

## 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:** *10243049*  
**Expiration Date:** *01/2026*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *50 mM Tris-HCl, 150 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 0.1 % IGEPAL® CA-630, 50 % Glycerol, (pH 7.6 @ 25°C)*  
**Specification Version:** *PS-M0253S/L v2.0*

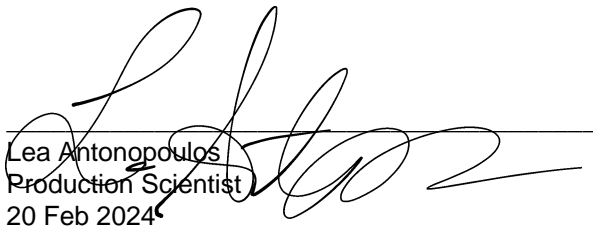
M-MuLV Reverse Transcriptase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0253SVIAL	M-MuLV Reverse Transcriptase	10227796	Pass
B0253SVIAL	M-MuLV Reverse Transcriptase Reaction Buffer	10203663	Pass

Assay Name/Specification	Lot # 10243049
<p><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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<b>Pass</b>
<p><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 &lt;0.1% of the total radioactivity.</p>	<b>Pass</b>
<p><b>Non-Specific DNase Activity (16 Hour)</b> 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.</p>	<b>Pass</b>

Assay Name/Specification	Lot # 10243049
<p><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.</p>	<p><b>Pass</b></p>

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

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Lea Antonopoulos  
Production Scientist  
20 Feb 2024



Michael Tonello  
Packaging Quality Control Inspector  
23 May 2024