

New England Biolabs Certificate of Analysis

Product Name: RNase H
Catalog Number: M0297L
Concentration: 5,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to produce 1 nmol of ribonucleotides from 20 picomoles of a fluorescently labeled 50 base pair RNA-DNA hybrid in a total reaction volume of 50 µl in 20 minutes at 37°C.
Lot Number: 10031196
Expiration Date: 08/2020
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl , 50 mM KCl , 1 mM DTT , 0.1 mM EDTA , 200 µg/ml BSA , 50 % Glycerol, (pH 7.4 @ 25°C)
Specification Version: PS-M0297S/L v1.0

RNase H Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0297LVIAL	RNase H	10016801	Pass
B0297SVIAL	RNase H Reaction Buffer	10028969	Pass

Assay Name/Specification	Lot # 10031196
<p>qPCR DNA Contamination (E. coli Genomic) A minimum of 5 units of RNase H 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. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.</p>	Pass
<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 1 µl of RNase H is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release, Single Stranded) A 50 µl reaction in RNase H Reaction Buffer containing 1 µg of single stranded [³H] E. coli DNA and a minimum of 50 units of RNase H incubated for 30 minutes at 37°C releases <0.1 of the total radioactivity.</p>	Pass

Assay Name/Specification	Lot # 10031196
<p>Endonuclease Activity (Nicking) A 50 µl reaction in RNase H Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of RNase H incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Protein Purity Assay (SDS-PAGE) RNase H is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass

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



Tim Meixsell
Production Scientist
03 Aug 2018



Michael Tonello
Packaging Quality Control Inspector
20 Dec 2018