

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: 10287141
Expiration Date: 04/2027
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	10284537	Pass
B0100SVIAL	10X RNase R Reaction Buffer	10285497	Pass

Assay Name/Specification	Lot # 10287141
Endonuclease Activity (Nicking) 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.	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 20 units of RNase R incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Protein Purity (Microfluidic Electrophoresis) RNase R is ≥95% pure as determined by microfluidic electrophoresis.	Pass
qPCR DNA Contamination (E. coli Genomic) 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.	Pass

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The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.	

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

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Production Scientist
01 Apr 2025



Michael Tonello
Packaging Quality Control Inspector
08 Apr 2025