

## 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 [<sup>3</sup>H]-DNA.  
**Lot Number:** 10042369  
**Expiration Date:** 04/2021  
**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	10038691	Pass
B7004SVIAL	NEBuffer™ 4	10012689	Pass

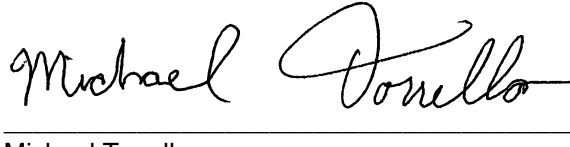
Assay Name/Specification	Lot # 10042369
<p><b>Endonuclease Activity (Circular Single Stranded DNA)</b>            A 50 µl reaction in NEBuffer 4 containing 1 µg of M13mp18 Single-stranded DNA and a minimum of 30 units of Exonuclease VIII, truncated incubated for 4 hours at 37°C results in &lt;10% conversion to linear DNA as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Endonuclease Activity (Nicked Circular DNA)</b>            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 &lt;10% conversion to linear DNA as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Endonuclease Activity (Nicking)</b>            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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass

Assay Name/Specification	Lot # 10042369
<p><b>Protein Purity Assay (SDS-PAGE)</b> Exonuclease VIII, truncated is <math>\geq 95\%</math> pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	<b>Pass</b>
<p><b>RNase Activity (Extended Digestion)</b> A 10 <math>\mu</math>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, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	<b>Pass</b>

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



Tony Spear-Alfonso  
Production Scientist  
19 Jun 2018



Michael Tonello  
Packaging Quality Control Inspector  
29 Apr 2019