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New England Biolabs Certificate of Analysis

Product Name: ProtoScript® II Reverse Transcriptase

Catalog Number: M0368X
Concentration: 200,000 U/ml

Unit Definition: One unit is defined as the amount of enzyme that will incorporate 1

nmol of dTTP into an acid-insoluble form in 10 minutes at 37°C.

Lot Number: 10031042
Expiration Date: 08/2020
Storage Temperature: -20°C

Storage Conditions: 20 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 0.01 % IGEPAL®

CA-630, 50 % Glycerol, (pH 7.5 @ 25°C)

Specification Version: PS-M0368S/L/X v1.0

ProtoScript® II Reverse Transcriptase Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
M0368L	ProtoScript® II Reverse Transcriptase	10029219	Pass	

Assay Name/Specification	Lot # 10031042
Endonuclease Activity (Nicking) A 50 μl reaction in ProtoScript® II Reverse Transcriptase Reaction Buffer containing 1 μg of supercoiled PhiX174 DNA and a minimum of 200 units of ProtoScript® II Reverse Transcriptase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 μl reaction in ProtoScript® II Reverse Transcriptase Reaction Buffer containing 1 μg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 200 units of ProtoScript® II Reverse Transcriptase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
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 200 units of ProtoScript® II Reverse Transcriptase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE) ProtoScript® II Reverse Transcriptase is ≥ 99% pure as determined by SDS-PAGE	Pass



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Assay Name/Specification	Lot # 10031042	
analysis using Coomassie Blue detection.		
qPCR DNA Contamination (E. coli Genomic) A minimum of 200 units of ProtoScript® II Reverse Transcriptase 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 ProtoScript® II Reverse Transcriptase Reaction Buffer containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of ProtoScript® II 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.	Pass	

This product has been tested and shown to be in compliance with all specifications.

Christie Vazquez Production Scientist 05 Sep 2018

pastie Vazguez

Michael Tonello

Packaging Quality Control Inspector

10 Dec 2018



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