NEW ENGLAND BioLabs Inc.
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240 County Road
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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.*
Lot Number:	*10029136*
Expiration Date:	*11/2020*
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	10026206	**Pass**
B7004SVIAL	NEBuffer™ 4	10026208	**Pass**

Assay Name/Specification	**Lot # 10029136**
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 # 10029136
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.

Tony Spear-Alfonso
Production Scientist
23 Oct 2018

Michael Tonello
Packaging Quality Control Inspector
06 Dec 2018