New England Biolabs
Product Specification

Product Name: Luna® Universal qPCR Master Mix
Catalog #: M3003S/L/X
Concentration: 2X Concentrate
Shelf Life: 24 months
Storage Temp: -20°C
Composition (1X): Proprietary
Specification Version: PS-M3003S/L/G/X/E v2.0
Effective Date: 12 Feb 2020

Assay Name/Specification (minimum release criteria)

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.

Non-Specific DNase Activity (16 hour, Master Mix) - A 50 µl reaction in 1X Luna® Universal qPCR Master Mix containing 1 µg of T3 or T7 DNA in addition to a reaction containing Lambda-HindIII DNA incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

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.

RNome 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 37ºC. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.

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Derek Robinson
Director, Quality Control

Date 12 Feb 2020