

## 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:** *10256955*  
**Expiration Date:** *04/2026*  
**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*

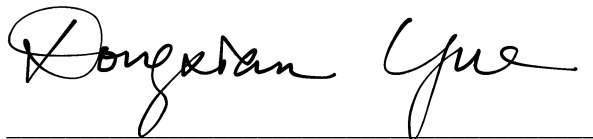
RNase Inhibitor, Murine Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0314LVIAL	RNase Inhibitor, Murine	10234881	Pass

Assay Name/Specification	Lot # 10256955
<p><b>Endonuclease Activity (Nicking)</b>            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 &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 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 &lt;0.1% of the total radioactivity.</p>	<b>Pass</b>
<p><b>Latent RNase Activity (Extended Digest)</b>            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, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	<b>Pass</b>
<p><b>Protein Purity Assay (SDS-PAGE)</b>            RNase Inhibitor, Murine is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	<b>Pass</b>

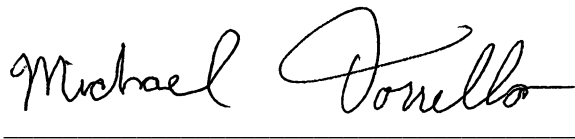
Assay Name/Specification	Lot # 10256955
<b>RNase Activity (Extended Digestion)</b> A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 40 units of RNase Inhibitor, Murine is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	<b>Pass</b>

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](http://www.neb.com/trademarks) for additional information.



Dongxian Yue  
Production Scientist  
26 Apr 2024



Michael Tonello  
Packaging Quality Control Inspector  
21 Oct 2024