

New England Biolabs Certificate of Analysis

Product Name: *Exonuclease VIII, truncated*
Catalog Number: M0545S
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to produce 1 nmol of acid-soluble deoxyribonucleotide from double-stranded DNA in a total reaction volume of 50 µl in 30 minutes at 37°C in 1X NEBuffer 4 with 0.15 mM sonicated duplex [³H]-DNA.
Packaging Lot Number: 10262427
Expiration Date: 05/2026
Storage Temperature: -20°C
Storage Conditions: 50 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 0.1 % Triton X-100, (pH 7.5 @ 25°C)
Specification Version: PS-M0545S/L v1.0

Exonuclease VIII, truncated Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0545SVIAL	Exonuclease VIII, truncated	10241045	Pass
B7004SVIAL	NEBuffer™ 4	10225682	Pass

Assay Name/Specification	Lot # 10262427
<p>Endonuclease Activity (Circular Single Stranded DNA) A 50 µl reaction in NEBuffer 4 containing 1 µg of M13mp18 Single-stranded DNA and a minimum of 30 units of Exonuclease VIII, truncated incubated for 4 hours at 37°C results in <10% conversion to linear DNA as determined by agarose gel electrophoresis.</p>	Pass
<p>Endonuclease Activity (Nicked Circular DNA) A 50 µl reaction in NEBuffer 4 containing 1 µg of PhiX174 RF II DNA and a minimum of 30 units of Exonuclease VIII, truncated incubated for 4 hours at 37°C results in <10% conversion to linear DNA as determined by agarose gel electrophoresis.</p>	Pass
<p>Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of Exonuclease VIII, truncated incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass

Assay Name/Specification	Lot # 10262427
Protein Purity Assay (SDS-PAGE) Exonuclease VIII, truncated is $\geq 95\%$ pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
RNase Activity (Extended Digestion) A 10 μ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 10 units of Exonuclease VIII, truncated is incubated at 37°C. After incubation for 4 hours, $>90\%$ of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass

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

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Heidi Church
Production Scientist
24 May 2024



Josh Hersey
Packaging Quality Control Inspector
25 Nov 2024