

## New England Biolabs Certificate of Analysis

**Product Name:** *Lambda Exonuclease*  
**Catalog Number:** *M0262S*  
**Concentration:** *5,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to produce 10 nmol of acid-soluble deoxyribonucleotide from double-stranded substrate in a total reaction volume of 50 µl in 30 minutes at 37°C in 1X Lambda Exonuclease Reaction Buffer with 1 µg sonicated duplex [<sup>3</sup>H]-DNA.*  
**Lot Number:** *10050141*  
**Expiration Date:** *08/2021*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *25 mM Tris-HCl, 50 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, (pH 8.0 @ 25°C)*  
**Specification Version:** *PS-M0262S/L v1.0*

Lambda Exonuclease Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0262SVIAL	Lambda Exonuclease	10050140	Pass
B0262SVIAL	Lambda Exonuclease Reaction Buffer	10041582	Pass

Assay Name/Specification	Lot # 10050141
<p><b>Endonuclease Activity (Nicking)</b>            A 50 µl reaction in Lambda Exonuclease Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of Lambda 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>Protein Purity Assay (SDS-PAGE)</b>            Lambda Exonuclease is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</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 and a minimum of 5 units of Lambda Exonuclease is incubated at 37°C. After incubation for 16 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass

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

*John D. Greci*

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John Greci  
Production Scientist  
04 Apr 2019

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
29 Aug 2019