NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

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.*
Packaging Lot Number:	*10140521*
Expiration Date:	*03/2023*
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**
M0368L	ProtoScript® II Reverse Transcriptase	10138804	**Pass**

Assay Name/Specification	**Lot # 10140521**
Protein Purity Assay (SDS-PAGE) ProtoScript® II Reverse Transcriptase is ≥ 99% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**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 37ºC. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	**Pass**
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**
Endonuclease Activity (Nicking) A 50 µl reaction in ProtoScript® II Reverse Transcriptase Reaction Buffer containing	**Pass**

NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

Assay Name/Specification	Lot # 10140521
1 µg of supercoiled PhiX174 DNA and a minimum of 200 units of ProtoScript® II Reverse Transcriptase incubated for 4 hours at 37ºC results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	
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 [^{3}H] E. coli DNA and a minimum of 200 units of ProtoScript® II Reverse Transcriptase incubated for 4 hours at 37ºC 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 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 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Christie Vazquez
Production Scientist
15 Feb 2022

Josh Hersey
Packaging Quality Control Inspector
15 Feb 2022