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New England Biolabs Certificate of Analysis

RNase Inhibitor, Murine Product Name:

Catalog #: M0314S/L 40,000 units/ml Concentration:

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.

Lot #: 0331802 02/2018 Assay Date: Expiration Date: 2/2020 Storage Temp: *-20°C*

Storage Conditions: 50 mM KCl, 20 mM HEPES (pH 7.6), 8 mM DTT, 50 % Glycerol

PS-M0314S/L v1.0 Specification Version: Effective Date: 16 Nov 2017

Assay Name/Specification (minimum release criteria)	Lot #0331802
Endonuclease Activity (Nicking) - 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
Exonuclease Activity (Radioactivity Release) - A 50 μl reaction in NEBuffer 4 containing 1 μg of a mixture of single and double-stranded [³ H] <i>E. coli</i> 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
Latent RNase Activity (Extended Digest) - 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
Protein Purity Assay (SDS-PAGE) - RNase Inhibitor, Murine is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
RNase Activity (Extended Digestion) - 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.	Pass

Authorized by Derek Robinson

16 Nov 2017 nqa ISO 9001





Hongelan Gue Inspected by Dongxian Yue 12 Feb 2018