

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: *10209601*
Expiration Date: *09/2025*
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*

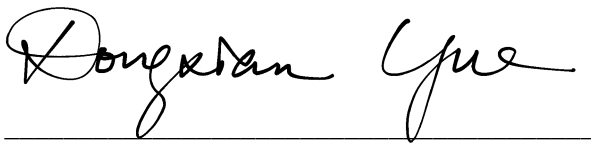
RNase Inhibitor, Human Placenta Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0307SVIAL	RNase Inhibitor, Human Placenta	10205080	Pass

Assay Name/Specification	Lot # 10209601
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 # 10209601
<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.

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Dongxian Yue
Production Scientist
13 Sep 2023



Josh Hersey
Packaging Quality Control Inspector
15 Sep 2023