

## New England Biolabs Certificate of Analysis

**Product Name:** RNase HII

**Catalog Number:** M0288S

**Concentration:** 5,000 U/ml

**Unit Definition:** One unit is defined as the amount of enzyme required to yield a fluorescence signal consistent with the nicking of 100 pmol of synthetic double-stranded DNA substrate containing a single ribonucleotide near the quencher of a fluorophore/quencher pair in 30 minutes at 37°C in 1X ThermoPol® Reaction Buffer.

**Packaging Lot Number:** 10178406

**Expiration Date:** 01/2025

**Storage Temperature:** -20°C

**Storage Conditions:** 20 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 1 mM EDTA, 50 % Glycerol, (pH 8.0 @ 25°C)

**Specification Version:** PS-M0288S/L v1.0

RNase HII Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0288SVIAL	RNase HII	10176114	Pass
B9004SVIAL	ThermoPol® Reaction Buffer Pack	10177927	Pass

Assay Name/Specification	Lot # 10178406
<p><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 50 units of RNase HII incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>RNase Activity (Extended Digestion)</b> A 10 µl reaction in NEBuffer 4 containing 3.3 pmol of a synthetic RNA oligo (26-mer) and a minimum of 50 units of RNase HII is incubated at 37°C. After incubation for 2 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass
<p><b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled pBR322 DNA and a minimum of 5 units of RNase HII incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass

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.



Bo Wu  
Production Scientist  
17 Jan 2023



Josh Hersey  
Packaging Quality Control Inspector  
09 Feb 2023