

## New England Biolabs Certificate of Analysis

**Product Name:** RNase R  
**Catalog Number:** M0100S  
**Concentration:** 20,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to convert 75 pmoles of 20-nucleotide single-stranded RNA sequence downstream of a 38-nucleotide DNA hairpin into acid soluble ribonucleotides in a total reaction volume of 20 µl in 15 minutes at 25°C.  
**Packaging Lot Number:** 10276748  
**Expiration Date:** 01/2027  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl, 300 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 50% glycerol, surfactant, pH 7.4 at 25 °C  
**Specification Version:** PS-M0100S/L v1.0

RNase R Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0100SVIAL	RNase R	10274215	Pass
B0100SVIAL	10X RNase R Reaction Buffer	10274216	Pass

Assay Name/Specification	Lot # 10276748
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 20 units of RNase R incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	<b>Pass</b>
<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 20 units of RNase R incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	<b>Pass</b>
<b>Protein Purity (Microfluidic Electrophoresis)</b> RNase R is ≥95% pure as determined by microfluidic electrophoresis.	<b>Pass</b>
<b>qPCR DNA Contamination (E. coli Genomic)</b> A minimum of 20 units of RNase R is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA.	<b>Pass</b>


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The measured level of E. coli genomic DNA contamination is $\leq 1$ E. coli genome.	

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



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31 Jan 2025



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04 Feb 2025