

New England Biolabs Certificate of Analysis

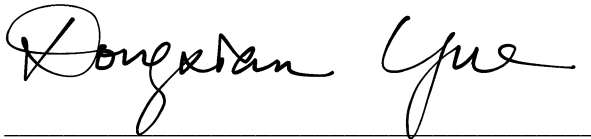
Product Name: *RNase Inhibitor, Human Placenta*
Catalog Number: *M0307S*
Concentration: *40,000 U/ml*
Unit Definition: *One unit is defined as the amount of RNase Inhibitor, Human Placenta required to inhibit the activity of 5 ng of RNase A by 50%. Activity is measured by the inhibition of hydrolysis of cytidine 2', 3'-cyclic monophosphate by RNase A.*
Packaging Lot Number: *10059006*
Expiration Date: *08/2021*
Storage Temperature: *-20°C*
Storage Conditions: *50 mM KCl, 20 mM HEPES (pH 7.6), 8 mM DTT, 50 % Glycerol*
Specification Version: *PS-M0307S/L v1.0*

| RNase Inhibitor, Human Placenta Component List | | | |
|--|---------------------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| M0307SVIAL | RNase Inhibitor, Human Placenta | 10051894 | Pass |

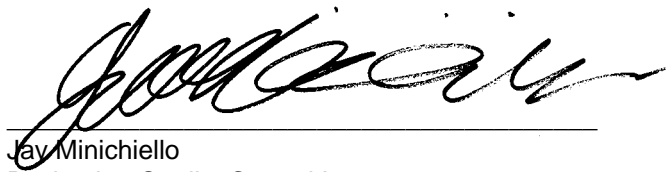
| Assay Name/Specification | Lot # 10059006 |
|--|----------------|
| Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 40 units of RNase Inhibitor, Human Placenta incubated for 4 hours at 37°C results in <10% conversion to the 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] E. coli DNA and a minimum of 200 units of RNase Inhibitor, Human Placenta 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, Human Placenta 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) | Pass |

| Assay Name/Specification | Lot # 10059006 |
|--|--------------------|
| <p>RNase Inhibitor, Human Placenta is $\geq 95\%$ pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p> <p>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, Human Placenta 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.</p> | <p>Pass</p> |

This product has been tested and shown to be in compliance with all specifications.



Dongxian Yue
Production Scientist
13 Aug 2019



Jay Minichiello
Packaging Quality Control Inspector
20 Dec 2019