

## 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:** *10079377*  
**Expiration Date:** *07/2022*  
**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	10079378	Pass
B9004SVIAL	ThermoPol® Reaction Buffer Pack	10067018	Pass

Assay Name/Specification	Lot # 10079377
<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>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>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.



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11 Sep 2020



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11 Sep 2020