

## New England Biolabs Certificate of Analysis

**Product Name:** RNase Inhibitor, Murine  
**Catalog Number:** M0314S  
**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:** 10183992  
**Expiration Date:** 03/2025  
**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

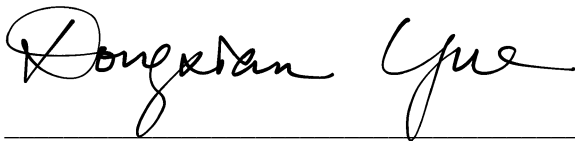
RNase Inhibitor, Murine Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0314SVIAL	RNase Inhibitor, Murine	10180324	Pass

Assay Name/Specification	Lot # 10183992
<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 <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<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 <0.1% of the total radioactivity.	Pass
<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, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b> RNase Inhibitor, Murine is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass


Assay Name/Specification	Lot # 10183992
<p><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, &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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13 Mar 2023



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