

## New England Biolabs Certificate of Analysis

**Product Name:** Exonuclease I Reaction Buffer  
**Catalog Number:** B0293S  
**Concentration:** 10 X Concentrate  
**Lot Number:** 10045578  
**Expiration Date:** 04/2022  
**Storage Temperature:** -20°C  
**Specification Version:** PS-B0293S v1.0  
**Composition (1X):** 67 mM Glycine-KOH, 6.7 mM MgCl<sub>2</sub>, 10 mM βME, (pH 9.5 @ 25°C)

Exonuclease I Reaction Buffer Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B0293SVIAL	Exonuclease I Reaction Buffer	10038960	Pass

Assay Name/Specification	Lot # 10045578
<b>Endonuclease Activity (Nicking, Buffer)</b> A 50 µl reaction in 1X Exonuclease I Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Functional Testing (Reaction Buffer)</b> A 100 µl reaction in 1X Exonuclease I Reaction Buffer containing 0.17 mg/ml of single stranded [ <sup>3</sup> H ] DNA and 1 unit of Exonuclease I (E. coli) incubated for 30 minutes at 37°C results in the release of 10 nmol of acid-soluble nucleotide as determined by scintillation counting.	Pass
<b>Non-Specific DNase Activity (16 hour, Buffer)</b> A 50 µl reaction in 1X Exonuclease I Reaction Buffer containing 1 µg of PhiX174-HaeIII DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>RNase Activity (Buffer)</b> A 10 µl reaction in 1X Exonuclease I Reaction Buffer containing 40 ng of a 300 base single-stranded RNA is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	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  
24 Jun 2019