

## New England Biolabs Certificate of Analysis

**Product Name:** M-MuLV Reverse Transcriptase  
**Catalog Number:** M0253S  
**Concentration:** 200,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to incorporate 1 nmol of dTTP into an acid-insoluble form in 10 minutes at 37°C.  
**Packaging Lot Number:** 10163750  
**Expiration Date:** 08/2024  
**Storage Temperature:** -20°C  
**Storage Conditions:** 50 mM Tris-HCl, 150 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 0.1 % IGEPAL<sup>®</sup> CA-630, 50 % Glycerol, (pH 7.6 @ 25°C)  
**Specification Version:** PS-M0253S/L v2.0

M-MuLV Reverse Transcriptase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0253SVIAL	M-MuLV Reverse Transcriptase	10158877	Pass
B0253SVIAL	M-MuLV Reverse Transcriptase Reaction Buffer	10163751	Pass

Assay Name/Specification	Lot # 10163750
<b>RNase Activity Assay (2 Hour Digestion)</b> A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of M-MuLV Reverse Transcriptase incubated for 2 hours at 37°C results in no detectable degradation of the RNA as determined by gel electrophoresis using fluorescent detection.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in M-MuLV Reverse Transcriptase Reaction Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 200 units of M-MuLV Reverse Transcriptase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in M-MuLV Reverse Transcriptase Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 200 units of M-MuLV Reverse Transcriptase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b>	Pass

Assay Name/Specification	Lot # 10163750
A 50 µl reaction in M-MuLV Reverse Transcriptase Reaction Buffer containing 1 µg of T3 or T7 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 200 units of M-MuLV 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.	

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

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Trinh Nguyen  
Production Scientist  
06 Sep 2022



Michael Tonello  
Packaging Quality Control Inspector  
16 Sep 2022