2723

Tel 978-927-5054
Fax 978-921-1350

www.neb.com
info@neb.com

New England Biolabs
Product Specification

Product Name:	*LongAmp® Taq 2X Master Mix*
Catalog #:	*M0287S/L/V*
Concentration:	*2X Concentrate*
Shelf Life:	*18 months*
Storage Temp:	*-20°C*
Composition (1X):	*60 mM Tris-SO_4 (pH 9.1 @ 25°C), 20 mM $(NH_4)_2SO_4$, 2 mM $MgSO_4$, 0.3 mM dATP, 0.3 mM dCTP, 0.3 mM dGTP, 0.3 mM dTTP, 3 % Glycerol, 0.06 % IGEPAL® CA-630, 0.05 % Tween® 20, 125 units/ml LongAmp® Taq DNA Polymerase*
Specification Version:	*PS-M0287S/L v2.0*
Effective Date:	*12 Feb 2020*

Assay Name/Specification (minimum release criteria)
Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X LongAmp® *Taq* Master Mix containing 1 µg of T3 or T7 DNA in addition to a reaction containing Lambda-HindIII DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.
PCR Amplification (30 kb Human Genomic DNA, Master Mix) - A 25 µl reaction in 1X LongAmp® *Taq* Master Mix and 0.4 µM primers containing 500 ng Human Genomic DNA for 28 cycles of PCR amplification results in the expected 30 kb product.
PCR Amplification (30 kb Lambda DNA, Master Mix) - A 25 µl reaction in 1X LongAmp® *Taq* Master Mix and 0.4 µM primers containing 1 ng Lambda DNA for 28 cycles of PCR amplification results in the expected 30 kb product.
qPCR DNA Contamination (*E. coli* Genomic) - A minimum of 2.5 units of LongAmp® *Taq* DNA Polymerase is screened for the presence of *E. coli* genomic DNA using SYBR® Green qPCR with primers specific for the *E. coli* 16S rRNA locus. Results are quantified using a standard curve generated from purified *E. coli* genomic DNA. The measured level of *E. coli* genomic DNA contamination is ≤ 1 *E. coli* genome.
RNase Activity (Extended Digestion) - A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of LongAmp® *Taq* 2X Master Mix is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.

One or more products referenced in this document may be covered by a 3rd-party trademark.
Please visit www.neb.com/trademarks for additional information.

Date 12 Feb 2020

Derek Robinson
Director, Quality Control

ISO 9001 Registered Quality Management
ISO 14001 Registered Environmental Management
ISO 13485 Registered Medical Devices