

## New England Biolabs Certificate of Analysis

**Product Name:** RNase Inhibitor, Murine  
**Catalog Number:** M0314L  
**Concentration:** 40,000 U/ml  
**Unit Definition:** One unit is defined as the amount of Murine RNase Inhibitor required to inhibit the activity of 5ng of RNase A by 50%. Activity is measured by the inhibition of hydrolysis of cytidine 2', 3'-cyclic monophosphate by RNase A.  
**Packaging Lot Number:** 10160882  
**Expiration Date:** 05/2024  
**Storage Temperature:** -20°C  
**Storage Conditions:** 50 mM KCl, 20 mM HEPES (pH 7.6), 8 mM DTT, 50 % Glycerol  
**Specification Version:** PS-M0314S/L v1.0

| RNase Inhibitor, Murine Component List |                         |            |                      |
|--|-------------------------|------------|----------------------|
| NEB Part Number                        | Component Description   | Lot Number | Individual QC Result |
| M0314LVIAL                             | RNase Inhibitor, Murine | 10150801   | Pass                 |

| Assay Name/Specification   | Lot # 10160882 |
|--|----------------|
| <b>Endonuclease Activity (Nicking)</b><br>A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 40 units of RNase Inhibitor, Murine incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.   | Pass           |
| <b>Latent RNase Activity (Extended Digest)</b><br>A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 40 units of heat inactivated RNase Inhibitor, Murine 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. | Pass           |
| <b>Exonuclease Activity (Radioactivity Release)</b><br>A 50 µl reaction in NEBuffer 4 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 RNase Inhibitor, Murine incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.  | Pass           |
| <b>Protein Purity Assay (SDS-PAGE)</b><br>RNase Inhibitor, Murine is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.   | Pass           |

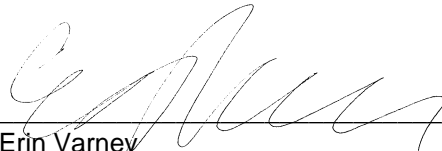
| Assay Name/Specification   | Lot # 10160882     |
|--|--------------------|
| <p><b>RNase Activity (Extended Digestion)</b><br/>A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 40 units of RNase Inhibitor, Murine is incubated at 37°C. After incubation for 4 hours, &gt;90% of the substrate RNA remains intact 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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30 Aug 2022