

## New England Biolabs Certificate of Analysis

**Product Name:** M-MuLV Reverse Transcriptase  
**Catalog Number:** M0253L  
**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:** 10221188  
**Expiration Date:** 08/2025  
**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

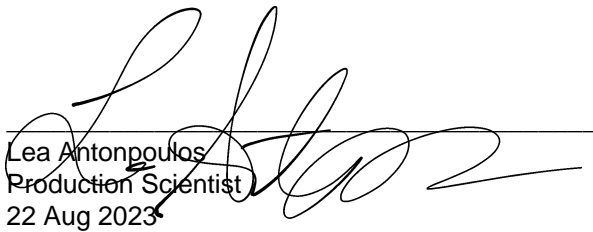
| M-MuLV Reverse Transcriptase Component List |  |            |                      |
|---|--|------------|----------------------|
| NEB Part Number                             | Component Description                        | Lot Number | Individual QC Result |
| M0253LVIAL                                  | M-MuLV Reverse Transcriptase                 | 10201186   | Pass                 |
| B0253SVIAL                                  | M-MuLV Reverse Transcriptase Reaction Buffer | 10203663   | Pass                 |

| Assay Name/Specification   | Lot # 10221188 |
|--|----------------|
| <p><b>Endonuclease Activity (Nicking)</b><br/>           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>   | Pass           |
| <p><b>Exonuclease Activity (Radioactivity Release)</b><br/>           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>   | Pass           |
| <p><b>Non-Specific DNase Activity (16 Hour)</b><br/>           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> | Pass           |

| Assay Name/Specification  | Lot # 10221188     |
|---|--------------------|
| <p><b>RNase Activity Assay (2 Hour Digestion)</b><br/>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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22 Aug 2023



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