

New England Biolabs Product Specification

Product Name:	LongAmp [®] Taq 2X Master Mix
Catalog #:	M0287S/L
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) ₂ SO 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 v1.0
Effective Date:	29 Jun 2016

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 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.



Date 29 Jun 2016

Derek Robinson
Director of Quality Control

