

New England Biolabs Certificate of Analysis

Product Name: LunaScript™ RT SuperMix
Catalog #: M3010S/L
Concentration: 5X Concentrate
Lot #: 0021802
Assay Date: 02/2018
Expiration Date: 2/2020
Storage Temp: -20°C
Composition (1X): Proprietary
Specification Version: PS-M3010S/L v1.0
Effective Date: 15 Feb 2018

Assay Name/Specification (minimum release criteria)	Lot #0021802
<p>Endonuclease Activity (Nicking) - A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 units of Luna® Reverse Transcriptase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Phosphatase Activity (pNPP) - A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl₂ containing 2.5 mM <i>p</i>-Nitrophenyl Phosphate (pNPP) and a minimum of 100 units of Luna® Reverse Transcriptase incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p>	Pass
<p>Protein Purity Assay (SDS-PAGE) - Luna® Reverse Transcriptase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p>qPCR DNA Contamination (E. coli Genomic) - A minimum of 1 µl of LunaScript™ RT SuperMix is screened for the presence of <i>E. coli</i> genomic DNA using SYBR® Green qPCR with primers specific for the <i>E. coli</i> 16S rRNA locus. Results are quantified using a standard curve generated from purified <i>E. coli</i> genomic DNA. The measured level of <i>E. coli</i> genomic DNA contamination is ≤ 1 <i>E. coli</i> genome.</p>	Pass
<p>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 800 units of Luna® Reverse Transcriptase 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.</p>	Pass



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Single Stranded DNase Activity (FAM-Labeled Oligo) - A 50 µl reaction in CutSmart® Buffer containing a 20 nM solution of a fluorescent internal labeled oligonucleotide and a minimum of 800 units of Luna® Reverse Transcriptase incubated for 16 hours at 37°C yields <5% degradation as determined by capillary electrophoresis.	Pass



Authorized by
Lynne Apone
15 Feb 2018



Inspected by
Tony Spear-Alfonso
23 Feb 2018

