

New England Biolabs Certificate of Analysis


Product Name: T7 Exonuclease
Catalog Number: M0263L
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 [³H]-DNA.
Lot Number: 10045958
Expiration Date: 06/2021
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
M0263LVIAL	T7 Exonuclease	10045959	Pass
B7004SVIAL	NEBuffer™ 4	10043904	Pass

Assay Name/Specification	Lot # 10045958
<p>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.</p>	Pass
<p>Single Stranded DNase Activity (FAM-Labeled Oligo) 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 <5% degradation as determined by capillary electrophoresis.</p>	Pass
<p>Protein Purity Assay (SDS-PAGE) T7 Exonuclease is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p>Endonuclease Activity (Nicking)</p>	Pass

Assay Name/Specification	Lot # 10045958
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.	

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



Green Duquette
Production Scientist
06 Jun 2019



Michael Tonello
Packaging Quality Control Inspector
08 Jul 2019