

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: *10257160*
Expiration Date: *08/2026*
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	10253447	Pass
B9004SVIAL	ThermoPol® Reaction Buffer Pack	10231728	Pass

Assay Name/Specification	Lot # 10257160
<p>Endonuclease Activity (Nicking) 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 <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 4 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 50 units of RNase HII incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>RNase Activity (Extended Digestion) 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, >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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29 Aug 2024



Josh Hersey
Packaging Quality Control Inspector
03 Sep 2024