NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
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New England Biolabs
Certificate of Analysis

Product Name:	*Exonuclease VIII, truncated*
Catalog Number:	*M0545L*
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 [^{3}H]-DNA.*
Lot Number:	*10034575*
Expiration Date:	*09/2020*
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**
M0545LVIAL	Exonuclease VIII, truncated	10021427	**Pass**
B7004SVIAL	NEBuffer™ 4	10026208	**Pass**

Assay Name/Specification	**Lot # 10034575**
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 37ºC results in <10% conversion to linear DNA as determined by agarose gel electrophoresis.	**Pass**
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.	**Pass**
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.	**Pass**

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Assay Name/Specification	Lot # 10034575
Protein Purity Assay (SDS-PAGE) Exonuclease VIII, truncated is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
RNase Activity (Extended Digestion) A 10 µl 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.

John Greci
Production Scientist
04 Oct 2018

Michael Tonello
Packaging Quality Control Inspector
11 Jan 2019