

New England Biolabs Certificate of Analysis

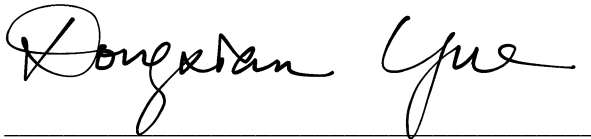
Product Name: *RNase Inhibitor, Human Placenta*
Catalog Number: M0307L
Concentration: 40,000 U/ml
Unit Definition: One unit is defined as the amount of RNase Inhibitor, Human Placenta required to inhibit the activity of 5 ng of RNase A by 50%. Activity is measured by the inhibition of hydrolysis of cytidine 2', 3'-cyclic monophosphate by RNase A.
Lot Number: 10031693
Expiration Date: 01/2021
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
M0307LVIAL	RNase Inhibitor, Human Placenta	10031694	Pass

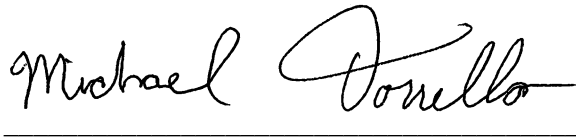
Assay Name/Specification	Lot # 10031693
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 40 units of RNase Inhibitor, Human Placenta incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose 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 # 10031693
<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
22 Jan 2019



Michael Tonello
Packaging Quality Control Inspector
24 Jan 2019