

New England Biolabs Certificate of Analysis

Product Name: ProtoScript[®] II Reverse Transcriptase
Catalog Number: M0368S
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.
Packaging Lot Number: 10212819
Expiration Date: 08/2025
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 v2.0

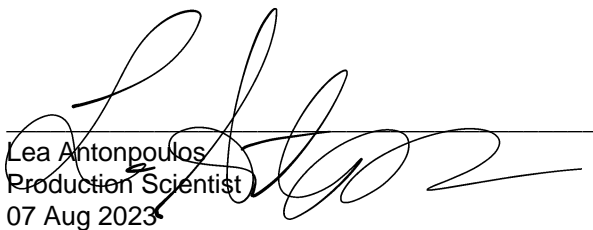
| ProtoScript [®] II Reverse Transcriptase Component List | | | |
|--|---|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| M0368SVIAL | ProtoScript [®] II Reverse Transcriptase | 10211647 | Pass |
| B1034AVIAL | 10X DTT | 10201539 | Pass |
| B0368SVIAL | ProtoScript [®] II Reverse Transcriptase Reaction Buffer | 10194199 | Pass |

| Assay Name/Specification | Lot # 10212819 |
|--|----------------|
| <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>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 or T7 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 |

| Assay Name/Specification | Lot # 10212819 |
|---|----------------|
| <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 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 |
| <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 |

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

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Lea Antonopoulos
Production Scientist
07 Aug 2023


Josh Hersey
Packaging Quality Control Inspector
30 Nov 2023