

## New England Biolabs Certificate of Analysis

**Product Name:** RNase HII

**Catalog Number:** M0288L

**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:** 10184483

**Expiration Date:** 03/2025

**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
M0288LVIAL	RNase HII	10183753	Pass
B9004SVIAL	ThermoPol® Reaction Buffer Pack	10187437	Pass

Assay Name/Specification	Lot # 10184483
<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
<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

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

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16 Mar 2023



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19 Oct 2023