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

Product Name:	*T7 Exonuclease*
Catalog Number:	*M0263S*
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 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.*
Packaging Lot Number:	*10059619*
Expiration Date:	*11/2021*
Storage Temperature:	*-20°C*
Storage Conditions:	*10 mM Tris-HCl, 5 mM DTT, 0.1 mM EDTA, 50 % Glycerol, (pH 8.0 @ 25°C)*
Specification Version:	*PS-M0263S/L v1.0*

T7 Exonuclease Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
M0263SVIAL	T7 Exonuclease	10059620	**Pass**
B7004SVIAL	NEBuffer™ 4	10043904	**Pass**

Assay Name/Specification	**Lot # 10059619**
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 units of T7 Exonuclease incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	**Pass**
Protein Purity Assay (SDS-PAGE) T7 Exonuclease 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 T7 Exonuclease 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**
Single Stranded DNase Activity (FAM-Labeled Oligo) A 50 µl reaction in CutSmart® Buffer containing a 20 nM solution of a fluorescent	**Pass**

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Assay Name/Specification	Lot # 10059619
internal labeled oligonucleotide and a minimum of 10 units of T7 Exonuclease incubated for 16 hours at 37°C yields <5% degradation as determined by capillary electrophoresis.	

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

John Greci
Production Scientist
27 Nov 2019

Michael Tonello
Packaging Quality Control Inspector
06 Dec 2019