

## 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 [<sup>3</sup>H]-DNA.  
**Packaging Lot Number:** 10131134  
**Expiration Date:** 11/2023  
**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

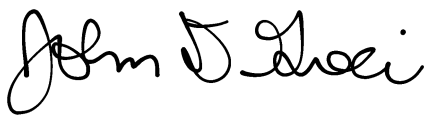
T7 Exonuclease Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0263SVIAL	T7 Exonuclease	10123427	Pass
B7004SVIAL	NEBuffer™ 4	10115023	Pass

Assay Name/Specification	Lot # 10131134
<p><b>Single Stranded DNase Activity (FAM-Labeled Oligo)</b>            A 50 µl reaction in CutSmart® Buffer containing a 20 nM solution of a fluorescent internal labeled oligonucleotide and a minimum of 10 units of T7 Exonuclease incubated for 16 hours at 37°C yields &lt;5% degradation as determined by capillary electrophoresis.</p>	Pass
<p><b>Protein Purity Assay (SDS-PAGE)</b>            T7 Exonuclease is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</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 100 units of T7 Exonuclease incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><b>RNase Activity (Extended Digestion)</b>            A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA</p>	Pass

Assay Name/Specification	Lot # 10131134
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.	

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



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03 Dec 2021



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Packaging Quality Control Inspector  
03 Dec 2021