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:	*Luna® Universal qPCR Master Mix*
Catalog #:	*M3003S/L/G/X/E*
Concentration:	*2X Concentrate*
Lot #:	*0101803*
Assay Date:	*03/2018*
Expiration Date:	*3/2020*
Storage Temp:	*-20°C*
Composition (1X):	*Proprietary*
Specification Version:	*PS-M3003S/L/G/X/E v1.0*
Effective Date:	*14 Feb 2018*

Assay Name/Specification (minimum release criteria)	**Lot #0101803**
Functional Testing (qPCR) - Luna® Universal qPCR Master Mix is functionally tested in qPCR with human cDNA template, resulting in a standard curve with a calculated qPCR efficiency of 90-110%, and a dynamic range of 5 orders of magnitude.	**Pass**
Non-Specific DNase Activity (16 hour, Master Mix) - A 50 µl reaction in 1X Luna® Universal qPCR 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.	**Pass**
qPCR DNA Contamination (*E. coli* Genomic) - A minimum of 1 µl of Luna® Universal qPCR Master Mix 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**
RNase Activity Assay (4 Hour 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 Luna® Universal qPCR 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.	**Pass**

Authorized by
Lynne Apone
14 Feb 2018

Inspected by
Tony Spear-Alfonso
20 Mar 2018

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