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
# Certificate of Analysis

| | |
|---|---|
| *Product Name:* | *LongAmp® Taq DNA Polymerase* |
| *Catalog #:* | *M0323S/L* |
| *Concentration:* | *2,500 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 75°C.* |
| *Lot #:* | *0181712* |
| *Assay Date:* | *12/2017* |
| *Expiration Date:* | *12/2019* |
| *Storage Temp:* | *-20°C* |
| *Storage Conditions:* | *10 mM Tris-HCl , 100 mM KCl , 1 mM DTT , 0.1 mM EDTA , 0.5 % Tween® 20 , 0.5 % IGEPAL® CA-630 , 50 % Glycerol, (pH 7.4 @ 25°C)* |
| *Specification Version:* | *PS-M0323S/L v1.0* |
| *Effective Date:* | *06 Sep 2017* |

| **Assay Name/Specification** (minimum release criteria) | **Lot #0181712** |
|---|---|
| **Non-Specific DNase Activity (16 Hour) -** A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 2.5 units of LongAmp® *Taq* DNA Polymerase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | **Pass** |
| **PCR Amplification (30 kb Human Genomic DNA) -** A 25 µl reaction in LongAmp® *Taq* Reaction Buffer in the presence of 300 µM dNTPs and 0.4 µM primers containing 500 ng Human Genomic DNA with 2.5 units of LongAmp® *Taq* DNA Polymerase for 28 cycles of PCR amplification results in the expected 30 kb product. | **Pass** |
| **PCR Amplification (30 kb Lambda DNA) -** A 25 µl reaction in LongAmp® *Taq* Reaction Buffer in the presence of 300 µM dNTPs and 0.4 µM primers containing 1 ng Lambda DNA with 2.5 units of LongAmp® *Taq* DNA Polymerase for 28 cycles of PCR amplification results in the expected 30 kb product. | **Pass** |
| **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. | **Pass** |

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
# Certificate of Analysis

| **Assay Name/Specification** (minimum release criteria) | **Lot #0181712** |
|---|---|
| **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* DNA Polymerase is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection. | **Pass** |

Authorized by
Lynne Apone
06 Sep 2017

Inspected by
Tony Spear-Alfonso
01 Dec 2017

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