

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: 10041818
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	10034223	Pass


Assay Name/Specification	Lot # 10041818
<p>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.</p>	Pass
<p>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.</p>	Pass
<p>Protein Purity Assay (SDS-PAGE) ProtoScript® II Reverse Transcriptase is ≥ 99% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p>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</p>	Pass

Assay Name/Specification	Lot # 10041818
<p>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>	
<p>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.</p>	Pass
<p>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.</p>	Pass

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



Christie Vazquez
Production Scientist
05 Sep 2018



Michael Tonello
Packaging Quality Control Inspector
18 Apr 2019